

**VILLAGE OF DOWNERS GROVE**  
**REPORT FOR THE VILLAGE COUNCIL MEETING**  
**NOVEMBER 2, 2010 AGENDA**

SUBJECT:	TYPE:	SUBMITTED BY:
Acceptance of Water Rate Study Final Report	Resolution Ordinance ✓ Motion Discussion Only	Nan Newlon, P.E. Director of Public Works

**SYNOPSIS**

A motion is requested to accept the final report of the Water Rate Study completed by the Municipal & Financial Services Group (M&FSG).

**STRATEGIC PLAN ALIGNMENT**

The Five Year Plan and Goals include *Exceptional Communication and Services*. A supporting objective of this statement is *Steward of Financial Sustainability*.

**FISCAL IMPACT**

N/A

**UPDATE & RECOMMENDATION**

This item was discussed at the November 2, 2010 Village Council meeting. Staff recommends approval on the November 9, 2010 consent agenda.

**BACKGROUND**

On April 6, 2010 the Village Council authorized award of a contract with M&FSG to complete a water rate study. The goal of the study was to review current and future water rates to ensure adequate funding is available for current operations and maintenance as well as for identified capital maintenance and improvement projects into the future. The findings and recommendations of the study were presented to the Village Council by the consultant at meetings on July 20<sup>th</sup>, August 17<sup>th</sup> and September 21<sup>st</sup>. The presented information was made available to the public on the Village's website for each meeting.

The consultant presented the following key findings and conclusions:

- Based on projected water sales, the Village's current water rates will not produce adequate revenues to cover the costs of operating and maintaining the water system in 2010 or during subsequent years.
- The annual shortfalls under existing rates will exhaust the Village's Water Fund cash balance during 2011.
- There are three main reasons for the revenue shortfalls, which include the following:
  - 1) **Annual reductions in water sales.** Over the last five years this has directly impacted revenues from water sales since the majority of the water system revenue (about 92.5%) is dependent on water sales.
  - 2) **Significant increases in the costs of purchased water.** DuPage Water Commission increases have been the primary reason for the increasing costs of operating the water system. It is anticipated that the Village will continue to experience significant annual increases (10% per year) in purchased water costs from the DuPage Water Commission.

- 3) ***Water system infrastructure is aging.*** Based on a review of the age of the water system buried and above ground assets, a significant portion of the water system has reached its useful life. If the Village does not address these assets, it runs the risk of portions of the system failing leading to significant disruptions in water service. To address the aging water system, the Village will be required to make significant investments in the water system over the next ten to twenty years.
- The level of the required capital investments in the water system will require the Village to issue debt to fund the projects. The use of cash funding for these projects would require triple digit rate increases.
  - The Village currently maintains an operating reserve in the Water Fund which is set at a minimum of 90-days of operating expenses. The Village does not currently maintain a capital repair and replacement reserve in the Water Fund.
  - The total costs of operating and maintaining the water system are largely fixed at approximately 60%. Under the current rate structure the Village collects approximately 7.5% of its revenues from a fixed minimum bill.
  - Water rates and the rate structure should be changed to increase the total revenue by approximately 14% per year for the next three years.

The model that was created as part of the Water Rate Study is owned by the Village and is something that staff can update as more accurate data becomes available. Because this is not a simple undertaking it is likely that staff will maintain some contact with M&FSG in the future to consult on smaller updates to the model.

The Final Water Rate Study Report is being presented for Council's acceptance. A separate action is required to change the water rates.

#### **ATTACHMENTS**

Final Report of the Water Rate Study



Final Report  
October 2010

# Village of Downers Grove Comprehensive Water Rate Study Report



Prepared by



Municipal & Financial Services Group



## Municipal & Financial Services Group

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October 6, 2010

Stan Balicki  
Assistant Director of Public Works  
Village of Downers Grove  
801 Burlington Ave  
Downers Grove, IL 60515

Dear Mr Balicki:

The Municipal & Financial Service Group is pleased to submit to the Village of Downers Grove the attached Comprehensive Water Rate Study Report Structure Analysis for the Village Water System. The document represents the results of our analysis of the cost of providing water service to the Village's customers and our recommendations for how the Village should recover these costs. The study should provide a clear path forward for the Village to ensure the financial health and stability of the water system.

It has been our distinct pleasure to work with and for the Village. The assistance provided by the Village staff and the participation of the Village Council was essential in the completion of the study. The dedication you and the Council demonstrated to the study process should be acknowledged and was vital to the completion and success of the study. Thank you for the opportunity to work with and for the Village of Downers Grove on this study.

Very truly yours,

David Hyder  
Project Manager  
The Municipal & Financial Services Group

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## APPENDIX

Water and Sewer Cost of Service Model consisting of the following schedules:

- Schedule 1 – Control Panel
- Schedule 2A – O&M Expenses
- Schedule 2B – DuPage Water Purchase
- Schedule 3 – O&M Reserve
- Schedule 4 – Existing Debt Service
- Schedule 5 – Capital Improvement Projects
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- Schedule 16A – Inside Village Sample Bills
- Schedule 16B – Outside Village Sample Bills
- Schedule 17 – Capacity Fees
- Schedule 18 – Capital Fees
- Schedule 19 – Operating Cash Flow
- Schedule 20 – Cash Balance

## **A. EXECUTIVE SUMMARY**

This document was prepared to summarize the work performed by the Municipal & Financial Services Group (MFSG) during the water cost of service and rate study authorized by the Village of Downers Grove (“the Village”). The study is predicated on the use of a cash flow analysis to support the pricing of utility services. The cost of service analysis uses a planning period of 10 years (2011 - 2020). This portion of the report summarizes the findings, conclusions and recommendations developed during the course of the study.

### **1. Findings and Conclusions**

The following findings and conclusions were developed during the course of the study.

- Based on projected water sales, the Village’s current water rates will not produce adequate revenues to cover the costs of operating and maintaining the water system in 2010 or during subsequent years.
- The annual shortfalls under existing rates will exhaust the Village’s Water Fund cash balance during 2011.
- There are several reasons for the revenue shortfalls, which include the following:
  - The Village has experienced annual reductions in water sales over the last five years which has directly impacted revenues from water sales since the majority of the water system revenue (about 92.5%) is dependent on water sales.
  - The Village has experienced significant increases in the costs of purchased water from the DuPage Water Commission. These increases have been the primary reason for the increasing costs of operating the water system. It is anticipated that the Village will continue to experience significant annual increases (10% per year) in purchased water costs from the Water Commission.
  - Based on a review of the age of the water system buried and above ground assets, a significant portion of the water system has reached its useful life. If the Village does not address these assets, it runs the risk of portions of the system failing leading to significant disruptions in water service. To address the aging water system, the Village will be required to make significant investments in the water system over the next ten to twenty years.
- The level of the required capital investments in the water system will require the Village to issue debt to fund the projects. The use of cash funding for these projects would require triple digit rate increases.
- The Village currently maintains an operating reserve in the Water Fund which is set at a minimum of 90-days of operating expenses. The Village does not currently maintain a capital repair and replacement reserve in the Water Fund.

- The total cost of operating and maintaining the water system are largely fixed at approximately 60%. Under the current rate structure the Village collects approximately 7.5% of its revenues from a fixed minimum bill.

## 2. Recommendations

The following recommendations were developed during the course of the water rate study. The recommendations are presented to the Village Staff and Council for consideration and adoption.

- We recommended that the Village adopt a repair, renewal and replacement reserve (3R) reserve within the Water Fund to accumulate funds to allow for investment in replace and replacement of the aging water system.
- We recommend that the Village modify the current working capital (O&M) reserve to be based on 90-days of operating expenses rather than operating revenues.
- During the course of the study a number of rate alternatives were developed, based on discussion with Village Staff and our industry expertise we recommend the following rates effective in 2011.

### *Alternative B - Fixed Charge*

<b>Bi-Monthly Fixed Charge</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
5/8"	\$8.25	\$9.31	\$10.50
1"	\$12.40	\$13.96	\$15.75
1 1/2"	\$41.25	\$46.53	\$52.52
2"	\$66.00	\$74.45	\$84.02
3"	\$123.70	\$139.59	\$157.55
4"	\$206.15	\$232.66	\$262.58
6"	\$412.30	\$465.31	\$525.15
10"	\$989.50	\$1,116.75	\$1,260.36

### *Alternative B - Usage Rate*

	<b>2011</b>	<b>2012</b>	<b>2013</b>
Usage Rate per CCF – Inside Village	\$3.30	\$3.73	\$4.25
Usage Rate per CCF – Outside Village	\$3.80	\$4.34	\$4.95

- The recommended rate alternative will generate 14% more revenue in 2011. To allow revenues to catch up with water system operating and maintenance expenses we recommend the Village annually increase water rates as shown below.

### *Proposed Annual Revenue Increases*

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Revenue Increases	14%	14%	14%	10%	9%



- The Village currently imposes a number of capital fees intended to recover the cost of providing water service to a new customer. Based our discussions with the Village Staff and our review of the fees we recommend the following capital fees be adopted by the Village effective in 2011.

*Current and Recommended Tap Fees*

Line Size	Current	2011	2012	2013	2014	2015
1"	\$200	\$230	\$240	\$250	\$260	\$270
1 1/2"	\$250	\$370	\$380	\$390	\$400	\$410
2"	\$325	\$425	\$440	\$450	\$460	\$470
Over 2"	\$400	\$590	\$610	\$630	\$650	\$670

*Current and Recommended Meter Charges*

Meter Size	Current	2011	2012	2013	2014	2015
5/8" or 3/4"	\$250	\$260	\$270	\$280	\$290	\$300
1"	\$325	\$370	\$380	\$390	\$400	\$410
1 1/2"	\$400	\$1,500	\$1,550	\$1,600	\$1,650	\$1,700
2"	\$500	\$1,780	\$1,830	\$1,880	\$1,940	\$2,000
3"	-	\$2,940	\$3,030	\$3,120	\$3,210	\$3,310
4"	-	\$3,900	\$4,020	\$4,140	\$4,260	\$4,390
6"	-	\$6,240	\$6,430	\$6,620	\$6,820	\$7,020

*Current and Recommended Capacity / Connection Fees*

Line Size	Current			Proposed Capacity Fee
	Connection Fee	Capacity Fee	Total	
1"	\$1,900	\$600	\$2,500	\$2,100
1 1/4"	\$-	\$-	\$-	\$2,300
1 1/2"	\$2,200	\$600	\$2,800	\$5,200
2"	\$2,400	\$600	\$3,000	\$10,300
4"	\$2,900	\$600	\$3,500	\$16,500
6"	\$6,500	\$600	\$7,100	\$31,000
8"	\$11,800	\$600	\$12,400	\$51,600
10"	\$18,300	\$600	\$18,900	\$103,200
12"	\$26,300	\$600	\$26,900	\$247,600

- We recommend that the Village adopt the proposed capacity fees shown above for lines sizes 1" – 2" but we recommend that lines exceeding 4" be negotiated based on the discretion of the Village Public Works Director, to allow for consideration of factors such as economic development impact.
- The Village currently imposes a number of ancillary service fees related to providing water service. The fees were reviewed with Village Staff to determine if they recover the costs associated with providing each service. The majority of the fees do recover the costs, our only recommendation regarding the current fees is that the after-hours disconnect/reconnect fee be increased from \$55 to \$75 to encourage the use of normal business hours.

- Based on the review of the ancillary service fees, several additional fees were identified that will recover the cost of providing various services related to the water system. We recommend that the Village adopt the following new service fees.

Service	Proposed
<b>Public Hydrant Usage Charges</b>	
Water Usage Fee	\$5.50 per CCF
Water Fill Up Fee	\$5 per fill up at Public Works
Damage to Hydrant Meter, Fire Hydrant or R.O.W	Actual Cost
<b>New Water Service</b>	
Meter Installation and MTU	\$60
<b>Service Disconnect</b>	
Damaged Meter or Missing MTU	Actual Cost

## **B. BASIS FOR THE STUDY**

### **1. Background**

The Village of Downers Grove (“the Village”) provides clean, safe and reliable water service to residents and commercial establishments in and around the Village. The water system serves a residential population of approximately 50,000 with a service area that includes all areas within the Village limits and a limited area outside the Village. The primary source of water supply for the Village is from the DuPage Water Commission (“the Water Commission”). The Water Commission is supplied with water from the City of Chicago which draws water from Lake Michigan. The Village has invested significant capital to develop the water system which consists of the following major components:

- 7 elevated storage tanks with a total storage volume of 8 million gallons,
- 6 rate control stations which control the flow of water in the distribution system,
- 200+ miles of water distribution mains that range in diameter from 4 to 24 inches (approximately the distance from the Village to Milwaukee and back),
- 2,600 public fire hydrants,
- 2,700 main line distribution valves and
- Supervisory Control and Data Acquisition System (SCADA) that monitors, records and controls the operations of the water system.

The Village does not operate or maintain water treatment facilities but does maintain four backup wells. The wells are not able to meet the total water system demands and therefore serve as emergency backup supply.

As an enterprise fund, the Village does not rely on tax revenues to support the water system operations. The Water Fund is solely dependent on user charges and fees to fund its operations, maintenance and long-term obligations related to the water system. Similar to most municipal water utilities around the country, the Village operates a water system in an environment that presents continual challenges. The need for capital investment in the water system and the ongoing increases in the cost of purchased water from the Water Commission are currently placing significant pressure on the water system finances. These two factors will continue to impact the system for the foreseeable future and therefore at this time it is necessary to develop a detailed forecast of the true cost of operating and maintaining the water system to establish the appropriate level of rates, fees and charges to ensure the continued financial health and stability of the Water Fund.

### **2. Scope of Work**

The scope of services set forth in the contract between the Village of Downers Grove and the Municipal and Financial Services Group (“MFSG”) specifies several related tasks:

- **Revenue Requirements** - Determine the true cost of providing water service by developing comprehensive revenue requirements for the water system.
- **Cost of Service and Financial Plan** - Perform a cost of service analysis to determine appropriate cost allocations and develop a financial plan for the Village to ensure that water rates, fees and charges provide adequate revenues over the projection period.
- **Rate Design** - Design a water rate structure that appropriately allocates costs among the Village’s customers based on the Village’s goals and objectives, specifically addressing water conservation and revenue stability.
- **Customer Impacts** - Document the impact of various rate designs on Village customers to assist in development of recommended rate alternative.

### 3. Assumptions Used in the Study

The following guiding principles were used to guide the cost of service and rate study and were developed with the assistance of the Village Staff:

- The water system must each be self-supporting. It is assumed that the cost of operating and maintaining the water system must be supported by the water fees and charges collected from water customers.
- One of the Village’s principal objectives is to keep rates and fees low over time. It is possible to keep rates low for a period of time by not investing sufficiently in the maintenance of the water system but eventually the system will deteriorate and require substantial investments leading to the need for significant and immediate rate increases. The assumption that the Village will continually reinvest in the system is built into the analysis and allows for timely and predicable rate increases.
- The Village should develop reserves to provide for contingencies and unplanned expenses.
- The expenses related to operating and maintaining the water utility should be equitably distributed among the users of the respective systems.

In addition to the guiding principles for the study, it is necessary to make several assumptions regarding future economic conditions and growth within the Village’s service area, to project future revenue requirements and offsetting revenues from water rates. Assumptions (which can be varied as needed from year to year) made regarding various items are shown below:

<u>Element</u>	<u>Assumption</u>
Inflation Rate – Water O&M Expenses	3.0% per year
Inflation in Cost of Purchased Water	10.0% per year
Customer Growth Rate	0.0% per year
Consumption Growth Rate	(-1.0%) per year

Interest Rate on Borrowing	5.0%
Debt Maturity	20 years
Interest Earned on Investments	3.0% per year
Administration Costs on Financing	1.5% of principal

The study was conducted using the adopted budget for Fiscal Year 2010 (the Village functions on a fiscal year of January 1 to December 31) as the base year upon which forecasted figures were developed. The cost of service analysis considers what water rates need to be for the entire planning period (2011 – 2020).

These assumptions were used after discussions with the Village’s Staff, utilizing our experience and the Staff’s knowledge of its customer base and historical costs. The estimated decline in water consumption is based on historical trends of declining water sales over the past decade.

The Village Staff should monitor the assumptions used in the model over the forecast period. The Village should collect, on an annual basis, the following data items so that it can maintain the financial model and facilitate future rate studies.

- Annual number of new customers by meter size.
- Identification and classification of customers by customer class.
- Monitor customer class usage.
- Collect information on performance of water lines to assist with useful life estimates.

## C. USAGE, DEMAND AND CUSTOMER ANALYSIS

To complete the cost of service and rate study it is necessary to gain an understanding of the make up of the customer base served by the Village including the number of customers by type and how customers use water. The following section provides an overview of this analysis.

### 1. Customer Counts

In 2009, the Village’s water system customer base included 16,132 billed customers consisting of 14,546 single-family residential customers, 628 multi-family residential customers, 872 commercial customers and 86 industrial customers. The Village bills all customers on a bi-monthly basis. The Village provides water service to customers located outside of its corporate limits including to areas within Knottingham and Westmont. The following table provides a breakdown of the Village customers by location and customer class.

