

TECHNICAL MEMORANDUM

To:	Mr. Delfino Consunji
From:	Robert Ryall
Date:	January 31, 2017
Client:	City of West Covina, California
Project:	Preparation of a Revenue Sufficiency Analysis associated with the Sewer System Management Plan
Subject:	Sewer System Revenue Sufficiency Analysis

Mr. Consunji,

Willdan Financial Services (Willdan) is pleased to present this Technical Memorandum summarizing our Sewer System Revenue Sufficiency Analysis (the "Analysis") for the City of West Covina, California (the "City") Sewer Maintenance Fund (the "Utility"). Willdan Engineering is in the process of completing a Sewer System Management Plan (SSMP) for the City. As part of the SSMP, Willdan Engineering, in conjunction with the City, identified a series of sewer capital projects that comprise the Sewer Capital Improvement Program. The Analysis summarized herein comprises a series of financial planning options identifying how the Sewer Capital Improvement Program can be funded.

In the preparation of the Analysis, certain assumptions have been made with respect to conditions that may occur in the future. While it is believed that these assumptions are reasonable for the purpose of this update, they are dependent upon future events and actual conditions may differ from those assumed. In addition, the Analysis has used and relied upon certain information that was provided by other parties not associated with Willdan. Such information includes, among other things, the City's audited financial statements, annual operating budgets, periodic reports, and other information and data provided by the City, its independent auditors, and other sources. While the sources are believed to be reliable, there has been no independent verification of the information and no assurances are offered with respect thereto. To the extent that future conditions differ from those assumed herein or provided by others, the actual results may vary from those projected.

THE REVENUE SUFFICIENCY PROCESS

In order to develop rates and charges (or assessments as in the case of the City) which generate sufficient revenue to meet the fiscal requirements of the Utility, a determination of the annual assessment revenue required must be completed. This assessment revenue, combined with other sources of funds, is evaluated to determine whether the total revenue is sufficient to meet those fiscal requirements. This process is typically referred to as a Revenue Sufficiency Analysis.

The process employed in the Revenue Sufficiency Analysis results in the identification of revenue requirements of the system, such as operating expenses, capital expenses (minor and major), debt service expense (including a provision for debt service coverage), transfers out, and the maintenance of both restricted and unrestricted

reserves at appropriate levels. These revenue requirements are then compared to the total sources of funds during each year of the forecast period to determine the adequacy of projected revenues to meet projected revenue requirements. To the extent that the existing revenue stream is not sufficient to meet the annual revenue requirements of the system, a series of assessment revenue increases are calculated which would be required in order to provide revenue sufficient to meet those needs.

DATA ITEMS AND ASSUMPTIONS

Key data items reviewed, discussed, and incorporated into the Analysis include the following:

- Financial management goals of the City
- Fiscal year (“FY”) 2014-15 Comprehensive Annual Financial Report (CAFR) and preliminary FY 2015-16 results
- FY 2016-17 Operating Budget
- Capital Improvements Plan (CIP)
- General assumptions related to:
 - Customer growth
 - Cost escalation factors
 - New debt

Fund Balances

To better understand what funds the Utility had on hand to start the forecast period, a detailed review of the City’s latest financial statements, the FY 2014-15 CAFR, was conducted and reviewed with staff. In addition to the FY 2014-15 CAFR, the City provided the Preliminary Fourth Quarter Financial Report for FY 2015-16 and Capital Improvement Program Update. The report provided the Utility fund balance for July 1, 2016, and therefore the beginning of FY 2016-17. The City’s estimated fund balance is \$2,780,773.

Budgeted and Projected Revenue and Expenses

Willdan obtained the City’s FY 2016-17 Operating and Capital Improvement Program Budget and used information from this document as the basis for the projection of financial performance for FY 2016-17. Reported revenue was obtained from the City’s financial statements and used as the basis for projecting Utility revenue. FY 2014-15 assessment revenue, as reported in the FY 2014-15 CAFR, is adjusted by 0.5%, the assessment increase for FY 2015-16, in order to estimate base assessment revenue for the Analysis. Projected revenue for FY 2017-2025 was developed assuming no annual growth in customers and, further, by any adopted or projected assessment increases during the forecast period. The increases projected as part of this analysis are in place of “normal” increases by the City. In addition, line-item projected expenses for FY 2017-2025 were developed using cost escalation factors as discussed below under General Assumptions.

Cost escalation factors were reviewed with the City and were used to project line-item costs beyond the FY 2016-17 budget. Those factors were applied based on line-item cost classifications.

A summary of the budgeted and projected revenues are presented below in Table 1. Table 2 presents the budgeted and projected expenses which are the same for the scenarios prepared in this Analysis.

