
Water & Sewer Rate Study

Prepared for the
Village of Cary

by Trilogy Consulting, LLC
and Clark Dietz Engineers

November 29, 2012



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EXECUTIVE SUMMARY

INTRODUCTION

The Village of Cary owns and operates a public water supply and distribution system and a wastewater collection and treatment system that provides sewer and water service to over 6,000 customers within the Village limits. The Village's Wastewater Treatment Facility treats waste from customers within the Village and municipal water is provided to customers in the Village through ground wells. The Village currently bills customers on a staggered bi-monthly basis for sewer and water service.

The Village last conducted a water and sewer user rate study in November, 2006. The Village had recently implemented a one-percent increase to user rates in May of that year, but had not increased rates prior to that since Fiscal Year (beginning of May to the end of April) 1999-2000. The user rate study presented a number of scenarios of potential rate increases based upon different levels of capital improvement and equipment replacement projects. The Village Board ultimately adopted an approximate six percent increase to user rates that took effect in February, 2008. At the time the user rates were implemented, the Village Board also adopted a resolution implementing an automatic 3.0 percent increase to all user rates through Fiscal Year 2011-2012.

IMPETUS FOR STUDY

The Village has gone a number of years since formally updating the user rates and is planning to implement a number of capital improvements over the next five years in both the sewer and water utilities. For these reasons, the Village hired Trilogy Consulting and Clark/Dietz to conduct a formal Water and Sewer User Rate Study. The study consisted of setting user rates based on a detailed cost of service study for Fiscal Year 2012-2013, as well as projecting user rates for the next five fiscal years. The study also consisted of reviewing the Village's 5-year capital improvement plan for the water and sewer utilities and providing recommendations on the timing and improvements planned. The primary reason to complete the projection of user rates over the next five years was to develop a plan to complete all necessary capital improvement projects while also keeping user rates as stable as possible.

STUDY ANALYSIS AND RESULTS

The results of the study are shown in the following tables 1-10. The study is generally categorized into three areas:

1. An analysis of historical conditions including historical revenues, expenses and usage statistics.
2. Projections and detailed rate calculations for the current test year (FY 2012-2013), including sewer and water usage projections, analysis and allocation of utility operating expenses and allocation of depreciation expenses.
3. Projections for the next five fiscal years, including water and sewer usage projections, and projections of future operating and maintenance expenses. The analysis of the next five fiscal years also takes into consideration the Village's 5-year sewer and water capital improvement plan as well as scheduled annual debt service payments for existing utility debt. Two alternative

cash flow analyses were prepared for the 5-year capital improvement plan. The two scenarios examine the Village funding all capital expenses in the capital improvement plan with reserves versus funding some larger capital expenses with debt issuance and the remaining projects with reserves.

The user rates for the FY 2012-2013 test year are calculated using a utility-based method. The utility-based method calculates rates to recover the cost of operating and maintenance expenses, administrative expenses, depreciation expenses and a return on net investment rate base (ROI), which is a percentage of all utility financed assets net of accumulated depreciation. The ROI is set at a level such that, along with the depreciation expenses, recovers revenues sufficient to fund all annual principal and interest payments for outstanding debt, annual capital outlay expenses and any deposits into an annual equipment replacement or depreciation fund. As it will be shown in the following tables, the user rates are set such to recover all operating and maintenance expenses and depreciation expenses without recovering a ROI, as the depreciation expense is adequate to recover existing debt service payments and a portion of capital outlay expenditures. It is planned that utility reserves will be used to fund the majority of capital outlay expenditures over the next five years.

Table 1 shows the historical revenues and expenditures for both utilities from Fiscal Year 2008-2009 through Fiscal Year 2011-2012. For each fiscal year, the total revenues are shown for the water and sewer utilities, as well as the total expenditures. The bottom of the table shows the total annual revenues net of cash expenditures. The table shows that in 2009 and 2010, the Village had deficits at year end, due to higher debt service payments and capital expenditures in those years and lower revenues from Tap On Fees compared to 2011. The Village also had a deficit in 2012 due to increased capital projects that year.

Table 2 shows historical customer count and consumption statistics for Fiscal Year 2007-2008 through Fiscal Year 2011-2012. The table also shows projections of customer counts, water pumpage and billed water consumption, total sewer inflow and billable sewer consumption for the current fiscal year through Fiscal Year 2017-2018. The table shows that water and sewer consumption has been decreasing annually since 2008. The utilities are seeing higher usage for the first half of the current fiscal year, most likely due to dry conditions during the past summer; therefore, the usage for the current year is projected to be higher than in past years. It is projected that future years will see continued decreases in consumption on an annual basis based on historical consumption patterns until FY 2016-2017, when it is predicted that usage will begin to stabilize.

Table 3 is an analysis projecting revenues and expenditures for the next five fiscal years assuming there is no increase to sewer and water rates. The table shows that the utilities will generate a negative net income, which is total revenues less operating and maintenance and depreciation expense, of \$9,921 starting in FY 2013-2014, which will grow to an annual negative net income of \$484,916 by FY2017-2018. The annual cash flow losses are much higher, as shown on the bottom of Table 3. The net cash flow shown is total revenues less operating and maintenance, annual debt service and capital outlay expenditures. The losses are highest in FY 2013-2014 and FY 2014-2015 due to larger capital

improvement projects in those years. The utilities do have substantial reserves that are able to absorb the annual losses, which are primarily due to the funding of annual capital improvement projects.

Table 4 shows the allocation of operating and maintenance costs to utility functions. The test year (FY 2012-2013) budget was entered into the analysis and the costs were allocated to the water utility, sewer utility and fixed customer costs, for purpose of recovering through the appropriate user rate. Costs allocated to the customer function typically are those that do not depend on the volume of water consumption and sewer use. This study focused on allocating costs related to servicing customers' accounts and meters to the fixed customer charge and they include postage, printing, maintenance on water meters, a percentage of fuel and vehicle costs, a percentage of salaries and benefits which approximates the costs of meter reading, and a percentage of administrative costs. Of the total operating and maintenance budget for FY 2012-2013 of \$2,222,077, \$1,293,305 was allocated to the water utility, \$798,864 was allocated to the sewer utility and \$129,908 was allocated to the fixed customer charge.

Table 5 is the allocation of capital assets to sewer, water and fixed customer cost utility functions. The purpose of this table is to allocate the FY 2012-2013 depreciation expense to the water, sewer and customer functions for recovery through user rates. The costs allocated to the fixed customer charge approximate the costs of water meters and hydrants.

Table 6 shows the determination of the utility revenue requirements and the calculation of user rates for both utilities. The cost allocation analysis from the previous tables is first reduced by revenues other than rates, which include Tap On Fees, Penalties, Meter Sales and other Miscellaneous Revenues, to come up with the revenue requirements for each utility. The total allocated costs to the water, sewer and fixed customer costs are then divided by the appropriate units, which, for water and sewer rates, are the projected volumes for the test year, and, for the fixed customer cost, the projected number of customers in the test year to arrive at a fixed cost per customer. The calculated volumetric rate for water is \$3.70 per 1,000 gallons, which is approximately 7.7 percent lower than the current rate of \$4.01. The calculated sewer user rate of \$3.03 is approximately 9.7 percent higher than the current rate of \$2.76 per 1,000 gallons. The change in the water and sewer rates is due to the revision in the method used to determine the costs allocated to each utility. The utilities' net assets are more heavily invested in sewer facilities versus water facilities, so significant depreciation expenses were shifted from the water rate to the sewer rate. The fixed customer cost is recommended to increase by approximately 4.1 percent from \$2.00 to \$2.08 per month.

Table 7 is a revenue check, showing the projected revenues with calculated user rates compared to the revenue requirements for all utility functions. The table shows that the calculated user rates, combined with the projected consumption, will collect sufficient revenues to fund utility operation and improvement. The difference of \$466 is due to the rounding off of the calculated rates.

Tables 8 and 9 are projections of revenues and expenses and utility reserve balances in the test year and over the next five fiscal years. Table 8 shows projected revenues and expenses over the next five-year period assuming that all capital improvement expenditures over the period will be funded with cash

flow generated through user rates and utility reserves. Table 9 shows projected revenues and expenses over the next five-year period assuming cash flow and reserves will fund the majority of capital improvement projects over the next five years with the exception of two larger water main projects in FY 2013-2014 and FY 2014-2015, which would be funded through debt issuance. Under both scenarios, the calculated user rates for the current fiscal year are assumed to be implemented in the last three months of the year, and an annual 3.0 percent rate increase to all user rates is recommended at the beginning of every fiscal year.

Table 8 shows that if the utilities were to pay for all capital projects with available reserves the utilities would be left with an estimated \$4,851,050 in reserves at the end of FY 2017-2018, of which \$1,349,246 would be restricted. This is substantially less than the current level of reserves, which is approximately \$9 million. This scenario would allow the utilities to accomplish all required capital projects while still keeping enough reserves to meet the restricted fund requirements with additional unrestricted reserves for capital expenses beyond the five-year planning period.

Table 9 assumes that the Village will borrow for water main projects in FY 2013-2014 and FY 2014-2015. If this were to occur it is estimated the Village would have reserves of \$6,704,543 of which \$1,527,367 is reserved at the end of FY 2017-2018. This scenario was prepared to show the implications of borrowing for the two largest capital improvement projects given that interest rates on debt issuance are at historical lows. This scenario gives the Village additional reserves at the end of the planning period to perform future capital improvement projects beyond the five-year planning period. Currently, the Village is anticipating potential upgrades at the Wastewater Treatment Facility beyond the five-year period to address potential EPA-required phosphorus and nitrogen discharge regulations.

Table 10 is a comparison of current and proposed user rates to peer communities. The table shows the total annual charges for water and sewer service assuming usage of 75,000 gallons per year, which is the average usage per customer in the Village of Cary. It is important to note that the total payment for water and sewer service is projected to decrease from \$531.75 to \$529.71 per year for current fiscal year rates.

RECOMMENDATION AND CONCLUSIONS

It is recommended that the Village implement the user rates calculated and shown on Table 6 of this report for the current fiscal year. It is further recommended that the Village implement an annual rate increase of 3.0 percent for all user rates at the beginning of each fiscal year through FY 2017-2018. In addition, it is recommended that the Village use available unrestricted utility reserves to fund the 5-year capital improvement plan. The Village can choose to borrow for the two larger water main projects if desired, but the analysis has shown that there are sufficient unrestricted reserve funds to complete all projects in the 5-year plan.

As this study uses a number of assumptions and projections, Village staff should continue to monitor the utilities' financial situation on an annual basis going forward, using this study as a plan and guide to ensure that the recommended future rates adequately recover revenues, in case conditions change significantly from the projected results.

Table 1 - Historical Revenues and Expenses

Acct	Account Description	2009 Actual ⁽¹⁾ (\$)	2010 Actual ⁽²⁾ (\$)	2011 Actual ⁽²⁾ (\$)	2012 Actual ⁽³⁾ (\$)
REVENUES					
Water Revenues					
20-00-0-0100	Water Revenue	1,763,425	1,779,655	1,731,314	1,785,096
20-00-0-0150	Water User Fee	74,943	151,597	151,571	152,719
20-00-0-0200	Water Tap On Fees	25,090	29,320	101,866	7,728
20-00-0-0300	User Fee	0	0	0	0
20-00-0-0400	Construction Water	348	520	110	55
20-00-0-0550	Late Fees, NSF Fees & Other	0	675	21,706	41,774
20-00-0-0600	Water Meter Sales	5,536	4,029	4,669	1,257
20-00-0-0800	Miscellaneous Water Income	7,635	0	0	2,216
20-00-0-1200	Interest Income	58,944	44,410	56,226	38,065
20-00-0-1500	Bankruptcy & Other Write-Offs	0	0	0	(703)
Sanitation Revenues					
20-00-2-0100	Sewer Revenue	1,225,431	1,191,837	1,213,087	1,217,337
20-00-2-0200	Sewer Tap On Fees	30,666	33,280	125,530	6,656
20-00-2-0800	Miscellaneous Sewer Income	0	0	1,715	1,625
20-00-2-1200	Interest Income	75,459	56,853	46,088	29,291
TOTAL REVENUES		3,267,477	3,292,176	3,453,882	3,283,117
OPERATING EXPENSES					
Water Operations - Personnel					
20-21-1-1000	Employee Wages	446,694	459,748	463,358	424,168
20-21-1-2000	Overtime	34,660	16,563	17,603	17,216
20-21-1-3000	Pay Adjustment for Merit	0	0	0	0
Water Operations - Personnel Benefits					
20-21-2-0102	Employee Life Insurance Premiums		803	567	899
20-21-2-0104	Health Insurance Premiums		69,073	102,203	72,064
20-21-2-0105	Dental Insurance Premiums	75,006	4,738	5,429	5,130
20-21-2-0106	Vision Insurance Premiums		1,678	1,497	1,462
20-21-2-0700	IMRF Expense	65,703	63,447	59,584	60,574
20-21-2-0800	FICA Expense	35,869	36,033	36,168	32,655
20-21-2-7200	Employee Assistance Program	0	0	0	0
Water Operations - Commodities					
20-21-3-0100	Gasoline-Oil	14,967	10,429	12,871	16,082
20-21-3-0250	Laboratory Supplies	12,012	4,219	4,408	4,214
20-21-3-0325	Chemicals	78,229	89,690	96,465	79,087
20-21-3-0350	Uniforms	2,575	3,013	4,174	3,152
20-21-3-0400	Books, Publications & Subs.	692	25	(12)	0
20-21-3-0700	Operating Supplies	9,753	4,723	3,701	3,400
20-21-3-0800	Water Meters	6,765	14,165	8,378	8,263
20-21-3-6500	Other Commodities	3,684	2,515	0	189
20-21-3-7000	Computer Equipment	2,500	877	0	1,635
Water Operations - Services					
20-21-4-0100	Employment Testing Services	0	0	0	0
20-21-4-0110	NI Gas Service		20,357	19,238	18,998
20-21-4-0120	Electricity		178,331	192,179	172,875
20-21-4-0130	Telephone	264,243	7,595	7,726	8,267
20-21-4-0131	Cell Phones		2,137	1,494	2,188
20-21-4-0180	JULIE Expense		374	2,220	962
20-21-4-0200	Postage	7,719	6,329	7,587	9,177
20-21-4-0300	Printing	2,577	2,959	2,913	2,298
20-21-4-0400	Dues and Memberships	523	573	434	577
20-21-4-0500	Travel/Seminar Expenses	1,425	512	1,084	183
20-21-4-0600	Bank Charges	43	55	62	69
20-21-4-0850	Mowing Costs	0	0	0	2,668
Water Operations - Repairs & Maintenance					
20-21-5-0100	Equipment	41,012	34,278	23,989	20,065
20-21-5-0200	Vehicles	6,935	7,441	8,542	6,385
20-21-5-0300	Buildings	13,972	6,176	2,509	2,592