*Table 1 - Village Water Customers*

	Single-Family Residential	Multi-Family Residential	Commercial	Industrial
Inside Village	13,031	612	852	86
Outside Village	1,194	16	20	-
Knottingham	249	-	-	-
Westmont	72	-	-	-
<b>Total Customers</b>	<b>14,546</b>	<b>628</b>	<b>872</b>	<b>86</b>

The customer classes shown in Table 1 are based on the Village’s current customer classifications. It should be noted that for presentation purposes the commercial customer class has been consolidated to include offices, restaurants, churches and schools.

For purposes of evaluating alternative rate structures it is necessary to determine the number of customer by meter size. Table 2 shows the current number of customers located inside and outside the Village (excluding Knottingham and Westmont customers since the Village does not dictate their rate structures).

*Table 2 - Village Water Customer Meter Sizes*

Meter Size	Single-Family Residential	Multi-Family Residential	Commercial	Industrial
5/8”	13,420	191	328	13
1”	737	80	111	14
1 ½”	62	151	167	26
2”	5	145	135	23
3”	1	37	64	10
4”	-	20	58	-
6”	-	4	8	-
10”	-	-	1	-
<b>Total Customers</b>	<b>14,225</b>	<b>628</b>	<b>872</b>	<b>86</b>

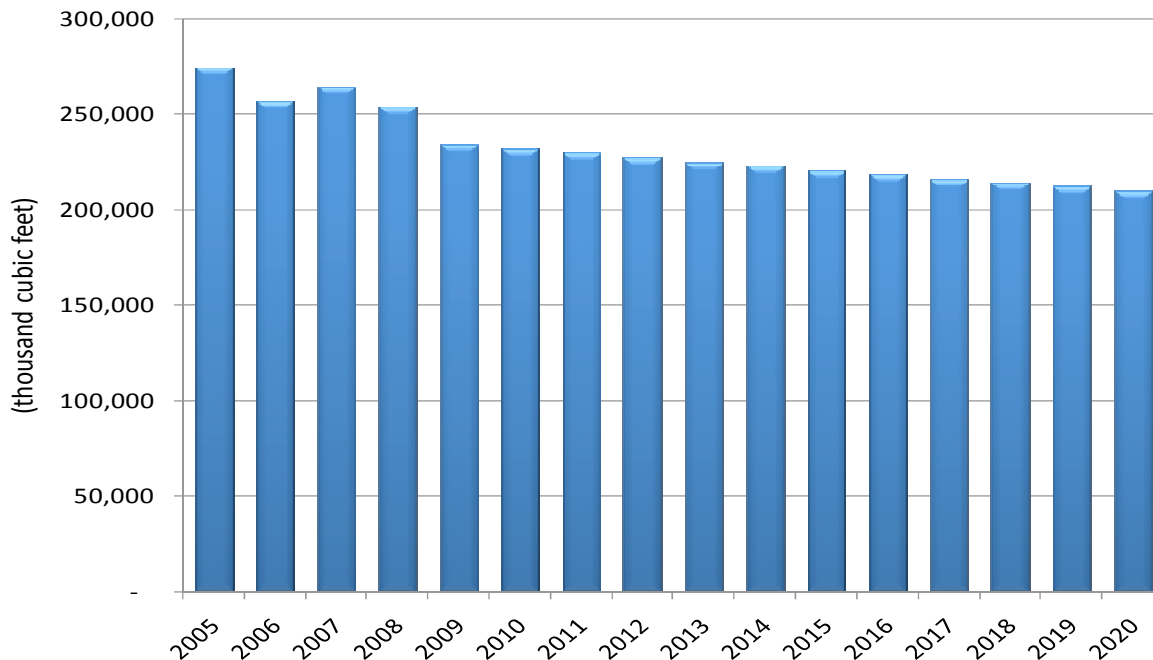
Table 2 demonstrates that the majority of the Village customers have a 5/8” meter which is the standard residential meter size. The use of the various meter sizes is discussed in detail in the rate alternative section of the report.

As mentioned in the previous section of the report, it is assumed that the Village will not experience growth in its customer base and therefore the current number of customers will remain constant throughout the planning period.

**2. Consumption Data**

The Village sold approximately 1.82 billion gallons of water to its customers during 2009. The water sales in 2009 continued a downward trend over the last few years. Water sales decreased significantly between 2005 and 2006 but then rebounded slightly in 2007. The last two years, 2008 and 2009, have trended downward. It is estimated that a portion of these declines in water usage is due to weather. The region has experienced unusually wet years over the last few years. However based on our experience nationally, individuals are using less and less water due to conservation efforts and water using fixture replacement. For purposes of forecasting future water sales, as discussed earlier in the report, it is assumed that a gradual reduction in water sales will continue at an annual rate of (-1.0%). Exhibit 1 presents the last five years of water sales and our estimate of water sales for the planning period.

*Exhibit 1 - Annual Water Sales*



It is important to note that since the Village generates the vast majority of its revenues (approximately 92.5%) from the sale of water. As a result, the ongoing reduction in water sales impacts the ability of the Village to fund the operations and maintenance of the system. In general, if the Village experiences a 1% reduction in water sales it will experience about a 1% drop in revenues. In other words, to just keep revenues flat over a period of declining water sales the Village is forced to increase rates or cut costs.

In addition to examining overall water usage trends, to evaluate alternative rate structures it is necessary to review water usage patterns for various customer types within the Village system. Exhibits 2 and 3 show the break-down of customer usage by bi-monthly period for residential and non-residential customers.

*Exhibit 2 - Residential Customer Usage*

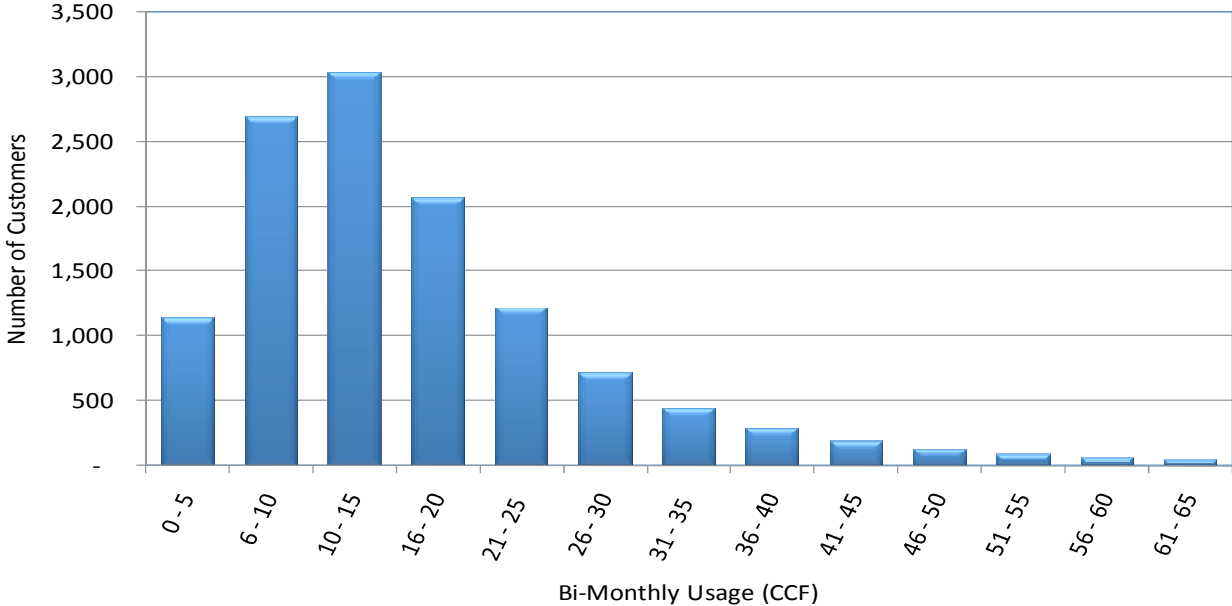


Exhibit 2 shows that the majority residential customers use between 10 - 15 hundred cubic feet (CCF) per bi-monthly period, with the average usage at about 12 CCF. The exhibit demonstrates that customers use below the average and that a small number of customers use well above the average. It should be noted that the exhibit presents only single-family residential customers as defined by the Village.

*Exhibit 3 - Non-Residential Customer Usage*

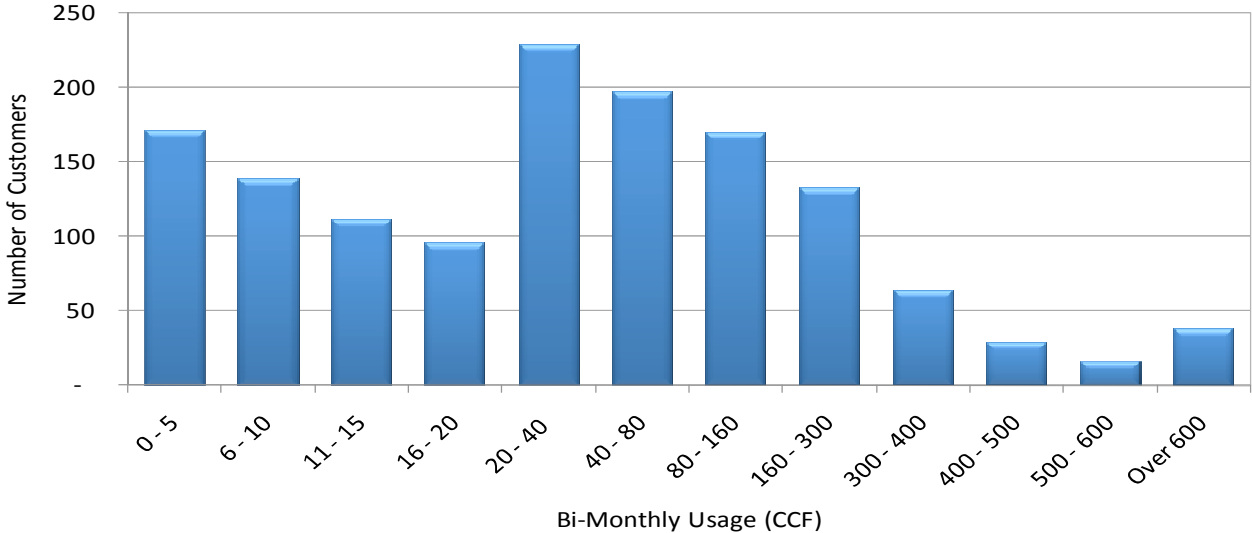




Exhibit 3 shows that the largest number of non-residential customers use between 20 and 40 CCFs per bi-monthly period. However, the distribution of customer usage is not as clearly bell-shaped as demonstrated in the residential usage. This is not surprising given the wide range of types of water users represented in the non-residential customer class. Non-residential customers include commercial, industrial and multi-family residential.

As mentioned previously, one of the key objectives for the rate study was the development and consideration of conservation rate structures. Conservation rate structures are developed to encourage the wise use of water, which typically is focused on reducing the non-discretionary use of water. Non-discretionary water use is most often defined as water used outside the home or business which is not required for activities considered essential for public health and safety. Given the climate for the Village (cold winters), it is safe to assume that most non-discretionary occurs in the spring, summer and fall. Therefore review of the usage of water in the winter compared to the summer provides insight into the seasonal peaking that occurs in the Village system. Exhibit 4 shows the average residential, commercial and industrial customers winter and summer water usage, for 2008 and 2009.

*Exhibit 4 - Seasonal Customer Usage Patterns*

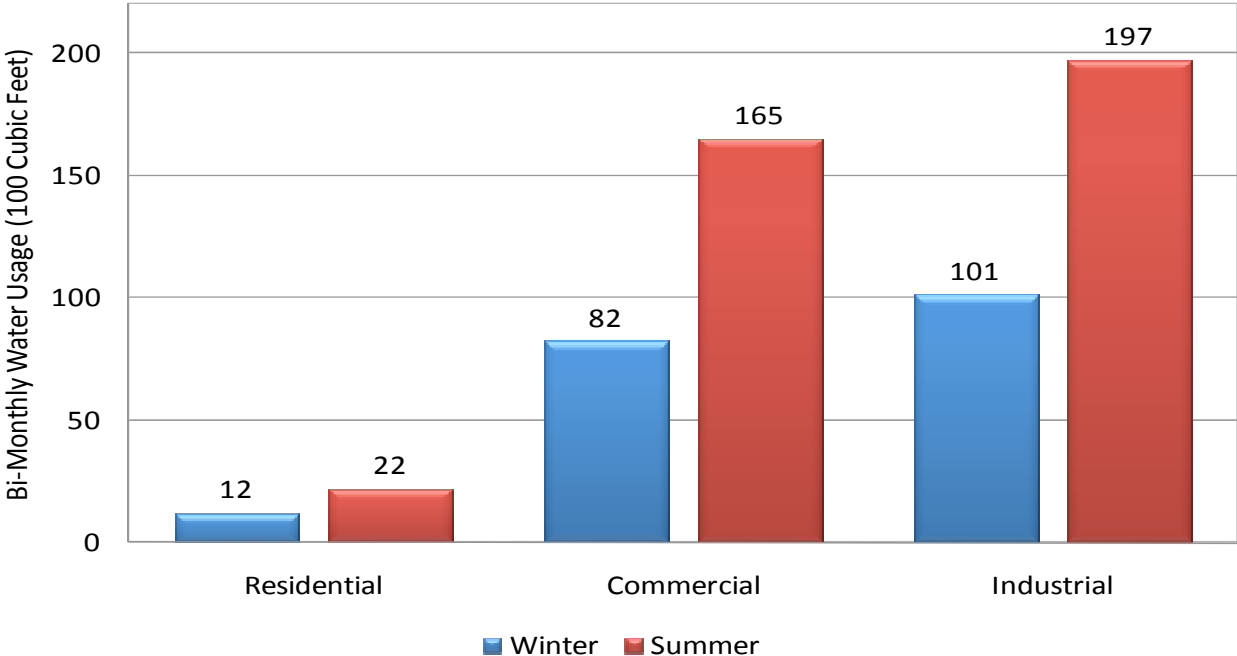
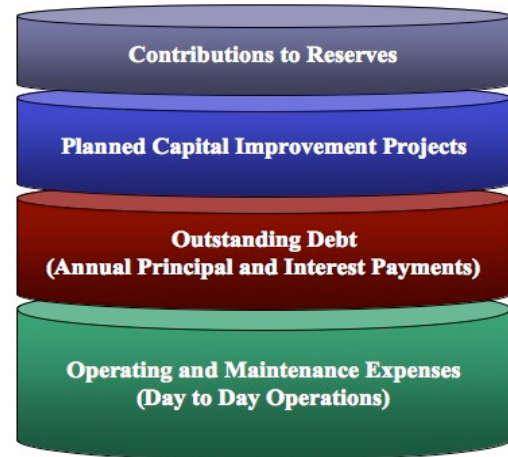


Exhibit 4 shows that there are certainly seasonal variations for all customer classes. For purposes of the exhibit commercial includes multi-family due to the similarity in seasonal usage patterns. For each customer class there is about a 2 times peaking factor in average usage, which equates to a substantial amount of non-discretionary use. On average each customer uses almost twice as much water in the summer as compared to the winter. The analysis shown in Exhibit 4 was completed for 2008 and 2009 which were unusually wet years. Therefore it is assumed that during a dry summer the peaking would be even more substantial. These usage patterns certainly warrant the examination of water conservation rate structures.

## D. REVENUE REQUIREMENTS

The next step in the cost of service and rate study was to identify the cost of providing water service, the revenue requirements. Our approach includes a detailed review of each of the costs incurred by the Village (both identified and unidentified) to ensure a true cost of service is developed. The revenue requirements can be broken down into four main categories of costs including; operating and maintenance costs, capital improvements, existing debt service and any contributions to reserves. The following section of the report describes each of the categories of expenses incurred by the Village as it provides water service. The costs are all based on official documents and data provided by the Village. The costs are forecasted as described above in the assumptions.



### 1. Operating and Maintenance Costs

The Water Fund day-to-day operating and maintenance (O&M) expenses are budgeted in four major categories including water billing/customer service, water administration, pumping and treatment and water distribution. The actual O&M expenses for 2007, 2008 and 2009, the adopted 2010 expenses and estimated budget for 2011 were used as the basis for estimating future operating and maintenance expenses. For the years 2012 through 2020, the majority of O&M expenses were inflated by 3.0% per year. The cost of purchased water, included in the pumping and treatment category, was inflated by 10% per year. Table 3 presents the O&M expenses forecasted over the next five years.