Table 1									
Sewer Maintenance Operating Revenue									
Description	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Special Assessments - Sewer Service	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478
Charges (no adjustments) ¹									
Taxes - Property Tax Revenue (Ad Valorem)	202,026	202,026	202,026	202,026	202,026	202,026	202,026	202,026	202,026
Investment Income	-	-	-	-	-	-	-	-	-
Revenue from other agencies	-	-	-	-	-	-	-	-	-
Charges for service	516	516	516	516	516	516	516	516	516
Other revenues	-	-	-	-	-	-	-	-	-
Interest Income ²	3,000	2,000	2,000	3,000	3,000	4,000	4,000	3,000	3,000
Total	\$ 2,857,020	\$ 2,856,020	\$ 2,856,020	\$ 2,857,020	\$ 2,857,020	\$ 2,858,020	\$ 2,858,020	\$ 2,857,020	\$ 2,857,020

1 - Based on reported FY 2015 Assessment revenue of \$2,638,287 and 0.5% increase adopted for FY 2015-16.

2 - Interest Income is calculated based on the forecasted Sewer Maintenance Fund ending year balance. Interest Income varies for each scenario developed in the Analysis.

Table 2 Sewer Maintenance Operating Expenses									
Description	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
189 - Sewer Maintenance									
Personnel Services	\$ 30,273	\$ 31,787	\$ 33,376	\$ 35,045	\$ 36,797	\$ 38,637	\$ 40,569	\$ 42,597	\$ 44,727
Materials & Services	-	-	-	-	-	-	-	-	-
Capital Assets	-	-	-	-	-	-	-	-	-
Allocations	-	-	-	-	-	-	-	-	-
Subtotal Community Enhancement (3125)	\$ 30,273	\$ 31,787	\$ 33,376	\$ 35,045	\$ 36,797	\$ 38,637	\$ 40,569	\$ 42,597	\$ 44,727
Personnel Services	\$ 324,330	\$ 340,547	\$ 357,574	\$ 375,453	\$ 394,226	\$ 413,937	\$ 434,634	\$ 456,366	\$ 479,184
Materials & Services	65,430	67,393	69,415	71,497	73,642	75,851	78,127	80,471	82,885
Capital Assets	-	-	-	-	-	-	-	-	-
Allocations	137,802	141,936	146,194	150,580	155,097	159,750	164,543	169,479	174,563
Subtotal District Engineering (4133)	\$ 527,562	\$ 549,876	\$ 573,183	\$ 597,530	\$ 622,965	\$ 649,538	\$ 677,304	\$ 706,316	\$ 736,632
Personnel Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials & Services	-	-	-	-	-	-	-	-	-
Capital Assets	-	-	-	-	-	-	-	-	-
Allocations	62,520	64,396	66,328	68,318	70,368	72,479	74,653	76,893	79,200
Subtotal Street Maintenance (4151)	\$ 62,520	\$ 64,396	\$ 66,328	\$ 68,318	\$ 70,368	\$ 72,479	\$ 74,653	\$ 76,893	\$ 79,200
Personnel Services	\$ 1,012,229	\$ 1,062,840	\$ 1,115,982	\$ 1,171,781	\$ 1,230,370	\$ 1,291,889	\$ 1,356,483	\$ 1,424,307	\$ 1,495,522
Materials & Services	148,170	152,615	157,193	161,909	166,766	171,769	176,922	182,230	187,697
Capital Assets	-	-	-	-	-	-	-	-	-
Allocations	180,142	185,546	191,112	196,845	202,750	208,833	215,098	221,551	228,198
Subtotal Sewer Maintenance (4160)	\$ 1,340,541	\$ 1,401,001	\$ 1,464,287	\$ 1,530,535	\$ 1,599,886	\$ 1,672,491	\$ 1,748,503	\$ 1,828,088	\$ 1,911,417
Personnel Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials & Services	20,000	20,600	21,218	21,855	22,511	23,186	23,882	24,598	25,336
Capital Assets	-	-	-	-	-	-	-	-	-
Allocations	-	-	-	-	-	-	-	-	-
Subtotal NPDES (4189)	\$ 20,000	\$ 20,600	\$ 21,218	\$ 21,855	\$ 22,511	\$ 23,186	\$ 23,882	\$ 24,598	\$ 25,336
Personnel Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials & Services	-	-	-	-	-	-	-	-	-
Capital Assets	25,000	25,500	26,010	26,530	27,061	27,602	28,154	28,717	29,291
Allocations	-	-	-	-	-	-	-	-	-
Subtotal General (7003)	\$ 25,000	\$ 25,500	\$ 26,010	\$ 26,530	\$ 27,061	\$ 27,602	\$ 28,154	\$ 28,717	\$ 29,291
Personnel Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials & Services	-	-	-	-	-	-	-	-	-
Capital Assets	114,000	116,280	118,606	120,978	123,398	125,866	128,383	130,951	133,570
Allocations	-	-	-	-	-	-	-	-	-
Subtotal Vehicles (7008)	\$ 114,000	\$ 116,280	\$ 118,606	\$ 120,978	\$ 123,398	\$ 125,866	\$ 128,383	\$ 130,951	\$ 133,570
Transfer Out	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Transfers Out (9500)	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 2,144,896	\$ 2,209,440	\$ 2,303,008	\$ 2,400,791	\$ 2,502,986	\$ 2,609,799	\$ 2,721,448	\$ 2,838,160	\$ 2,960,173
Operating Expenses	\$ 2,005,896	\$ 2,067,660	\$ 2,158,392	\$ 2,253,283	\$ 2,352,527	\$ 2,456,331	\$ 2,564,911	\$ 2,678,492	\$ 2,797,312
Minor Capital	139,000	141,780	144,616	147,508	150,459	153,468	156,537	159,668	162,861
Total	\$ 2,144,896	\$ 2,209,440	\$ 2,303,008	\$ 2,400,791	\$ 2,502,986	\$ 2,609,799	\$ 2,721,448	\$ 2,838,160	\$ 2,960,173

Capital Improvements Plan (CIP)

As part of the Sewer System Management Plan, Willdan Engineering identified a series of sewer capital projects that comprise the Sewer Capital Improvement Program. A summary table of the sewer CIP for the FY2017 – 2025 forecast period is presented below in Table 3.

