



AGENDA ITEM MEMORADUM

Town Manager

Connie Hoffmann

Department

Department Director

| COMMISSION MEETING DATE (*) - 7:00 PM | Deadline to Town Clerk |
|--|------------------------|
| <input type="checkbox"/> May 8, 2012 | April 27 |
| <input checked="" type="checkbox"/> May 22, 2012 | May 11 |
| <input type="checkbox"/> June 12, 2012 | June 1 |
| <input type="checkbox"/> June 26, 2012 | June 15 |
| <input type="checkbox"/> July 10, 2012 | June 29 |
| <input type="checkbox"/> July 24, 2012 | July 13 |

***Subject to Change**

- | | | | |
|---------------------------------------|---|--|---------------------------------------|
| <input type="checkbox"/> Presentation | <input type="checkbox"/> Reports | <input type="checkbox"/> Consent | <input type="checkbox"/> Ordinance |
| <input type="checkbox"/> Resolution | <input type="checkbox"/> Quasi-Judicial | <input checked="" type="checkbox"/> Old Business | <input type="checkbox"/> New Business |

FY2012 DESIGNATED HIGH PRIORITY ITEM - PRIORITY TOPIC

SUBJECT TITLE: SEWER RATE STUDY

EXPLANATION: As a result of complaints from several commercial property owners and residents regarding the impact of the January 2011 sewer rate increase and the accompanying adoption of the City of Pompano Beach's rate methodology of basing the fixed component of the rate structure on the number of units (as opposed to our former methodology of utilizing meter size as the determining factor), the Town retained Burton & Associates to do a rate design analysis. That analysis and their recommendations for modifying the rates are contained in the attached draft report.

Sewer Fund Financial Management Plan Portion of the Study

Burton's first step was to project the financial needs of the Sewer Fund over the next ten years. Town staff provided Burton with the projected capital improvements and repair estimates that King Engineering prepared as a result of their analysis of the condition of the sewer system. We also projected that lateral repairs will cost \$150,000, although we do not yet have a good estimate for those costs. (We are in the process of having Televac televise all of the laterals and King is analyzing the tapes for the area south of Commercial Boulevard right now. Televac has moved on to the area north of Commercial and those video tapes will be provided to King for analysis this summer.) Burton included those costs in their ten year projections.

The Commission wanted Burton to advise them regarding how much of a reserve should be maintained in the Sewer Fund, aside from the portion of the fund balance that will be used to pay for the capital repairs. Burton is recommending that six months of operating and maintenance costs be maintained as an operating reserve and they included that assumption in their ten year model. Town staff provided them with the Sewer fund balance so that they could factor it into their model.



Burton's modeling projects that the Town will need to increase sewer rates 2.5% each year over the course of ten years in order to cover costs and maintain an adequate operating reserve. The alternative is to defer rate increases and have larger rate increases later. Burton's model is very interactive and they can show the Commission the effect on future rates if the Town were to delay rate adjustments.

Rate Methodology Portion of the Study

Under the rate structure being recommended:

1. Single family residential properties would experience a reduction in the fixed component of the rate (from the current \$14.89 per month to \$9.55 per month and an increase in the volumetric rate (from \$3.46 per thousand gallons per month to \$4.06). The real benefit to single family homes comes from the proposed reduction in the cap on volume charges from 10,000 gallons per month to 8,000 gallons per month.
2. Multi-family units would see their fixed monthly rate per unit drop from \$14.26 to \$7.26, in recognition of the data analysis which shows they place considerably less demand on the sewer system than do single-family homes. They would be charged the same volume rate (\$4.06 per thousand gallons) that single-family homes are charged. There would be no cap on their volumetric charges.
3. The biggest change would occur in rates for commercial properties. The disparity in demand on the system from one commercial property to another is significant. In order to deal with this disparity, Burton is recommending that the commercial rates be almost entirely consumption-driven. They would pay a very low fixed component (\$1.31 per month per unit) and a much higher volumetric rate (from \$3.46 per thousand gallons to \$5.78). I believe the greatest negative impact of this change will be on large restaurants that consume a great deal of water. They were the least impacted properties in the rate increase adopted in January 2011. I am asking Burton to analyze the impact of the proposed rate change on the commercial properties in Town that are the greatest water consumers so that information will be available before the Commission adopts any rate changes.

EXPECTED OUTCOME: Commission direction on sewer rate structure.

EXHIBITS: May 18 Draft Technical Memorandum from Burton Associates

Reviewed by Town Attorney
 Yes No

Town Manager Initials

FINAL DRAFT TECHNICAL MEMORANDUM

Burton & Associates
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Telephone: (904) 247-0787
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DATE: May 18, 2012

TO: Connie Hoffmann, Town Manager – Town of Lauderdale-By-The-Sea

FROM: Michael Burton, President – Burton & Associates

RE: RESULTS OF THE FY 2012 WASTEWATER RATE STUDY

INTRODUCTION: The Town of Lauderdale-By-The-Sea (the Town) provides wastewater service to the residents and businesses in the southern half of the Town. The Town contracts for wastewater treatment services with the City of Pompano Beach under the terms of an interlocal wastewater service agreement. Water is provided to the Town's residents and businesses by the City of Fort Lauderdale and the Town contracts with the City of Fort Lauderdale for utility billing and customer service for the Town's wastewater customers.

The Town recently retained Burton & Associates to conduct a Wastewater Rate Study (the Study) to 1) develop a multi-year financial management plan and associated plan of annual rate adjustments that would provide sufficient revenues to meet the wastewater utility's current and projected cost requirements, and 2) evaluate the current wastewater rate structure, recommend changes as appropriate and develop proposed wastewater rates using the proposed rate structure that will recover the revenue requirements identified in the financial plan developed under item 1. This Final Draft Technical Memorandum presents the results of the Study.