Table 1 - Historical Revenues and Expenses

Acct	Account Description	2009 Actual ⁽¹⁾	2010 Actual ⁽²⁾	2011 Actual ⁽²⁾	2012 Actual ⁽³⁾
		(\$)	(\$)	(\$)	(\$)
20-21-5-0400	Water Mains	8,643	8,004	2,901	6,159
20-21-5-0500	Fire Hydrants	1,052	3,304	5,379	854
20-21-5-0550	Valve Rehabilitation	1,156	4,083	534	126
20-21-5-0600	Compound Meter Testing	3,290	2,302	5,760	3,942
20-21-5-0900	WWTP Replace Grinder	0	8,010	0	0
20-21-5-0901	Water Towers	0	0	3,400	0
20-21-5-6500	Other Repairs & Maintenance	6,282	0	1,527	0
Water Operations - Professional Services					
20-21-6-0200	Legal Fees	198	0	0	0
20-21-6-0300	Audit Fees	3,600	3,190	3,500	3,550
20-21-6-0600	Data Processing	6,798	3,712	3,874	4,685
20-21-6-0900	Water Analysis	24,310	28,499	13,372	10,792
20-21-6-6500	Other Professional Services	2,324	1,003	6,199	5,361
Sanitation Operations - Personnel					
20-22-1-1000	Employee Wages	296,009	294,976	311,251	230,193
20-22-1-2000	Overtime	24,616	14,869	29,561	21,286
20-22-1-3000	Pay Adjustment for Merit	0	0	0	0
Sanitation Operations - Personnel Benefits					
20-22-2-0102	Employee Life Insurance Premiums		482	380	499
20-22-2-0104	Health Insurance Premiums		35,638	51,469	42,179
20-22-2-0105	Dental Insurance Premiums	43,952	2,420	2,959	3,668
20-22-2-0106	Vision Insurance Premiums		832	823	753
20-22-2-0700	IMRF Expense	43,551	40,368	42,652	34,603
20-22-2-0800	FICA Expense	24,005	23,185	25,877	18,541
Sanitation Operations - Commodities					
20-22-3-0100	Gasoline-Oil	9,978	7,015	8,580	11,264
20-22-3-0200	Office Supplies	1,000	89	88	0
20-22-3-0250	Laboratory Supplies	5,242	6,508	5,743	4,399
20-22-3-0325	Chemicals	43,884	25,768	26,561	20,698
20-22-3-0350	Uniforms	1,721	1,562	2,066	2,108
20-22-3-0400	Books, Publications & Subs.	0	17	(8)	0
20-22-3-0700	Operating Supplies	7,297	6,378	4,696	6,097
20-22-3-7000	Computer Equipment	1,487	67	0	1,290
Sanitation Operations - Services					
20-22-4-0100	Employment Testing Services	0	0	0	738
20-22-4-0110	NI Gas Service		13,652	10,303	11,654
20-22-4-0120	Electricity		162,244	138,781	113,352
20-22-4-0130	Telephone	211,393	5,205	6,114	6,674
20-22-4-0131	Cell Phones		0	0	0
20-22-4-0180	JULIE Expense		282	79	845
20-22-4-0200	Postage	4,049	3,720	5,205	6,239
20-22-4-0300	Printing	1,248	1,083	1,151	1,250
20-22-4-0400	Dues and Memberships	252	7,349	68	136
20-22-4-0500	Travel/Seminar Expenses	1,435	699	282	175
20-22-4-0700	Sludge Hauling	14,476	7,998	7,617	18,810
20-22-4-0850	Mowing Costs		0	0	2,939
Sanitation Operations - Repairs & Maintenance					
20-22-5-0100	Equipment	46,081	37,363	28,839	29,483
20-22-5-0200	Vehicles	2,379	3,023	3,544	2,169
20-22-5-0300	Buildings	8,360	3,907	2,736	3,897
20-22-5-0400	Sewer Mains	6,020	557	12	3,258
20-22-5-0500	Digester Brick Work	0	0	9,315	0
20-22-5-0600	Weir & Baffle - Clarifer No 2	0	0	13,120	0
Sanitation Operations - Professional Services					
20-22-6-0200	Legal Fees	793	0	0	0
20-22-6-0300	Audit Fees	2,400	1,694	1,750	1,750
20-22-6-0550	NPDES Permits	0	0	19,000	19,105
20-22-6-0600	Data Processing	2,439	2,518	2,459	2,726
20-22-6-0900	Sewer Analysis	2,750	22,737	4,675	4,586
20-22-6-6500	Other Professional Services	1,687	1,290	634	1,574

Table 1 - Historical Revenues and Expenses

Acct	Account Description	2009 Actual ⁽¹⁾ (\$)	2010 Actual ⁽²⁾ (\$)	2011 Actual ⁽²⁾ (\$)	2012 Actual ⁽³⁾ (\$)
	SUBTOTAL WATER & SANTIATION OPERATIONS	1,993,715	1,846,458	1,901,199	1,641,900
	ADMINISTRATIVE EXPENSES				
20-21-8-0300	Agent Paying Fees	0	921	1,615	1,250
20-21-8-0550	Operating Insurance	152,858	133,827	125,617	125,532
20-21-8-0600	Administrative Services	330,000	330,000	300,000	300,000
	SUBTOTAL ADMINISTRATIVE EXPENSES	482,858	464,748	427,232	426,782
	CAPITAL EXPENSES				
	Water Operations - Capital Expenditures				
20-21-7-0300	Vehicles	75,092	0	0	0
20-21-7-0305	GPS Vehicle Units	0	0	0	0
20-21-7-0700	Meters	0	0	0	0
20-21-7-0902	Emergency Well Replacements	15,565	85,680	133,737	82,314
20-21-7-0909	Well Façade Maintenance	1,200	159	0	190
20-21-7-0927	Water Tower Inspect & Maintain	0	0	0	0
20-21-7-0940	Water Main Replacement	0	0	0	0
20-21-7-0943	Emergency Liftstation Maint.	0	0	0	0
20-21-7-0944	SCADA Upgrade	0	0	0	0
20-21-7-0945	WWTP New Roof	0	38,294	0	0
	Water Operations - Debt Service				
20-21-9-0100	Bond Principal	325,000	342,000	237,000	246,000
20-21-9-0200	Bond Interest	128,137	115,965	60,797	53,123
	Sanitation Operations - Capital Expenditures				
20-22-7-0425	Channel Grinder	4,687	4,488	9,625	0
20-22-7-0500	Sandblast & Repaint Equipment	1,254	57,000	0	0
20-22-7-0920	Sanitary Sewer	9,008	4,379	0	0
20-22-7-0925	Sanitary Sewer Line	0	0	0	339,228
20-22-7-0928	Emergency Liftstation Maint.	0	0	0	2,998
	Sanitation Operations - Debt Service				
20-22-9-0100	Bond Principal	221,399	228,000	158,000	164,000
20-22-9-0200	Bond Interest	84,513	77,326	40,531	35,415
20-22-9-0300	IEPA Loan Principal	300,000	319,454	327,716	336,193
20-22-9-0400	IEPA Loan Interest	154,878	146,111	137,848	129,372
	SUBTOTAL CAPITAL EXPENSES	1,320,733	1,418,856	1,105,254	1,388,833
	TOTAL EXPENSES	3,797,306	3,730,062	3,433,685	3,457,515
	Revenues less expenses (not including depreciation)	(529,829)	(437,886)	20,197	(174,398)

Notes:

- (1) Source: FY 2009 Comprehensive Annual Financial Report.
- (2) Source: FY 2013 Detailed Budget Report.
- (3) Source: FY 2012 Detailed Revenue & Expense Report.

Table 2 - Historical Customer Consumption and Customer Projections

	<u>Water Utility</u>				<u>Sewer Utility</u>				
	Average No. Customers	Total Water System Delivery (1000 gals)	% Lost Water	Billable Water Consumption (1000 gals)	Average Consumption / Customer (gallons)	Total Customers	Total Sewer Inflow (1000 gals)	Inflow / Infiltration	Billable Sewer Consumption (1000 gals)
FY 2008 Actual		645,786	17%	530,446			595,043	11%	530,446
FY 2009 Actual		621,930	18%	504,911			582,318	13%	504,911
FY 2010 Actual		603,042	21%	472,924			576,712	18%	472,924
FY 2011 Actual	6,223	599,820	20%	477,241	76,690	6,223	567,887	16%	477,241
FY 2012 Actual	6,226	577,966	20%	456,313	73,293	6,226	543,760	16%	456,313
FY 2013 Projection	6,226	585,742	20%	466,913	75,000	6,206	555,626	16%	465,413
FY 2014 Projection	6,229	553,928	18%	448,452	72,000	6,209	529,173	16%	447,012
FY 2015 Projection	6,232	537,959	17%	442,437	71,000	6,212	522,075	16%	441,017
FY 2016 Projection	6,235	518,003	15%	436,415	70,000	6,215	514,970	16%	435,015
FY 2017 Projection	6,238	509,825	14%	436,625	70,000	6,218	515,218	16%	435,225
FY 2018 Projection	6,241	505,855	13%	436,835	70,000	6,221	515,465	16%	435,435