Table 3 Sewer Maintenance Capital Improvement Program									
Project Description	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
	\$ 900,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cameron Avenue Sewer Rehabilitation									
Azusa Lift Station Construction	600,000	-	-	-	-	-	-	-	-
Closed Circuit TV Inspection	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
New Sewer Maintenance Truck and Camera	190,000	-	-	-	-	-	-	-	-
Sewer Cured In Place Pipe Lining	152,600	152,600	152,600	152,600	152,600	152,600	152,600	152,600	152,600
		1,345,200	-	-	-	-	-	-	-
82-1; Sewer Main Replacement Area 82 POWER; Install Emergency Backup Power at City Lift Stations	-	64,800	-	-	-	-	-	64,800	259,200
SCADA; Install SCADA Controls at City Lift Stations	-	56,700	56,700	-	56,700	56,700	-	56,700	56,700
4-1; Sewer Main Replacement Area 4	-	-	286,400	-	-	-	-	-	-
80-1; Sewer Main Replacement Area 80	-	-	-	-	-	-	-	-	-
116-3; Sewer Main Replacement Area	-	-	254,000	-	-	-	-	-	-
62-2; Sewer Main Replacement Area 62	-	-	-	191,800	-	-	-	-	-
116-2; Sewer Main Replacement Area	-	-	-	825,000	-	-	-	-	-
132-1; Sewer Main Replacement Area	-	-	-	390,700	-	-	-	-	-
117-1; Sewer Main Replacement Area	-	-	-	-	939,100	-	-	-	-
82-3; Sewer Main Replacement Area 82	-	-	-	-	-	804,200	-	-	-
82-4; Sewer Main Replacement Area 82	-	-	-	-	-	399,200	-	-	-
62-1; Sewer Main Replacement Area 62	-	-	-	-	-	-	1,359,800	-	-
82-2; Sewer Main Replacement Area 82	-	-	-	-	-	-	-	1,391,400	-
116-1; Sewer Main Replacement Area	-	-	-	-	-	-	-	-	666,000
161-1; Sewer Main Replacement Area	-	-	-	-	-	-	-	-	143,900
Total	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400

Outstanding Debt Service

Based on review of the City’s financial documents, as well as discussions with the City, it is our understanding that the City does not have any outstanding sewer related debt. For the purpose of this Analysis, any forecasted future debt is assumed to have a 1.50X debt service coverage requirement.

General Assumptions

In order to develop the financial and rate projections, certain assumptions were made with regard to elements of the Analysis. A summary of those assumptions is presented below.

Growth

Based on discussion with the City, the Utility is mostly built-out. As such, it was assumed that growth in the Utility’s customer base, and requisite flows, would be 0.0% per year during the forecast period.

Operating Projections

For the purposes of forecasting Operating requirements of the Utility, the following escalation factors are use for the various budget line-items.

- Personnel Services – 5.0%
- Materials & Services – 3.0%
- Capital Assets – 2.0%
- Allocations – 3.0%

Minimum Unrestricted Working Capital Balance – Operating Fund

In order to minimize assessment/bill impacts and to have contingency reserves available, Utilities generally maintain an operating reserve. Based on discussions with the City, a working capital balance of 50% to 100% of annual operating expenses is maintained for the Utility. For the purposes of our Analysis, we have assumed the Utility will maintain an unrestricted working capital operating fund reserve amount greater than or equal to approximately 9 months of operating expenses (75% of operating expenses). With exception of Scenario 2, the analysis presented herein projects a minimum unrestricted working capital operating fund reserve of at least 9 months of operating expenses during the forecast period.

Future Debt

In order to fund the capital needs of the Utility, some scenarios developed herein include the use of future debt. Payments associated with this data are assumed to be level annual payments and are forecasted using an interest rate of 5.5%, 30-year term, and issuance costs of 2.0% of the issuance amount.

RESULTS OF THE ANALYSIS

In order to provide the City information needed to make appropriate decisions with regard to the Utility Capital Improvement Program, we have prepared four financial plans for the Utility. Each plan is for the period FY 2017-2025, the same 9-year period as the Capital Improvement Program. Below is a summary of the four scenarios:

Scenario 1 – Cash Fund Capital Improvement Program; 9-Months Working Capital: This scenario considers the full \$13,689,100 Capital Program (approximate \$1.5 million annual average), as presented in Table 3. Based on discussions with the City, the preferred funding approach for the program is to cash fund projects using sewer assessment revenue. This scenario forecasted the annual increases in sewer assessments, over the 9-year period, in order to cash fund the full CIP while maintaining a working capital reserve balance of at least 9 months of operating expenses.