OBJECTIVE

The Town retained Burton & Associates to perform a Wastewater Rate Study (Study) as part of the financial management of its Wastewater Proprietary Fund (Utility). The objectives of this Study were to:

1. Evaluate the sufficiency of the Utility's current revenues to meet its current and projected cost requirements, and
2. Determine appropriate changes to the wastewater rate structure and develop rates under a recommended rate structure to recover the revenue requirements identified in the financial plan.

As the intent of a Proprietary Fund is to completely recover the cost of providing services through user fees or charges, to the extent that the current wastewater revenues are not sufficient to meet the Utility's current and future cost requirements, rate revenue

increases were to be identified in order to satisfy the operating and capital requirements of the Utility over a multi-year projection period. Also, in order to ensure that the wastewater rates recovered the required revenue in a manner that is fair and equitable and in conformance with accepted rate making practice, adjustments to the current rate structure were to be identified and rates computed under the recommended rate structure. The impact of the recommended rates upon customers' monthly wastewater bills under the adjusted rate structure were also to be demonstrated.

BASE DATA

The analysis was performed using the most current historical and projected information available for the Utility. The following sources of the data for the Utility were relied upon in the conduct of the rate study:

1. Beginning Operating Fund Balance for Fiscal Year Ended September 30, 2011 provided by Town staff.
2. FY 2011 wastewater billings (usage and billed amount) by account for the Utility per the City of Fort Lauderdale
3. FY 2012 Budget for revenue and expenditures
4. FY 2012 year-to-date actual revenue through 4/30/12 and expenditure data through 1/31/2012
5. FY 2013 preliminary budget for revenue and expenditures
6. Additional future operating and capital improvement requirements as identified by Town staff for FY 2012 through FY 2017 based upon King Engineering's analysis of capital needs.

KEY ISSUES

The Town operates and maintains the wastewater collection system and contracts with the City of Pompano Beach for wastewater treatment services. A comprehensive wastewater rate study has not been completed for many years; however, in the winter of 2011 the Town adopted Pompano Beach's rates with the Pompano Beach 25% surcharge in order provide sufficient revenue for the system and to equalize rates among Town residents. This Study was commissioned to ensure that the proper amount of revenues are recovered in the wastewater rates in order to recover all of the Utility's costs and that those wastewater rates fairly and equitably distribute the burden of those costs to customer classes based upon the demands placed upon the system by each customer class.

ANALYSIS

This section describes the analyses conducted during the Study. The study was conducted in two work elements. Work Element I consisted of a revenue sufficiency analysis during which a ten year projection of revenues and expenses and a ten year financial plan were developed for the Utility. Work Element II consisted of a diagnostic evaluation of the current rate structure, determination of recommended adjustments to the rate structure and development of rates under the recommended rate structure. A more detailed description of the analysis conducted in these work elements is described below.

Work Element I – Revenue Sufficiency Analysis

In this work element, a ten year projection was developed of the ability of the Utility's wastewater rates to provide sufficient revenues to meet all of its operations and maintenance (O&M), renewal and replacement and capital projects requirements. We used our Financial Analysis and Management System (FAMS-XL©) model (Model) to facilitate this analysis. The Model was first adjusted to replicate the specific financial dynamics of the Town's wastewater utility. The Model was then loaded with the Utility's financial and operating data and an initial analysis was developed. Escalation factors were identified for each cost element in order to project costs over the forecast period. A capital improvement program was loaded into the model with the amount and timing of specific capital projects provided by Town staff. We then met in an interactive work session with Town staff to review the preliminary results and made appropriate adjustments based upon input from Town staff. The revenue requirements for FY 2013 in the results of this analysis were then used to develop specific wastewater rates in Work Element II.

Work Element II – Rate Design

In this work element, we conducted a diagnostic evaluation of the current wastewater rate structure. We identified appropriate adjustments to the rate structure and developed wastewater rates under that rate structure that will recover the revenue requirements for FY 2013 which was identified in Work Element I. We used billing data for FY 2011 from the City of Fort Lauderdale as the basis for development of the proposed wastewater rates (The Town contracts with the City of Fort Lauderdale for wastewater billing services). Tables were also developed which demonstrated for each customer class and for customers with various levels of wastewater usage, the monthly wastewater bill with the current rates and the monthly wastewater bill with the proposed rates so that it will be clear as to the impact that the proposed rates will have upon each customer class. We then conducted an interactive work session with Town staff to review the preliminary results and made appropriate adjustments to provide for fair and equitable distribution of costs in accordance with accepted rate making practice.

Technical Memorandum

We then prepared this Final Draft Technical memorandum of the results of the Study. We will meet with the Town Commission to present the preliminary results of the Study and to review this Final Draft Technical Memorandum. Upon receipt of input from the Town Commission and Town staff, we will make any necessary adjustments and prepare a Final Technical Memorandum of the results of the Study.

RESULTS

This section presents the results of the Study. The results are presented for Work Element I – Revenue Sufficiency Analysis and for Work Element II – Rate Design in the two following sections.

Work Element I – Revenue Sufficiency Analysis

The results of this work element consist of a ten year financial plan for the Utility. This plan identifies annual rate adjustments to ensure that 1) the wastewater rates generate sufficient revenue to cover all of the utilities operations and maintenance (O&M) costs, renewal and replacement costs and capital costs in each year of the projection period, and 2) that adequate working capital reserves (equal to six months of O&M expenses) are maintained throughout the projection period. This level of reserves is recommended to ensure that the Utility has sufficient resources for liquidity, unforeseen system failures and natural disasters such as hurricanes. The first five years of the projection period are considered to be the planning period (projections will be more accurate during the first five years) and the second five years are a projection period (projections are more likely to vary from actual outcomes the further into the future the projections are made).