Table 3 - Projected Revenues and Expenses with No Increase in Rates

Acct	Account Description	2013 Budget ⁽¹⁾	2014 Budget ⁽²⁾	2015 Budget ⁽²⁾	2016 Budget ⁽²⁾	2017 Budget ⁽²⁾	2018 Budget ⁽²⁾
		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
REVENUES							
Water Revenues							
20-00-0-0100	Water Revenue	1,872,319	1,798,293	1,774,170	1,750,024	1,750,866	1,751,708
20-00-0-0150	Water User Fee	149,340	149,412	149,484	149,556	149,628	149,700
20-00-0-0200	Water Tap On Fees	0	17,592	17,592	17,592	17,592	17,592
20-00-0-0300	User Fee	0	0	0	0	0	0
20-00-0-0400	Construction Water	0	300	300	300	300	300
20-00-0-0550	Late Fees, NSF Fees & Other	30,000	30,000	30,000	30,000	30,000	30,000
20-00-0-0600	Water Meter Sales	1,000	1,250	1,250	1,250	1,250	1,250
20-00-0-0800	Miscellaneous Water Income	0	0	0	0	0	0
20-00-0-1200	Interest Income	10,000	24,071	18,053	13,540	11,509	10,358
20-00-0-1500	Bankruptcy & Other Write-Offs	0	0	0	0	0	0
Sanitation Revenues							
20-00-2-0100	Sewer Revenue	1,284,539	1,233,753	1,217,206	1,200,641	1,201,221	1,201,801
20-00-2-0200	Sewer Tap On Fees	0	19,968	19,968	19,968	19,968	19,968
20-00-2-0800	Miscellaneous Sewer Income	0	0	0	0	0	0
20-00-2-1200	Interest Income	8,000	19,257	14,443	10,832	9,207	8,287
TOTAL REVENUES		3,355,198	3,293,896	3,242,466	3,193,704	3,191,542	3,190,964
OPERATING EXPENSES							
Water Operations - Personnel							
20-21-1-1000	Employee Wages	455,300	464,930	480,135	494,539	509,375	524,656
20-21-1-2000	Overtime	18,000	18,000	18,000	18,000	18,000	18,000
20-21-1-3000	Pay Adjustment for Merit	0	0	0	0	0	0
Water Operations - Personnel Benefits							
20-21-2-0102	Employee Life Insurance Premiums	995	1,000	1,000	1,000	1,000	1,000
20-21-2-0104	Health Insurance Premiums	61,562	63,131	67,152	71,853	76,882	82,264
20-21-2-0105	Dental Insurance Premiums	5,605	5,825	6,077	6,502	6,958	7,445
20-21-2-0106	Vision Insurance Premiums	1,700	1,700	1,700	1,700	1,700	1,700
20-21-2-0700	IMRF Expense	63,777	67,104	71,075	73,918	77,614	81,495
20-21-2-0800	FICA Expense	34,830	35,567	36,730	37,832	38,967	40,136
20-21-2-7200	Employee Assistance Program	150	150	153	156	159	162
Water Operations - Commodities							
20-21-3-0100	Gasoline-Oil	17,000	17,510	18,035	18,576	19,134	19,708
20-21-3-0250	Laboratory Supplies	4,950	5,000	5,000	5,000	5,000	5,000
20-21-3-0325	Chemicals	91,250	88,883	88,910	88,180	89,392	91,356
20-21-3-0350	Uniforms	3,300	3,300	3,300	3,300	3,300	3,300
20-21-3-0400	Books, Publications & Subs.	150	150	150	150	150	150
20-21-3-0700	Operating Supplies	4,000	4,000	4,000	4,000	4,000	4,000
20-21-3-0800	Water Meters	12,000	10,000	10,000	10,000	10,000	10,000
20-21-3-6500	Other Commodities	8,500	3,000	3,000	3,000	3,000	3,000
20-21-3-7000	Computer Equipment	1,200	1,250	1,250	1,250	1,250	1,250
Water Operations - Services							
20-21-4-0100	Employment Testing Services	0	0	0	0	0	0
20-21-4-0110	NI Gas Service	20,000	19,481	19,487	19,327	19,593	20,023
20-21-4-0120	Electricity	190,000	185,071	185,127	183,608	186,131	190,221
20-21-4-0130	Telephone	7,500	7,725	7,957	8,195	8,441	8,695
20-21-4-0131	Cell Phones	3,000	3,000	3,000	3,000	3,000	3,000
20-21-4-0180	JULIE Expense	1,000	1,000	1,000	1,000	1,000	1,000
20-21-4-0200	Postage	9,500	9,690	9,884	10,081	10,283	10,489
20-21-4-0300	Printing	1,700	1,500	1,500	1,500	1,500	1,500
20-21-4-0400	Dues and Memberships	500	500	500	500	500	500
20-21-4-0500	Travel/Seminar Expenses	900	900	900	900	900	900
20-21-4-0600	Bank Charges	50	60	60	60	60	60
20-21-4-0850	Mowing Costs	3,000	3,000	3,000	3,000	3,000	3,000
Water Operations - Repairs & Maintenance							
20-21-5-0100	Equipment	39,800	32,000	32,960	33,949	34,967	36,016
20-21-5-0200	Vehicles	8,000	8,000	8,000	8,000	8,000	8,000
20-21-5-0300	Buildings	5,000	5,000	5,000	5,000	5,000	5,000
20-21-5-0400	Water Mains	8,000	8,000	8,000	8,000	8,000	8,000
20-21-5-0500	Fire Hydrants	3,800	3,000	3,000	3,000	3,000	3,000
20-21-5-0550	Valve Rehabilitation	3,500	2,000	2,000	2,000	2,000	2,000
20-21-5-0600	Compound Meter Testing	7,700	5,000	5,000	5,000	5,000	5,000
20-21-5-0900	WWTP Replace Grinder	0	0	0	0	0	0
20-21-5-0901	Water Towers	0	0	0	0	0	0
20-21-5-6500	Other Repairs & Maintenance	0	1,500	1,500	1,500	1,500	1,500
Water Operations - Professional Services							
20-21-6-0200	Legal Fees	4,500	0	0	0	0	0
20-21-6-0300	Audit Fees	3,000	3,500	3,605	3,713	3,825	3,939
20-21-6-0600	Data Processing	4,775	4,918	5,066	5,218	5,374	5,536
20-21-6-0900	Water Analysis	24,500	24,500	24,500	24,500	24,500	24,500
20-21-6-6500	Other Professional Services	11,650	5,500	5,665	5,835	6,010	6,190
Sanitation Operations - Personnel							
20-22-1-1000	Employee Wages	229,936	235,028	243,050	250,342	257,852	265,587
20-22-1-2000	Overtime	30,000	30,000	30,000	30,000	30,000	30,000
20-22-1-3000	Pay Adjustment for Merit	0	0	0	0	0	0
Sanitation Operations - Personnel Benefits							

Table 3 - Projected Revenues and Expenses with No Increase in Rates

Acct	Account Description	2013 Budget ⁽¹⁾	2014 Budget ⁽²⁾	2015 Budget ⁽²⁾	2016 Budget ⁽²⁾	2017 Budget ⁽²⁾	2018 Budget ⁽²⁾
		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
20-22-2-0102	Employee Life Insurance Premiums	530	500	500	500	500	500
20-22-2-0104	Health Insurance Premiums	29,954	31,294	32,424	34,694	37,122	39,721
20-22-2-0105	Dental Insurance Premiums	2,631	2,772	2,825	3,023	3,234	3,461
20-22-2-0106	Vision Insurance Premiums	841	841	841	841	841	841
20-22-2-0700	IMRF Expense	32,245	33,922	35,980	37,419	38,916	40,473
20-22-2-0800	FICA Expense	17,590	17,980	18,593	19,151	19,726	20,317
	Sanitation Operations - Commodities						
20-22-3-0100	Gasoline-Oil	11,000	11,330	11,670	12,020	12,381	12,752
20-22-3-0200	Office Supplies	0	100	100	100	100	100
20-22-3-0250	Laboratory Supplies	4,500	5,300	5,406	5,514	5,624	5,737
20-22-3-0325	Chemicals	32,000	31,391	31,899	32,409	33,397	34,415
20-22-3-0350	Uniforms	1,850	2,000	2,000	2,000	2,000	2,000
20-22-3-0400	Books, Publications & Subs.	0	0	0	0	0	0
20-22-3-0700	Operating Supplies	6,000	6,000	6,000	6,000	6,000	6,000
20-22-3-7000	Computer Equipment	3,500	1,300	1,300	1,300	1,300	1,300
	Sanitation Operations - Services						
20-22-4-0100	Employment Testing Services	0	0	0	0	0	0
20-22-4-0110	NI Gas Service	17,000	16,676	16,946	17,217	17,742	18,283
20-22-4-0120	Electricity	150,000	147,144	149,526	151,916	156,548	161,322
20-22-4-0130	Telephone	7,000	7,210	7,426	7,649	7,879	8,115
20-22-4-0131	Cell Phones	1,500	1,500	1,500	1,500	1,500	1,500
20-22-4-0180	JULIE Expense	1,000	1,000	1,000	1,000	1,000	1,000
20-22-4-0200	Postage	6,500	6,630	6,763	6,898	7,036	7,177
20-22-4-0300	Printing	1,100	1,200	1,200	1,200	1,200	1,200
20-22-4-0400	Dues and Memberships	280	250	250	250	250	250
20-22-4-0500	Travel/Seminar Expenses	1,000	750	750	750	750	750
20-22-4-0700	Sludge Hauling	14,800					
20-22-4-0850	Mowing Costs	3,500	3,500	3,500	3,500	3,500	3,500
	Sanitation Operations - Repairs & Maintenance						
20-22-5-0100	Equipment	35,500	36,565	37,662	38,792	39,956	41,154
20-22-5-0200	Vehicles	3,200	3,000	3,090	3,183	3,278	3,377
20-22-5-0300	Buildings	4,000	4,500	4,635	4,774	4,917	5,065
20-22-5-0400	Sewer Mains	3,000	2,600	2,600	2,600	2,600	2,600
20-22-5-0500	Digester Brick Work	14,300	0	0	0	0	0
20-22-5-0600	Weir & Baffle - Clarifer No 2	0	0	0	0	0	0
	Sanitation Operations - Professional Services						
20-22-6-0200	Legal Fees	3,000	0	0	0	0	0
20-22-6-0300	Audit Fees	1,500	1,500	1,500	1,500	1,500	1,500
20-22-6-0550	NPDES Permits	20,000	20,600	21,218	21,855	22,510	23,185
20-22-6-0600	Data Processing	2,775	2,858	2,944	3,032	3,123	3,217
20-22-6-0900	Sewer Analysis	7,400	8,400	8,400	8,400	8,400	8,400
20-22-6-6500	Other Professional Services	6,500	1,500	1,500	1,500	1,500	1,500
	SUBTOTAL WATER & SANTIATION OPERATIONS	1,853,077	1,802,487	1,847,376	1,888,670	1,941,647	1,998,991
	ADMINISTRATIVE EXPENSES						
20-21-8-0300	Agent Paying Fees	2,000	2,000	2,000	2,000	2,000	2,000
20-21-8-0550	Operating Insurance	117,000	117,000	117,000	117,000	117,000	117,000
20-21-8-0600	Administrative Services	250,000	250,000	250,000	250,000	250,000	250,000
	SUBTOTAL ADMINISTRATIVE EXPENSES	369,000	369,000	369,000	369,000	369,000	369,000
	DEPRECIATION EXPENSE	1,119,547	1,132,330	1,203,224	1,259,000	1,291,448	1,307,889
	TOTAL EXPENSES	3,341,624	3,303,816	3,419,601	3,516,671	3,602,095	3,675,880
	NET INCOME	13,574	(9,921)	(177,135)	(322,967)	(410,553)	(484,916)
	CAPITAL EXPENSES						
	Water Operations - Capital Expenditures						
20-21-7-0300	Vehicles	0	26,523	165,002	351,000	92,742	217,318
20-21-7-0305	GPS Vehicle Units	0	0	0	0	0	0
20-21-7-0700	Meters	210,330	187,200	172,200	172,200	134,070	0
20-21-7-0902	Emergency Well Replacements	0	0	0	0	0	0
20-21-7-0909	Well Maintenance	9,500	49,600	50,400	70,400	51,200	51,200
20-21-7-0927	Water Tower Inspect & Maintain	0	10,000	275,000	275,000	0	0
20-21-7-0940	Water Main Replacement	46,750	1,252,800	1,113,600	0	0	0
20-21-7-0943	Emergency Liftstation Maint.	0	0	0	0	0	0
20-21-7-0944	SCADA Upgrade	87,000	20,000	20,000	10,000	10,000	10,000
20-21-7-0945	WWTP New Roof	0	0	0	0	0	0
	Water Operations - Debt Service						
20-21-9-0100	Bond Principal	249,000	264,000	273,000	174,000	183,000	0
20-21-9-0200	Bond Interest	44,909	34,760	23,798	13,750	7,138	0
	Sanitation Operations - Capital Expenditures						
20-22-7-0425	Channel Grinder	0	0	0	0	0	0
20-22-7-0500	Sandblast & Repaint Equipment	0	2,500	0	0	175,000	0
	Digester Maintenance	0	0	10,000	130,000	0	0

Table 3 - Projected Revenues and Expenses with No Increase in Rates

Acct	Account Description	2013 Budget ⁽¹⁾ (\$)	2014 Budget ⁽²⁾ (\$)	2015 Budget ⁽²⁾ (\$)	2016 Budget ⁽²⁾ (\$)	2017 Budget ⁽²⁾ (\$)	2018 Budget ⁽²⁾ (\$)
	Comminutor	3,000	3,000	3,000	3,000	3,000	3,000
	RAS Variable Flex Drive	6,000	0	0	0	0	0
	Generator Maintenance	25,000	25,000	25,000	25,000	25,000	25,000
	Capital Equipment Replacement	25,000	25,000	25,000	25,000	25,000	25,000
20-22-7-0920	Sanitary Sewer	0	761,523	0	0	0	0
20-22-7-0925	Sanitary Sewer Line	0	0	0	0	0	0
20-22-7-0928	Emergency Liftstation Maint.	13,500	0	0	20,000	32,000	35,000
	Sanitation Operations - Debt Service						
20-22-9-0100	Bond Principal	166,000	176,000	182,000	116,000	122,000	0
20-22-9-0200	Bond Interest	29,939	23,174	15,865	9,166	4,758	0
20-22-9-0300	IEPA Loan Principal	344,888	353,809	362,960	372,349	381,979	391,859
20-22-9-0400	IEPA Loan Interest	120,676	111,756	102,605	93,217	83,586	73,706
	SUBTOTAL CAPITAL EXPENSES	1,381,492	3,326,645	2,819,430	1,860,082	1,330,473	832,083
	TOTAL CASH EXPENSES	3,603,569	5,498,132	5,035,806	4,117,752	3,641,120	3,200,074
	NET CASH FLOW	(248,371)	(2,204,236)	(1,793,340)	(924,049)	(449,578)	(9,110)
	BEGINNING OF YEAR FUND BALANCE	9,070,701	8,822,330	6,618,094	4,824,754	3,900,705	3,451,127
	CASH FLOW	(248,371)	(2,204,236)	(1,793,340)	(924,049)	(449,578)	(9,110)
	END OF YEAR FUND BALANCE	8,822,330	6,618,094	4,824,754	3,900,705	3,451,127	3,442,016
	RESTRICTED FUNDS	1,835,020	1,827,533	1,653,507	1,656,948	1,344,467	1,349,246

Notes:

(1) Source: FY 2013 Detailed Budget Report.