Scenario 2 – Cash Fund Capital Improvement Program; 6-Months Working Capital: Similar to Scenario 1, this scenario also considers the full \$13,689,100 Capital Program. However, in order to reduce the impact of initial assessment increases, the working capital balance is allowed to fall below 9 months of operating expenses. This scenario forecasted the annual increases in sewer assessments, over the 9-year period, in order to cash fund the full CIP while maintaining a working capital reserve balance of at least 6 months of operating expenses.

Scenario 3 – Cash Fund \$1.0 Million Annual Capital Improvement Program: Given the magnitude of sewer assessment increases needed to fund the full CIP, Scenario 3 was developed as an alternative to explore the level of needed increases in sewer assessment revenue to fund \$1.0 million in annual capital projects for FY 2018-2025 (\$8.0 million over the period). Current year (FY 2017) projects are underway and thus this level of spending is not adjusted.

Scenario 4 – Use Debt in Funding Capital Improvement Program: This scenario is developed as an alternative to the full cash funding of the CIP. This alternative scenario is developed to provide the City the results of using debt to fund a portion of the CIP.

Tables providing the results of these scenarios, as well as a discussion of the result of each scenario, are provided below:

Scenario 1 – Cash Fund Full Capital Improvement Program; 9-Months Working Capital

This scenario considers funding the full \$13,689,100 Capital Program using revenue from the Utility while maintaining at least a 9-month working capital reserve balance. As such, the revenues of the Utility, primarily sewer assessments, will need to increase to provide funding for operating expenses of the systems as well as the CIP. This scenario assumes a minimum Utility working capital balance of 9 months of operating expenses. As such, the analysis utilizes all available Utility funds above 9 months of working capital to fund the CIP before forecasting the need for increases in the sewer assessment.

A detailed schedule showing the results of this scenario is presented below in Table 4. The analysis shows that sewer assessments will need to increase by 56.2% over the 9-year forecast period, including an initial increase of 36.5% in FY 2017-18.

Scenario 2 – Cash Fund Full Capital Improvement Program; 6-Months Working Capital

Similar to Scenario 1, this scenario considers funding the full \$13,689,100 Capital Program using revenue from the Utility. However, this scenario allows the Utility working capital balance to fall below 9 months of operating expenses, targeting a working capital balance of 6 months of operating expenses.

A detailed schedule showing the results of this scenario is presented below in Table 5. The analysis shows that sewer assessments will need to increase by 71.7% over the 9-year forecast period, including an increase of 20% in FY 2017-18.

Scenario 3 – Cash Fund \$1.0 Million Annual Capital Improvement Program

Given the magnitude of sewer assessment increases required to fund the full CIP, Scenario 3 was developed as an alternative to explore the level of needed increases in sewer assessment revenue to fund \$1.0 million in annual capital projects for FY 2018-2025. (\$8.0 million over the period). Utility funds greater than 9 months of operating expenses are used toward the CIP. After these funds are exhausted, increases in sewer assessment revenue are needed to fund the CIP.

A detailed schedule showing the results of this scenario is presented below in Table 6. The analysis shows that sewer assessments will need to increase by 38.6% over the 9-year forecast period. These increases include 11% increases in FY 2017-18 and FY 2018-19.

Scenario 4 – Use Debt in Funding Capital Improvement Program

As an additional alternative for the City, this scenario uses debt to fund a portion of the CIP. Similar to other scenarios, Utility funds above the assumed 9 month working capital reserve are used to fund the CIP before debt is used. The analysis assumes the Utility will issue debt in 3-year increments, forecasted to begin in FY 2017-18 with approximately \$2.6 million of debt needed. Additional debt is forecasted for FY 2020-21 and FY 2023-24 in the amounts of approximately \$3.6 million, and \$3.0 million, respectively.

In order to maintain an assumed debt service coverage (net revenue divided by annual debt service) of 1.50X, increases in sewer assessment revenue are forecasted. The over all increase in assessment revenue is forecasted to be 39.2% over the period with 4.0% annual increases for the period FY 2018-2025. A detailed schedule showing the results of this scenario is presented in Table 7 below.