The results of this work element show that 2.5% annual rate revenue adjustments, beginning in FY 2013, will provide sufficient revenue in every year of the forecast period to cover all of the cost requirements of the wastewater system, without the need for borrowing to fund the capital improvement program. A summary of the results of the Revenue Sufficiency Analysis is presented in the Control Panel of the FAMS-XL© model on the following page. Schedules of O&M costs and the Capital Improvements Program that are included in this analysis are presented on the pages following the Control Panel.

Lauderdale-By-The-Sea Wastewater System Financial Plan Summary



OPERATIONS AND MAINTENANCE EXPENSES

| | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
|---------------------------------|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1 Salaries | \$69,654 | \$71,395 | \$73,180 | \$75,010 | \$76,885 | \$78,807 | \$80,777 | \$82,796 | \$84,866 | \$86,988 | \$89,163 |
| 2 FICA | 3,872 | 4,000 | 4,100 | 4,203 | 4,308 | 4,415 | 4,526 | 4,639 | 4,755 | 4,874 | 4,995 |
| 3 Retirement | 4,880 | 5,100 | 5,228 | 5,359 | 5,493 | 5,630 | 5,771 | 5,915 | 6,063 | 6,214 | 6,370 |
| 4 Group Insurance | 6,500 | 7,000 | 7,500 | 8,250 | 9,075 | 9,983 | 10,981 | 12,079 | 13,287 | 14,615 | 16,077 |
| 5 Professional Services | 96,921 | 14,600 | 22,100 | 22,653 | 23,219 | 23,799 | 24,394 | 25,004 | 25,629 | 26,270 | 26,927 |
| 6 Wastewater Trans & Treat Fees | 729,000 | 750,000 | 687,500 | 728,750 | 772,475 | 818,824 | 867,953 | 920,030 | 975,232 | 1,033,746 | 1,095,771 |
| 7 Contractual Services | 12,000 | 12,500 | 13,000 | 13,325 | 13,658 | 14,000 | 14,350 | 14,708 | 15,076 | 15,453 | 15,839 |
| 8 Utilities | 16,500 | 17,500 | 18,000 | 19,080 | 20,225 | 21,438 | 22,725 | 24,088 | 25,533 | 27,065 | 28,689 |
| 9 Auto Insurance | 7,753 | 8,000 | 8,250 | 8,456 | 8,668 | 8,884 | 9,106 | 9,334 | 9,567 | 9,807 | 10,052 |
| 10 Workers Comp Insurance | 2,158 | 2,300 | 2,500 | 2,563 | 2,627 | 2,692 | 2,760 | 2,829 | 2,899 | 2,972 | 3,046 |
| 11 Sewer Line Maintenance | 30,000 | 15,000 | 40,000 | 41,000 | 42,025 | 43,076 | 44,153 | 45,256 | 46,388 | 47,547 | 48,736 |
| 12 Lateral Maintenance | 95,000 | 10,000 | 10,000 | 10,250 | 10,506 | 10,769 | 11,038 | 11,314 | 11,597 | 11,887 | 12,184 |
| 13 Pump Station Maintenance | 10,000 | 10,000 | 10,000 | 10,250 | 10,506 | 10,769 | 11,038 | 11,314 | 11,597 | 11,887 | 12,184 |
| 14 Contingency | 0 | 50,000 | 50,000 | 51,250 | 52,531 | 53,845 | 55,191 | 56,570 | 57,985 | 59,434 | 60,920 |
| 15 Emergency Repairs | 10,000 | 25,000 | 25,000 | 25,625 | 26,266 | 26,922 | 27,595 | 28,285 | 28,992 | 29,717 | 30,460 |
| Total | \$1,094,238 | \$1,002,395 | \$976,358 | \$1,026,022 | \$1,078,465 | \$1,133,852 | \$1,192,356 | \$1,254,162 | \$1,319,466 | \$1,388,476 | \$1,461,413 |

CAPITAL IMPROVEMENT PROGRAM

| Project No. | Project Description | Year | | | | | | | | | | TOTAL | |
|--------------|-------------------------------------|------------------|------------------|------------------|------------|------------|------------|------------|------------|------------|--------------------|------------|--------------------|
| | | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | | FY 2022 |
| 1 | Sewer Rehab Projects -NASSCO 5 Rank | \$250,000 | \$326,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$576,000 |
| 2 | Sewer Rehab Projects -NASSCO 4 Rank | 0 | 174,440 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 174,440 |
| 3 | Sewer Rehab Projects -NASSCO 3 Rank | 0 | 138,450 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 138,450 |
| 4 | Sewer Rehab Projects -NASSCO 2 Rank | 0 | 12,300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12,300 |
| 5 | Sewer Rehab Projects -NASSCO 1 Rank | 0 | 29,200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29,200 |
| 6 | Laterals Rehab | 0 | 0 | 150,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150,000 |
| 7 | LS#24 Generator Replacement | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52,000 | 0 | 52,000 |
| 8 | LS#24 Full Upgrade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 783,000 | 0 | 783,000 |
| 9 | LS#24 Flow Meter Replacement | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,700 | 0 | 15,700 |
| 10 | LS#25 Full Upgrade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 268,000 | 0 | 268,000 |
| Total | | \$250,000 | \$680,390 | \$150,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,118,700 | \$0 | \$2,199,090 |

Work Element II – Rate Design

During the diagnostic evaluation of the current rate structure we noted the following areas where we recommend adjustments:

Customer costs:

Discussion

Customer costs are the costs of meter reading, billing and collections and customer service. These costs are incurred equally for all accounts regardless of class, meter size, units behind a master meter or usage.

Recommendation

Therefore, we recommend inclusion of customer costs in an Admin Fee component of the fixed monthly charge apportioned equally to each account.