(2) Projected.

(3) Per the Village of Cary Revenue Bond Ordinance the restricted funds consist of one month of operating and maintenance expenses plus one year of the maximum principal and interest payments outstanding, plus 4.75% of the value of the water and wastewater system. Source: Village of Cary Financial Statements April 30, 2012.

Table 4 - Allocation of Operation and Maintenance Expenses to Utility Functions

Acct	Account Description	2013 Budget (\$)	UTILITY FUNCTIONS		
			Water (\$)	Sewer (\$)	Customer (\$)
Water Operations - Personnel					
20-21-1-1000	Employee Wages	455,300	435,300	0	20,000
20-21-1-2000	Overtime	18,000	18,000	0	0
20-21-1-3000	Pay Adjustment for Merit	0	0	0	0
Water Operations - Personnel Benefits					
20-21-2-0102	Employee Life Insurance Premiums	995	951	0	44
20-21-2-0104	Health Insurance Premiums	61,562	58,858	0	2,704
20-21-2-0105	Dental Insurance Premiums	5,605	5,359	0	246
20-21-2-0106	Vision Insurance Premiums	1,700	1,625	0	75
20-21-2-0700	IMRF Expense	63,777	60,975	0	2,802
20-21-2-0800	FICA Expense	34,830	33,300	0	1,530
20-21-2-7200	Employee Assistance Program	150	143	0	7
Water Operations - Commodities					
20-21-3-0100	Gasoline-Oil	17,000	13,600	0	3,400
20-21-3-0250	Laboratory Supplies	4,950	4,950	0	0
20-21-3-0325	Chemicals	91,250	91,250	0	0
20-21-3-0350	Uniforms	3,300	3,300	0	0
20-21-3-0400	Books, Publications & Subs.	150	150	0	0
20-21-3-0700	Operating Supplies	4,000	4,000	0	0
20-21-3-0800	Water Meters	12,000	0	0	12,000
20-21-3-6500	Other Commodities	8,500	8,500	0	0
20-21-3-7000	Computer Equipment	1,200	1,200	0	0
Water Operations - Services					
20-21-4-0100	Employment Testing Services	0	0	0	0
20-21-4-0110	NI Gas Service	20,000	20,000	0	0
20-21-4-0120	Electricity	190,000	190,000	0	0
20-21-4-0130	Telephone	7,500	7,500	0	0
20-21-4-0131	Cell Phones	3,000	3,000	0	0
20-21-4-0180	JULIE Expense	1,000	1,000	0	0
20-21-4-0200	Postage	9,500	0	0	9,500
20-21-4-0300	Printing	1,700	0	0	1,700
20-21-4-0400	Dues and Memberships	500	500	0	0
20-21-4-0500	Travel/Seminar Expenses	900	900	0	0
20-21-4-0600	Bank Charges	50	50	0	0
20-21-4-0850	Mowing Costs	3,000	3,000	0	0
Water Operations - Repairs & Maintenance					
20-21-5-0100	Equipment	39,800	39,800	0	0
20-21-5-0200	Vehicles	8,000	6,400	0	1,600
20-21-5-0300	Buildings	5,000	5,000	0	0
20-21-5-0400	Water Mains	8,000	8,000	0	0
20-21-5-0500	Fire Hydrants	3,800	0	0	3,800
20-21-5-0550	Valve Rehabilitation	3,500	3,500	0	0
20-21-5-0600	Compound Meter Testing	7,700	0	0	7,700
20-21-5-0900	WWTP Replace Grinder	0	0	0	0
20-21-5-0901	Water Towers	0	0	0	0
20-21-5-6500	Other Repairs & Maintenance	0	0	0	0
Water Operations - Professional Services					
20-21-6-0200	Legal Fees	4,500	4,500	0	0
20-21-6-0300	Audit Fees	3,000	3,000	0	0
20-21-6-0600	Data Processing	4,775	4,775	0	0
20-21-6-0900	Water Analysis	24,500	24,500	0	0
20-21-6-6500	Other Professional Services	11,650	11,650	0	0
Sanitation Operations - Personnel					
20-22-1-1000	Employee Wages	229,936	0	209,936	20,000
20-22-1-2000	Overtime	30,000	0	30,000	0
20-22-1-3000	Pay Adjustment for Merit	0	0	0	0
Sanitation Operations - Personnel Benefits					
20-22-2-0102	Employee Life Insurance Premiums	530	0	484	46
20-22-2-0104	Health Insurance Premiums	29,954	0	27,349	2,605

Table 4 - Allocation of Operation and Maintenance Expenses to Utility Functions

Acct	Account Description	2013 Budget (\$)	UTILITY FUNCTIONS		
			Water (\$)	Sewer (\$)	Customer (\$)
20-22-2-0105	Dental Insurance Premiums	2,631	0	2,402	229
20-22-2-0106	Vision Insurance Premiums	841	0	768	73
20-22-2-0700	IMRF Expense	32,245	0	29,440	2,805
20-22-2-0800	FICA Expense	17,590	0	16,060	1,530
Sanitation Operations - Commodities					
20-22-3-0100	Gasoline-Oil	11,000	0	8,800	2,200
20-22-3-0200	Office Supplies	0	0	0	0
20-22-3-0250	Laboratory Supplies	4,500	0	4,500	0
20-22-3-0325	Chemicals	32,000	0	32,000	0
20-22-3-0350	Uniforms	1,850	0	1,850	0
20-22-3-0400	Books, Publications & Subs.	0	0	0	0
20-22-3-0700	Operating Supplies	6,000	0	6,000	0
20-22-3-7000	Computer Equipment	3,500	0	3,500	0
Sanitation Operations - Services					
20-22-4-0100	Employment Testing Services	0	0	0	0
20-22-4-0110	NI Gas Service	17,000	0	17,000	0
20-22-4-0120	Electricity	150,000	0	150,000	0
20-22-4-0130	Telephone	7,000	0	7,000	0
20-22-4-0131	Cell Phones	1,500	0	1,500	0
20-22-4-0180	JULIE Expense	1,000	0	1,000	0
20-22-4-0200	Postage	6,500	0	0	6,500
20-22-4-0300	Printing	1,100	0	0	1,100
20-22-4-0400	Dues and Memberships	280	0	280	0
20-22-4-0500	Travel/Seminar Expenses	1,000	0	1,000	0
20-22-4-0700	Sludge Hauling	14,800	0	14,800	0
20-22-4-0850	Mowing Costs	3,500	0	0	3,500
Sanitation Operations - Repairs & Maintenance					
20-22-5-0100	Equipment	35,500	0	35,500	0
20-22-5-0200	Vehicles	3,200	0	2,560	640
20-22-5-0300	Buildings	4,000	0	4,000	0
20-22-5-0400	Sewer Mains	3,000	0	3,000	0
20-22-5-0500	Digester Brick Work	14,300	0	14,300	0
20-22-5-0600	Weir & Baffle - Clarifer No 2	0	0	0	0
Sanitation Operations - Professional Services					
20-22-6-0200	Legal Fees	3,000	0	3,000	0
20-22-6-0300	Audit Fees	1,500	0	1,500	0
20-22-6-0550	NPDES Permits	20,000	0	20,000	0
20-22-6-0600	Data Processing	2,775	0	2,775	0
20-22-6-0900	Sewer Analysis	7,400	0	7,400	0
20-22-6-6500	Other Professional Services	6,500	0	6,500	0
SUBTOTAL		1,853,077	1,078,537	666,204	108,335
PERCENTAGE			58.20%	35.95%	5.85%
ADMINISTRATIVE EXPENSES					
20-21-8-0300	Agent Paying Fees	2,000	1,164	719	117
20-21-8-0550	Operating Insurance	117,000	68,097	42,063	6,840
20-21-8-0600	Administrative Services	250,000	145,506	89,878	14,616
SUBTOTAL		369,000	214,767	132,660	21,573
TOTAL		<u>2,222,077</u>	<u>1,293,305</u>	<u>798,864</u>	<u>129,908</u>

Table 5 - Allocation of Capital Assets to Utility Functions

Account Description	Total Assets @ FYE 2012 (\$)	UTILITY FUNCTIONS			FY 2013 Depreciaton (\$)	UTILITY FUNCTIONS		
		Water (\$)	Sewer (\$)	Customer (\$)		Water (\$)	Sewer (\$)	Customer (\$)
Land								
Land	356,539	141,461	208,307	6,772				
Buildings								
Main Control Building	723,500	287,057	422,702	13,741	16,078	6,379	9,393	305
Roof - Waste Water Treatment Plant	37,500	0	37,500	0	1,875	0	1,875	0
Machinery & Equipment								
Well #9	73,100	73,100	0	0	0	0	0	0
Filter, Iron Removal	64,400	64,400	0	0	0	0	0	0
Motor Control Panel	65,300	65,300	0	0	0	0	0	0
Iron Removal Filter	60,600	60,600	0	0	0	0	0	0
Iron Removal Filter	52,400	52,400	0	0	0	0	0	0
Iron Removal Filter	52,500	52,500	0	0	0	0	0	0
Iron Removal Filter	52,400	52,400	0	0	0	0	0	0
Iron Removal Filter	51,600	51,600	0	0	0	0	0	0
Computerized Symetec Sys.	2,062,700	1,031,350	1,031,350	0	0	0	0	0
Georgetown PRS	63,800	63,800	0	0	0	0	0	0
Well #4	124,700	124,700	0	0	0	0	0	0
Well #6	129,500	129,500	0	0	0	0	0	0
Well #10	68,200	68,200	0	0	0	0	0	0
Well #11	74,700	74,700	0	0	0	0	0	0
Well #12	93,200	93,200	0	0	0	0	0	0
Sewer Camera	48,252	0	48,252	0	6,893	0	6,893	0
Skidsteer #519	40,877	20,439	20,439	0	5,840	2,920	2,920	0
Well #13 Stage	15,565	15,565	0	0	2,224	2,224	0	0
Well #4 & #9 - Work in progress	25,151	25,151	0	0	3,593	3,593	0	0
Well #13 Pump & Motor	60,529	60,529	0	0	8,647	8,647	0	0
Cambria Liftstation Pump #2	7,388	0	7,388	0	1,055	0	1,055	0
Pump & Well Repair - #4 & #9	96,531	96,531	0	0	19,306	19,306	0	0
Pump & Well Repair - #12	37,207	37,207	0	0	7,441	7,441	0	0
Well #13 Install Pump & Motor	62,184	62,184	0	0	0	0	0	0
Vehicles								
2008 Ford F250 Pickup	20,995	8,330	12,266	399	4,199	1,666	2,453	80
2008 Ford F250 Pickup	31,625	12,548	18,477	601	6,325	2,510	3,695	120
2008 Ford F350 Pickup	33,381	13,244	19,503	634	3,338	1,324	1,950	63
Reservoirs								
Water Tower #1	181,200	181,200	0	0	0	0	0	0
Water Tower #2	516,700	516,700	0	0	0	0	0	0
Water Tower #3	435,200	435,200	0	0	0	0	0	0
Water Tower #4	655,600	655,600	0	0	26,224	26,224	0	0
Water Tower #2 repainting	131,262	131,262	0	0	5,250	5,250	0	0