Table 4 Forecasted Utility Operating Results - Scenario 1, Cash Fund Capital Program; 9 Month Working Capital									
Description	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Revenue from Special Assessments/Sewer Service Charges									
Special Assessments/Sewer Service Charges	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478
Total Sales Revenue	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478
Additional Revenue from Adjustments									
FY 2016-17 @ 1.7%	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075
FY 2017-18 @ 36.5%		984,242	984,242	984,242	984,242	984,242	984,242	984,242	984,242
FY 2018-19 @ 1.7%			62,574	62,574	62,574	62,574	62,574	62,574	62,574
FY 2019-20 @ 1.7%				63,637	63,637	63,637	63,637	63,637	63,637
FY 2020-21 @ 1.7%					64,719	64,719	64,719	64,719	64,719
FY 2021-22 @ 1.7%						65,819	65,819	65,819	65,819
FY 2022-23 @ 1.7%							66,938	66,938	66,938
FY 2023-24 @ 1.7%								68,076	68,076
FY 2024-25 @ 1.7%									69,234
Total Additional Revenue	\$ 45,075	\$ 1,029,317	\$ 1,091,891	\$ 1,155,528	\$ 1,220,247	\$ 1,286,066	\$ 1,353,005	\$ 1,421,081	\$ 1,490,314
Total Revenue	\$ 2,696,554	\$ 3,680,796	\$ 3,743,369	\$ 3,807,006	\$ 3,871,726	\$ 3,937,545	\$ 4,004,483	\$ 4,072,559	\$ 4,141,793
Other Non Assessment Revenue									
Other Operating Revenue ¹	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542
Interest Earnings	3,000	2,000	2,000	3,000	3,000	3,000	3,000	3,000	3,000
Total Operating Revenue	\$ 2,902,096	\$ 3,885,338	\$ 3,947,911	\$ 4,012,548	\$ 4,077,268	\$ 4,143,087	\$ 4,210,025	\$ 4,278,101	\$ 4,347,335
Expenditures									
Operating Expenses	\$ (2,005,896)	\$ (2,067,660)	\$ (2,158,392)	\$ (2,253,283)	\$ (2,352,527)	\$ (2,456,331)	\$ (2,564,911)	\$ (2,678,492)	\$ (2,797,312)
Net Operating Revenue	\$ 896,200	\$ 1,817,678	\$ 1,789,519	\$ 1,759,265	\$ 1,724,741	\$ 1,686,756	\$ 1,645,114	\$ 1,599,609	\$ 1,550,023
Debt Service									
Existing Rev. Bond Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Rev. Bond Debt Service	-	-	-	-	-	-	-	-	-
Total Debt Service for Coverage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service Coverage - Rate Covenant	NA	NA	NA	NA	NA	NA	NA	NA	NA
Net Cash Flow									
Net Operating Revenue (restated)	\$ 896,200	\$ 1,817,678	\$ 1,789,519	\$ 1,759,265	\$ 1,724,741	\$ 1,686,756	\$ 1,645,114	\$ 1,599,609	\$ 1,550,023
Less Debt Service	-	-	-	-	-	-	-	-	-
Less Cash Funded Capital	(1,942,600)	(1,719,300)	(849,700)	(1,660,100)	(1,248,400)	(1,512,700)	(1,612,400)	(1,765,500)	(1,378,400)
Less Minor Capital Outlays	(139,000)	(141,780)	(144,616)	(147,508)	(150,459)	(153,468)	(156,537)	(159,668)	(162,861)
Net Cash Flow	\$ (1,185,400)	\$ (43,402)	\$ 795,203	\$ (48,343)	\$ 325,882	\$ 20,588	\$ (123,823)	\$ (325,559)	\$ 8,762
Fund Balances									
Operating Fund:									
Beginning Year Balance	\$ 2,780,773	\$ 1,595,373	\$ 1,551,970	\$ 2,347,173	\$ 2,298,831	\$ 2,624,712	\$ 2,645,300	\$ 2,521,477	\$ 2,195,919
Net Cash Flow	(1,185,400)	(43,402)	795,203	(48,343)	325,882	20,588	(123,823)	(325,559)	8,762
Ending Balance	\$ 1,595,373	\$ 1,551,970	\$ 2,347,173	\$ 2,298,831	\$ 2,624,712	\$ 2,645,300	\$ 2,521,477	\$ 2,195,919	\$ 2,204,680
Reserve - Months of O&M	10	9	13	12	13	13	12	10	9
Capital Program Funding									
Annual Capital Needs	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400
Funding Sources:									
Operating Fund (Cash Funding)	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400
New Debt	-	-	-	-	-	-	-	-	-
Total Capital Program Funding	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400

Notes:

1 - Property Tax Revenue; Ad Valorem.