Readiness-to-Serve Costs:

Discussion

Fixed costs of the system must be incurred regardless of usage. Therefore, it is appropriate to recover some portion of the fixed costs in a fixed monthly Readiness-to-Serve Charge. This charge represents the recovery of costs to serve the potential demands of customers and is therefore appropriate to be apportioned to customers based upon some measure of the potential demand by customer class. Factors that are typically used to apportion costs included in this charge are meter size (with larger meters representing higher potential demands) or residential units served behind multi-family master meters. All single family customers are treated the same regardless of meter size because the usage profile of single family customers does not change significantly by meter size.

In the current rate structure, the costs included in this charge are apportioned to customer classes as follows:

Single Family Residential:

Equal per account.

Multi-Family Master Metered:

Equal per unit served by the master meter (slightly less per unit than for the single family class).

Master Metered Commercial:

Equal per unit service by the master meter, units based upon a unit table by type of use adopted from the Pompano Beach rates, the source of which was not able to be determined (slightly higher per unit than for the single family class).

Recommendation

We recommend the following adjustments to the wastewater rate structure:

Single Family Residential:

No change to the structure – Each account pays the same base rate

Multi-Family Master Metered:

Adjust as follows – Because the demand of a multi-family unit is less than the demand of a singly family customer, we recommend that Readiness-to-Serve costs be apportioned to Multi-family Master Metered customers based upon a unit equivalency factor applied to each unit that represents the average usage per unit, adjusted to peak-month levels, compared to the average usage per unit for single family customers. This factor was determined to be .72, which means that the potential demand of a multi-family unit, on average, is 72% of that of a single family customer. This adjustment will result in the Readiness-to-Serve charge per unit for this class being 72% of the Readiness-to-Serve charge for a single family customer. The average usage basis for this determination is presented below:

| Average Monthly Use per Unit | | |
|-------------------------------------|----------------|----------------|
| Customer Class | Avg Use | % of SF |
| Single Family | 7.70 | 100% |
| Multi Family | 5.56 | 72% |

Master Metered Commercial:

Adjust as follows – Because the current units for accounts in this class were adopted from the Pompano Beach rates and the basis is not able to be determined and because some of the unit designations by property use appear to be inappropriate (some large users such as restaurants are assigned on one equivalent unit, which is clearly inadequate relative to demands), we recommend an alternative approach to the rate structure for this class. The challenge in determining the appropriate apportionment of Readiness-to-Serve costs for this class is that unlike the residential single family and multi-family classes, usage from account to account in this class varies considerably and there is not a good apportionment factor for spreading of these Readiness-to-Serve costs within this class. For example, meter size is often used as the apportionment basis, with larger meter sizes representing a higher potential demand. However, in this class the demands within meter size can vary substantially as there can be an office building with a 1 inch meter that will have substantially less average demand than a restaurant or a laundromat with the same meter size. Therefore after discussion with Town staff, we recommend that for the commercial class the fixed monthly charge be limited

to the customer costs discussed above and that the costs that would normally be recovered in the Readiness-to-Serve charge for this class be included in the usage charge for this class as this will be a better representation of the total demands placed upon the system by individual customer in this class.

Usage Costs:

Discussion

All costs not recovered in the fixed monthly charge are recovered in a usage charge per 1,000 gallons of water billed. Billed water is used because it is the only measure of actual usage available, with the assumption that the water billed is returned as sewerage for treatment. The exception is that for single family residential customers some water usage typically is used for irrigation and is not returned as sewerage for treatment. Therefore, it is common to cap sewer billing for the single family residential class at a level where in most cases usage above the cap is used for irrigation and is not returned as sewerage for treatment. The current rate structure has the sewer cap established at 10,000 gallons per month.

Recommendation

We recommend that the sewer cap for residential single family customers be adjusted to 8,000 gallons per month, to be more closely associated with the average usage for the single family class, which is approximately 7,700 gallons per month. A cap on sewer usage is not necessary for Master Metered Multi-Family customers because these units have little if any outdoor usage and their indoor usage per unit would very rarely if ever exceed the sewer cap. We recommend continuation of the attribute in the current rate structure that bills all classes other than single family for sewer for all water usage.

The results of this work element are the recommended rates presented in the table on the following page. The current rates are also shown for a comparison. Detailed schedules of the impact of these rates upon the monthly bills of customers by class are presented in the Appendix.

Existing and Recommend Wastewater Rates:

| Existing Rates | | | |
|---|----------------------------------|---------------------------------|-------------------|
| Charge Type | Single Family Residential | Multi Family Residential | Commercial |
| Base Facility Charge (by Unit) | \$ 14.89 | \$ 14.26 | \$ 16.33 |
| Usage Charge (per 1,000 gallons) | \$ 3.46 | \$ 3.46 | \$ 3.46 |