Table 5 - Allocation of Capital Assets to Utility Functions

Account Description	Total Assets @ FYE 2012 (\$)	UTILITY FUNCTIONS			FY 2013 Depreciaton (\$)	UTILITY FUNCTIONS		
		Water	Sewer	Customer		Water	Sewer	Customer
		(\$)	(\$)	(\$)		(\$)	(\$)	(\$)
Lift Stations								
Greenfields Lift Station	17,824	0	17,824	0	713	0	713	0
Greenfields Lift Station	443,416	0	443,416	0	17,737	0	17,737	0
Fox Trails Lift Station	108,278	0	108,278	0	4,331	0	4,331	0
Fox Trails Lift Station	65,480	0	65,480	0	2,619	0	2,619	0
Hillhurst Lift Station	68,638	0	68,638	0	2,746	0	2,746	0
Wells								
Well #13 Test Drill	1,186,000	1,186,000	0	0	47,440	47,440	0	0
Well #13 Test Drill	1,840,624	1,840,624	0	0	73,625	73,625	0	0
Wellhouse 8 and 9	322,400	322,400	0	0	12,896	12,896	0	0
Well #12	25,457	25,457	0	0	1,018	1,018	0	0
Well #8	19,154	19,154	0	0	766	766	0	0
Well #3 and #10	38,089	38,089	0	0	1,524	1,524	0	0
Water Piping, Meters, Vaults, Fire Hydrants								
Water Mains and Ext.	1,485,659	1,337,093	0	148,566	59,426	53,484	0	5,943
Cary and Spring CDBG Proj.	556,027	500,424	0	55,603	22,241	20,017	0	2,224
W. Main St. Project	114,921	103,429	0	11,492	4,597	4,137	0	460
W. Main W&S Reconstruction	33,923	30,531	0	3,392	1,357	1,221	0	136
Jandus Rd WWTP Sewer	355,282	319,754	0	35,528	14,211	12,790	0	1,421
Jandus Rd WWTP Sewer	156,648	140,983	0	15,665	6,266	5,639	0	627
W Main - High St	193,456	174,110	0	19,346	7,738	6,964	0	774
W. Main W&S Reconstruction	202,790	182,511	0	20,279	8,112	7,300	0	811
Jandus Rd WWTP Sewer	60,928	54,835	0	6,093	2,437	2,193	0	244
Water Main Replacement	1,232,967	1,109,670	0	123,297	49,319	44,387	0	4,932
Water Mains - Hilltop	353,009	317,708	0	35,301	14,120	12,708	0	1,412
Hilltop Subdivision	26,644	23,980	0	2,664	1,066	959	0	107
Route 14 Water Line	629,725	566,753	0	62,973	25,189	22,670	0	2,519
Route 14 Water Line	83,027	74,724	0	8,303	3,321	2,989	0	332
Alma, James Way	192,032	172,829	0	19,203	7,681	6,913	0	768
Alma, James Way	88,530	79,677	0	8,853	3,541	3,187	0	354
Maplewood - Water Main	345,407	310,866	0	34,541	13,816	12,435	0	1,382
Maplewood - Water Main	66,646	59,981	0	6,665	2,666	2,399	0	267
East Main - Water Main	18,576	16,718	0	1,858	743	669	0	74
Oriole Trail Water Main	302,537	272,283	0	30,254	12,101	10,891	0	1,210
Sewer / Storm Sewer (i.e. Pipe, Manholes, Vaults)								
Sewer System	4,910,670	0	4,910,670	0	196,427	0	196,427	0
Veterns Park Sewer	219,068	0	219,068	0	8,763	0	8,763	0
Veterns Park Sewer	51,170	0	51,170	0	2,047	0	2,047	0
Sherwood, Bell, Pear	63,134	0	63,134	0	2,525	0	2,525	0
Krenz & Seebert	49,959	0	49,959	0	1,998	0	1,998	0

Table 5 - Allocation of Capital Assets to Utility Functions

Account Description	Total Assets @ FYE 2012 (\$)	UTILITY FUNCTIONS			FY 2013 Depreciaton (\$)	UTILITY FUNCTIONS		
		Water	Sewer	Customer		Water	Sewer	Customer
		(\$)	(\$)	(\$)		(\$)	(\$)	(\$)
Krenz & Seebert	9,576	0	9,576	0	383	0	383	0
Sherwood, Bell, Pear	270,478	0	270,478	0	10,819	0	10,819	0
Burton Ave.	3,045	0	3,045	0	122	0	122	0
Hanson Sub-D Sanitary Sewer System Rehab	339,228	0	339,228	0	2,262	0	2,262	0
Treatment Plants								
Trickling Filter - Secondary	317,800	0	317,800	0	0	0	0	0
Return Activated Sludge	101,500	0	101,500	0	4,060	0	4,060	0
Final Clarifier	332,800	0	332,800	0	0	0	0	0
Final Clarifier	332,800	0	332,800	0	13,312	0	13,312	0
Solids Thickener	215,300	0	215,300	0	0	0	0	0
Sludge Drying Beds	461,600	0	461,600	0	18,464	0	18,464	0
Sludge Drying Beds	21,000	0	21,000	0	0	0	0	0
Vacuum Assisted Drying Bed	276,400	0	276,400	0	0	0	0	0
Digester Primary	590,900	0	590,900	0	23,636	0	23,636	0
Contact Basin	299,100	0	299,100	0	0	0	0	0
Waste Water Treatment Plant	2,000,000	0	2,000,000	0	0	0	0	0
WWTP Expansion	156,713	0	156,713	0	6,269	0	6,269	0
WWTP Expansion	260,699	0	260,699	0	10,428	0	10,428	0
WWTP Expansion	2,149,512	0	2,149,512	0	85,980	0	85,980	0
WWTP Expansion	4,626,566	0	4,626,566	0	185,063	0	185,063	0
WWTP Expansion	64,320	0	64,320	0	2,573	0	2,573	0
Digester Primary - Compressor	19,129	0	19,129	0	765	0	765	0
TOTAL	35,382,847	14,038,541	20,672,286	672,020	1,119,547	458,708	634,276	26,564
		40%	58%	2%		41%	57%	2%

Table 6 - Allocation of Revenue Requirements to Utility Functions and Rate Calculation

	FY 2013 (\$)	UTILITY FUNCTIONS		
		Water (\$)	Sewer (\$)	Customer (\$)
Operation & Maintenance Expenses	2,222,077	1,293,305	798,864	129,908
Depreciation Expense	1,119,547	458,708	634,276	26,564
Other Revenues	49,000	24,000	24,000	1,000
Total Revenue Requirements	3,292,624	1,728,013	1,409,140	155,471
Projected # of Units		466,913	465,413	6,223
Calculated Rate per Unit		\$ 3.70 per 1,000 gals	\$ 3.03 per 1,000 gals	\$ 2.08 per month
Current Rate per Unit		\$ 4.01	\$ 2.76	\$ 2.00
Change in Rate per Unit		-7.7%	9.7%	4.1%

Table 7 - Revenue Check

	Water Volume	Sewer Volume	User Fee	Total
Projected # of Units	466,913	465,413	6,223	
Projected Rate per Unit	\$ 3.70 per 1,000 gals	\$ 3.03 per 1,000 gals	\$ 2.08 per month	
Projected Revenues	\$ 1,727,576	\$ 1,410,200	\$ 155,314	\$ 3,293,090
Revenue Requirements	\$ 1,728,013	\$ 1,409,140	\$ 155,471	\$ 3,292,624
Difference			\$	466

Table 8 - Projected Revenues and Expenses with Increase in Rates - Cash Option

Acct	Account Description	2013 Budget ⁽¹⁾	2014 Budget ⁽²⁾	2015 Budget ⁽²⁾	2016 Budget ⁽²⁾	2017 Budget ⁽²⁾	2018 Budget ⁽²⁾
		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
PROJECTED RATES							
	Water Volume Charge per 1,000 gals	3.70	3.81	3.92	4.04	4.16	4.28
	Sewer Volume Charge per 1,000 gals	3.03	3.12	3.21	3.31	3.41	3.51
	User Fee per month	2.08	2.14	2.20	2.27	2.34	2.41
	% Increase		3.0%	3.0%	3.0%	3.0%	3.0%
REVENUES							
Water Revenues							
20-00-0-0100	Water Revenue	1,836,242	1,708,602	1,734,351	1,763,117	1,816,360	1,869,654
20-00-0-0150	Water User Fee	150,892	159,948	164,512	169,828	175,149	180,475
20-00-0-0200	Water Tap On Fees	0	17,592	17,592	17,592	17,592	17,592
20-00-0-0300	User Fee	0	0	0	0	0	0
20-00-0-0400	Construction Water	0	300	300	300	300	300
20-00-0-0550	Late Fees, NSF Fees & Other	30,000	30,000	30,000	30,000	30,000	30,000
20-00-0-0600	Water Meter Sales	1,000	1,250	1,250	1,250	1,250	1,250
20-00-0-0800	Miscellaneous Water Income	0	0	0	0	0	0
20-00-0-1200	Interest Income	10,000	24,071	19,257	17,331	17,331	19,064
20-00-0-1500	Bankruptcy & Other Write-Offs	0	0	0	0	0	0
Sanitation Revenues							
20-00-2-0100	Sewer Revenue	1,315,689	1,394,677	1,415,663	1,439,900	1,484,117	1,528,377
20-00-2-0200	Sewer Tap On Fees	0	19,968	19,968	19,968	19,968	19,968
20-00-2-0800	Miscellaneous Sewer Income	0	0	0	0	0	0
20-00-2-1200	Interest Income	8,000	19,257	15,406	13,865	13,865	15,252
	TOTAL REVENUES	3,351,823	3,375,666	3,418,298	3,473,150	3,575,933	3,681,932
OPERATING EXPENSES							
Water Operations - Personnel							
20-21-1-1000	Employee Wages	455,300	464,930	480,135	494,539	509,375	524,656
20-21-1-2000	Overtime	18,000	18,000	18,000	18,000	18,000	18,000
20-21-1-3000	Pay Adjustment for Merit	0	0	0	0	0	0
Water Operations - Personnel Benefits							
20-21-2-0102	Employee Life Insurance Premiums	995	1,000	1,000	1,000	1,000	1,000
20-21-2-0104	Health Insurance Premiums	61,562	63,131	67,152	71,853	76,882	82,264
20-21-2-0105	Dental Insurance Premiums	5,605	5,825	6,077	6,502	6,958	7,445
20-21-2-0106	Vision Insurance Premiums	1,700	1,700	1,700	1,700	1,700	1,700
20-21-2-0700	IMRF Expense	63,777	67,104	71,075	73,918	77,614	81,495
20-21-2-0800	FICA Expense	34,830	35,567	36,730	37,832	38,967	40,136
20-21-2-7200	Employee Assistance Program	150	150	153	156	159	162
Water Operations - Commodities							
20-21-3-0100	Gasoline-Oil	17,000	17,510	18,035	18,576	19,134	19,708
20-21-3-0250	Laboratory Supplies	4,950	5,000	5,000	5,000	5,000	5,000
20-21-3-0325	Chemicals	91,250	88,883	88,910	88,180	89,392	91,356
20-21-3-0350	Uniforms	3,300	3,300	3,300	3,300	3,300	3,300
20-21-3-0400	Books, Publications & Subs.	150	150	150	150	150	150
20-21-3-0700	Operating Supplies	4,000	4,000	4,000	4,000	4,000	4,000
20-21-3-0800	Water Meters	12,000	10,000	10,000	10,000	10,000	10,000
20-21-3-6500	Other Commodities	8,500	3,000	3,000	3,000	3,000	3,000
20-21-3-7000	Computer Equipment	1,200	1,250	1,250	1,250	1,250	1,250
Water Operations - Services							
20-21-4-0100	Employment Testing Services	0	0	0	0	0	0
20-21-4-0110	NI Gas Service	20,000	19,481	19,487	19,327	19,593	20,023
20-21-4-0120	Electricity	190,000	185,071	185,127	183,608	186,131	190,221
20-21-4-0130	Telephone	7,500	7,725	7,957	8,195	8,441	8,695
20-21-4-0131	Cell Phones	3,000	3,000	3,000	3,000	3,000	3,000
20-21-4-0180	JULIE Expense	1,000	1,000	1,000	1,000	1,000	1,000
20-21-4-0200	Postage	9,500	9,690	9,884	10,081	10,283	10,489
20-21-4-0300	Printing	1,700	1,500	1,500	1,500	1,500	1,500
20-21-4-0400	Dues and Memberships	500	500	500	500	500	500
20-21-4-0500	Travel/Seminar Expenses	900	900	900	900	900	900
20-21-4-0600	Bank Charges	50	60	60	60	60	60
20-21-4-0850	Mowing Costs	3,000	3,000	3,000	3,000	3,000	3,000
Water Operations - Repairs & Maintenance							
20-21-5-0100	Equipment	39,800	32,000	32,960	33,949	34,967	36,016
20-21-5-0200	Vehicles	8,000	8,000	8,000	8,000	8,000	8,000
20-21-5-0300	Buildings	5,000	5,000	5,000	5,000	5,000	5,000
20-21-5-0400	Water Mains	8,000	8,000	8,000	8,000	8,000	8,000
20-21-5-0500	Fire Hydrants	3,800	3,000	3,000	3,000	3,000	3,000
20-21-5-0550	Valve Rehabilitation	3,500	2,000	2,000	2,000	2,000	2,000
20-21-5-0600	Compound Meter Testing	7,700	5,000	5,000	5,000	5,000	5,000
20-21-5-0900	WWTP Replace Grinder	0	0	0	0	0	0
20-21-5-0901	Water Towers	0	0	0	0	0	0
20-21-5-6500	Other Repairs & Maintenance	0	1,500	1,500	1,500	1,500	1,500
Water Operations - Professional Services							
20-21-6-0200	Legal Fees	4,500	0	0	0	0	0
20-21-6-0300	Audit Fees	3,000	3,500	3,605	3,713	3,825	3,939
20-21-6-0600	Data Processing	4,775	4,918	5,066	5,218	5,374	5,536
20-21-6-0900	Water Analysis	24,500	24,500	24,500	24,500	24,500	24,500