*Table 3 - Water O&M Expenses*

	2011	2012	2013	2014	2015
Billing / Customer Service	204,158	210,283	216,591	223,089	229,781
Administration	1,739,346	1,791,526	1,845,272	1,900,630	1,957,649
Pumping and Treatment	327,664	357,999	388,569	400,226	412,233
Distribution	1,609,539	1,674,481	1,740,621	1,792,840	1,846,625
Water Purchase	4,300,000	4,730,000	5,203,000	5,723,300	6,295,630
<b>Total O&amp;M Expenses</b>	<b>\$8,180,707</b>	<b>\$8,764,289</b>	<b>\$9,394,053</b>	<b>\$10,040,085</b>	<b>\$10,741,918</b>
<i>Annual % Increase</i>	<i>4.0%</i>	<i>7.1%</i>	<i>7.2%</i>	<i>6.9%</i>	<i>7.0%</i>

Table 3 demonstrates that overall operating expenses are anticipated to increase at around 7% per year over the projection period. The primary reason for the significant increases is a result of the estimated continued increase in the cost of purchased water from the Water Commission. Exhibit 5, shown below, presents the estimated O&M expenses over the entire planning period.

*Exhibit 5 - Operating and Maintenance Expense Forecast*

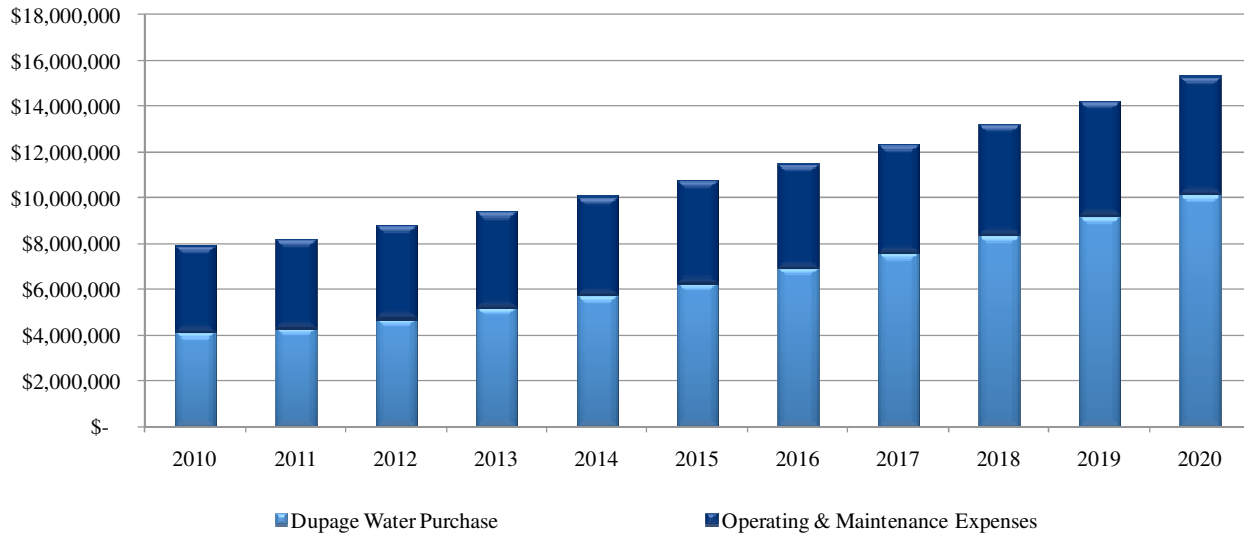


Exhibit 5 shows that the purchases of water from the Water Commission represent approximately 50% of the total O&M expenses in 2010. However by the end of the planning period, water purchases represent about 66% of the total O&M expenses. The historical increases in water purchase costs have been one the primary reasons for increasing cost of operating the water system and as demonstrated in Exhibit 5 this is expected to continue to be the case over the next 10 years.

## 2. Capital Costs

The ownership of a water system of the size and age of the Village system is extremely capital-intensive. The Village has invested millions of dollars in constructing and maintaining the water system as it stands today. Much of this investment occurred in the 1920's and 1950's as the Village grew and developed. Over the next several decades large portions of the system will have been in the ground for over 100 years. The on-going funding of recent capital investments and future requirements has a significant impact on water rates. While the capital investments have a pronounced impact on rates, the projects are vitally important to ensure the continued operation of the water system. The Village could keep rates low initially by not maintaining the system but would pay a significant price later as system failures spike due to a lack of system maintenance, which would then result in increased costs and ultimately the need for even higher rate increases. Proactively managing of the water system through maintenance and capital investments allows the Village to keep rates stable and lower over time.

The following section of the report presents the capital costs for the water system.

### 2.1 Existing Debt

The Village Water Fund currently has approximately \$1.4 million in principal outstanding debt. The debt consists of one issue that was used to fund the purchase and installation of the water systems automated meter reading (AMR) system. The debt will be fully paid off in 2012. Table 4 show the annual principal and interest payments for the outstanding debt.

*Table 4 - Existing Debt Service*

	2010	2011	2012
Principal Payment	\$450,000	\$470,000	\$485,000
Interest Payment	\$53,708	\$33,003	\$11,155
<b>Total Due</b>	<b>\$503,708</b>	<b>\$503,003</b>	<b>\$496,155</b>

*2.2 Capital Projects*

The Village’s water system has planned capital projects totaling approximately \$20 million for the period from 2011 through 2016. At this time the Village does not have planned capital projects for 2017 through 2020. The following table presents the planned capital projects for the system based on type of project.

*Table 5 - Water System Planned Capital Projects*

	2011	2012	2013	2014	2015	2016
Water Main Replacement	\$125,000	\$5,640,000	\$2,340,000	\$2,925,000	\$3,900,000	\$0
Water Meter Replacement / AMR	\$60,000	\$825,000	\$660,000	\$600,000	\$0	\$0
Water Tank Maintenance	\$100,000	\$200,000	\$0	\$0	\$1,700,000	\$1,750,000
SCADA	-	\$120,000	-	-	-	-
<b>Total</b>	<b>\$285,000</b>	<b>\$6,785,000</b>	<b>\$3,000,000</b>	<b>\$3,525,000</b>	<b>\$5,600,000</b>	<b>\$1,750,000</b>

It should be noted that the timing of the capital projects presented in Table 5 was developed based on the ability of the Village to fund the capital projects. Historically, the Village has used cash derived from operations (pay-as-you-go) to fund capital project, as evidence by the limited amount of outstanding debt service within the Water Fund. If the Village attempts to cash fund the project listed in Table 5, water rates will need to increase close to 100% over the next few years. This will certainly lead to rate shock within the customer base. Therefore, given the capital needs we recommend that the Village debt fund at least a portion of the capital improvements plan. Financing water system capital infrastructure is common practice within the industry for a number of reasons including:

- Water infrastructure consists of assets that will be used for a long period of time (40 to 70 years). The use of debt better matches the use of the asset with the recovery of the cost of the asset.
- The use of only cash to fund capital projects often results in the delay or deferral of project due to limited resources. This often results in significant deferred system maintenance because the utility resorts to a reactive approach to capital projects.
- The cost of financing is relatively low for local governments.

Due to the impact on water rates, we recommend that the Village consider financing capital projects when the individual project or combined projects exceed \$1.0 million in any particular year. Over time the Village should reevaluate these guidelines as costs and revenues increase. Applying these guidelines to the capital projects listed in Table 5 results in the following cash and debt financing plan for the next five years.

*Table 6 - Capital Project Financing*

	2011	2012	2013	2014	2015
Cash Funded Projects	\$285,000	\$933,300	\$660,000	\$600,000	\$500,000
Bond Funded Projects	\$0	\$5,851,700	\$2,340,000	\$2,925,000	\$5,100,000
<b>Total</b>	<b>\$285,000</b>	<b>\$6,785,000</b>	<b>\$3,000,000</b>	<b>\$3,525,000</b>	<b>\$5,600,000</b>

Based on discussions with the Village Staff, it is assumed that the bond funded water system projects will be funded through two bond issues consistent with the Village’s overall plan for issuing new debt. It is assumed that the Village will issue debt in 2012 and 2015. The 2012 issue will fund water system capital projects in 2012, 2013 and 2014 which total approximately \$11.2 million. The 2015 issue will fund water capital projects in 2015 and 2016 and total \$6.8 million. The 2015 is tentative as additional project may be identified in 2016 and subsequent years.

### *2.3 System Reinvestment*

As mentioned above, the Village has invested millions of dollars to construct and maintain the water system. As the water system ages, it is important that the Village actively manage these assets to ensure that the useful life of the water system is maximized.

To assist the Village in managing its capital assets, MFSG completed a review of the water system buried infrastructure and above ground assets. The goal of the review is to provide the Village with an estimate of the annual investment required in the system to appropriately maintain the system and strive towards maximizing the assets useful life. As part of the system asset review, the ages and costs of various portions of the water distribution system were stratified by decade. The age groupings of the distribution system together with useful life information and unit replacement costs were used to estimate the required reinvestment in the water system. Based on information from Village Staff and industry estimates, water lines in the Village system are estimated to have useful lives of approximately 70 years. It should be noted that this is a longer period than the Village uses for calculating depreciation but is more representative of reality. It was assumed that water system structures and improvements including water storage facilities have useful lives of approximately 60 years. The following exhibits show the estimated replacement costs and decade of replacement for buried and above ground assets.

*Exhibit 6 - Water System Buried Asset Review*

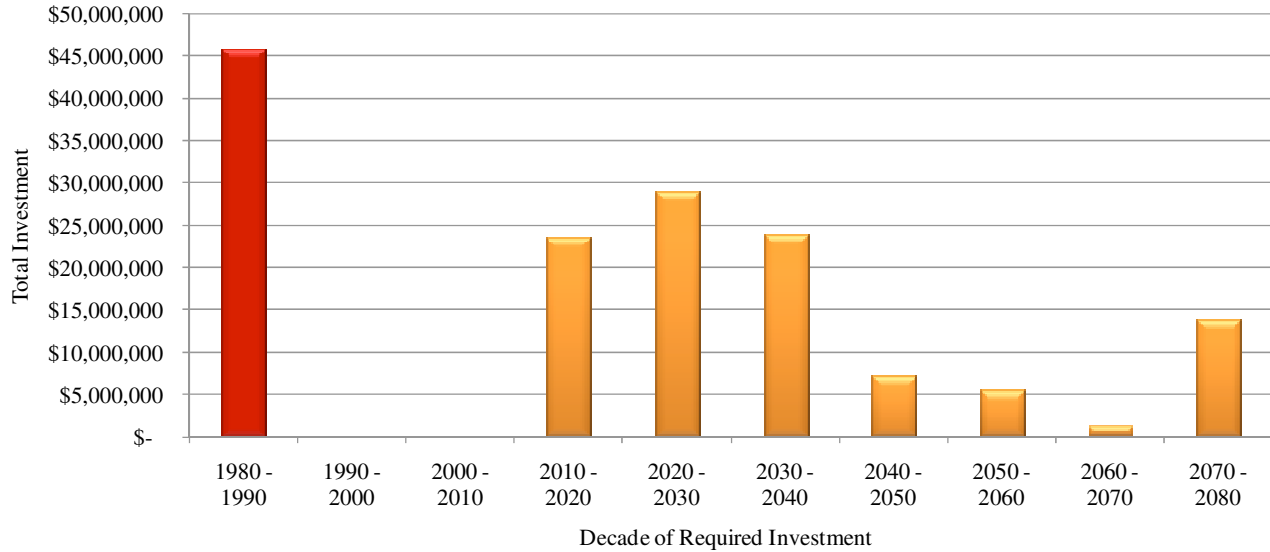


Exhibit 6 demonstrates that the Village has approximately \$45 million (in 2010 dollars) worth of buried assets that have already exceeding their useful life, based on an assumed useful life of 70 years. The replacement value is calculated by taking the original cost of the buried assets by installation year and trending them to current dollars using the Engineer New Record (ENR) construction cost index. These assets consist of water main installed in the 1920's. The exhibit also demonstrates that over the next 30 years a significant portion of the remaining buried infrastructure will reach its useful life. Exhibit 7, below, shows the same analysis for above ground assets such as water storage tanks.

*Exhibit 7 - Water System Above Ground Asset Review*

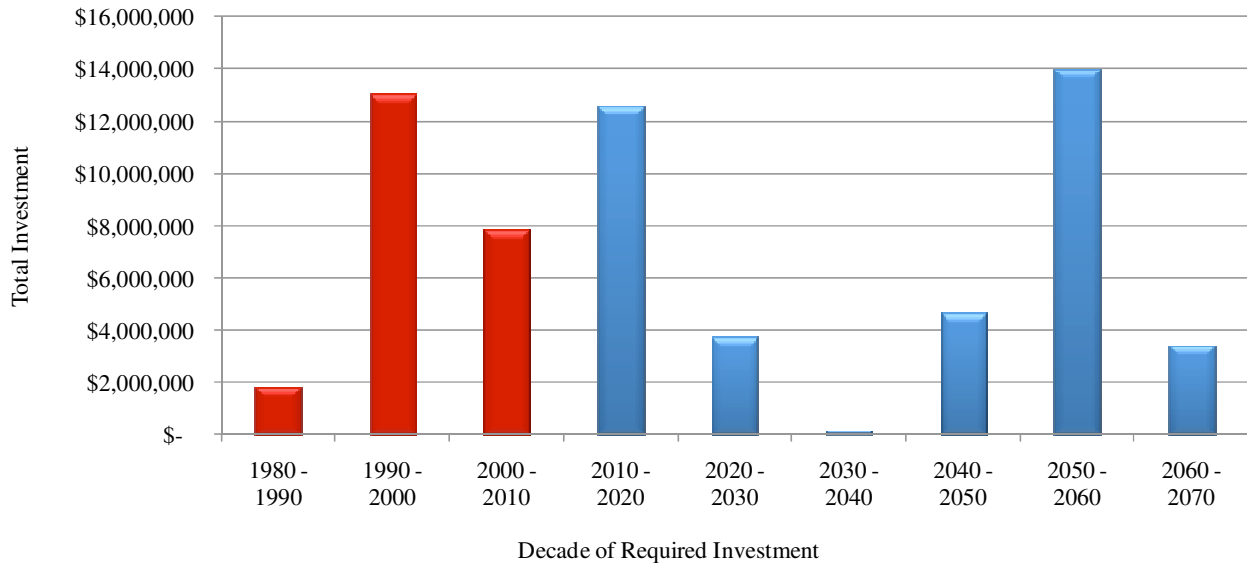


Exhibit 7 shows that the Village has approximately \$24 million worth (in 2010 dollars) of above ground assets that have reach their useful lives. It should be noted that the useful life of 70 years and 60 years for buried and above ground assets are theoretical values which are used as a proxy, as

evidence by the fact that a large portion of the Village water mains are well beyond 70 years old and still functioning. However, these assets should be considered a liability because at some point they will fail which will result in significant service interruptions and the need for emergency repairs and/or replacements. We recommend that the Village take proactive steps to address these assets such as developing a “Repair, Replacement and Rehabilitation (3R) Reserve” which is intended to assist in dedicating funds for replacement of system assets.

### **3. Reserves**

Best management practices dictate that cash reserves be accumulated to provide for contingencies and unplanned major expenses. We recommend the establishment and/or maintenance of two types of reserves for the Village’s water system: an Operating and Maintenance (“O&M”) Reserve and a Repair, Renewal, and Rehabilitation (“3R”) Reserve. Each is discussed below.

#### *3.1 Operating Reserve*

An operating reserve is important to provide funds for unplanned minor repairs or fluctuations in the budget. This type of reserve is also valuable during unusually wet or dry years, which could result in reduced revenues due to lower than anticipated consumption levels. As these reserves are accumulated, they can be used in future years to offset, decrease or defer rate increases. Operating reserves are typically established as a percentage of a system’s O&M budget. The Village currently maintains an O&M reserve that is based on 90 days of operating revenues. This closely mirrors our recommended target with the exception that we recommend a balance of 90-days of operating expenses rather than revenues. We recommend targeting expenses because revenues have a circular relationship with rates (i.e. if the reserve target is not met, rates may need to be increased which increases revenues which increases the reserve target). The Village currently has reserves exceeding the target balance. However due to expenses exceeding revenues in the current year by the end of the year (2010) beginning in 2011 the cash balance will drop below the 90-days of operating expenses and a contribution will be required in 2011. To minimize the impact on rates we recommend capping the contribution to \$100,000.

#### *3.2 Repair, Replacement and Rehabilitation Reserve*

Many municipal utilities establish Repair, Replacement and Rehabilitation (“3R”) reserves to provide funds to pay for unexpected major repairs and planned replacement or rehabilitation of system assets, as mentioned in the previous section. These reserves can be used to pay for capital costs in order to avoid or minimize the amount that would otherwise be recovered through user fees (and possibly result in a significant rate increase). Typically, the annual “3R” reserve contribution is calculated based on the estimated useful life of each asset as described in the previous section of this report. The “3R” contribution is offset by the actual amount of investment planned by the Village in its capital improvement program, as shown in Table 5. We recommend that the Village take a 20-year rolling average of the calculated annual “3R” Reserve contributions for both the buried and above ground infrastructure to even out rate increases and mitigate rate shock caused by varying annual required reinvestment values. The following exhibit presents the recommended annual contribution to the 3R Reserve.