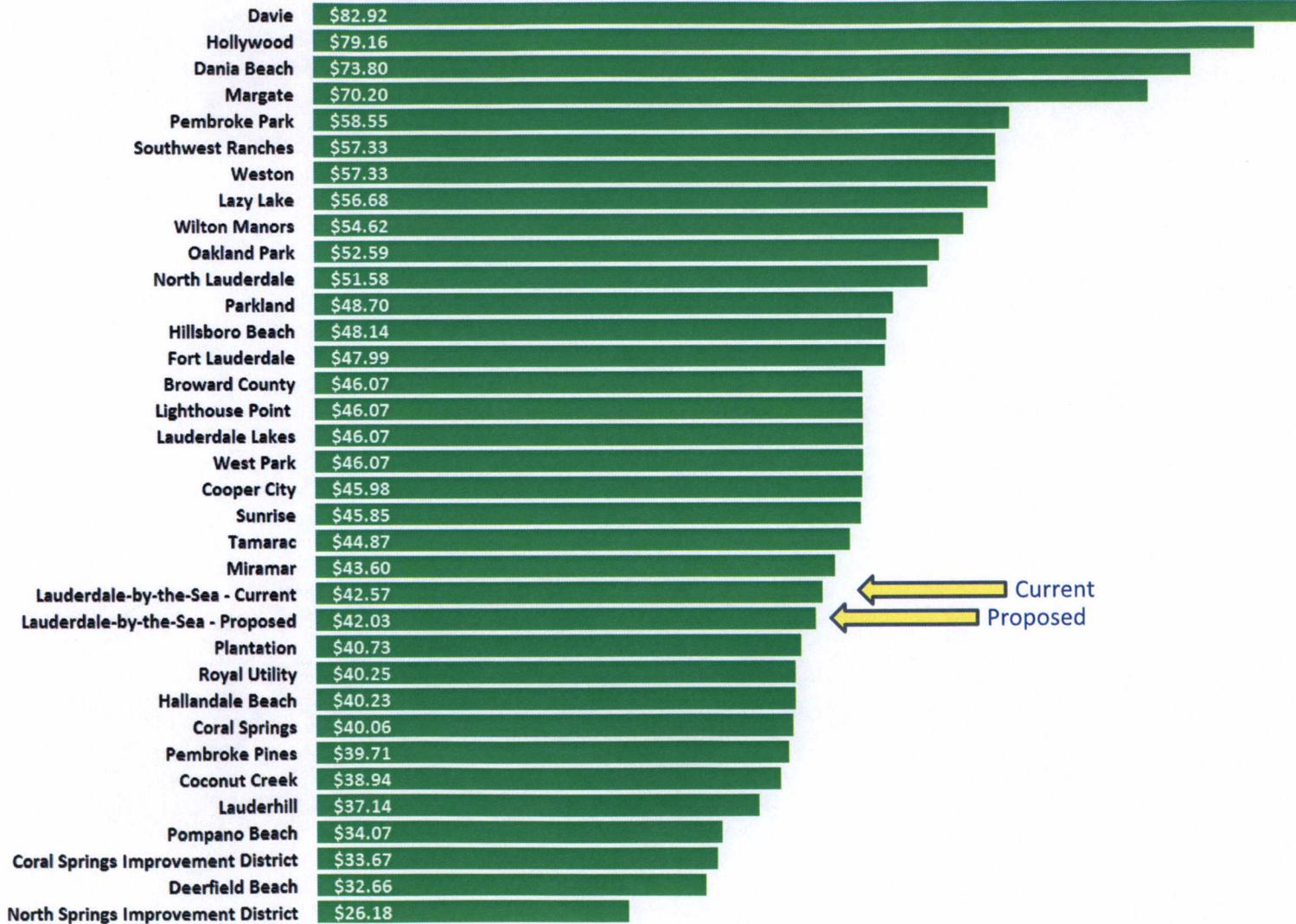
| Proposed Rates | | | |
|--|----------------------------------|---------------------------------|-------------------|
| Charge Type | Single Family Residential | Multi Family Residential | Commercial |
| Cust Service/Admin Charge (by bill) | \$ 1.31 | \$ 1.31 | \$ 1.31 |
| Base Facility Charge (by Unit) | \$ 8.24 | \$ 5.95 | \$ - |
| Usage Charge (per 1,000 gallons) | \$ 4.06 | \$ 4.06 | \$ 5.78 |

RATE SURVEY

We have included a survey of rates in other communities in the area which is presented on the following page. For each entity in the survey it shows the monthly bill of a single family customer with 8,000 gallons per month of water usage. Based upon this survey, LBTS rates compare quite favorably to other communities in the area.

Single-Family Residential Rate Comparison

Sewer Bill Survey at 8,000 Gallons per Month



CONCLUSIONS & RECOMMENDATIONS

Based upon the analysis presented herein, we have reached the following conclusions and recommendations regarding the Town's wastewater system:

Conclusions:

1. The Utility's current rates are insufficient to meet its projected costs over the projection period without borrowing to fund portions of the capital improvement program.
2. The current rate structure should be adjusted to achieve a fairer and more equitable distribution of the costs to customer classes and to customers within each class.

Recommendations:

1. Adopt the plan of 2.5% annual inflationary level adjustments presented herein to be effective on October 1 of each fiscal year.
2. Adopt the schedule of rates presented herein to be effective on October 1, 2012, which include the 2.5% rate revenue increase for FY 2013.
3. Perform an annual review/update of the revenue sufficiency analysis to ensure that as events actually occur, the plan can be adjusted as necessary to continue to provide sufficient revenues to meet the Utility's needs.

If you have any question or would like to discuss this Final Draft Technical Memorandum, please do not hesitate to call me at (904) 247-0787.

Sincerely,



Michael E. Burton
President

APPENDIX

The following pages of this appendix present tables for each customer class which present the impact that the proposed rates will have upon the monthly wastewater bill compared to the monthly wastewater bill with the current rates. A description of the elements of the customer impact tables follows:

| Column | Description |
|---------|--|
| First | The usage of a bill |
| Second | The number of bills issued for that class at the usage in the first column |
| Third | The percentage of bills issued for that class at the usage in the first column |
| Fourth | The aggregate or cumulative percentage of bills issued for that class for all levels of usage up through the usage in the first column |
| Fifth | The monthly bill for that class with the current rates at the usage in the first column |
| Sixth | The monthly bill for that class with the proposed rates at the usage in the first column |
| Seventh | The dollar change in the bill for that class from the current rates to the proposed rates at the of usage in the first column |
| Eighth | The percentage change in the bill for that class from the current rates to the proposed rates at the usage in the first column |