Table 8 - Projected Revenues and Expenses with Increase in Rates - Cash Option

Acct	Account Description	2013 Budget ⁽¹⁾ (\$)	2014 Budget ⁽²⁾ (\$)	2015 Budget ⁽²⁾ (\$)	2016 Budget ⁽²⁾ (\$)	2017 Budget ⁽²⁾ (\$)	2018 Budget ⁽²⁾ (\$)
20-21-6-6500	Other Professional Services	11,650	5,500	5,665	5,835	6,010	6,190
	Sanitation Operations - Personnel						
20-22-1-1000	Employee Wages	229,936	235,028	243,050	250,342	257,852	265,587
20-22-1-2000	Overtime	30,000	30,000	30,000	30,000	30,000	30,000
20-22-1-3000	Pay Adjustment for Merit	0	0	0	0	0	0
	Sanitation Operations - Personnel Benefits						
20-22-2-0102	Employee Life Insurance Premiums	530	500	500	500	500	500
20-22-2-0104	Health Insurance Premiums	29,954	31,294	32,424	34,694	37,122	39,721
20-22-2-0105	Dental Insurance Premiums	2,631	2,772	2,825	3,023	3,234	3,461
20-22-2-0106	Vision Insurance Premiums	841	841	841	841	841	841
20-22-2-0700	IMRF Expense	32,245	33,922	35,980	37,419	38,916	40,473
20-22-2-0800	FICA Expense	17,590	17,980	18,593	19,151	19,726	20,317
	Sanitation Operations - Commodities						
20-22-3-0100	Gasoline-Oil	11,000	11,330	11,670	12,020	12,381	12,752
20-22-3-0200	Office Supplies	0	100	100	100	100	100
20-22-3-0250	Laboratory Supplies	4,500	5,300	5,406	5,514	5,624	5,737
20-22-3-0325	Chemicals	32,000	31,391	31,899	32,409	33,397	34,415
20-22-3-0350	Uniforms	1,850	2,000	2,000	2,000	2,000	2,000
20-22-3-0400	Books, Publications & Subs.	0	0	0	0	0	0
20-22-3-0700	Operating Supplies	6,000	6,000	6,000	6,000	6,000	6,000
20-22-3-7000	Computer Equipment	3,500	1,300	1,300	1,300	1,300	1,300
	Sanitation Operations - Services						
20-22-4-0100	Employment Testing Services	0	0	0	0	0	0
20-22-4-0110	NI Gas Service	17,000	16,676	16,946	17,217	17,742	18,283
20-22-4-0120	Electricity	150,000	147,144	149,526	151,916	156,548	161,322
20-22-4-0130	Telephone	7,000	7,210	7,426	7,649	7,879	8,115
20-22-4-0131	Cell Phones	1,500	1,500	1,500	1,500	1,500	1,500
20-22-4-0180	JULIE Expense	1,000	1,000	1,000	1,000	1,000	1,000
20-22-4-0200	Postage	6,500	6,630	6,763	6,898	7,036	7,177
20-22-4-0300	Printing	1,100	1,200	1,200	1,200	1,200	1,200
20-22-4-0400	Dues and Memberships	280	250	250	250	250	250
20-22-4-0500	Travel/Seminar Expenses	1,000	750	750	750	750	750
20-22-4-0700	Sludge Hauling	14,800	0	0	0	0	0
20-22-4-0850	Mowing Costs	3,500	3,500	3,500	3,500	3,500	3,500
	Sanitation Operations - Repairs & Maintenance						
20-22-5-0100	Equipment	35,500	36,565	37,662	38,792	39,956	41,154
20-22-5-0200	Vehicles	3,200	3,000	3,090	3,183	3,278	3,377
20-22-5-0300	Buildings	4,000	4,500	4,635	4,774	4,917	5,065
20-22-5-0400	Sewer Mains	3,000	2,600	2,600	2,600	2,600	2,600
20-22-5-0500	Digester Brick Work	14,300	0	0	0	0	0
20-22-5-0600	Weir & Baffle - Clarifier No 2	0	0	0	0	0	0
	Sanitation Operations - Professional Services						
20-22-6-0200	Legal Fees	3,000	0	0	0	0	0
20-22-6-0300	Audit Fees	1,500	1,500	1,500	1,500	1,500	1,500
20-22-6-0550	NPDES Permits	20,000	20,600	21,218	21,855	22,510	23,185
20-22-6-0600	Data Processing	2,775	2,858	2,944	3,032	3,123	3,217
20-22-6-0900	Sewer Analysis	7,400	8,400	8,400	8,400	8,400	8,400
20-22-6-6500	Other Professional Services	6,500	1,500	1,500	1,500	1,500	1,500
	SUBTOTAL WATER & SANTIATION OPERATIONS	1,853,077	1,802,487	1,847,376	1,888,670	1,941,647	1,998,991
	ADMINISTRATIVE EXPENSES						
20-21-8-0300	Agent Paying Fees	2,000	2,000	2,000	2,000	2,000	2,000
20-21-8-0550	Operating Insurance	117,000	117,000	117,000	117,000	117,000	117,000
20-21-8-0600	Administrative Services	250,000	250,000	250,000	250,000	250,000	250,000
	SUBTOTAL ADMINISTRATIVE EXPENSES	369,000	369,000	369,000	369,000	369,000	369,000
	DEPRECIATION EXPENSE	1,119,547	1,132,330	1,203,224	1,259,000	1,291,448	1,307,889
	TOTAL EXPENSES	3,341,624	3,303,816	3,419,601	3,516,671	3,602,095	3,675,880
	NET INCOME	10,199	71,849	(1,302)	(43,520)	(26,162)	6,052
	CAPITAL EXPENSES						
	Water Operations - Capital Expenditures						
20-21-7-0300	Vehicles	0	26,523	165,002	351,000	92,742	217,318
20-21-7-0305	GPS Vehicle Units	0	0	0	0	0	0
20-21-7-0700	Meters	210,330	187,200	172,200	172,200	134,070	0
20-21-7-0902	Emergency Well Replacements	0	0	0	0	0	0
20-21-7-0909	Well Maintenance	9,500	49,600	50,400	70,400	51,200	51,200
20-21-7-0927	Water Tower Inspect & Maintain	0	10,000	275,000	275,000	0	0
20-21-7-0940	Water Main Replacement	46,750	1,252,800	1,113,600	0	0	0
20-21-7-0943	Emergency Liftstation Maint.	0	0	0	0	0	0
20-21-7-0944	SCADA Upgrade	87,000	20,000	20,000	10,000	10,000	10,000
20-21-7-0945	WWTP New Roof	0	0	0	0	0	0
	Water Operations - Debt Service						

Table 8 - Projected Revenues and Expenses with Increase in Rates - Cash Option

Acct	Account Description	2013 Budget ⁽¹⁾	2014 Budget ⁽²⁾	2015 Budget ⁽²⁾	2016 Budget ⁽²⁾	2017 Budget ⁽²⁾	2018 Budget ⁽²⁾
		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
20-21-9-0100	Bond Principal	249,000	264,000	273,000	174,000	183,000	0
20-21-9-0200	Bond Interest	44,909	34,760	23,798	13,750	7,138	0
	Sanitation Operations - Capital Expenditures						
20-22-7-0425	Channel Grinder	0	0	0	0	0	0
20-22-7-0500	Sandblast & Repaint Equipment	0	2,500	0	0	175,000	0
	Digester Maintenance	0	0	10,000	130,000	0	0
	Comminutor	3,000	3,000	3,000	3,000	3,000	3,000
	RAS Variable Flex Drive	6,000	0	0	0	0	0
	Generator Maintenance	25,000	25,000	25,000	25,000	25,000	25,000
	Capital Equipment Replacement	25,000	25,000	25,000	25,000	25,000	25,000
20-22-7-0920	Sanitary Sewer	0	761,523	0	0	0	0
20-22-7-0925	Sanitary Sewer Line	0	0	0	0	0	0
20-22-7-0928	Emergency Liftstation Maint.	13,500	0	0	20,000	32,000	35,000
	Sanitation Operations - Debt Service						
20-22-9-0100	Bond Principal	166,000	176,000	182,000	116,000	122,000	0
20-22-9-0200	Bond Interest	29,939	23,174	15,865	9,166	4,758	0
20-22-9-0300	IEPA Loan Principal	344,888	353,809	362,960	372,349	381,979	391,859
20-22-9-0400	IEPA Loan Interest	120,676	111,756	102,605	93,217	83,586	73,706
	SUBTOTAL CAPITAL EXPENSES	1,381,492	3,326,645	2,819,430	1,860,082	1,330,473	832,083
	TOTAL CASH EXPENSES	3,603,569	5,498,132	5,035,806	4,117,752	3,641,120	3,200,074
	NET CASH FLOW	(251,746)	(2,122,466)	(1,617,508)	(644,602)	(65,187)	481,858
	BEGINNING OF YEAR FUND BALANCE	9,070,701	8,818,955	6,696,489	5,078,981	4,434,379	4,369,192
	CASH FLOW	(251,746)	(2,122,466)	(1,617,508)	(644,602)	(65,187)	481,858
	END OF YEAR FUND BALANCE	8,818,955	6,696,489	5,078,981	4,434,379	4,369,192	4,851,050
	RESTRICTED FUNDS ⁽³⁾	1,835,020	1,827,533	1,653,507	1,656,948	1,344,467	1,349,246

Notes:

- (1) Revenues for fiscal year 2013 are calculated at 9 months of the current rates and 3 months at the proposed rates.
- (2) Assumes rates will be in place at the beginning of the fiscal year.
- (3) Per the Village of Cary Revenue Bond Ordinance the restricted funds consist of one month of operating and maintenance expenses plus one year of the maximum principal and interest payments outstanding, plus 4.75% of the value of the water and wastewater system. Source: Village of Cary Financial Statements April 30, 2012.

Table 9 - Projected Revenues and Expenses with Increase in Rates - Debt Option

Acct	Account Description	2013 Budget ⁽¹⁾	2014 Budget ⁽²⁾	2015 Budget ⁽²⁾	2016 Budget ⁽²⁾	2017 Budget ⁽²⁾	2018 Budget ⁽²⁾
		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
PROJECTED RATES							
	Water Volume Charge per 1,000 gals	3.70	3.81	3.92	4.04	4.16	4.28
	Sewer Volume Charge per 1,000 gals	3.03	3.12	3.21	3.31	3.41	3.51
	User Fee per month	2.08	2.14	2.20	2.27	2.34	2.41
	% Increase		3.0%	3.0%	3.0%	3.0%	3.0%
REVENUES							
Water Revenues							
20-00-0-0100	Water Revenue	1,836,242	1,708,602	1,734,351	1,763,117	1,816,360	1,869,654
20-00-0-0150	Water User Fee	150,892	159,948	164,512	169,828	175,149	180,475
20-00-0-0200	Water Tap On Fees	0	17,592	17,592	17,592	17,592	17,592
20-00-0-0300	User Fee	0	0	0	0	0	0
20-00-0-0400	Construction Water	0	300	300	300	300	300
20-00-0-0550	Late Fees, NSF Fees & Other	30,000	30,000	30,000	30,000	30,000	30,000
20-00-0-0600	Water Meter Sales	1,000	1,250	1,250	1,250	1,250	1,250
20-00-0-0800	Miscellaneous Water Income	0	0	0	0	0	0
20-00-0-1200	Interest Income	10,000	24,071	19,257	17,331	17,331	19,064
20-00-0-1500	Bankruptcy & Other Write-Offs	0	0	0	0	0	0
Sanitation Revenues							
20-00-2-0100	Sewer Revenue	1,315,689	1,394,677	1,415,663	1,439,900	1,484,117	1,528,377
20-00-2-0200	Sewer Tap On Fees	0	19,968	19,968	19,968	19,968	19,968
20-00-2-0800	Miscellaneous Sewer Income	0	0	0	0	0	0
20-00-2-1200	Interest Income	8,000	19,257	15,406	13,865	13,865	15,252
	TOTAL REVENUES	3,351,823	3,375,666	3,418,298	3,473,150	3,575,933	3,681,932
OPERATING EXPENSES							
Water Operations - Personnel							
20-21-1-1000	Employee Wages	455,300	464,930	480,135	494,539	509,375	524,656
20-21-1-2000	Overtime	18,000	18,000	18,000	18,000	18,000	18,000
20-21-1-3000	Pay Adjustment for Merit	0	0	0	0	0	0
Water Operations - Personnel Benefits							
20-21-2-0102	Employee Life Insurance Premiums	995	1,000	1,000	1,000	1,000	1,000
20-21-2-0104	Health Insurance Premiums	61,562	63,131	67,152	71,853	76,882	82,264
20-21-2-0105	Dental Insurance Premiums	5,605	5,825	6,077	6,502	6,958	7,445
20-21-2-0106	Vision Insurance Premiums	1,700	1,700	1,700	1,700	1,700	1,700
20-21-2-0700	IMRF Expense	63,777	67,104	71,075	73,918	77,614	81,495
20-21-2-0800	FICA Expense	34,830	35,567	36,730	37,832	38,967	40,136
20-21-2-7200	Employee Assistance Program	150	150	153	156	159	162
Water Operations - Commodities							
20-21-3-0100	Gasoline-Oil	17,000	17,510	18,035	18,576	19,134	19,708
20-21-3-0250	Laboratory Supplies	4,950	5,000	5,000	5,000	5,000	5,000
20-21-3-0325	Chemicals	91,250	88,883	88,910	88,180	89,392	91,356
20-21-3-0350	Uniforms	3,300	3,300	3,300	3,300	3,300	3,300
20-21-3-0400	Books, Publications & Subs.	150	150	150	150	150	150
20-21-3-0700	Operating Supplies	4,000	4,000	4,000	4,000	4,000	4,000
20-21-3-0800	Water Meters	12,000	10,000	10,000	10,000	10,000	10,000
20-21-3-6500	Other Commodities	8,500	3,000	3,000	3,000	3,000	3,000
20-21-3-7000	Computer Equipment	1,200	1,250	1,250	1,250	1,250	1,250
Water Operations - Services							
20-21-4-0100	Employment Testing Services	0	0	0	0	0	0
20-21-4-0110	NI Gas Service	20,000	19,481	19,487	19,327	19,593	20,023
20-21-4-0120	Electricity	190,000	185,071	185,127	183,608	186,131	190,221
20-21-4-0130	Telephone	7,500	7,725	7,957	8,195	8,441	8,695
20-21-4-0131	Cell Phones	3,000	3,000	3,000	3,000	3,000	3,000
20-21-4-0180	JULIE Expense	1,000	1,000	1,000	1,000	1,000	1,000
20-21-4-0200	Postage	9,500	9,690	9,884	10,081	10,283	10,489
20-21-4-0300	Printing	1,700	1,500	1,500	1,500	1,500	1,500
20-21-4-0400	Dues and Memberships	500	500	500	500	500	500
20-21-4-0500	Travel/Seminar Expenses	900	900	900	900	900	900
20-21-4-0600	Bank Charges	50	60	60	60	60	60
20-21-4-0850	Mowing Costs	3,000	3,000	3,000	3,000	3,000	3,000
Water Operations - Repairs & Maintenance							
20-21-5-0100	Equipment	39,800	32,000	32,960	33,949	34,967	36,016
20-21-5-0200	Vehicles	8,000	8,000	8,000	8,000	8,000	8,000
20-21-5-0300	Buildings	5,000	5,000	5,000	5,000	5,000	5,000
20-21-5-0400	Water Mains	8,000	8,000	8,000	8,000	8,000	8,000
20-21-5-0500	Fire Hydrants	3,800	3,000	3,000	3,000	3,000	3,000
20-21-5-0550	Valve Rehabilitation	3,500	2,000	2,000	2,000	2,000	2,000
20-21-5-0600	Compound Meter Testing	7,700	5,000	5,000	5,000	5,000	5,000
20-21-5-0900	WWTP Replace Grinder	0	0	0	0	0	0
20-21-5-0901	Water Towers	0	0	0	0	0	0
20-21-5-6500	Other Repairs & Maintenance	0	1,500	1,500	1,500	1,500	1,500
Water Operations - Professional Services							
20-21-6-0200	Legal Fees	4,500	0	0	0	0	0
20-21-6-0300	Audit Fees	3,000	3,500	3,605	3,713	3,825	3,939
20-21-6-0600	Data Processing	4,775	4,918	5,066	5,218	5,374	5,536
20-21-6-0900	Water Analysis	24,500	24,500	24,500	24,500	24,500	24,500