*Exhibit 8 - Recommended Annual “3R” Reserve Contribution*

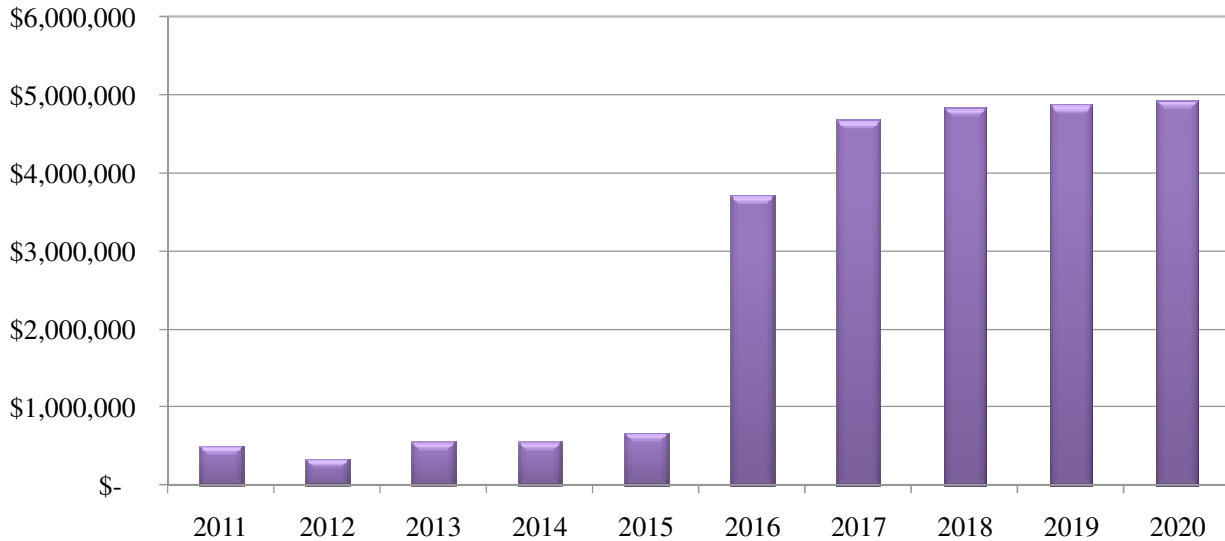


Exhibit 8 presents the recommended annual contribution to the 3R Reserve. The reason for the significant spike in contributions beginning in 2016 is due to the fact that the Village does not have planned capital projects for these years and the contribution is a rolling average what the Village should be spending (per the asset review) compared with what is planned to be spent (per the capital improvements plan). Once the Village develops capital projects for these out-years the recommended contribution will be reduced.

**4. Revenue Requirements**

The gross revenue requirements (that is, the total cash needed for the water and sewer systems) can be classified into two major categories:

1. Operating Costs:  
 Operating and Maintenance Expenses (day to day operations)  
 O&M Reserve Contributions
  
2. Capital Costs:  
 Existing Debt Service (annual principal and interest payments)  
 Projected New Debt Service  
 Cash-funded Capital Projects  
 “3R” Reserve Contributions

The following table shows the revenue requirements, miscellaneous (non user charges) revenue and the net revenue requirement from user rates for water system.

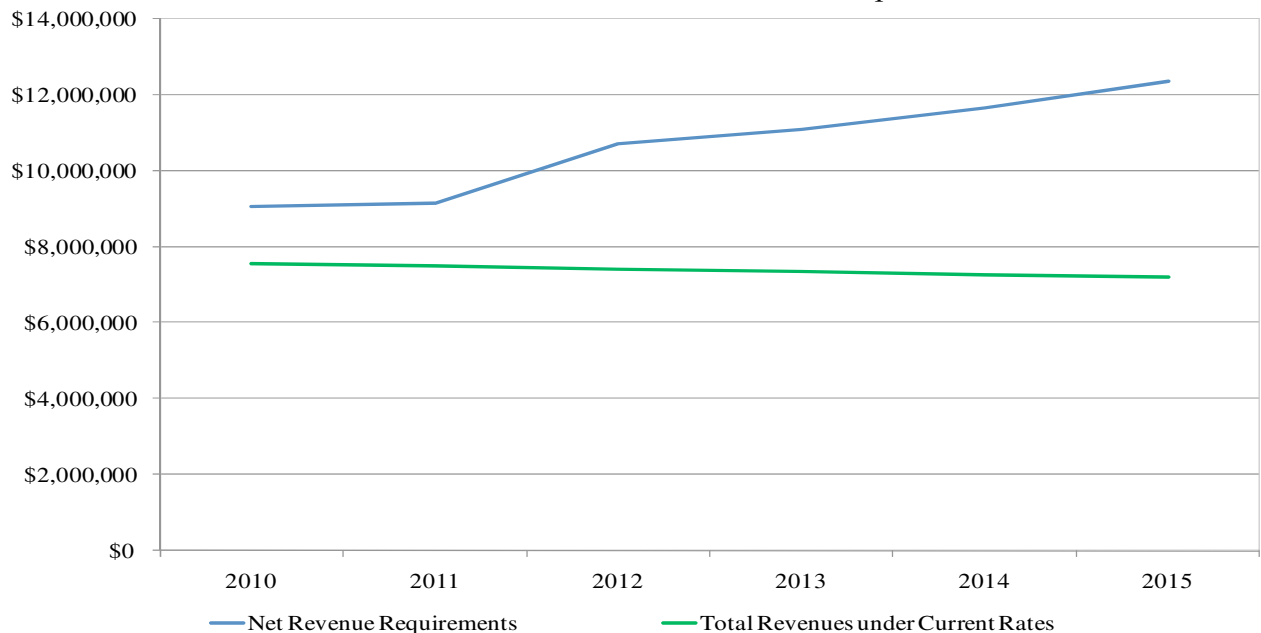


Table 7 - Water System Revenue Requirements

	2011	2012	2013	2014	2015
Operating Expenses	8,180,707	8,764,289	9,394,053	10,040,085	10,741,918
Operating Reserve Contr.	100,000	100,000	100,000	100,000	100,000
Operating Expenses Subtotal	8,280,707	8,864,289	9,494,053	10,140,085	10,841,918
Existing Debt Service	503,003	496,155	-	-	-
Cash Funded Cap. Projects	285,000	933,300	660,000	600,000	500,000
Projected Debt Service	-	-	905,413	905,413	905,413
3R Reserve Contribution	489,223	333,867	547,201	547,201	439,427
Total Revenue Requirement	9,557,933	10,627,611	11,606,667	12,192,699	12,686,759
Less Miscellaneous Revenue	414,170	421,917	428,542	441,057	482,466
<b>Net Revenue Requirement from Rates</b>	<b>\$9,143,763</b>	<b>\$10,205,695</b>	<b>\$11,177,783</b>	<b>\$11,751,597</b>	<b>\$12,204,803</b>
Projected Revenue with Current Rates	\$7,573,804	\$7,498,066	\$7,423,085	\$7,348,855	\$7,275,366
<b>Net Surplus (Shortfall)</b>	<b>(\$1,569,959)</b>	<b>(\$2,707,629)</b>	<b>(\$3,754,698)</b>	<b>(\$4,402,743)</b>	<b>(\$4,929,437)</b>
<b>Water Fund End of Year Cash Balance</b>	<b>(\$386,184)</b>	<b>(\$3,093,812)</b>	<b>(\$6,848,510)</b>	<b>(\$11,251,253)</b>	<b>(\$16,180,690)</b>

Table 7 demonstrates that the current water rates will not generate sufficient revenue to cover the revenue requirements in 2011 or during subsequent years. The table also demonstrates that the cash balance within the Water Fund will be exhausted in 2011. Exhibit 9 presents the revenue requirements and the revenues with current rates over the next five years.

Exhibit 9 - Current Revenues and Revenue Requirements



## E. FINANCIAL PLAN AND COST ALLOCATION

The development of revenue requirements in the previous section of the report, demonstrates that annual amount of revenue that needs to be generated from rates and fees to ensure that the Water Fund is self-supporting. The following section of the report reviews the required increases in rate necessary to cover the revenue requirements as a proposed financial plan and examines the allocation of costs between those that are fixed and variable to assist in the review and development of alternative rate structures.

### 1. Financial Plan

As demonstrated in the previous section of the report, the water system will not be self-supporting (revenues will not to cover revenue requirements) in 2010 nor will revenues cover expenses during the subsequent years. To immediately address the shortfall the Village would be required to increase rates fairly dramatically. The breakeven rate increases are shown below.

*Table 8 - Water Revenue Adjustments – Breakeven Rates*

	2011	2012	2013	2014	2015
Water System Revenue Increase	22%	19%	6%	6%	6%

In an effort to smooth the rate increases and address the shortfalls we propose that the Village consider adjusting water rates over a multi-year period. The recommended annual increases in the water revenues are shown in the following table.

*Table 9 - Water Revenue Adjustments - Financial Plan*

	2011	2012	2013	2014	2015
Water System Revenue Increase	14%	14%	14%	10%	9%

The proposed revenue increases will allow revenues to catch up to expenses over the next five years. The multiple year increases are proposed to minimize the one-time impact on customer bills. As a result even with the increases shown in Table 8, the Village will use some cash reserves over the next three years as rates are increased. The increases will not result in revenues matching expenses in the first three years. Additional increases will be required in years 2016 - 2020, based on our forecast of revenue requirements for the Water Fund. However, the magnitude of the rate increases will be influenced by a number of factors such as the level of capital investment, purchased water costs from the Water Commission, declining water sales and overall inflation in O&M expenses. The following table presents the estimated cumulative cash balance in the Water Fund based on adoption of the revenue increases shown in Table 9.

*Table 10 - Water Fund Ending Cash Balance*

	2011	2012	2013	2014	2015
Water Fund End of Year Cash Balance	\$1,216,389	\$1,148,883	\$1,583,457	\$2,429,017	\$3,666,748

It should be noted that the Village started 2010 with a total Water Fund cash balance of approximately \$2.3 million. The Water Fund will experience a significant loss in 2010 (approximately \$1.1 million) and will build the fund balance back over the next five years.

## **2. Cost Allocation**

To develop and consider alternative rate structures it is necessary to understand how the Village incurs costs while providing water service to its customers. In particular, what costs of operating the system are fixed (i.e. don't vary with volume of water sold) and those that are variable (dependent on the actual volume of water delivered to customers). To examine the allocation of costs each of the building blocks of the revenue requirements (cost components included in Table 6 in the previous section) were examined.

The allocation of revenue requirements between fixed and variable was completed by considering which expenses are dependent on the actual delivery of water. This is fairly straight forward when considering capital costs. The Village is required to meet its debt service obligations regardless of water sales. Additionally, the volume of water sold will not have any impact on the planned cash funded or bond funded capital projects. This would not be the case if the Village was contemplating expansion related capital projects due to growth in customers and water demand but all projects in the CIP are repair and replacement type projects. The volume of water sold will also not impact the need for operating and 3R reserve contributions. Therefore all capital expenses are assumed to fixed.

Unlike capital costs, operating expenses do vary based on the volume of water sold. To determine the fixed versus variable portion of the operating expenses each line item within the operating budget was reviewed based on our knowledge of whether or not the expense is dependent on the amount of water used or is dependent on the potential demand the customers place on the system. The Water Fund operating budget is broken into four operating categories including, administration, water billing/accounting, treatment and pumping and water distribution. Operating expenses within administration and water billing/account are assumed to be fixed. The Village must manage and oversee the water system and send bills to customer regardless of water usage. The other two categories of expenses will vary with water usage. The key budget items that were deemed variable include overtime, a portion of water purchases, utilities and supplies. The most significant variable expenses include the purchase of water from the Water Commission. However this expense is not completely variable due to the fact that based on the agreement with the Water Commission, the Village is required to pay approximately 17% of the total purchased water expenses regardless of water taken from the Commission.

The methodology discussed above was applied to the 2011 revenue requirements to determine the portion of costs that are fixed and those that are variable. Table 11 presents the costs allocation and the resulting percentage breakdown.

*Table 11 - Fixed vs. Variable Cost Allocation*

	<b>Fixed Costs</b>	<b>Variable Costs</b>	<b>% Fixed</b>	<b>% Variable</b>
Operating Expenses	\$4,499,389	\$3,681,318	55%	45%
Operating Reserve Contribution	\$100,000	\$ -	100%	0%
Existing Debt Service	\$503,003	\$ -	100%	0%
Cash Funded Capital Projects	\$285,000	\$ -	100%	0%
Projected Debt Service	\$ -	\$ -	100%	0%
3R Reserve Contribution	\$489,223	\$ -	100%	0%
<b>Total</b>	<b>\$5,876,615</b>	<b>\$3,681,318</b>	<b>61%</b>	<b>39%</b>

Table 10 demonstrates that approximately 61% of the costs of operating the Village water system in 2011 will be fixed. Over the projection period, due to increasing capital expenses, the fixed portion increases to approximately 70% by 2015.

## F. RATE ALTERNATIVES

The cost of providing water service to the customers of the Village water system has been established in the previous sections of this report. The analysis demonstrates that the Village will need to increase rates to ensure the financial health and stability of the Water Fund. The following section of the report reviews how these costs are recovered from customer by examining the current and alternative rate structures.

### 1. Current Rate Structure

The current water rate structure includes a fixed minimum bill and a usage rate per hundred cubic (CCF) of meter water usage. The bi-monthly minimum bill includes 2 CCFs of water and the usage rate is applied to all metered water exceeding 2 CCF. The current structure collects approximately 7.5% of revenues from the fixed portion of the rate structure. As a result, the Water Fund is guaranteed approximately 7.5% of the anticipated total current revenues regardless of water usage. The Village provides service to customers outside its corporate limits. These customers are charged a modest surcharge. Table 12 presents the current water rate structure.

Table 12 - Current Water Rates

Monthly Minimum Charge	Current
Inside Village - Minimum Bi-Monthly Charge (2 CCFs)	\$6.62
Inside Village - Rate per CCF	\$3.31
Outside Village - Minimum Bi-Monthly Charge (2 CCFs)	\$7.70
Outside Village - Rate per CCF	\$3.85

### 2. Rate Alternatives

The following section of the report discusses the key policy goals and objectives related to pricing water service and the development of several alternative rate structures designed to address the pricing goals and objectives.

#### 2.1 Pricing Goals and Objectives

To examine alternative rate structures it is necessary to determine the principle pricing goals and objectives for the structure. Based on our industry experience there are a number of common goals and objectives related to pricing water service. The most common considerations include the following:

- Cost of Service Recovery
- Revenue Stability
- Ease of Updating
- Water Conservation
- Economic Development
- Equitably Cost Allocation
- Minimizing Customer Impacts
- Affordability
- Rate Stability
- Ease of Understanding
- Ease of Implementation
- Legality

Each of the pricing goals and objectives were viewed in light of the Village's overall strategies including the Village's Strategic Plan. While all of the objectives mentioned above are deemed important, there are several objectives that were identified to be key for the study.

- *Cost of Service Recovery* - The rate structures must provide the revenues needed to operate the system, provide for capital needs and meet the financial targets for long-term financial health and stability.
- *Minimizing Customer Impact* - The direct impact to Village customers should be minimized, realizing that customer retention and continued water usage is critical for the continued health and stability of the water system.
- *Revenue Stability* - To assist in the financial stability within the Water Fund, the rate structure should provide a reasonable amount of revenue stability.
- *Water Conservation* - The Village has identified in its strategic plan an objective to encourage the wise use of resources which naturally includes water resources. Therefore the ability of the water rate structure to encourage wise use of water was deemed important.

There are a number of ways to address the key pricing goals and objectives mentioned above. The first objective, cost of service recovery, is best accomplished by ensuring that the rates are set at a level that fully recovers the cost of providing water service. While this can be accomplished with any rate structure, the cost of service recovery will be closely related to revenue stability. In other words, it is important to assess the likelihood that the rate structure will generate the anticipated revenues. The second objective, minimizing customer impacts, can be accomplished by minimizing the one-time changes to the rate structure and by phasing in rate increases.

The pricing objective related to revenue stability can be addressed in a number of ways. The most common approach is to increase the fixed portion of the water bill. The more significant the fixed portion of the bill the more guaranteed revenue generated from the water rates. However it is necessary for there to be a clear cost basis for the fixed portion of the bill (the fixed portion should recover fixed costs incurred by the utility). Typical costs included in a fixed charge include, but are not limited to: customer service costs, billing and meter reading, administrative costs and meter maintenance. However as presented in the previous section of the report, approximately 61% of the total cost of operating and maintaining the water system are fixed and therefore it would be possible to include capital costs as well. Another consideration related to the fixed portion of the bill is the basis that would be used to impose the fixed portion of the bill. The Village currently charges the minimum bill (fixed portion) on a per account basis. It is fairly common to impose fixed charges based on meter size. The size of a customer's meter represents the potential demand that they can place on the water system (i.e. a residential 5/8" meter can only demand so much water from the system, where as a 6" meter can demand significantly more water). As a result it costs more to maintain the water supply for a larger meter and it also costs significantly more to replace and maintain a larger meter. The basis selected should be consistent with the costs recovered in the fixed charge. If meter maintenance costs, capital costs and/or general system maintenance costs are added to the fixed charge, then the charge should be applied by meter size. On the other hand, if just the

costs for billing and administrative services are included in the fixed charge, there is no basis for using meter size as these costs are the same for all customers regardless of meter size.