| Single Family 5/8" x 3/4" Monthly Sewer Bill Calculations | | | | | | | |
|--|-------------------|-------------------|---------------|----------------------------|-----------------------------|---------------|--------------|
| (Gallons) | # of Bills | % of Bills | Agg. % | Current (FY 12) | Proposed (FY 13) | \$ Chg | % Chg |
| - | 63 | 4.8% | 4.8% | \$ 14.89 | \$ 9.55 | \$ (5.34) | -35.9% |
| 1,000 | 92 | 7.0% | 11.8% | \$ 18.35 | \$ 13.61 | \$ (4.74) | -25.8% |
| 2,000 | 144 | 11.0% | 22.8% | \$ 21.81 | \$ 17.67 | \$ (4.14) | -19.0% |
| 3,000 | 131 | 10.0% | 32.8% | \$ 25.27 | \$ 21.73 | \$ (3.54) | -14.0% |
| 4,000 | 84 | 6.4% | 39.3% | \$ 28.73 | \$ 25.79 | \$ (2.94) | -10.2% |
| 5,000 | 109 | 8.3% | 47.6% | \$ 32.19 | \$ 29.85 | \$ (2.34) | -7.3% |
| 6,000 | 107 | 8.2% | 55.8% | \$ 35.65 | \$ 33.91 | \$ (1.74) | -4.9% |
| 7,000 | 93 | 7.1% | 62.9% | \$ 39.11 | \$ 37.97 | \$ (1.14) | -2.9% |
| 8,000 | 63 | 4.8% | 67.7% | \$ 42.57 | \$ 42.03 | \$ (0.54) | -1.3% |
| 9,000 | 65 | 5.0% | 72.7% | \$ 46.03 | \$ 42.03 | \$ (4.00) | -8.7% |
| 10,000 | 58 | 4.4% | 77.1% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |
| 11,000 | 46 | 3.5% | 80.6% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |
| 12,000 | 31 | 2.4% | 83.0% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |
| 13,000 | 30 | 2.3% | 85.3% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |
| 14,000 | 34 | 2.6% | 87.9% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |
| 15,000 | 17 | 1.3% | 89.2% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |
| 16,000 | 11 | 0.8% | 90.0% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |
| 17,000 | 18 | 1.4% | 91.4% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |
| 18,000 | 12 | 0.9% | 92.3% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |
| 19,000 | 8 | 0.6% | 92.9% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |
| 20,000 | 8 | 0.6% | 93.5% | \$ 49.49 | \$ 42.03 | \$ (7.46) | -15.1% |

Duplex

| Multi-Family Sewer Bill Comparison: | | | | 5/8" | Meter Size | 2 | Units |
|-------------------------------------|------------|------------|-----------------|-----------|------------|------------|--------|
| Gallons | # of Bills | % of Bills | Agg. % of Bills | Current | Proposed | \$ Chg. | % Chg. |
| - | 66 | 5.5% | 5.5% | \$ 28.52 | \$ 13.21 | \$ (15.31) | -53.7% |
| 1,000 | 36 | 3.0% | 8.6% | \$ 31.98 | \$ 17.27 | \$ (14.71) | -46.0% |
| 2,000 | 79 | 6.6% | 15.2% | \$ 35.44 | \$ 21.33 | \$ (14.11) | -39.8% |
| 3,000 | 83 | 7.0% | 22.2% | \$ 38.90 | \$ 25.39 | \$ (13.51) | -34.7% |
| 4,000 | 86 | 7.2% | 29.4% | \$ 42.36 | \$ 29.45 | \$ (12.91) | -30.5% |
| 5,000 | 86 | 7.2% | 36.6% | \$ 45.82 | \$ 33.51 | \$ (12.31) | -26.9% |
| 6,000 | 72 | 6.0% | 42.7% | \$ 49.28 | \$ 37.57 | \$ (11.71) | -23.8% |
| 7,000 | 74 | 6.2% | 48.9% | \$ 52.74 | \$ 41.63 | \$ (11.11) | -21.1% |
| 8,000 | 65 | 5.5% | 54.3% | \$ 56.20 | \$ 45.69 | \$ (10.51) | -18.7% |
| 9,000 | 74 | 6.2% | 60.5% | \$ 59.66 | \$ 49.75 | \$ (9.91) | -16.6% |
| 10,000 | 63 | 5.3% | 65.8% | \$ 63.12 | \$ 53.81 | \$ (9.31) | -14.8% |
| 15,000 | 26 | 2.2% | 81.9% | \$ 80.42 | \$ 74.11 | \$ (6.31) | -7.8% |
| 20,000 | 18 | 1.5% | 91.9% | \$ 97.72 | \$ 94.41 | \$ (3.31) | -3.4% |
| 25,000 | 7 | 0.6% | 95.6% | \$ 115.02 | \$ 114.71 | \$ (0.31) | -0.3% |
| 30,000 | 4 | 0.3% | 98.6% | \$ 132.32 | \$ 135.01 | \$ 2.69 | 2.0% |
| 35,000 | 1 | 0.1% | 99.2% | \$ 149.62 | \$ 155.31 | \$ 5.69 | 3.8% |
| 40,000 | 1 | 0.1% | 99.7% | \$ 166.92 | \$ 175.61 | \$ 8.69 | 5.2% |
| 45,000 | 0 | 0.0% | 99.9% | \$ 184.22 | \$ 195.91 | \$ 11.69 | 6.3% |
| 50,000 | 0 | 0.0% | 99.9% | \$ 201.52 | \$ 216.21 | \$ 14.69 | 7.3% |
| 60,000 | 0 | 0.0% | 100.0% | \$ 236.12 | \$ 256.81 | \$ 20.69 | 8.8% |