Table 5 Forecasted Utility Operating Results - Scenario 2. Cash Fund Capital Program: 6 Month Working Capital									
Description	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Revenue from Special Assessments/Sewer Service Charges									
Special Assessments/Sewer Service Charges	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478
Total Sales Revenue	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478
Additional Revenue from Adjustments									
FY 2016-17 @ 1.7%	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075
FY 2017-18 @ 20%		539,311	539,311	539,311	539,311	539,311	539,311	539,311	539,311
FY 2018-19 @ 5%			161,793	161,793	161,793	161,793	161,793	161,793	161,793
FY 2019-20 @ 5%				169,883	169,883	169,883	169,883	169,883	169,883
FY 2020-21 @ 5%					178,377	178,377	178,377	178,377	178,377
FY 2021-22 @ 5%						187,296	187,296	187,296	187,296
FY 2022-23 @ 5%							196,661	196,661	196,661
FY 2023-24 @ 5%								206,494	206,494
FY 2024-25 @ 5%									216,818
Total Additional Revenue	\$ 45,075	\$ 584,386	\$ 746,179	\$ 916,062	\$ 1,094,439	\$ 1,281,735	\$ 1,478,395	\$ 1,684,889	\$ 1,901,708
Total Revenue	\$ 2,696,554	\$ 3,235,864	\$ 3,397,657	\$ 3,567,540	\$ 3,745,917	\$ 3,933,213	\$ 4,129,874	\$ 4,336,368	\$ 4,553,186
Other Non Assessment Revenue									
Other Operating Revenue ¹	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542
Interest Earnings	3,000	2,000	1,000	2,000	2,000	2,000	2,000	2,000	2,000
Total Operating Revenue	\$ 2,902,096	\$ 3,440,406	\$ 3,601,199	\$ 3,772,082	\$ 3,950,459	\$ 4,137,755	\$ 4,334,416	\$ 4,540,910	\$ 4,757,728
Expenditures									
Operating Expenses	\$ (2,005,896)	\$ (2,067,660)	\$ (2,158,392)	\$ (2,253,283)	\$ (2,352,527)	\$ (2,456,331)	\$ (2,564,911)	\$ (2,678,492)	\$ (2,797,312)
Net Operating Revenue	\$ 896,200	\$ 1,372,746	\$ 1,442,807	\$ 1,518,799	\$ 1,597,932	\$ 1,681,424	\$ 1,769,505	\$ 1,862,418	\$ 1,960,416
Debt Service									
Existing Rev. Bond Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Rev. Bond Debt Service	-	-	-	-	-	-	-	-	-
Total Debt Service for Coverage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service Coverage - Rate Covenant	NA	NA	NA	NA	NA	NA	NA	NA	NA
Net Cash Flow									
Net Operating Revenue (restated)	\$ 896,200	\$ 1,372,746	\$ 1,442,807	\$ 1,518,799	\$ 1,597,932	\$ 1,681,424	\$ 1,769,505	\$ 1,862,418	\$ 1,960,416
Less Debt Service	-	-	-	-	-	-	-	-	-
Less Cash Funded Capital	(1,942,600)	(1,719,300)	(849,700)	(1,660,100)	(1,248,400)	(1,512,700)	(1,612,400)	(1,765,500)	(1,378,400)
Less Minor Capital Outlays	(139,000)	(141,780)	(144,616)	(147,508)	(150,459)	(153,468)	(156,537)	(159,668)	(162,861)
Net Cash Flow	\$ (1,185,400)	\$ (488,334)	\$ 448,491	\$ (288,809)	\$ 199,073	\$ 15,256	\$ 568	\$ (62,750)	\$ 419,155
Fund Balances									
Operating Fund:									
Beginning Year Balance	\$ 2,780,773	\$ 1,595,373	\$ 1,107,039	\$ 1,555,530	\$ 1,266,722	\$ 1,465,795	\$ 1,481,051	\$ 1,481,619	\$ 1,418,869
Net Cash Flow	(1,185,400)	(488,334)	448,491	(288,809)	199,073	15,256	568	(62,750)	419,155
Ending Balance	\$ 1,595,373	\$ 1,107,039	\$ 1,555,530	\$ 1,266,722	\$ 1,465,795	\$ 1,481,051	\$ 1,481,619	\$ 1,418,869	\$ 1,838,024
Reserve - Months of O&M	9.5	6.4	8.6	6.7	7.5	7.2	6.9	6.4	7.9
Capital Program Funding									
Annual Capital Needs	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400
Funding Sources:									
Operating Fund (Cash Funding)	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400
New Debt	-	-	-	-	-	-	-	-	-
Total Capital Program Funding	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400

Notes:
 1 - Property Tax Revenue; Ad Valorem

Table 6
Forecasted Utility Operating Results - Scenario 1, Cash Fund \$1.0 Million Annual Capital Program