The final key pricing objective, water conservation, is most often addressed in a rate structure through the variable portion (the usage rate) of the bill. The usage rate can be designed to encourage the wise use of water by increasing the rate for water used at usage levels that are deemed excessive or discretionary. It is important to note that a conservation type rate structure often results in increased revenue volatility and therefore to some degree counters the idea of revenue stability.

## 2.2 Alternative Rate Structures

After discussions with the Village Staff and in light of the pricing goals and objectives a number of rate structure alternatives were developed. The alternatives were ultimately narrowed down to two key alternatives which were fully developed and are presented in this section of the report. The two alternatives are presented along side the current rate structure for comparison. Each alternative will produce the same amount of revenue which is 14% more than the revenue produced by the current rates based on the financial plan for the water system shown in Table 8. Each of the alternatives are shown below followed by a review of the structures ability to meet the pricing goals and objectives.

- **Alternative A (Current Rate Structure)** - The current rate structure increased to produced 14% more revenue in 2001.

### Alternative A - Fixed Minimum Bill (Current Rate Structure)

	2010 Current Rates	2011 Alternative A
Minimum Bi-Monthly Charge (2 CCFs) - Inside Village	\$6.62	\$7.55
Minimum Bi-Monthly Charge (2 CCFs) - Outside Village	\$7.70	\$8.78

### Alternative A - Usage Rate (Current Rate Structure)

	2010 Current Rates	2011 Alternative A
Usage Rate per CCF - Inside Village	\$3.31	\$3.77
Usage Rate per CCF - Outside Village	\$3.85	\$4.39

The current rate structure is fairly common among water utilities. It provides a minimum amount of fixed revenue in the form of a minimum bill and charges customers a unit rate for all metered water used beyond 2 CCF. The following observations are made in regards to Alternative A's ability to meet the pricing goals and objectives.

- **Cost of Service Recovery** - The proposed increases in rates included in Alternative A will assist in ensuring that the cost of operating and maintaining the water system is recovered.
- **Minimizing Customer Impact** - Alternative A will impact all customers of the water system by increasing their bills by 14% since the structure includes a uniform rate increase.

- Revenue Stability - Alternative A will not increase the revenue stability within the Water Fund. The rate structure will continue to provide guaranteed revenues of approximately 7.5% of the total revenues. The current structure should not cause a decrease in revenue stability beyond what the Fund experiences currently.
- Water Conservation - Alternative A does not directly address water conservation. However with the increase in the usage rate customers will pay more (then under the current rates) for each CCF of water consumed which may incentivize the wise use of water.
- **Alternative B** - Consists of a bi-monthly fixed charge based on meter size and a unit rate volume charge.

*Alternative B - Fixed Charge*

Bi-Monthly Fixed Charge	Alternative B - 2011 Inside and Outside Village
5/8"	\$8.25
1"	\$12.40
1 1/2"	\$41.25
2"	\$66.00
3"	\$123.70
4"	\$206.15
6"	\$412.30
10"	\$989.50

*Alternative B - Usage Rate*

	Alternative B - 2011	
	Inside Village	Outside Village
Usage Rate per CCF	\$3.30	\$3.80

Similar to Alternative A, Alternative B is a very common rate structure among water utilities around the country. The rate structure is very similar to Alternative A with the only exception being that the structure includes a fixed charge based on meter size which does not include a minimum quantity of water. A customer who uses 4 CCF of water would be charge the fixed charge plus the usage rate for all 4 CCF of meter water. Additionally, the fixed charge is designed to collection 14% of the revenues compared to the 7.5% under the current structure. The costs recovered by the fixed charge include administration, billing and customer service and meter maintenance. The following observations are made in regards to Alternative B's ability to meet the pricing goals and objectives.

- Cost of Service Recovery - The proposed increases in rates included in Alternative B will assist in ensuring that the cost of operating and maintaining the water system is recovered.
- Minimizing Customer Impact - Alternative B will impact customers differently based on how much water is used. The structure is not drastically different from the current structure so the customer impacts are therefore minimized.



- Revenue Stability - Alternative B will increase the revenue stability within the Water Fund. The rate structure will provide guaranteed revenues of approximately 14% of the total revenues which is nearly double the current amount guaranteed (7.5%, Alternative A).
- Water Conservation - Alternative B will do the least of any of the alternatives to address water conservation. As the result of an increased fixed portion of the bill the incentive to conserve is reduced.
- **Alternative C** - Contains a bi-monthly fixed charge based on meter size with multiple class inclining block rate variable charges.

*Alternative C - Fixed Charge*

Bi-Monthly Fixed Charge	Alternative C - 2011 Inside and Outside Village
5/8"	\$8.25
1"	\$12.40
1 1/2"	\$41.25
2"	\$66.00
3"	\$123.70
4"	\$206.15
6"	\$412.30
10"	\$989.50

*Alternative C - Usage Rate*

	Inside Village	Outside Village
<b>Residential Rate Structure</b>		
Level 1: 0 – 15 CCFs	\$2.85	\$3.40
Level 2: 15 – 30 CCFs	\$3.60	\$4.25
Level 3: Over 30 CCFs	\$4.30	\$5.10
<b>Commercial Rate Structure</b>		
Level 1: 0 - 100 CCFs	\$2.85	\$3.40
Level 2: 100 - 200 CCFs	\$3.60	\$4.25
Level 3: Over 200 CCFs	\$4.30	\$5.10
<b>Industrial Rate Structure</b>		
Level 1: 0 - 130 CCFs	\$2.85	-
Level 2: 130 - 260 CCFs	\$3.60	-
Level 3: Over 260 CCFs	\$4.30	-

Alternative C provides the greatest change from the current rate structure. It includes the same fixed charge approach included in Alternative B but the usage charge includes an inclining block structure designed to encourage water conservation. The rate structure is designed to charge each customer class a premium for water used each bi-monthly period that is above what is defined as non-discretionary use (i.e. winter water usage). For each customer class the usage levels are set as follows:

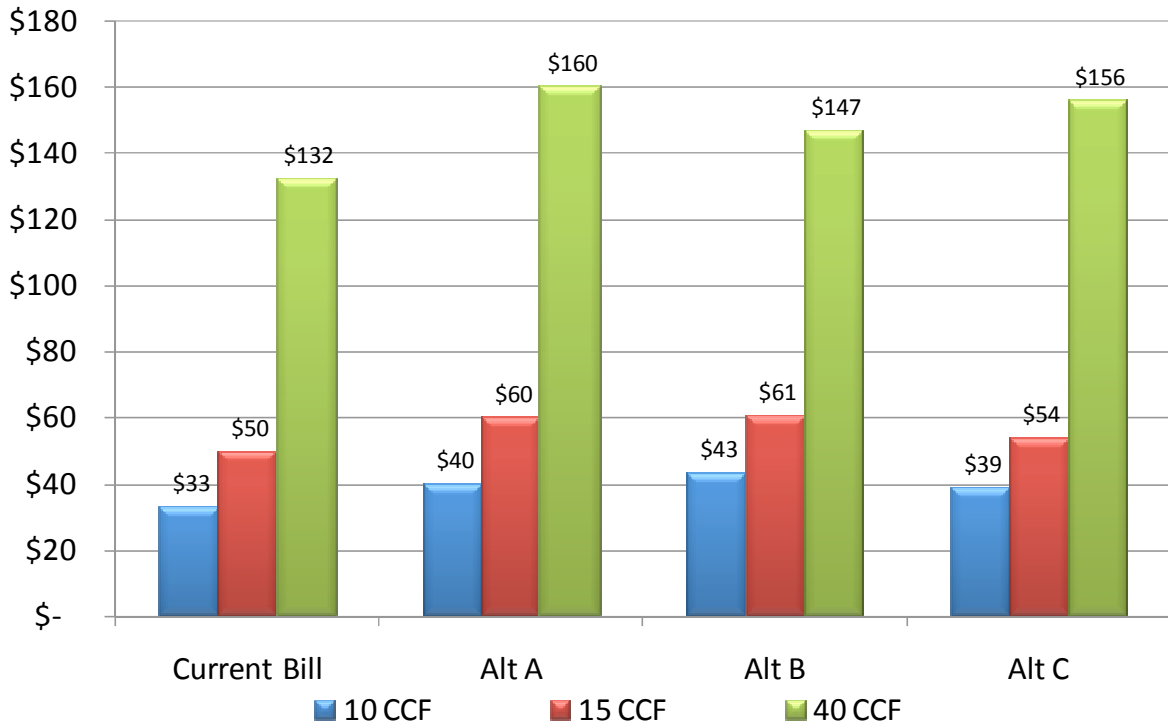
- Level 1 - Usage up to 125% of winter bi-monthly usage
- Level 2 - Usage up to 250% of winter bi-monthly usage
- Level 3 - Usage over 250% of winter bi-monthly usage

It should be noted that the Village does not serve any industrial customers outside of the Village and therefore a rate is not provided for these customers. The following observations are made in regards to Alternative C's ability to meet the pricing goals and objectives.

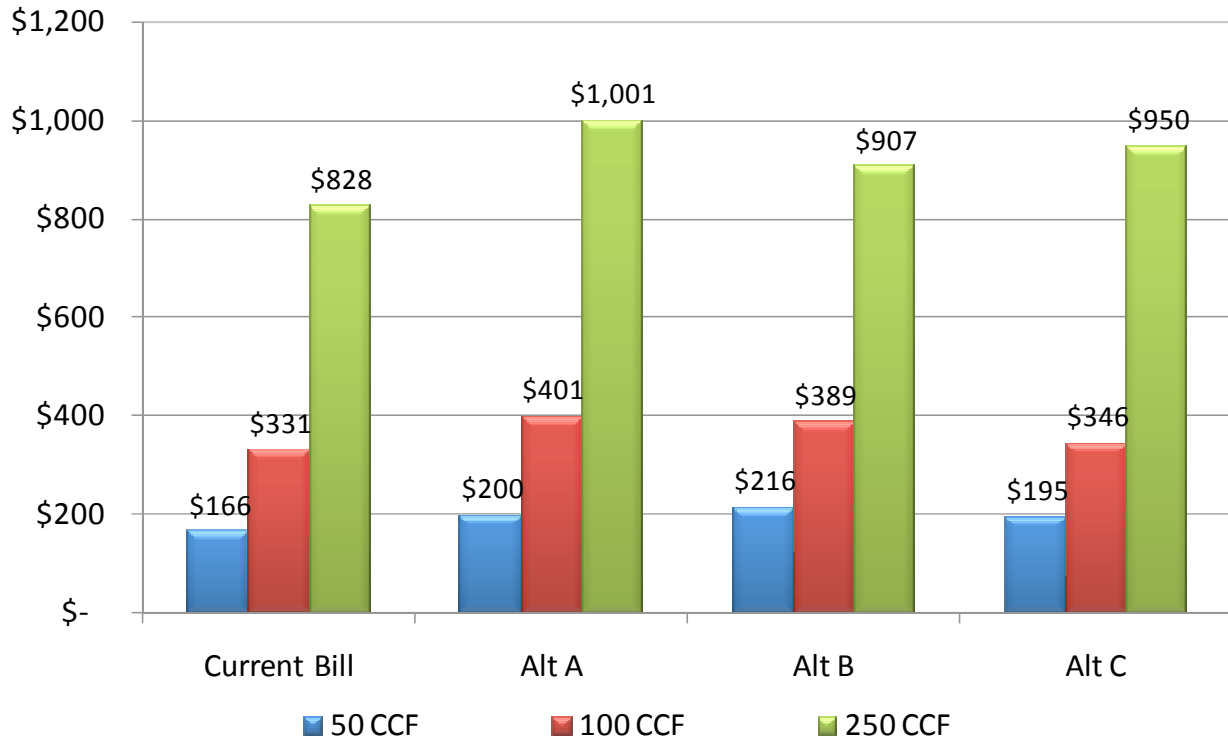
- Cost of Service Recovery - The proposed increases in rates included in Alternative C will assist in ensuring that the cost of operating and maintaining the water system is recovered.
- Minimizing Customer Impact - Alternative C will impact customers differently based on how much water is used. The structure differs from the current structure most dramatically and therefore will result in some customers experiencing potentially significant increases or decreases to their bills.
- Revenue Stability - Alternative C will increase the revenue stability within the Water Fund. The rate structure will provide guaranteed revenues of approximately 14% of the total revenues which is double the current amount guaranteed. However inclining block rate structures often result in greater revenue volatility due to customer usage and weather conditions. So the 76% of revenues collected from the usage rate will most likely be less stable.
- Water Conservation - Alternative C is designed to encourage water conservation. The variable charge is specifically designed to encourage water. However this is tempered to some degree by the increased fixed charge as discussed with Alternative B. It is assumed however the customers will reduce their water usage in the Level 2 block by 4% and the Level 3 block by 7%, based on price elasticity.

The following exhibits are provided to demonstrate the side-by-side impact on each customer type for each rate alternative. The exhibits present the current bill (under 2010 rates) and the bills for 2011 under each of the alternatives.

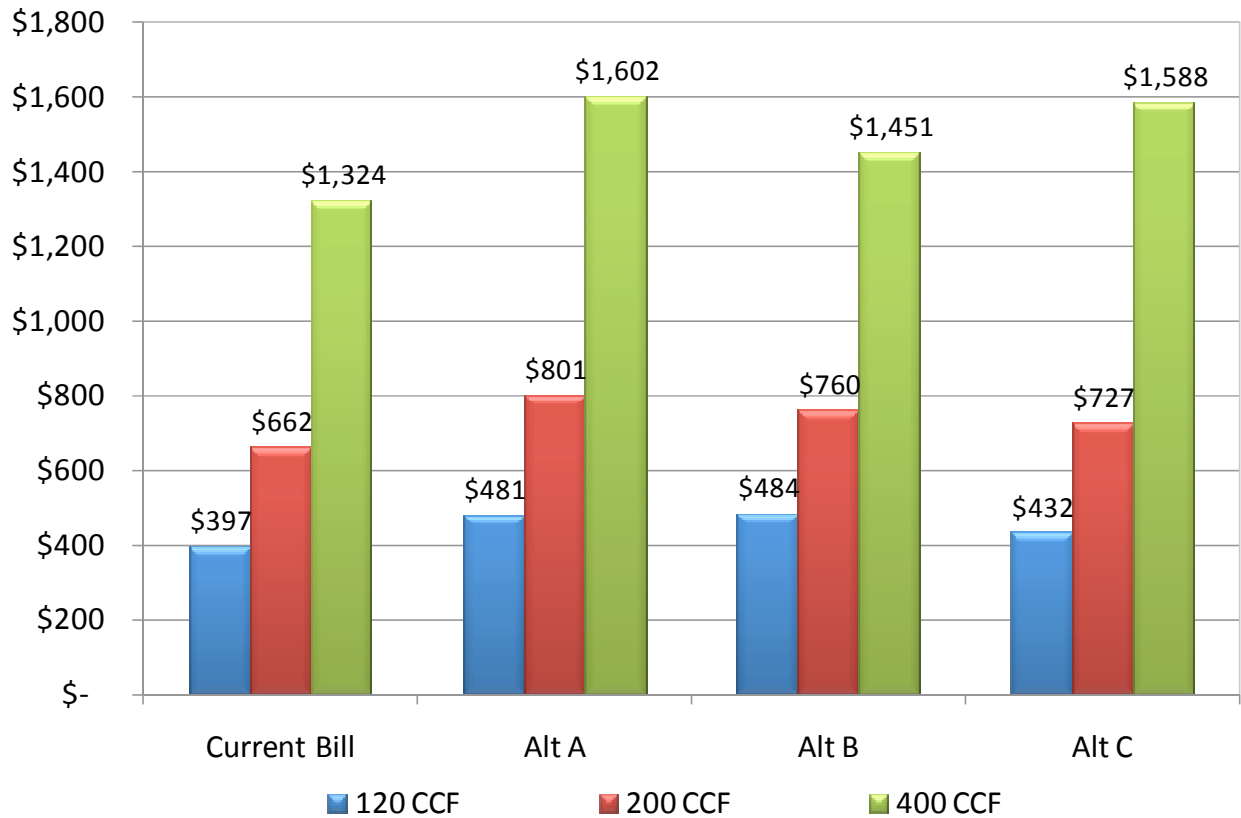
*Exhibit 10 - Sample Residential Bi-Monthly Bill (5/8" Meter)*



*Exhibit 11 - Sample Commercial Bi-Monthly Bill (1 1/2" Meter)*



*Exhibit 12 - Sample Industrial Bi-Monthly Bill (2" Meter)*



The exhibits demonstrate that each alternative will impact customers differently based on usage amounts.

### *2.3 Recommended Rate Structure*

Based on the policy discussions with the Village Staff and review of the rate structures in light of the pricing goals and objectives we recommend that the Village adopt the Alternative B rate structure for the water system with rates effective in 2011. The Alternative B structure is recommended for a number of reasons. The rate structure will:

- Generate approximately 14% more revenue in 2011.
- Collect 14% of revenues in the fixed charges which will assist in increasing stability within the Water Fund.
- Impose the fixed charge based on meter size which better matches the true cost of providing water service to larger sized meters.
- Minimize the impact of the increases for most customers due to the limited change in the rate structure.