| Multi-Family Sewer Bill Comparison: | | | | 1.5" | Meter Size | 24 | Units |
|-------------------------------------|------------|------------|-----------------|-----------|------------|-------------|--------|
| Gallons | # of Bills | % of Bills | Agg. % of Bills | Current | Proposed | \$ Chg. | % Chg. |
| - | 0 | 0.0% | 0.0% | \$ 342.24 | \$ 144.06 | \$ (198.18) | -57.9% |
| 1,000 | 0 | 0.0% | 0.0% | \$ 345.70 | \$ 148.12 | \$ (197.58) | -57.2% |
| 2,000 | 0 | 0.0% | 0.0% | \$ 349.16 | \$ 152.18 | \$ (196.98) | -56.4% |
| 3,000 | 0 | 0.0% | 0.0% | \$ 352.62 | \$ 156.24 | \$ (196.38) | -55.7% |
| 4,000 | 0 | 0.0% | 0.0% | \$ 356.08 | \$ 160.30 | \$ (195.78) | -55.0% |
| 5,000 | 0 | 0.0% | 0.0% | \$ 359.54 | \$ 164.36 | \$ (195.18) | -54.3% |
| 6,000 | 0 | 0.0% | 0.0% | \$ 363.00 | \$ 168.42 | \$ (194.58) | -53.6% |
| 7,000 | 0 | 0.0% | 0.0% | \$ 366.46 | \$ 172.48 | \$ (193.98) | -52.9% |
| 8,000 | 0 | 0.0% | 0.0% | \$ 369.92 | \$ 176.54 | \$ (193.38) | -52.3% |
| 9,000 | 0 | 0.0% | 0.0% | \$ 373.38 | \$ 180.60 | \$ (192.78) | -51.6% |
| 10,000 | 0 | 0.0% | 0.0% | \$ 376.84 | \$ 184.66 | \$ (192.18) | -51.0% |
| 15,000 | 0 | 0.0% | 0.0% | \$ 394.14 | \$ 204.96 | \$ (189.18) | -48.0% |
| 20,000 | 0 | 0.0% | 0.0% | \$ 411.44 | \$ 225.26 | \$ (186.18) | -45.3% |
| 25,000 | 0 | 0.0% | 0.0% | \$ 428.74 | \$ 245.56 | \$ (183.18) | -42.7% |
| 30,000 | 0 | 0.0% | 0.0% | \$ 446.04 | \$ 265.86 | \$ (180.18) | -40.4% |
| 35,000 | 0 | 0.0% | 0.0% | \$ 463.34 | \$ 286.16 | \$ (177.18) | -38.2% |
| 40,000 | 0 | 0.0% | 0.0% | \$ 480.64 | \$ 306.46 | \$ (174.18) | -36.2% |
| 45,000 | 0 | 0.0% | 5.6% | \$ 497.94 | \$ 326.76 | \$ (171.18) | -34.4% |
| 50,000 | 0 | 0.0% | 22.2% | \$ 515.24 | \$ 347.06 | \$ (168.18) | -32.6% |
| 60,000 | 2 | 5.6% | 36.1% | \$ 549.84 | \$ 387.66 | \$ (162.18) | -29.5% |
| 70,000 | 0 | 0.0% | 61.1% | \$ 584.44 | \$ 428.26 | \$ (156.18) | -26.7% |
| 80,000 | 3 | 8.3% | 88.9% | \$ 619.04 | \$ 468.86 | \$ (150.18) | -24.3% |
| 90,000 | 0 | 0.0% | 97.2% | \$ 653.64 | \$ 509.46 | \$ (144.18) | -22.1% |
| 100,000 | 1 | 2.8% | 100.0% | \$ 688.24 | \$ 550.06 | \$ (138.18) | -20.1% |

| Commercial Sewer Bill Comparison: | | | | 2" | Meter Size | 1 | Units |
|-----------------------------------|------------|------------|-----------------|-----------|-------------|------------|--------|
| Gallons | # of Bills | % of Bills | Agg. % of Bills | Current | Proposed | \$ Chg. | % Chg. |
| - | 90 | 15.3% | 15.3% | \$ 16.33 | \$ 1.31 | \$ (15.02) | -92.0% |
| 1,000 | 81 | 13.8% | 29.1% | \$ 19.79 | \$ 7.09 | \$ (12.70) | -64.2% |
| 2,000 | 50 | 8.5% | 37.6% | \$ 23.25 | \$ 12.87 | \$ (10.38) | -44.6% |
| 3,000 | 38 | 6.5% | 44.0% | \$ 26.71 | \$ 18.65 | \$ (8.06) | -30.2% |
| 4,000 | 44 | 7.5% | 51.5% | \$ 30.17 | \$ 24.43 | \$ (5.74) | -19.0% |
| 5,000 | 25 | 4.3% | 55.8% | \$ 33.63 | \$ 30.21 | \$ (3.42) | -10.2% |
| 6,000 | 22 | 3.7% | 59.5% | \$ 37.09 | \$ 35.99 | \$ (1.10) | -3.0% |
| 7,000 | 13 | 2.2% | 61.7% | \$ 40.55 | \$ 41.77 | \$ 1.22 | 3.0% |
| 8,000 | 10 | 1.7% | 63.4% | \$ 44.01 | \$ 47.55 | \$ 3.54 | 8.0% |
| 9,000 | 12 | 2.0% | 65.5% | \$ 47.47 | \$ 53.33 | \$ 5.86 | 12.3% |
| 10,000 | 11 | 1.9% | 67.3% | \$ 50.93 | \$ 59.11 | \$ 8.18 | 16.1% |
| 15,000 | 3 | 0.5% | 73.1% | \$ 68.23 | \$ 88.01 | \$ 19.78 | 29.0% |
| 20,000 | 3 | 0.5% | 75.5% | \$ 85.53 | \$ 116.91 | \$ 31.38 | 36.7% |
| 25,000 | 3 | 0.5% | 77.6% | \$ 102.83 | \$ 145.81 | \$ 42.98 | 41.8% |
| 30,000 | 3 | 0.5% | 80.6% | \$ 120.13 | \$ 174.70 | \$ 54.57 | 45.4% |
| 35,000 | 1 | 0.2% | 83.0% | \$ 137.43 | \$ 203.60 | \$ 66.17 | 48.1% |
| 40,000 | 4 | 0.7% | 84.9% | \$ 154.73 | \$ 232.50 | \$ 77.77 | 50.3% |
| 45,000 | 1 | 0.2% | 86.4% | \$ 172.03 | \$ 261.40 | \$ 89.37 | 52.0% |
| 50,000 | 3 | 0.5% | 87.8% | \$ 189.33 | \$ 290.30 | \$ 100.97 | 53.3% |
| 60,000 | 1 | 0.2% | 88.6% | \$ 223.93 | \$ 348.10 | \$ 124.17 | 55.5% |
| 70,000 | 0 | 0.0% | 88.9% | \$ 258.53 | \$ 405.90 | \$ 147.37 | 57.0% |
| 80,000 | 3 | 0.5% | 90.1% | \$ 293.13 | \$ 463.70 | \$ 170.57 | 58.2% |
| 90,000 | 3 | 0.5% | 92.7% | \$ 327.73 | \$ 521.49 | \$ 193.76 | 59.1% |
| 100,000 | 0 | 0.0% | 94.0% | \$ 362.33 | \$ 579.29 | \$ 216.96 | 59.9% |
| 150,000 | 0 | 0.0% | 96.4% | \$ 535.33 | \$ 868.28 | \$ 332.95 | 62.2% |
| 200,000 | 0 | 0.0% | 98.0% | \$ 708.33 | \$ 1,157.28 | \$ 448.95 | 63.4% |