Description	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Revenue from Special Assessments/Sewer Service Charges									
Special Assessments/Sewer Service Charges	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478
Total Sales Revenue	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478
Additional Revenue from Adjustments									
FY 2016-17 @ 1.7%	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075
FY 2017-18 @ 11%		296,621	296,621	296,621	296,621	296,621	296,621	296,621	296,621
FY 2018-19 @ 11%			329,249	329,249	329,249	329,249	329,249	329,249	329,249
FY 2019-20 @ 1.7%				56,481	56,481	56,481	56,481	56,481	56,481
FY 2020-21 @ 1.7%					57,441	57,441	57,441	57,441	57,441
FY 2021-22 @ 1.7%						58,418	58,418	58,418	58,418
FY 2022-23 @ 1.7%							59,411	59,411	59,411
FY 2023-24 @ 1.7%								60,421	60,421
FY 2024-25 @ 1.7%									61,448
Total Additional Revenue	\$ 45,075	\$ 341,696	\$ 670,945	\$ 727,426	\$ 784,868	\$ 843,286	\$ 902,697	\$ 963,118	\$ 1,024,566
Total Revenue	\$ 2,696,554	\$ 2,993,174	\$ 3,322,424	\$ 3,378,905	\$ 3,436,346	\$ 3,494,764	\$ 3,554,175	\$ 3,614,596	\$ 3,676,044
Other Non Assessment Revenue									
Other Operating Revenue ¹	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542
Interest Earnings	3,000	2,000	2,000	2,000	2,000	3,000	3,000	3,000	3,000
Total Operating Revenue	\$ 2,902,096	\$ 3,197,716	\$ 3,526,966	\$ 3,583,447	\$ 3,640,888	\$ 3,700,306	\$ 3,759,717	\$ 3,820,138	\$ 3,881,586
Expenditures									
Operating Expenses	\$ (2,005,896)	\$ (2,067,660)	\$ (2,158,392)	\$ (2,253,283)	\$ (2,352,527)	\$ (2,456,331)	\$ (2,564,911)	\$ (2,678,492)	\$ (2,797,312)
Net Operating Revenue	\$ 896,200	\$ 1,130,056	\$ 1,368,574	\$ 1,330,164	\$ 1,288,361	\$ 1,243,975	\$ 1,194,806	\$ 1,141,646	\$ 1,084,274
Debt Service									
Existing Rev. Bond Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Rev. Bond Debt Service	-	-	-	-	-	-	-	-	-
Total Debt Service for Coverage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service Coverage - Rate Covenant	NA	NA	NA	NA	NA	NA	NA	NA	NA
Net Cash Flow									
Net Operating Revenue (restated)	\$ 896,200	\$ 1,130,056	\$ 1,368,574	\$ 1,330,164	\$ 1,288,361	\$ 1,243,975	\$ 1,194,806	\$ 1,141,646	\$ 1,084,274
Less Debt Service	-	-	-	-	-	-	-	-	-
Less Cash Funded Capital	(1,942,600)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)
Less Minor Capital Outlays	(139,000)	(141,780)	(144,616)	(147,508)	(150,459)	(153,468)	(156,537)	(159,668)	(162,861)
Net Cash Flow	\$ (1,185,400)	\$ (11,724)	\$ 223,958	\$ 182,656	\$ 137,902	\$ 90,507	\$ 38,269	\$ (18,022)	\$ (78,587)
Fund Balances									
Operating Fund:									
Beginning Year Balance	\$ 2,780,773	\$ 1,595,373	\$ 1,583,649	\$ 1,807,607	\$ 1,990,263	\$ 2,128,165	\$ 2,218,672	\$ 2,256,941	\$ 2,238,919
Net Cash Flow	(1,185,400)	(11,724)	223,958	182,656	137,902	90,507	38,269	(18,022)	(78,587)
Ending Balance	\$ 1,595,373	\$ 1,583,649	\$ 1,807,607	\$ 1,990,263	\$ 2,128,165	\$ 2,218,672	\$ 2,256,941	\$ 2,238,919	\$ 2,160,332
Reserve - Months of O&M	10	9	10	11	11	11	11	10	9
Capital Program Funding									
Annual Capital Needs	\$ 1,942,600	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Funding Sources:									
Operating Fund (Cash Funding)	\$ 1,942,600	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
New Debt	-	-	-	-	-	-	-	-	-
Total Capital Program Funding	\$ 1,942,600	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000

Notes:

1 - Property Tax Revenue; Ad Valorem.

Table 7
Forecasted Utility Operating Results - Scenario 4, Use Debt in Funding Capital Program