The Alternative B structure meets all of the pricing objectives with the exception of water conservation. However based on the ongoing reduction in water sales, it appears that the Village is currently achieving water conservation. The pricing of water is only one of many factors that

influence water conservation. Educational programs, programs offering rain barrels and water using fixture change-out (replacing old water fixtures) all have been shown to result in water conservation. Therefore we would argue that the Village is making strives towards this goal and that at this time a water conservation rate structure would be result in too much change all at one time. Over time the Village may want to consider implementing a conservation type structure if conservation does not seem to continue with current practices.

### 3. Sample Bills

The following tables present sample bills for various customers under the current and recommended Alternative B water rates. The tables are intended to provide an expanding view of the impact on various customers under the proposed alternative along with the cumulative percentage of customers using the demonstrated amount of water.

*Table 13 - Sample Inside Village Bi-Monthly Water Bills*

Meter Size	Water Consumption (in CCFs)	Customer Class	Current Bill	Recommended 2011 Bill	% Difference
5/8	1	Residential	\$6.62	\$11.55	74.41%
5/8	2	Residential	\$6.62	\$14.85	124.26%
5/8	15	Residential	\$49.65	\$57.75	16.31%
5/8	40	Residential	\$132.40	\$140.25	5.93%
5/8	5	Commercial	\$16.55	\$24.75	49.52%
1 1/2	50	Commercial	\$165.50	\$206.23	24.61%
1 1/2	100	Commercial	\$331.00	\$371.23	12.15%
1 1/2	250	Commercial	\$827.50	\$866.23	4.68%
5/8	60	Industrial	\$198.60	\$206.25	3.85%
2	120	Industrial	\$397.20	\$461.97	16.31%
2	200	Industrial	\$662.00	\$725.97	9.66%
2	400	Industrial	\$1,324.00	\$1,385.97	4.68%

*Table 14 - Sample Outside Village Bi-Monthly Water Bills*

Meter Size	Water Consumption (in CCFs)	Customer Class	Current Bill	Recommended 2011 Bill	% Difference
5/8	1	Residential	\$7.70	\$12.05	56.44%
5/8	2	Residential	\$7.70	\$15.85	105.79%
5/8	15	Residential	\$57.75	\$65.25	12.98%
5/8	40	Residential	\$154.00	\$160.25	4.06%
5/8	5	Commercial	\$19.25	\$27.25	41.54%
1 1/2	50	Commercial	\$192.50	\$231.23	20.12%
1 1/2	100	Commercial	\$385.00	\$421.23	9.41%
1 1/2	250	Commercial	\$962.50	\$991.23	2.98%

Tables 12 and 13 demonstrate that customers that use very little water will see significant percentage increases in their bi-monthly water bills. The actual dollar increases are fairly modest and there are very few customers that use such small quantities of water. The significant percentage increases are due to the change in the rate structure (the increased fixed charge).

## G. CAPITAL AND ANCILLARY SERVICE FEES

Capital fees are collected from new water customers when they connect to the water system or when an existing service is increased in size. Ancillary service fees are imposed upon customers for individual services that are provided and are un-related to the general utility operations or the day-to-day use of the water system. They include items such as penalties, public hydrant use and other one-time type activities related to the water system. As part of the rate study, MFSG reviewed the current fees imposed by the Village to determine if they represent the true cost incurred by the Village while providing the service.

### 1. Capital Fees

The Village currently collects capital fees from new customers joining the water system. The capital fees are intended to recover the capital costs of providing service to the new customer. The capital fees are currently made up of four components which include a tap fee, a capacity fee, a connection fee and a meter fee. Each of the capital fees are discussed below.

#### *1.1 Tap Fees*

The Village's tap fees are intended to recover the actual costs incurred by the Village while taping the water line for connection and providing the corporation stop, B-box and other materials. Currently, the Village charges tap fees based on line size for the tap, which is standard industry practice. It has been a number of years since the Village updated the tap charges. Based on the review of the actual costs of material and labor to provide the tap completed by the Village Staff the current taps fees do not cover the cost of providing a tap to a new customer. We recommend that the Village adopt increased tap fees to ensure that the cost of providing the service is recovered. Additionally we recommend that the fees be increased by 3% per year to reflect inflation. The current and recommended tap fees are presented below.

*Table 15 - Current and Recommended Tap Fees*

<b>Line Size</b>	<b>Current</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
1"	\$200	\$230	\$240	\$250	\$260	\$270
1 1/2"	\$250	\$370	\$380	\$390	\$400	\$410
2"	\$325	\$425	\$440	\$450	\$460	\$470
Over 2"	\$400	\$590	\$610	\$630	\$650	\$670

#### *1.2 Meter Fees*

The current meter fees imposed by the Village are intended to recover the cost of providing a water meter to a new customer. The fees are based on the size of the meter which is standard industry practice. Similar to the taps fees it has been a number of years since the Village updated the meter fees. Additionally the Village does not currently have a specific charge for meters larger than 2 inches in size. To review the meter fees, the Village Staff provided the actual cost of purchasing water meters for the various sizes of meters. The following table presents the current meter fees and the current actual cost of purchasing meters. We recommend that the meter fees be increased annually by 3% to account for inflation in the cost of meters.

*Table 16 - Current and Recommended Meter Fees*

<b>Meter Size</b>	<b>Current</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
5/8" or 3/4"	\$250	\$260	\$270	\$280	\$290	\$300
1"	\$325	\$370	\$380	\$390	\$400	\$410
1 1/2"	\$400	\$1,500	\$1,550	\$1,600	\$1,650	\$1,700
2"	\$500	\$1,780	\$1,830	\$1,880	\$1,940	\$2,000
3"	-	\$2,940	\$3,030	\$3,120	\$3,210	\$3,310
4"	-	\$3,900	\$4,020	\$4,140	\$4,260	\$4,390
6"	-	\$6,240	\$6,430	\$6,620	\$6,820	\$7,020

*1.3 Connection and Capacity Fees*

The Village currently imposed two additional capital fees; a connection fee based on line size and a capacity fee per connection. Discussions with the Village Staff reveal that the purpose for the separate fees is unclear. However these fees are intended to recover the capital cost of constructing backbone water infrastructure to serve a new customer. To simplify the fees and due to the fact that the rationale for separate fees is unclear, we recommend that the Village combine the fees and call them capacity fees since they are intended recover the purchase of system capacity.

Capacity fees are fairly common within the water industry and are an appropriate means of charging new customers or customers that upsize their service for the cost of constructing water system capacity. To calculate capacity fees it is necessary to examine the historical investments made by the Village to construct the water system and the amount of capacity purchased by a new customer represented by their meter size. The historical investment in the water system used in capacity fee calculations is most often the replacement cost new less depreciation (RCNLD). This value represents the current replacement cost of the non-depreciated assets in the water system. This value serves as a proxy for the cost of providing capacity to new water customers. The Village water system RCNLD value equals approximately \$59 million.

In order to calculate the capacity fees, the current amount of the system that is utilized and the ultimate build out have to be calculated. To examine system capacity it is necessary to develop a consistent basis for the various types of customers within the system. For example, a large commercial customer will typically require more system capacity than a residential customer. To put all customers on a similar basis line/meter equivalents are typically used to determine the number of equivalent dwelling units (EDUs) within a system. The American Water Works Association (AWWA) publishes several tables which equate meter sizes to the potential demand that could be placed on the system. Based on the current number of EDU's and the ultimate build-out of the water system it is estimated that the water system will ultimately serve approximately 24,700 EDU's based on the current water allocation from the Illinois Department of Natural Resources (IDNR). Therefore the cost of providing capacity is \$59 million divided by 24,700 results in a capacity fee of \$2,400 per EDU. The following table presents the current and recommended capacity fees for the next five years.

Table 17 - Current and Recommended Capacity / Connection Fees

Line Size	Current			Proposed Capacity Fee
	Connection Fee	Capacity Fee	Total	
1"	\$1,900	\$600	\$2,500	\$2,100
1 1/4"	\$-	\$-	\$-	\$2,300
1 1/2"	\$2,200	\$600	\$2,800	\$5,200
2"	\$2,400	\$600	\$3,000	\$10,300
4"	\$2,900	\$600	\$3,500	\$16,500
6"	\$6,500	\$600	\$7,100	\$31,000
8"	\$11,800	\$600	\$12,400	\$51,600
10"	\$18,300	\$600	\$18,900	\$103,200
12"	\$26,300	\$600	\$26,900	\$247,600

Table 17 demonstrates that the current fees for smaller line sizes are fairly close to the proposed capacity fee. However, as the table demonstrates the current fees significantly under price the cost of providing capacity to larger line sizes (lines 2' to 12"). We recommend that the Village adopt the proposed capacity fees for lines sizes up to 2" but for lines above 2" in size we recommend that the Village should allow for determination of the capacity fee at the discretion of the Public Works Director. The values shown in Table 15 are very substantial and while they do represent the estimated cost of building capacity for large water customers a number of factors should be considered when connecting a large customer particularly the economic impact of a large water user.

Lastly, the majority of development within the Village is redevelopment. As a result, we recommend that the Village impose the capacity fee for existing customers who increase their service connection. The capacity fee should be imposed based the incremental amount of the capacity fee between the line sizes.

## 2. Ancillary Service Fees

In addition to the water user rates and capital fees, the Village collects ancillary service fees from its customers to offset the cost of providing various services. The Village collects minimal amounts of revenue from these fees. As part of the cost of service study, the current service fees were reviewed to ensure that they set at the appropriate levels. The current and proposed services fees are shown in the following table.

Table 18 - Current and Proposed Ancillary Service Fees

Service	Current	Proposed
<b>Watering Permit - New sod, plants and/or trees</b>	\$30	\$30
<b>Public Hydrant Usage Security Deposit</b>		
5/8" Meter	\$500	\$500
1" Meter	\$700	\$700
3" Meter	\$1,800	\$1,800
Administrative Fee	\$25	\$25
Meter Rental Charge (per week)	\$10	\$10



Service	Current	Proposed
<b>Disconnect/Reconnect</b>		
Service Fee For Shutting Off Water Service (7am to 4pm)	\$42	\$42
Reconnection Service Fee		
a. Between 7am and 4pm	\$42	\$42
b. Before 7am or after 4pm	\$55	\$75
First Offense in Rolling 12-Month Period	\$50	\$50
Second Offense in Rolling 12-Month Period	\$100	\$100
Third Offense in Rolling 12-Month Period	\$150	\$150
Fee For Late Payments	10% of delinquency amount	10% of delinquency amount
Handling and Service Charge	\$ 50	\$ 50
Disconnection of Water Service Pipes	Actual Cost	Actual Cost
<b>Inspection Fees</b>		
Water Service Tap Inspection Fee	\$60	\$60
Water Service Disconnect Inspection Fee	\$60	\$60

As shown in Table 18, the majority of the ancillary service fees are currently set at an appropriate level. The fees were reviewed by the Village Staff to determine if the actual time and material costs are recovered by the current fees. Based on the review the staff concluded that the fees do recover these costs. Our review concluded that the fees are appropriate however we recommend that the reconnection service fees that are completed outside of normal business hours be increased from \$55 to \$75 to encourage the use of normal utility staff business hours.

The ancillary service fees imposed by the Village are common within the utility industry. However there are a few service fees that the Village should implement to further recover the cost of providing water service. These fees were developed by the Village Staff based on cost of providing each service.

*Table 19 - New Ancillary Service Fees*

Service	Proposed
<b>Public Hydrant Usage Charges</b>	
Water Usage Fee	\$5.50 per CCF
Water Fill Up Fee	\$5 per fill up at Public Works
Damage to Hydrant Meter, Fire Hydrant or R.O.W	Actual Cost
<b>New Water Service</b>	
Meter Installation and MTU	\$60
<b>Service Disconnect</b>	
Damaged Meter or Missing MTU	Actual Cost

The proposed fees are intended to further recover the cost of providing individual services related to the Village water system. The service fees should be reviewed annually to ensure that they match the cost of providing each service.

## Appendix – Water Rate Study Model



Village of Downers Grove, IL Water Rate Study  
Developed by: Municipal and Financial Services Group, LLC  
Last Updated: September 2010

**I. Global Inputs / Assumptions**

[Schedule 1 - Control Panel](#)

**II. Operating and Capital Expense (Revenue) Data**

[Schedule 2A - Operating & Maintenance Expenses](#)

[Schedule 2B - Dupage Water Purchase](#)

[Schedule 3 - Operating & Maintenance Reserve](#)

[Schedule 4 - Existing Debt Service](#)

[Schedule 5 - Capital Improvement Plan](#)

[Schedule 6A - Cash Funded CIP](#)

[Schedule 6B - Bond Funded CIP](#)

[Schedule 7 - Projected Debt](#)

[Schedule 8 - Interest Income](#)

[Schedule 9 - Miscellaneous Revenues](#)

**III. Asset Management and Reinvestment Plan**

[Schedule 10A - Capital Asset Raw Data](#)

[Schedule 10B - Capital Asset Summary](#)

[Schedule 11 - Repair, Renewal, & Replacement Reserve](#)

**IV. Revenue Requirements and Financial Plan**

[Schedule 12 - Revenue Requirements](#)

**V. Customer and Consumption Analysis**

[Schedule 13A - Customer and Consumption Information](#)

[Schedule 13B - Winter Bi-Monthly Customer Analysis](#)

[Schedule 13C - Customer and Consumption Projections](#)

**VI. Water Rate Analysis and Projections**

[Schedule 14A - FY 08 Rate Reconciliation](#)

[Schedule 14B - FY 09 Rate Reconciliation](#)

[Schedule 14C - FY 10 Rate Reconciliation](#)

[Schedule 14 D - Rate Analysis](#)

[Schedule 15 - Rate Projections](#)

**VII. Customer Impact and Customer Sample Bills**

[Schedule 16A - Inside Village Sample Bills](#)

[Schedule 16B - Outside Village Sample Bills](#)

**VIII. Capital Charges**

[Schedule 17 - Capacity Fee](#)

[Schedule 18 - Capital Fees](#)

**X. Cash Flow Statements**

[Schedule 19 - Operating Cash Flow](#)

[Schedule 20 - Cash Balance](#)

SCHEDULE 1 - CONTROL PANEL

Operating Assumption:

	Source	Base Year		Fiscal Year									
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Overall Operating Expenses Inflation Rat	Industry Estimate			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Dupage Water Purchase Inflation Rat	Estimate			10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Customer Growth Rate	Village	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Consumption Growth Rat	Village	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%

Capital Assumption:

<u>CIP FUNDING SCENARIO ANALYSIS</u>		Base Year		Fiscal Year								
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Project Total Maximum Cash Fundin	\$1,000,000											
Maximum Yearly Cash Fundin	\$1,500,000											
		<b>% Cash Funded</b>										
		100.0%	100.0%	18.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		<b>% Bond Funded</b>										
		0%	0%	82%	0%	0%	0%	0%	0%	0%	0%	0%
*If total Project Funding exceeds Trigger it will be bond funded												
Total Cash Funded CIF		\$ 1,113,093	\$ 285,000	\$ 967,500	\$ 660,000	\$ 600,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -
*If total Project Funding does not reach Trigger it will be cash funded												
Total Bond Funded CIF		\$ -	\$ -	\$ 6,007,500	\$ 2,340,000	\$ 2,400,000	\$ 4,750,000	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -
<b>Bond Financing</b>		<b>Bond Issues</b>										
Fund CIP Beginning Year		Bond 1		Bond 2	Bond 3	Bond 4	Bond 5					
Fund CIP Ending Year		2012		2015	2017	2019	2021					
Year of Issue		2014		2016	2018	2020	2022					
Interest Rate on Borrowings		2012		2015	2017	2019	2021					
Debt Maturity		5.00%		5.00%	5.00%	5.00%	5.00%					
Debt Administrative Expense (% of Principal)		20		20	20	20	20					
Series Identifier		1.50%		1.50%	1.50%	1.50%	1.50%					
		Bond 1		Bond 2	Bond 3	Bond 4	Bond 5					