| Commercial Sewer Bill Comparison: | | | | 1.5" | Meter Size | 11 | Units |
|-----------------------------------|------------|------------|-----------------|-----------|-------------|-------------|--------|
| Gallons | # of Bills | % of Bills | Agg. % of Bills | Current | Proposed | \$ Chg. | % Chg. |
| - | 0 | 0.0% | 0.0% | \$ 179.63 | \$ 1.31 | \$ (178.32) | -99.3% |
| 1,000 | 0 | 0.0% | 0.0% | \$ 183.09 | \$ 7.09 | \$ (176.00) | -96.1% |
| 2,000 | 0 | 0.0% | 0.0% | \$ 186.55 | \$ 12.87 | \$ (173.68) | -93.1% |
| 3,000 | 0 | 0.0% | 0.0% | \$ 190.01 | \$ 18.65 | \$ (171.36) | -90.2% |
| 4,000 | 0 | 0.0% | 0.0% | \$ 193.47 | \$ 24.43 | \$ (169.04) | -87.4% |
| 5,000 | 0 | 0.0% | 0.0% | \$ 196.93 | \$ 30.21 | \$ (166.72) | -84.7% |
| 6,000 | 0 | 0.0% | 0.0% | \$ 200.39 | \$ 35.99 | \$ (164.40) | -82.0% |
| 7,000 | 0 | 0.0% | 0.0% | \$ 203.85 | \$ 41.77 | \$ (162.08) | -79.5% |
| 8,000 | 0 | 0.0% | 0.0% | \$ 207.31 | \$ 47.55 | \$ (159.76) | -77.1% |
| 9,000 | 0 | 0.0% | 0.0% | \$ 210.77 | \$ 53.33 | \$ (157.44) | -74.7% |
| 10,000 | 0 | 0.0% | 0.0% | \$ 214.23 | \$ 59.11 | \$ (155.12) | -72.4% |
| 15,000 | 0 | 0.0% | 1.7% | \$ 231.53 | \$ 88.01 | \$ (143.52) | -62.0% |
| 20,000 | 0 | 0.0% | 6.7% | \$ 248.83 | \$ 116.91 | \$ (131.92) | -53.0% |
| 25,000 | 4 | 6.7% | 18.3% | \$ 266.13 | \$ 145.81 | \$ (120.32) | -45.2% |
| 30,000 | 0 | 0.0% | 25.0% | \$ 283.43 | \$ 174.70 | \$ (108.73) | -38.4% |
| 35,000 | 1 | 1.7% | 46.7% | \$ 300.73 | \$ 203.60 | \$ (97.13) | -32.3% |
| 40,000 | 2 | 3.3% | 61.7% | \$ 318.03 | \$ 232.50 | \$ (85.53) | -26.9% |
| 45,000 | 1 | 1.7% | 68.3% | \$ 335.33 | \$ 261.40 | \$ (73.93) | -22.0% |
| 50,000 | 0 | 0.0% | 75.0% | \$ 352.63 | \$ 290.30 | \$ (62.33) | -17.7% |
| 60,000 | 0 | 0.0% | 80.0% | \$ 387.23 | \$ 348.10 | \$ (39.13) | -10.1% |
| 70,000 | 0 | 0.0% | 81.7% | \$ 421.83 | \$ 405.90 | \$ (15.93) | -3.8% |
| 80,000 | 0 | 0.0% | 88.3% | \$ 456.43 | \$ 463.70 | \$ 7.27 | 1.6% |
| 90,000 | 0 | 0.0% | 95.0% | \$ 491.03 | \$ 521.49 | \$ 30.46 | 6.2% |
| 100,000 | 0 | 0.0% | 96.7% | \$ 525.63 | \$ 579.29 | \$ 53.66 | 10.2% |
| 150,000 | 0 | 0.0% | 100.0% | \$ 698.63 | \$ 868.28 | \$ 169.65 | 24.3% |
| 200,000 | 0 | 0.0% | 100.0% | \$ 871.63 | \$ 1,157.28 | \$ 285.65 | 32.8% |