Description	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Revenue from Special Assessments/Sewer Service Charges									
Special Assessments/Sewer Service Charges	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478
Total Sales Revenue	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478	\$ 2,651,478
Additional Revenue from Adjustments									
FY 2016-17 @ 1.7%	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075	\$ 45,075
FY 2017-18 @ 4%		107,862	107,862	107,862	107,862	107,862	107,862	107,862	107,862
FY 2018-19 @ 4%			112,177	112,177	112,177	112,177	112,177	112,177	112,177
FY 2019-20 @ 4%				116,664	116,664	116,664	116,664	116,664	116,664
FY 2020-21 @ 4%					121,330	121,330	121,330	121,330	121,330
FY 2021-22 @ 4%						126,183	126,183	126,183	126,183
FY 2022-23 @ 4%							131,231	131,231	131,231
FY 2023-24 @ 4%								136,480	136,480
FY 2024-25 @ 4%									141,939
Total Additional Revenue	\$ 45,075	\$ 152,937	\$ 265,114	\$ 381,778	\$ 503,108	\$ 629,291	\$ 760,522	\$ 897,002	\$ 1,038,941
Total Revenue	\$ 2,696,554	\$ 2,804,416	\$ 2,916,592	\$ 3,033,256	\$ 3,154,586	\$ 3,280,770	\$ 3,412,001	\$ 3,548,481	\$ 3,690,420
Other Non Assessment Revenue									
Other Operating Revenue ¹	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542	\$ 202,542
Interest Earnings	3,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	3,000
Total Operating Revenue	\$ 2,902,096	\$ 3,008,958	\$ 3,121,134	\$ 3,237,798	\$ 3,359,128	\$ 3,485,312	\$ 3,616,543	\$ 3,753,023	\$ 3,895,962
Expenditures									
Operating Expenses	\$ (2,005,896)	\$ (2,067,660)	\$ (2,158,392)	\$ (2,253,283)	\$ (2,352,527)	\$ (2,456,331)	\$ (2,564,911)	\$ (2,678,492)	\$ (2,797,312)
Net Operating Revenue	\$ 896,200	\$ 941,298	\$ 962,742	\$ 984,515	\$ 1,006,601	\$ 1,028,981	\$ 1,051,632	\$ 1,074,531	\$ 1,098,650
Debt Service									
Existing Rev. Bond Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Rev. Bond Debt Service	-	(182,000)	(182,000)	(182,000)	(428,000)	(428,000)	(428,000)	(634,000)	(634,000)
Total Debt Service for Coverage	\$ -	\$ (182,000)	\$ (182,000)	\$ (182,000)	\$ (428,000)	\$ (428,000)	\$ (428,000)	\$ (634,000)	\$ (634,000)
Debt Service Coverage - Rate Covenant	NA	5.17	5.29	5.41	2.35	2.40	2.46	1.69	1.73
Net Cash Flow									
Net Operating Revenue (restated)	\$ 896,200	\$ 941,298	\$ 962,742	\$ 984,515	\$ 1,006,601	\$ 1,028,981	\$ 1,051,632	\$ 1,074,531	\$ 1,098,650
Less Debt Service	-	(182,000)	(182,000)	(182,000)	(428,000)	(428,000)	(428,000)	(634,000)	(634,000)
Less Cash Funded Capital	(1,942,600)	(662,146)	(568,078)	(583,840)	(353,710)	(369,660)	(385,660)	(195,677)	(212,674)
Less Minor Capital Outlays	(139,000)	(141,780)	(144,616)	(147,508)	(150,459)	(153,468)	(156,537)	(159,668)	(162,861)
Net Cash Flow	\$ (1,185,400)	\$ (44,628)	\$ 68,048	\$ 71,167	\$ 74,432	\$ 77,853	\$ 81,435	\$ 85,185	\$ 89,115
Fund Balances									
Operating Fund:									
Beginning Year Balance	\$ 2,780,773	\$ 1,595,373	\$ 1,550,744	\$ 1,618,793	\$ 1,689,960	\$ 1,764,392	\$ 1,842,245	\$ 1,923,679	\$ 2,008,865
Net Cash Flow	(1,185,400)	(44,628)	68,048	71,167	74,432	77,853	81,435	85,185	89,115
Ending Balance	\$ 1,595,373	\$ 1,550,744	\$ 1,618,793	\$ 1,689,960	\$ 1,764,392	\$ 1,842,245	\$ 1,923,679	\$ 2,008,865	\$ 2,097,979
Reserve - Months of O&M	10	9	9	9	9	9	9	9	9
Capital Program Funding									
Annual Capital Needs	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400
Funding Sources:									
Operating Fund (Cash Funding)	\$ 1,942,600	\$ 662,146	\$ 568,078	\$ 583,840	\$ 353,710	\$ 369,660	\$ 385,660	\$ 195,677	\$ 212,674
New Debt	-	1,057,154	281,622	1,076,260	894,690	1,143,040	1,226,740	1,569,823	1,165,726
Total Capital Program Funding	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400

Notes:

1 - Property Tax Revenue, Ad Valorem.

CONCLUSIONS

- Table 8 below provides a summary of the forecasted increases in Sewer Assessment Revenue for each of the four scenarios developed as part of this Analysis.

Table 8 Forecasted Assessment Increases										
Description	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Cumulative/ Total
Scenario 1 - Cash Fund CIP; 9-Months Working Capital										
Assessment Increase	1.7%	36.50%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	56.2%
Capital Improvement Program	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400	\$13,689,100
Scenario 2 - Cash Fund CIP; 6-Months Working Capital										
Assessment Increase	1.7%	20.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	71.7%
Capital Improvement Program	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400	\$13,689,100
Scenario 3 - Cash Fund \$1.0 Million Annual CIP										
Assessment Increase	1.7%	11.0%	11.0%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	38.6%
Capital Improvement Program	\$ 1,942,600	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 9,942,600
Scenario 4 - Debt Fund CIP										
Assessment Increase	1.7%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.00%	4.0%	39.2%
Capital Improvement Program	\$ 1,942,600	\$ 1,719,300	\$ 849,700	\$ 1,660,100	\$ 1,248,400	\$ 1,512,700	\$ 1,612,400	\$ 1,765,500	\$ 1,378,400	\$13,689,100
Debt Amount		\$ 2,645,337			\$ 3,575,759			\$ 2,996,260		\$ 9,217,356

- The scenarios developed herein utilize the Capital Improvement Program as developed as part of Willdan Engineering’s Sewer System Management Plan. The scenarios are developed to provide funding of this CIP, or alternative CIP’s as is the case in Scenario 3. The scenarios are also developed to maintain a minimum Sewer Maintenance Fund working capital balance of 9 months of operating expenses (with exception of Scenario 2), and debt service coverage ratio for forecasted debt of 1.50X.
- The Analysis developed herein is intended to provide a forecast of probable Sewer Assessment Revenue increases associated with alternative Capital Improvement Programs developed as part of the Sewer System Management Plan. The Analysis has not included the review of Utility Assessments and provides no opinion with regard to current or future sewer assessments.