Village of Downers Grove  
Water Rate Study

SCHEDULE 2A - OPERATING & MAINTENANCE EXPENSES

Public Works	Water Distribution	481.30.393.5121.0000	Overtime	A	\$	73,069	\$	68,327	\$	54,126	\$	53,000	\$	53,000	\$	54,590	\$	56,228	\$	57,915	\$	59,652	\$	61,442	\$	63,285	\$	65,183	\$	67,139	\$	69,153		
Public Works	Water Distribution	481.30.393.5131.0000	Imrf Pension Contrbs	A	\$	48,870	\$	52,612	\$	55,617	\$	59,842	\$	65,826	\$	67,801	\$	69,835	\$	71,930	\$	74,088	\$	76,311	\$	78,600	\$	80,958	\$	83,387	\$	85,888		
Public Works	Water Distribution	481.30.393.5133.0000	Medicare Contributions	A	\$	5,174	\$	5,212	\$	5,878	\$	6,654	\$	6,920	\$	7,128	\$	7,342	\$	7,562	\$	7,789	\$	8,022	\$	8,263	\$	8,511	\$	8,766	\$	9,029		
Public Works	Water Distribution	481.30.393.5134.0000	Social Security Contributions	A	\$	22,127	\$	22,287	\$	25,134	\$	28,452	\$	29,590	\$	30,478	\$	31,392	\$	32,334	\$	33,304	\$	34,303	\$	35,332	\$	36,392	\$	37,484	\$	38,608		
Public Works	Water Distribution	481.30.393.5167.0000	Compensated Absences	A	\$	1,024	\$	8,995	\$	12,134	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
Public Works	Water Distribution	481.30.393.5190.0000	Life Insurance	A	\$	635	\$	732	\$	1,440	\$	1,611	\$	1,611	\$	1,659	\$	1,709	\$	1,760	\$	1,813	\$	1,868	\$	1,924	\$	1,981	\$	2,041	\$	2,102		
Public Works	Water Distribution	481.30.393.5191.0000	Health Insurance	A	\$	74,678	\$	84,627	\$	86,557	\$	93,179	\$	100,634	\$	103,653	\$	106,762	\$	109,965	\$	113,264	\$	116,662	\$	120,162	\$	123,767	\$	127,480	\$	131,304		
Public Works	Water Distribution	481.30.393.5195.0000	Optical Insurance	A	\$	1,031	\$	1,051	\$	709	\$	732	\$	750	\$	773	\$	796	\$	820	\$	844	\$	870	\$	896	\$	923	\$	950	\$	979		
Public Works	Water Distribution	481.30.393.5197.0000	Dental Insurance	O	\$	7,114	\$	8,210	\$	8,826	\$	9,104	\$	9,332	\$	9,612	\$	9,900	\$	10,197	\$	10,503	\$	10,818	\$	11,142	\$	11,477	\$	11,821	\$	12,176		
Public Works	Water Distribution	481.30.393.5205.0000	Uniforms	O	\$	2,933	\$	2,773	\$	3,017	\$	4,760	\$	4,760	\$	4,903	\$	5,050	\$	5,201	\$	5,357	\$	5,518	\$	5,684	\$	5,854	\$	6,030	\$	6,211		
Public Works	Water Distribution	481.30.393.5210.0000	Supplies	O	\$	1,664	\$	1,590	\$	6,710	\$	2,000	\$	2,000	\$	2,060	\$	2,122	\$	2,185	\$	2,251	\$	2,319	\$	2,388	\$	2,460	\$	2,534	\$	2,610		
Public Works	Water Distribution	481.30.393.5251.0000	Maintenance Supplies	O	\$	12,581	\$	49,226	\$	42,578	\$	61,450	\$	61,450	\$	63,294	\$	65,192	\$	67,148	\$	69,163	\$	71,237	\$	73,375	\$	75,576	\$	77,843	\$	80,178		
Public Works	Water Distribution	481.30.393.5257.0000	Trans & Distribution Supplies-New Constr	O	\$	69,882	\$	73,997	\$	45,381	\$	48,455	\$	48,455	\$	49,909	\$	51,406	\$	52,948	\$	54,537	\$	56,173	\$	57,858	\$	59,594	\$	61,381	\$	63,223		
Public Works	Water Distribution	481.30.393.5258.0000	Transmission & Distribution Maintenance	O	\$	49,222	\$	7,350	\$	9,725	\$	25,126	\$	25,126	\$	25,880	\$	26,656	\$	27,456	\$	28,280	\$	29,128	\$	30,002	\$	30,902	\$	31,829	\$	32,784		
Public Works	Water Distribution	481.30.393.5259.0000	Hydrant Maintenance Supplies	O	\$	44,708	\$	31,261	\$	47,562	\$	68,500	\$	68,499	\$	70,554	\$	72,671	\$	74,851	\$	77,096	\$	79,409	\$	81,791	\$	84,245	\$	86,772	\$	89,376		
Public Works	Water Distribution	481.30.393.5270.0000	Asset Maintenance Supplies	O	\$	241	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
Public Works	Water Distribution	481.30.393.5280.0000	Small Tools & Equipment	O	\$	5,241	\$	7,121	\$	4,470	\$	14,700	\$	14,700	\$	15,141	\$	15,595	\$	16,063	\$	16,545	\$	17,041	\$	17,553	\$	18,079	\$	18,622	\$	19,180		
Public Works	Water Distribution	481.30.393.5302.0000	Dues And Memberships	O	\$	50	\$	90	\$	-	\$	100	\$	100	\$	103	\$	106	\$	109	\$	113	\$	116	\$	119	\$	123	\$	127	\$	130		
Public Works	Water Distribution	481.30.393.5303.0000	Seminars, Conferences & Meetings	O	\$	2,033	\$	1,249	\$	120	\$	1,400	\$	1,400	\$	1,442	\$	1,485	\$	1,530	\$	1,576	\$	1,623	\$	1,672	\$	1,722	\$	1,773	\$	1,827		
Public Works	Water Distribution	481.30.393.5315.0000	Professional Services	O	\$	34,670	\$	194,692	\$	207,271	\$	278,150	\$	278,150	\$	303,150	\$	328,150	\$	337,995	\$	348,134	\$	358,578	\$	369,336	\$	380,416	\$	391,828	\$	403,583		
Public Works	Water Distribution	481.30.393.5322.0000	Personnel Recruitment	O	\$	180	\$	94	\$	-	\$	120	\$	120	\$	124	\$	127	\$	131	\$	135	\$	139	\$	143	\$	148	\$	152	\$	157		
Public Works	Water Distribution	481.30.393.5391.0000	Telephone	O	\$	3,895	\$	2,739	\$	1,810	\$	2,780	\$	2,780	\$	2,863	\$	2,949	\$	3,038	\$	3,129	\$	3,223	\$	3,319	\$	3,419	\$	3,522	\$	3,627		
Public Works	Water Distribution	481.30.393.5431.0000	Contracted Services	O	\$	-	\$	10,484	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
Public Works	Water Distribution	481.30.393.5455.0000	Waste Disposal	O	\$	40,052	\$	41,700	\$	40,840	\$	52,500	\$	52,500	\$	54,075	\$	55,697	\$	57,368	\$	59,089	\$	60,862	\$	62,688	\$	64,568	\$	66,505	\$	68,501		
Public Works	Water Distribution	481.30.393.5470.0000	Other Equipment Repair and Maintenance	O	\$	78,492	\$	64,194	\$	131,283	\$	277,950	\$	277,950	\$	286,289	\$	294,877	\$	303,723	\$	312,835	\$	322,220	\$	331,877	\$	341,843	\$	352,099	\$	362,662		
Public Works	Water Distribution	481.30.393.5481.0000	Rentals	O	\$	2,247	\$	5,197	\$	1,088	\$	5,000	\$	5,000	\$	5,150	\$	5,305	\$	5,464	\$	5,628	\$	5,796	\$	5,970	\$	6,149	\$	6,334	\$	6,524		
Public Works	Water Distribution	481.30.393.5650.0001	Transfer To ISFs For Allocation	O	\$	33,636	\$	35,112	\$	29,160	\$	44,747	\$	45,122	\$	46,476	\$	47,870	\$	49,306	\$	50,786	\$	52,309	\$	53,878	\$	55,495	\$	57,160	\$	58,874		
Public Works	Water Distribution	481.30.393.5650.0003	Transfer To ISFs For Allocation	O	\$	37,164	\$	36,648	\$	43,824	\$	26,540	\$	34,849	\$	35,894	\$	36,971	\$	38,080	\$	39,223	\$	40,399	\$	41,611	\$	42,860	\$	44,145	\$	45,470		
Public Works	Water Distribution	481.30.393.5740.0000	Infrastructure	O	\$	1,275	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
Public Works	Water Distribution	481.30.393.5770.0000	Capital Equipment	O	\$	23,361	\$	-	\$	1,042	\$	2,700	\$	2,700	\$	2,781	\$	2,864	\$	2,950	\$	3,039	\$	3,130	\$	3,224	\$	3,321	\$	3,420	\$	3,523		
Public Works	Water Distribution	481.30.393.5902.0000	Misc Transfers	O	\$	666,585	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
<b>Total Operating &amp; Maintenance Expenses</b>					\$	<b>6,406,952</b>	\$	<b>5,803,767</b>	\$	<b>7,054,250</b>	\$	<b>7,867,340</b>	\$	<b>8,180,707</b>	\$	<b>8,764,289</b>	\$	<b>9,394,053</b>	\$	<b>10,040,085</b>	\$	<b>10,741,918</b>	\$	<b>11,504,870</b>	\$	<b>12,334,780</b>	\$	<b>13,238,063</b>	\$	<b>14,221,769</b>	\$	<b>15,293,642</b>		
<b>Summary by Budget Category</b>																																		
<b>Billing / Customer Service</b>						168,750	178,699	623,418	234,388	204,158	210,283	216,591	223,089	229,781	236,675	243,775	251,088	258,621	266,380															
<b>Administration</b>						1,470,861	1,570,180	1,608,790	1,680,405	1,739,346	1,791,526	1,845,272	1,900,630	1,957,649	2,016,379	2,076,870	2,139,176	2,203,351	2,269,452															
<b>Pumping and Treatment</b>						182,388	172,058	182,554	253,515	327,664	357,999	388,569	400,226	412,233	424,600	437,338	450,458	467,972	477,891															
<b>Water Distribution</b>						1,624,154	1,108,714	1,236,136	1,569,758	1,609,539	1,674,481	1,740,621	1,792,840	1,846,625	1,902,023	1,959,084	2,017,857	2,078,392	2,140,744															
<b>Water Purchase</b>						2,960,799	2,774,116	3,403,352	4,129,274	4,300,000	4,730,000	5,203,000	5,723,300	6,295,630	6,925,193	7,617,712	8,379,484	9,217,432	10,139,175															
						<b>\$6,406,952</b>	<b>\$5,803,767</b>	<b>\$7,054,250</b>	<b>\$7,867,340</b>	<b>\$8,180,707</b>	<b>\$8,764,289</b>	<b>\$9,394,053</b>	<b>\$10,040,085</b>	<b>\$10,741,918</b>	<b>\$11,504,870</b>	<b>\$12,334,780</b>	<b>\$13,238,063</b>	<b>\$14,221,769</b>	<b>\$15,293,642</b>															
<b>Administrative vs. Operating</b>																																		
<b>Total Administrative O&amp;M Expenses</b>					A	\$	993,471	\$	1,091,258	\$	1,128,524	\$	1,202,542	\$	1,258,671	\$	1,296,431	\$	1,335,324															

**SCHEDULE 2B - DUPAGE WATER PURCHASE**

<b>Account Name</b>	<b>2009 Actuals</b>	<b>2010 Adopted</b>	<b>2011 Projection</b>	<b>2012 Projection</b>	<b>2013 Projection</b>	<b>2014 Projection</b>	<b>2015 Projection</b>	<b>2016 Projection</b>	<b>2017 Projection</b>	<b>2018 Projection</b>	<b>2019 Projection</b>	<b>2020 Projection</b>
Water Purchase - Fixed Charges	\$ 504,000	\$ 504,000	\$ 504,000	\$ 554,400	\$ 609,840	\$ 670,824	\$ 737,906	\$ 811,697	\$ 892,867	\$ 982,153	\$ 1,080,369	\$ 1,188,406
Water Purchase - Variable Charges	\$ 2,899,352	\$ 3,625,274	\$ 3,796,000	\$ 4,175,600	\$ 4,593,160	\$ 5,052,476	\$ 5,557,724	\$ 6,113,496	\$ 6,724,846	\$ 7,397,330	\$ 8,137,063	\$ 8,950,769
<b>Total Water Purchase</b>	<b>\$ 3,403,352</b>	<b>\$ 4,129,274</b>	<b>\$ 4,300,000</b>	<b>\$ 4,730,000</b>	<b>\$ 5,203,000</b>	<b>\$ 5,723,300</b>	<b>\$ 6,295,630</b>	<b>\$ 6,925,193</b>	<b>\$ 7,617,712</b>	<b>\$ 8,379,484</b>	<b>\$ 9,217,432</b>	<b>\$ 10,139,175</b>



**SCHEDULE 3 - OPERATING & MAINTENANCE RESERVE**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
O&M Expenses	\$ 7,867,340	\$ 8,180,707	\$ 8,764,289	\$ 9,394,053	\$ 10,040,085	\$ 10,741,918	\$ 11,504,870	\$ 12,334,780	\$ 13,238,063	\$ 14,221,769	\$ 15,293,642
Target Balance (90 days operating)	\$ 1,939,892	\$ 2,017,161	\$ 2,161,058	\$ 2,316,342	\$ 2,475,637	\$ 2,648,692	\$ 2,836,817	\$ 3,041,453	\$ 3,264,180	\$ 3,506,737	\$ 3,771,035
Begin Year Balance	\$ 2,291,968	\$ 732,982	\$ 685,998	\$ 599,423	\$ 1,080,692	\$ 1,422,244	\$ 2,011,363	\$ (68,110)	\$ (2,672,223)	\$ (4,959,661)	\$ (6,772,311)
Reserve Withdrawals	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water O&M Reserve Contribution	\$ -	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000

**SCHEDULE 4 - EXISTING DEBT SERVICE**

Debt Issue		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Series 2001A (to finance AMR)	Principal	\$ 450,000	\$ 470,000	\$ 485,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Series 2001A (to finance AMR)	Interest	\$ 53,708	\$ 33,003	\$ 11,155	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Debt Service Payment</b>		<b>\$ 503,708</b>	<b>\$ 503,003</b>	<b>\$ 496,155</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Principal Payment</b>		<b>\$ 450,000</b>	<b>\$ 470,000</b>	<b>\$ 485,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Interest Payment</b>		<b>\$ 53,708</b>	<b>\$ 33,003</b>	<b>\$ 11,155</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

SCHEDULE 5 - CAPITAL IMPROVEMENT PLAN

Project Code	Project	Fund	Project Type	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total FY 10 - FY 20
WA-015	Watermain Replacement, School Street	481	INF	\$ 142,188											\$ 142,188
WA-017	Watermain Replacement, Curtiss (Katrine to Belmont)	481	INF			\$ 650,000									\$ 650,000
WA-018	Watermain Replacement, Wisconsin (Walnut to Janes)	481	INF			\$ 650,000									\$ 650,000
WA-019	Watermain Replacement, Esterbrook Subdivision, Unit 1	481	INF			\$ 830,000									\$ 830,000
WA-020	Watermain Replacement, Dawn Place & Stanley Avenue	481	INF	\$ 159,962											\$ 159,962
WA-021	Watermain Replacement, Sheldon (Florence to Cumnor)	481	INF	\$ 479,886											\$ 479,886
WA-022	Watermain Replacement, Stanley (Prairie to Rogers)	481	INF	\$ 231,056											\$ 231,056
WA-023	Watermain Replacement, Lee (Grant to Chicago)	481	INF			\$ 325,000									\$ 325,000
WA-024	Watermain Replacement, Snowberry (Downers to End)	481	INF			\$ 175,000									\$ 175,000
WA-025	Watermain Replacement, 40th (Sterling to Fairview)	481	INF			\$ 350,000									\$ 350,000
WA-026	Watermain Interconnections	481	INF			\$ 650,000									\$ 650,000
WA-028	Watermain Replacement, Annual Element	481	INF			\$ 1,600,000	\$ 2,340,000	\$ 2,400,000	\$ 3,000,000						\$ 9,340,000
WA-029	Watermain Relocation, Tollway Widening	481	INF						\$ 500,000						\$ 500,000
WA-031	Water Meter Replacement Program		CAP	\$ 100,000	\$ 100,000	\$ 200,000									\$ 300,000
WA-032	Watermain Replacement, KKnotttingham		INF	\$ 125,000	\$ 125,000	\$ 600,000									\$ 725,000
WP-003	Water Tank Painting, Summit	481	BLD				\$ 600,000								\$ 600,000
WP-005	Water Tank Painting, Maple	481	BLD	\$ 60,000	\$ 60,000	\$ 600,000									\$ 660,000
WP-006	Storage Building Installation, Maple Tower	481	BLD		\$ 225,000	\$ 225,000									\$ 225,000
WP-007	Water Tank Painting, Finley	481	BLD			\$ 60,000	\$ 60,000								\$ 660,000
WP-009	Water System SCADA Improvements Automated Meter Reading	481	SOFT CAP	\$ 100,000		\$ 120,000				\$ 1,750,000	\$ 1,750,000				\$ 220,000 \$ 3,500,000
<b>Total Capital Improvement Project</b>				<b>\$ 1,113,093</b>	<b>\$ 285,000</b>	<b>\$ 6,975,000</b>	<b>\$ 3,000,000</b>	<b>\$ 3,000,000</b>	<b>\$ 5,250,000</b>	<b>\$ 1,750,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 21,373,093</b>
<i>check</i>				<i>\$1,113,093</i>	<i>\$285,000</i>	<i>\$6,975,000</i>	<i>\$3,000,000</i>	<i>\$3,000,000</i>	<i>\$5,250,000</i>	<i>\$1,750,000</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	
<b>Capital Projects By Type</b>															
Buildings		BLD	\$ -	\$ 60,000	\$ 825,000	\$ 660,000	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,145,000
Capital Work in Progress		CWIP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Equipment		CAP	\$ -	\$ 100,000	\$ 200,000	\$ -	\$ -	\$ 1,750,000	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,800,000
Improvements		IMP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Infrastructure		INF	\$ 1,013,093	\$ 125,000	\$ 5,830,000	\$ 2,340,000	\$ 2,400,000	\$ 3,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,208,093
Software		SOFT	\$ 100,000	\$ -	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 220,000
Vehicles		VEH	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				\$ 1,113,093	\$ 285,000	\$ 6,975,000	\$ 3,000,000	\$ 3,000,000	\$ 5,250,000	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -	\$ 21,373,093