Table 9 - Projected Revenues and Expenses with Increase in Rates - Debt Option

Acct	Account Description	2013 Budget ⁽¹⁾ (\$)	2014 Budget ⁽²⁾ (\$)	2015 Budget ⁽²⁾ (\$)	2016 Budget ⁽²⁾ (\$)	2017 Budget ⁽²⁾ (\$)	2018 Budget ⁽²⁾ (\$)
20-21-6-6500	Other Professional Services	11,650	5,500	5,665	5,835	6,010	6,190
	Sanitation Operations - Personnel						
20-22-1-1000	Employee Wages	229,936	235,028	243,050	250,342	257,852	265,587
20-22-1-2000	Overtime	30,000	30,000	30,000	30,000	30,000	30,000
20-22-1-3000	Pay Adjustment for Merit	0	0	0	0	0	0
	Sanitation Operations - Personnel Benefits						
20-22-2-0102	Employee Life Insurance Premiums	530	500	500	500	500	500
20-22-2-0104	Health Insurance Premiums	29,954	31,294	32,424	34,694	37,122	39,721
20-22-2-0105	Dental Insurance Premiums	2,631	2,772	2,825	3,023	3,234	3,461
20-22-2-0106	Vision Insurance Premiums	841	841	841	841	841	841
20-22-2-0700	IMRF Expense	32,245	33,922	35,980	37,419	38,916	40,473
20-22-2-0800	FICA Expense	17,590	17,980	18,593	19,151	19,726	20,317
	Sanitation Operations - Commodities						
20-22-3-0100	Gasoline-Oil	11,000	11,330	11,670	12,020	12,381	12,752
20-22-3-0200	Office Supplies	0	100	100	100	100	100
20-22-3-0250	Laboratory Supplies	4,500	5,300	5,406	5,514	5,624	5,737
20-22-3-0325	Chemicals	32,000	31,391	31,899	32,409	33,397	34,415
20-22-3-0350	Uniforms	1,850	2,000	2,000	2,000	2,000	2,000
20-22-3-0400	Books, Publications & Subs.	0	0	0	0	0	0
20-22-3-0700	Operating Supplies	6,000	6,000	6,000	6,000	6,000	6,000
20-22-3-7000	Computer Equipment	3,500	1,300	1,300	1,300	1,300	1,300
	Sanitation Operations - Services						
20-22-4-0100	Employment Testing Services	0	0	0	0	0	0
20-22-4-0110	NI Gas Service	17,000	16,676	16,946	17,217	17,742	18,283
20-22-4-0120	Electricity	150,000	147,144	149,526	151,916	156,548	161,322
20-22-4-0130	Telephone	7,000	7,210	7,426	7,649	7,879	8,115
20-22-4-0131	Cell Phones	1,500	1,500	1,500	1,500	1,500	1,500
20-22-4-0180	JULIE Expense	1,000	1,000	1,000	1,000	1,000	1,000
20-22-4-0200	Postage	6,500	6,630	6,763	6,898	7,036	7,177
20-22-4-0300	Printing	1,100	1,200	1,200	1,200	1,200	1,200
20-22-4-0400	Dues and Memberships	280	250	250	250	250	250
20-22-4-0500	Travel/Seminar Expenses	1,000	750	750	750	750	750
20-22-4-0700	Sludge Hauling	14,800	0	0	0	0	0
20-22-4-0850	Mowing Costs	3,500	3,500	3,500	3,500	3,500	3,500
	Sanitation Operations - Repairs & Maintenance						
20-22-5-0100	Equipment	35,500	36,565	37,662	38,792	39,956	41,154
20-22-5-0200	Vehicles	3,200	3,000	3,090	3,183	3,278	3,377
20-22-5-0300	Buildings	4,000	4,500	4,635	4,774	4,917	5,065
20-22-5-0400	Sewer Mains	3,000	2,600	2,600	2,600	2,600	2,600
20-22-5-0500	Digester Brick Work	14,300	0	0	0	0	0
20-22-5-0600	Weir & Baffle - Clarifier No 2	0	0	0	0	0	0
	Sanitation Operations - Professional Services						
20-22-6-0200	Legal Fees	3,000	0	0	0	0	0
20-22-6-0300	Audit Fees	1,500	1,500	1,500	1,500	1,500	1,500
20-22-6-0550	NPDES Permits	20,000	20,600	21,218	21,855	22,510	23,185
20-22-6-0600	Data Processing	2,775	2,858	2,944	3,032	3,123	3,217
20-22-6-0900	Sewer Analysis	7,400	8,400	8,400	8,400	8,400	8,400
20-22-6-6500	Other Professional Services	6,500	1,500	1,500	1,500	1,500	1,500
	SUBTOTAL WATER & SANTIATION OPERATIONS	1,853,077	1,802,487	1,847,376	1,888,670	1,941,647	1,998,991
	ADMINISTRATIVE EXPENSES						
20-21-8-0300	Agent Paying Fees	2,000	2,000	2,000	2,000	2,000	2,000
20-21-8-0550	Operating Insurance	117,000	117,000	117,000	117,000	117,000	117,000
20-21-8-0600	Administrative Services	250,000	250,000	250,000	250,000	250,000	250,000
	SUBTOTAL ADMINISTRATIVE EXPENSES	369,000	369,000	369,000	369,000	369,000	369,000
	DEPRECIATION EXPENSE	1,119,547	1,132,330	1,203,224	1,259,000	1,291,448	1,307,889
	TOTAL EXPENSES	3,341,624	3,303,816	3,419,601	3,516,671	3,602,095	3,675,880
	NET INCOME	10,199	71,849	(1,302)	(43,520)	(26,162)	6,052
	CAPITAL EXPENSES						
	Water Operations - Capital Expenditures						
20-21-7-0300	Vehicles	0	26,523	165,002	351,000	92,742	217,318
20-21-7-0305	GPS Vehicle Units	0	0	0	0	0	0
20-21-7-0700	Meters	210,330	187,200	172,200	172,200	134,070	0
20-21-7-0902	Emergency Well Replacements	0	0	0	0	0	0
20-21-7-0909	Well Maintenance	9,500	49,600	50,400	70,400	51,200	51,200
20-21-7-0927	Water Tower Inspect & Maintain	0	10,000	275,000	275,000	0	0
20-21-7-0940	Water Main Replacement	46,750	1,252,800	1,113,600	0	0	0
20-21-7-0943	Emergency Liftstation Maint.	0	0	0	0	0	0
20-21-7-0944	SCADA Upgrade	87,000	20,000	20,000	10,000	10,000	10,000
20-21-7-0945	WWTP New Roof	0	0	0	0	0	0
	Water Operations - Debt Service						

Table 9 - Projected Revenues and Expenses with Increase in Rates - Debt Option

Acct	Account Description	2013 Budget ⁽¹⁾	2014 Budget ⁽²⁾	2015 Budget ⁽²⁾	2016 Budget ⁽²⁾	2017 Budget ⁽²⁾	2018 Budget ⁽²⁾
		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
20-21-9-0100	Bond Principal	249,000	264,000	273,000	174,000	183,000	0
20-21-9-0200	Bond Interest	44,909	34,760	23,798	13,750	7,138	0
	Debt Service for New Projects ⁽³⁾		84,020	178,122	178,122	178,122	178,122
	Sanitation Operations - Capital Expenditures						
20-22-7-0425	Channel Grinder	0	0	0	0	0	0
20-22-7-0500	Sandblast & Repaint Equipment	0	2,500	0	0	175,000	0
	Digester Maintenance	0	0	10,000	130,000	0	0
	Comminutor	3,000	3,000	3,000	3,000	3,000	3,000
	RAS Variable Flex Drive	6,000	0	0	0	0	0
	Generator Maintenance	25,000	25,000	25,000	25,000	25,000	25,000
	Capital Equipment Replacement	25,000	25,000	25,000	25,000	25,000	25,000
20-22-7-0920	Sanitary Sewer	0	761,523	0	0	0	0
20-22-7-0925	Sanitary Sewer Line	0	0	0	0	0	0
20-22-7-0928	Emergency Liftstation Maint.	13,500	0	0	20,000	32,000	35,000
	Sanitation Operations - Debt Service						
20-22-9-0100	Bond Principal	166,000	176,000	182,000	116,000	122,000	0
20-22-9-0200	Bond Interest	29,939	23,174	15,865	9,166	4,758	0
20-22-9-0300	IEPA Loan Principal	344,888	353,809	362,960	372,349	381,979	391,859
20-22-9-0400	IEPA Loan Interest	120,676	111,756	102,605	93,217	83,586	73,706
	SUBTOTAL CAPITAL EXPENSES	1,381,492	3,410,665	2,997,552	2,038,204	1,508,595	1,010,205
	LESS: CAPITAL EXPENSES PAID THROUGH DEBT		(1,250,000)	(1,400,000)			
	TOTAL CASH EXPENSES	3,603,569	4,332,152	3,813,928	4,295,874	3,819,241	3,378,196
	NET CASH FLOW	(251,746)	(956,486)	(395,630)	(822,724)	(243,309)	303,736
	BEGINNING OF YEAR FUND BALANCE	9,070,701	8,818,955	7,862,469	7,466,840	6,644,116	6,400,807
	CASH FLOW	(251,746)	(956,486)	(395,630)	(822,724)	(243,309)	303,736
	END OF YEAR FUND BALANCE	8,818,955	7,862,469	7,466,840	6,644,116	6,400,807	6,704,543
	RESTRICTED FUNDS ⁽⁴⁾	1,919,040	2,005,655	1,831,629	1,835,070	1,522,589	1,527,367

Notes:

- (1) Revenues for fiscal year 2013 are calculated at 9 months of the current rates and 3 months at the proposed rates.
- (2) Assumes rates will be in place at the beginning of the fiscal year.
- (3) Assume a 20 year note at a 3.0% interest rate.
- (4) Per the Village of Cary Revenue Bond Ordinance the restricted funds consist of one month of operating and maintenance expenses plus one year of the maximum principal and interest payments outstanding, plus 4.75% of the value of the water and wastewater system. Source: Village of Cary Financial Statements April 30, 2012.

Table 10 - Rate Comparison with Peer Communities

	Water Volume		Sewer Volume		User Fee		Total Annual Charges ⁽¹⁾
Huntley	\$ 2.70	per 1,000 gals	\$ 3.57	per 1,000 gals	\$ 0.38	per month	\$ 474.75
Woodstock	\$ 2.29	per 100 CF	\$ 2.59	per 100 CF	\$ -		\$ 489.32
Crystal Lake	\$ 2.72	per 1,000 gals	\$ 2.77	per 1,000 gals	\$ 8.81	per month	\$ 517.47
Cary, Proposed Rates	\$ 3.70	per 1,000 gals	\$ 3.03	per 1,000 gals	\$ 2.08	per month	\$ 529.71
Cary, Current Rates	\$ 4.01	per 1,000 gals	\$ 2.76	per 1,000 gals	\$ 2.00	per month	\$ 531.75
McHenry	\$ 3.02	per 1,000 gals	\$ 3.75	per 1,000 gals	\$ 3.00	per month	\$ 543.75
Algonquin	\$ 3.75	per 1,000 gals	\$ 3.55	per 1,000 gals	\$ -		\$ 547.50
West Dundee ⁽²⁾	\$ 3.38	per 1,000 gals	\$ 3.38	per 1,000 gals	\$ 11.50	per month	\$ 611.76
Carpentersville	\$ 4.43	per 1,000 gals	\$ 4.60	per 1,000 gals	\$ 4.88	per month	\$ 735.81
Fox River Grove	\$ 2.66	per 1,000 gals	\$ 3.86	per 1,000 gals	\$ 22.85	per month	\$ 763.14
Barrington	\$ 2.88	per 1,000 gals	\$ 5.41	per 1,000 gals	\$ 16.29	per month	\$ 817.23
East Dundee	\$ 4.49	per 1,000 gals	\$ 5.73	per 1,000 gals	\$ 5.00	per month	\$ 826.50
Lake Zurich	\$ 4.48	per 1,000 gals	\$ 7.08	per 1,000 gals	\$ -		\$ 867.00
Marengo	\$ 3.60	per 1,000 gals	\$ 6.74	per 1,000 gals	\$ 12.84	per month	\$ 929.58

Notes:

Updated as of 11/8/2012.

(1) Based on 75,000 gallons of annual consumption.

(2) Uses a tiered rate structure. Figure shown is the average based on 75,000 gallons annually.

APPENDIX

Memos from Clark Dietz Engineers on the condition of water and sewer facilities and recommendations on the 5-year Water and Sewer Utilities Capital Improvement Plan

1. October 3, 2012 Clark/Dietz Memo on the Water and Sewer Facilities Inspection
2. October 31, 2012 Clark/Dietz Memo on the 5-Year Water and Sewer Capital Improvement Plan



MEMO

To: Jonathon Cameron
From: Gregory J. Droessler, P.E.
Date: October 3, 2012
Subject: Cary, IL Water and Wastewater Facilities
Copies: Cris Papierniak – Village of Cary
Mike Walsh - Village of Cary

On September 26th I conducted a tour of the Village of Cary's wastewater treatment facility and four (4) of their nine (9) active groundwater well sites. The purpose of this visit was to assess the overall condition of these facilities to determine what affect, if any, their condition would have on the Village's current Capital Improvement Project (CIP) funding program.

The Village's planning period for their current CIP program is 5-years. Projections beyond this planning period were limited to the fact that future Biological Nutrient Removal (BNR) will likely be required to some level at the wastewater treatment plant.

Wastewater Treatment Plant

The original Cary, IL wastewater treatment plant was built in the 1950's and has been expanded multiple times. Of the major facilities located onsite, only one secondary digester appears to date back to the early plant. The majority of the current facility was built as part of plant expansions in the 1990's and/or in 2002. The wastewater treatment plant appears to be in very good overall condition.

Buildings: The masonry buildings at the plant appear to be very well maintained and in good working condition. The buildings are kept extremely clean, are well painted, and appear to be structurally sound. No significant cracking was apparent in any of the basements or building walls. No major capital investments appear to be immediately required to bring the facility's building into compliance.

Concrete tanks and structures: The concrete tanks and structures appear to be very well maintained and in good working condition. While most the tank walls are below grade, the overall condition of the above grade structures appear to indicate the tanks are well kept. No significant capital costs are anticipated to be needed to maintain or renovate the existing tanks in the near future.

Treatment Equipment: The wastewater equipment within the plant is kept in good working condition. The equipment is all modern (within the last 20-years) and appears to be well maintained based on the general appearance and visual inspection. All process piping within the buildings is kept well painted and little or no rust or decay was visible on any of the piping.

The existing aeration blowers and waste sludge thickening blowers were each identified for possible replacement. The blowers at each of these locations appear to have significant

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excess capacity and would be good candidates for energy grant funding thru the DCEO. Replacement of these blowers with more efficient models may be considered in the future as the blowers reach their life-expectancy and/or grant funds are secured for their replacement.

The oxidation ditch currently has two (2) 30-hp drives for operating the aerators on each of the ditches. The ditches also have the vertical mounted drives installed originally on the ditch when it was constructed in the 1990's. These drives are sized for peak loading at the plant when one drive is out of service on each basin. These drives appear to have oversized for this application and may also be candidates for replacement via DCEO grant funding with more energy efficient motors operated on VFD drives.

Electrical Systems: The major electrical components (motor control centers and SCADA equipment) in all of the buildings appears to be modern and in good working condition. No immediate replacement of the power distribution equipment would likely be required at this time. The plant control system will likely require continuous maintenance and upgrades on the current 5-10 year cycle.

Wastewater Process and Treatment: While monthly DMR data was not provided, it is reported by staff that the plant has been operating very well and consistently below the discharge limits in the Village's NPDES permit. The plant is hydraulically rated for 2.8 mgd, but averages approximately 1.6 mgd (< 60% capacity). The plant reports extremely low effluent ammonia levels of <0.1 mg/L on a regular basis, as well as effluent BOD and TSS levels far below the 20/25 mg/L discharge limits.

Future Discharge Limits: The plant's NPDES permit currently does not have a total phosphorus (TP) or total nitrogen (TN) limit. It is anticipated that the IEPA will assign limits to the plant for these two (2) nutrients within the next 5-10 years (1-2 permit cycles) and that the initial limits may be less than 10 mg/L for the TN and <= 1.0 mg/L for TP. The plant will need to either reconfigure their process tanks or possibly add additional tanks at that time to address these new limits.

It was discussed with the Village staff that the existing process arrangement may be modified in the future to allow for BNR by altering the current process flow. The current process train requires the raw wastewater to pass thru the Primary Clarifiers, Aeration Tanks, and Oxidation Ditch prior to passing to the Final Clarifiers. This process would appear to produce a highly oxygenated biomass that is not conducive to BNR.

The Village may consider reconfiguring the flow pattern to allow for the conversion of some of the existing Aeration Tanks to create anaerobic and anoxic selector basins to allow for the growth of organisms with a higher natural uptake of phosphorus and nitrogen. This reconfiguration may also allow for the operation of the Aeration Basin and Oxidation Ditch in a parallel operation so as to allow either of them to be taken offline without affecting the overall operation of the plant.

The Village will need to further investigate the existing plant's ability to meet future discharge limits once nutrient limits are established. Additional modeling of the existing

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facility will more accurately predict the plant's ability to meet future limits with modifications to the existing tanks and equipment.

Mercury Limits: The Village has requirements to implement a mercury compliance schedule in their draft NPDES permit. Per discussions with the Village staff, they currently plan to develop a program to educate dischargers on the discharge of mercury in wastewater. This program will target primarily dentists and industrial users and look to remove mercury before it enters the collection system. Mercury removal inside the plant will likely not be evaluated at this time.

Septic Loading: The Village staff is currently considering accepting septic hauling at the facility. This will affect the overall operation of the plant based on the volume (up to 40,000 gpd) and strength of the waste. If septic waste is anticipated at this level, a separate holding tank for this waste will likely be added along with a screening station to screen and measure the materials prior to it entering the plant headworks.

The need for a Receiving Station for waste haulers to discharge to should the Village allow haulers to dispose of waste at the plant was discussed with the plant staff. It is estimated that these improvements will cost approximately \$100,000 (planning level cost) to modify an existing tank and building to receive such waste. The Village will need to set appropriate disposal rates and likely implement a BOD surcharge for higher strength waste received.

Water Supply System (Wells)

Groundwater Wells: Four (4) of the Village's nine (9) active wells sites were visited as part of the facility review. These wells included:

- Well #3 – Trout Valley (150 gpm shallow well with iron filters)
- Well #4 – Anne Street (410 gpm deep well with softening)
- Well #6 – Millwood (550 gpm deep well with softening)
- Well #11 – Hampton (400 gpm shallow well with iron filter)

Each of the well houses visited were very well maintained and the facilities appear to be in very good operating condition. The Village actively maintains each well and water treatment system and all are in good repair. The Village routinely pulls and inspects each well pump on a 5-10 year cycle based on the use of the well and is proactive in maintaining the production capacity of each well.

This program appears to be very affective and the Village plans to continue this maintenance schedule into the future. The Village may consider abandoning some of the lower producing wells in the future due to higher maintenance costs, but has no plans at this time to do so. The current funding for this program appears to be adequate.



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To: Jonathon Cameron
From: Gregory J. Droessler, P.E.
Date: October 31, 2012
Subject: Cary, IL CIP Plan Review
Copies: Cris Papierniak – Village of Cary
Mike Walsh - Village of Cary

Clark Dietz has completed a review of the 5-Year Capital Improvements Program (CIP) for the Village of Cary submitted to this office on October 18th. The costs were prepared by the Village staff as a budget planning tool for their upcoming fiscal year(s) and will be included in the Water and Sewer Rate Study currently being conducted by your firm.

Water System Improvements

Well Maintenance: Please note that the subtotals listed in this area do not match the columns. It appears that \$3,000 is added each year, but is not accounted for. The Village has budgeted monies over the next 5 years for well maintenance, ranging from \$6,500 to \$105,400. The Village has budgeted roughly \$50,000/year for well maintenance and this would appear to be adequate based on similar projects. The Village may consider moving well maintenance for well #9 or well #12 to FY 2016-17 from FY 2017-18 to even out the annual costs.

Storage: The Village has budgeted \$10,000 to \$275,000 for cleaning/painting of various water towers. The \$10,000 budget for FY2013-14 would appear to be cleaning of tower #4 and the cost for towers #3 (400,000 gal.) and #1 (250,000 gal.) in the ensuing years is for painting of both the interior and exterior of the towers. The budgeted value of \$275,000 would appear to be sufficient.

SCADA: The Village has budgeted \$75,000 for a SCADA system upgrade in FY 2012-13. The Village may consider budgeting \$20,000 each year for annual maintenance of this system.

Water Meters: The Village has a budget of \$210,030 for FY 2012-13 for the replacement of water meters and decreases this by 10% annually for the next 5 years. This would appear to be sufficient to maintain this system.

Vehicles: Funding appears to be sufficient.

Water Distribution System: The Village has budgeted \$1.209 million for the replacement of water mains and services on Pearl and Weaver in FY 2014-15. Based on the listed footage of 2,400 lineal feet and 8-inch diameter (not confirmed by Clark Dietz), it appears that the Village has budgeted over \$400/foot for the water main replacement and \$5,000/service. This funding for the construction would appear to be adequate. No costs for engineering

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were included in this price; thus the Village should consider increasing the budget for this work.

For FY 2013-14, the Village has budgeted \$1.253 million for the replacement of 3,500' of 8-inch water main on Margaret and James Way. The pricing for Margaret Street appears to be light as a budget of only \$240/foot was used compared to \$400/foot on other water main projects. Consideration should be given to increasing the funding.

The Village does not include any water main replacement work in the budget beyond FY 2013-14. Per previous discussions with the Village, it appears that the FY 2013-14 work will replace all of the older mains in the Village and no additional replacement is anticipated in the next 5 years.

Wastewater Collection and Treatment

WWTP: The overall budget for equipment replacement at the WWTP appears to be quite low. While the facility is in good operational condition, the equipment replacement fund ranges from \$9,000 to \$13,000 for the first 3 years of the plan. For a facility of this size, a budget of \$50,000 or more in annual equipment replacement would appear to be more prudent.

Wastewater Pumping Stations: Similar to the WWTP, the overall funding of the pump station upgrades appears to be quite low for the entire 5-year program. A new 5 HP pump alone can exceed the budgeted values used for the first 3 years. Recent projects in a nearby community have demonstrated that the cost to replace 2–5 HP pumps, interior piping, and the controls for a small lift station is approximately \$50,000. The Village should consider increasing the value of this program accordingly to allow for pump and controls replacement as needed.

Collection System: The Village has budgeted \$982,980 for sewer lining of 19,685 lineal feet of 8-inch sewers in FY 2013-14. This included \$45/foot for lining and the pricing appears to be adequate for this program. This is an aggressive program for the community and shows assertiveness in addressing I/I problems.