SCHEDULE 6A - CASH FUNDED CAPITAL IMPROVEMENT PROJECTS

Project Code	Project	Fund	Project Type	Year																	Total FY 10 - FY 20
				2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020							
WA-015	Watermain Replacement, School Street	481	INF	\$ 142,188	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 142,188		
WA-017	Watermain Replacement, Curtiss (Katrine to Belmont)	481	INF	\$ -	\$ -	\$ 117,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 117,000		
WA-018	Watermain Replacement, Wisconsin (Walnut to Janes)	481	INF	\$ -	\$ -	\$ 117,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 117,000		
WA-019	Watermain Replacement, Esterbrook Subdivision, Unit 1	481	INF	\$ -	\$ -	\$ 149,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 149,400		
WA-020	Watermain Replacement, Dawn Place & Stanley Avenue	481	INF	\$ 159,962	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 159,962		
WA-021	Watermain Replacement, Sheldon (Florence to Cumnor)	481	INF	\$ 479,886	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 479,886		
WA-022	Watermain Replacement, Stanley (Prairie to Rogers)	481	INF	\$ 231,056	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 231,056		
WA-023	Watermain Replacement, Lee (Grant to Chicago)	481	INF	\$ -	\$ -	\$ 58,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 58,500		
WA-024	Watermain Replacement, Snowberry (Downers to End)	481	INF	\$ -	\$ -	\$ 31,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 31,500		
WA-025	Watermain Replacement, 40th (Sterling to Fairview)	481	INF	\$ -	\$ -	\$ 63,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 63,000		
WA-026	Watermain Interconnections	481	INF	\$ -	\$ -	\$ 117,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 117,000		
WA-028	Watermain Replacement, Annual Element	481	INF	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
WA-029	Watermain Relocation, Tollway Widening	481	INF	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000		
WA-031	Water Meter Replacement Program	CAP	\$ -	\$ 100,000	\$ 36,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 136,000		
WA-032	Watermain Replacement, KKnottingham	INF	\$ -	\$ 125,000	\$ 108,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 233,000		
WP-003	Water Tank Painting, Summit	481	BLD	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 600,000		
WP-005	Water Tank Painting, Maple	481	BLD	\$ -	\$ 60,000	\$ 108,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 168,000		
WP-006	Storage Building Installation, Maple Tower	481	BLD	\$ -	\$ -	\$ 40,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,500		
WP-007	Water Tank Painting, Finley	481	BLD	\$ -	\$ -	\$ -	\$ 60,000	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 660,000		
WP-009	Water System SCADA Improvements	481	SOFT	\$ 100,000	\$ -	\$ 21,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 121,600		
	Automated Meter Reading	CAP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
<b>Total Cash Funded Capital Improvement Projects</b>				<b>\$1,113,093</b>	<b>\$285,000</b>	<b>\$967,500</b>	<b>\$660,000</b>	<b>\$600,000</b>	<b>\$500,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,125,593</b>		
<b>Capital Projects By Type</b>																					
Buildings	BLD	\$ -	\$ 60,000	\$ 148,500	\$ 660,000	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,468,500		
Capital Work in Progress	CWIP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Capital Equipment	CAP	\$ -	\$ 100,000	\$ 36,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 136,000		
Improvements	IMP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Infrastructure	INF	\$ 1,013,093	\$ 125,000	\$ 761,400	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,399,493		
Software	SOFT	\$ 100,000	\$ -	\$ 21,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 121,600		
Vehicles	VEH	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
				<b>\$ 1,113,093</b>	<b>\$ 285,000</b>	<b>\$ 967,500</b>	<b>\$ 660,000</b>	<b>\$ 600,000</b>	<b>\$ 500,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,125,593</b>		

SCHEDULE 6B - BOND FUNDED CAPITAL IMPROVEMENT PROJECTS

Project Code	Project	Fund	Project Type	Year											Total FY 10 - FY 20		
				2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020			
WA-015	Watermain Replacement, School Street	481	INF	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WA-017	Watermain Replacement, Curtiss (Katrine to Belmont)	481	INF	\$ -	\$ -	\$ 533,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 533,000
WA-018	Watermain Replacement, Wisconsin (Walnut to Janes)	481	INF	\$ -	\$ -	\$ 533,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 533,000
WA-019	Watermain Replacement, Esterbrook Subdivision, Unit 1	481	INF	\$ -	\$ -	\$ 680,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 680,600
WA-020	Watermain Replacement, Dawn Place & Stanley Avenue	481	INF	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WA-021	Watermain Replacement, Sheldon (Florence to Cumnor)	481	INF	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WA-022	Watermain Replacement, Stanley (Prairie to Rogers)	481	INF	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WA-023	Watermain Replacement, Lee (Grant to Chicago)	481	INF	\$ -	\$ -	\$ 266,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 266,500
WA-024	Watermain Replacement, Snowberry (Downers to End)	481	INF	\$ -	\$ -	\$ 143,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 143,500
WA-025	Watermain Replacement, 40th (Sterling to Fairview)	481	INF	\$ -	\$ -	\$ 287,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 287,000
WA-026	Watermain Interconnections	481	INF	\$ -	\$ -	\$ 533,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 533,000
WA-028	Watermain Replacement, Annual Element	481	INF	\$ -	\$ -	\$ 1,600,000	\$ 2,340,000	\$ 2,400,000	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,340,000
WA-029	Watermain Relocation, Tollway Widening	481	INF	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WA-031	Water Meter Replacement Program		CAP	\$ -	\$ -	\$ 164,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 164,000
WA-032	Watermain Replacement, KKnotttingham		INF	\$ -	\$ -	\$ 492,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 492,000
WP-003	Water Tank Painting, Summit	481	BLD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WP-005	Water Tank Painting, Maple	481	BLD	\$ -	\$ -	\$ 492,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 492,000
WP-006	Storage Building Installation, Maple Tower	481	BLD	\$ -	\$ -	\$ 184,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 184,500
WP-007	Water Tank Painting, Finley	481	BLD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WP-009	Water System SCADA Improvements	481	SOFT	\$ -	\$ -	\$ 98,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 98,400
	Automated Meter Reading		CAP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,750,000	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,500,000
<b>Total Bond Funded Capital Improvement Projects</b>				<b>\$0</b>	<b>\$0</b>	<b>\$6,007,500</b>	<b>\$2,340,000</b>	<b>\$2,400,000</b>	<b>\$4,750,000</b>	<b>\$ 1,750,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 17,247,500</b>

Future Debt By Future Series Bond

Total Bond																
Funded Amount																
Bond 1	\$ 10,747,500	\$ -	\$ -	\$ 6,007,500	\$ 2,340,000	\$ 2,400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bond 2	\$ 6,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,750,000	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bond 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bond 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bond 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 17,247,500	\$ -	\$ -	\$ 6,007,500	\$ 2,340,000	\$ 2,400,000	\$ 4,750,000	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Capital Projects By Type

Buildings	BLD	\$ -	\$ -	\$ 676,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 676,500
Capital Work in Progress	CWIP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Equipment	CAP	\$ -	\$ -	\$ 164,000	\$ -	\$ -	\$ 1,750,000	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,664,000
Improvements	IMP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Infrastructure	INF	\$ -	\$ -	\$ 5,068,600	\$ 2,340,000	\$ 2,400,000	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,808,600
Software	SOFT	\$ -	\$ -	\$ 98,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 98,400
Vehicles	VEH	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$	\$ -	\$ -	\$ 6,007,500	\$ 2,340,000	\$ 2,400,000	\$ 4,750,000	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,247,500

Village of Downers Grove  
Water Rate Study

**SCHEDULE 7 - PROJECTED DEBT**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Bond Series	\$ -	\$ -	Bond 1	\$ -	\$ -	Bond 2	\$ -	Bond 3	\$ -	Bond 4	\$ -	
Projected Debt	\$ -	\$ -	\$ 10,747,500	\$ -	\$ -	\$ 6,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	
Debt Subtotal	\$ -	\$ -	\$ 10,747,500	\$ -	\$ -	\$ 6,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	
Administrative Costs (% of principal)	0.0%	0.0%	1.5%	0.0%	0.0%	1.5%	0.0%	1.5%	0.0%	1.5%	0.0%	
Administrative Costs Subtotal	\$ -	\$ -	\$ 161,213	\$ -	\$ -	\$ 97,500	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Debt	\$ -	\$ -	\$ 10,908,713	\$ -	\$ -	\$ 6,597,500	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Debt Service</b>												
Interest Rate	0.0%	0.0%	5.0%	0.0%	0.0%	5.0%	0.0%	5.0%	0.0%	5.0%	0.0%	
Period (years)	0	0	20	0	0	20	0	20	0	20	0	
Total Debt Service	-	-	875,343	-	-	529,400	-	-	-	-	-	
Principal Portion	-	-	545,436	-	-	329,875	-	-	-	-	-	
Interest Portion	-	-	329,908	-	-	199,525	-	-	-	-	-	
Payment Schedule	Year Funded	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bond 1	2012	\$ -	\$ -	\$ -	\$ 875,343	\$ 875,343	\$ 875,343	\$ 875,343	\$ 875,343	\$ 875,343	\$ 875,343	\$ 875,343
Bond 2	2015	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 529,400	\$ 529,400	\$ 529,400	\$ 529,400	\$ 529,400
Bond 3	2017	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bond 4	2019	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bond 5	2021	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Payment per Year</b>		\$ -	\$ -	\$ -	\$ 875,343	\$ 875,343	\$ 875,343	\$ 1,404,744	\$ 1,404,744	\$ 1,404,744	\$ 1,404,744	\$ 1,404,744

Village of Downers Grove  
Water Rate Study

**SCHEDULE 8 - INTEREST INCOME**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Cash Investments</b>	\$ 2,312,236	\$ 732,982	\$ 780,258	\$ 693,683	\$ 1,174,952	\$ 2,063,704	\$ 3,312,751	\$ 4,935,968	\$ 6,999,073	\$ 9,541,143	\$ 12,604,196	\$ 16,233,386
<b>Interest Earned on Investments</b>		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
<b>TOTAL</b>	\$ -	\$ 36,649	\$ 39,013	\$ 34,684	\$ 58,748	\$ 103,185	\$ 165,638	\$ 246,798	\$ 349,954	\$ 477,057	\$ 630,210	\$ 811,669

SCHEDULE 9 - MISCELLANEOUS REVENUES

	2007 Actuals	2008 Actuals	2009 Actuals	2010 Adopted	2011 Projection	2012 Projection	2013 Projection	2014 Projection	2015 Projection	2016 Projection	2017 Projection	2018 Projection	2019 Projection	2020 Projection
Interest on Investments	\$ 319,518	\$ 239,321	\$ 99,030	\$ 30,000	\$ 26,500	\$ 27,295	\$ 28,114	\$ 28,957	\$ 29,826	\$ 30,721	\$ 31,642	\$ 32,592	\$ 33,569	\$ 34,576
Watering Permit Fee	\$ 1,110	\$ 930	\$ 1,170	\$ 2,636	\$ 2,716	\$ 2,797	\$ 2,881	\$ 2,968	\$ 3,057	\$ 3,149	\$ 3,243	\$ 3,340	\$ 3,441	\$ 3,544
Miscellaneous Revenues	\$ 3,012,957	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Admin Citation Fee	\$ 75	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Shut-Off Fee	\$ 39,530	\$ 47,112	\$ 36,344	\$ 36,000	\$ 36,000	\$ 37,080	\$ 38,192	\$ 39,338	\$ 40,518	\$ 41,734	\$ 42,986	\$ 44,275	\$ 45,604	\$ 46,972
Review & Inspection Fees	\$ 15,335	\$ 10,295	\$ 7,060	\$ 10,000	\$ 10,000	\$ 10,300	\$ 10,609	\$ 10,927	\$ 11,255	\$ 11,593	\$ 11,941	\$ 12,299	\$ 12,668	\$ 13,048
Costs Recovered for Services	\$ (5,078)	\$ 1,432	\$ 1,416	\$ 1,200	\$ 1,200	\$ 1,236	\$ 1,273	\$ 1,311	\$ 1,351	\$ 1,391	\$ 1,433	\$ 1,476	\$ 1,520	\$ 1,566
Water System Capacity Charge	\$ 80,087	\$ 57,273	\$ 33,000	\$ 35,000	\$ 38,000	\$ 39,140	\$ 40,314	\$ 41,524	\$ 42,769	\$ 44,052	\$ 45,374	\$ 46,735	\$ 48,137	\$ 49,581
Water System Connection Charge	\$ 125,628	\$ 96,565	\$ 38,554	\$ 40,000	\$ 40,000	\$ 41,200	\$ 42,436	\$ 43,709	\$ 45,020	\$ 46,371	\$ 47,762	\$ 49,195	\$ 50,671	\$ 52,191
Water meter & Mike Sales	\$ 113,461	\$ 71,773	\$ 30,964	\$ 35,000	\$ 35,000	\$ 36,050	\$ 37,132	\$ 38,245	\$ 39,393	\$ 40,575	\$ 41,792	\$ 43,046	\$ 44,337	\$ 45,667
Penalties, etc.	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
<b>Total Miscellaneous Revenues</b>	<b>\$ 3,852,623</b>	<b>\$ 674,701</b>	<b>\$ 397,538</b>	<b>\$ 339,836</b>	<b>\$ 339,416</b>	<b>\$ 345,098</b>	<b>\$ 350,951</b>	<b>\$ 356,980</b>	<b>\$ 363,189</b>	<b>\$ 369,585</b>	<b>\$ 376,173</b>	<b>\$ 382,958</b>	<b>\$ 389,947</b>	<b>\$ 397,145</b>



SCHEDULE 10A - CAPITAL ASSET RAW DATA

Asset #	Description	Asset Status	Asset Class	Asset Category	Asset Life	P Column	Acquire Date	Acquisition Year	Replacement Decade	Original Cost	Accumulated Depreciation	Current Depreciation	Book Value	Last Depreciation Date	Age	Useful Life	Replacement Year	ENR Historical Value	May 2010 ENR	Replacement Cost (Original Cost)	Replacement Value (Depreciated Value)	
000226	PUMP HOUSE BUILT 1962	A	bdg	Buildings	60	p	7/1/1963	1963	2030	\$12,683.58	\$12,683.58	\$143.22	\$0.00	12/31/2008	47	60	2023	901	\$761	\$	\$	
000218	PARK STREET RESERVOIR	A	bdg	Buildings	60	p	7/1/1927	1927	1990	\$43,293.00	\$43,293.00	\$0.00	\$0.00		83	60	1987	206	\$761	\$	1,841,213	\$
000229	PUMP HOUSE BUILT 1952	A	bdg	Buildings	60	p	7/1/1952	1952	2020	\$10,972.80	\$10,972.80	\$0.00	\$0.00	4/30/2005	58	60	2012	569	\$761	\$	168,950	\$
000228	PUMP HOUSE BUILT 1957	A	bdg	Buildings	60	p	7/1/1957	1957	2020	\$12,764.71	\$12,764.71	\$0.00	\$0.00	4/30/2006	53	60	2017	724	\$761	\$	154,464	\$
000230	PUBLIC WORKS 5101 WALNUT 4 PARCELS	A	bdg	Buildings	60	p	6/7/1997	1997	2060	\$5,905,020.00	\$1,395,020.00	\$110,948.76	\$4,513,322.94	12/31/2009	13	60	2057	5825	\$761	\$	8,243,259	\$
000220	PUMP HOUSE BUILT 1977	A	bdg	Buildings	60	p	7/1/1978	1978	2040	\$28,701.78	\$20,089.63	\$63.94	\$8,612.15	12/31/2009	32	60	2038	8761	\$761	\$	90,582	\$
000219	PUMP HOUSE BUILT 1971	A	bdg	Buildings	60	p	7/1/1972	1972	2040	\$20,561.42	\$17,132.91	\$457.14	\$3,428.51	12/31/2009	38	60	2032	1753	\$761	\$	102,760	\$
000225	PUMP HOUSE BUILT 1969	A	bdg	Buildings	60	p	7/1/1970	1970	2030	\$18,297.00	\$16,059.13	\$406.89	\$2,237.87	12/31/2009	40	60	2030	1381	\$761	\$	116,075	\$
000227	PUMP HOUSE BUILT 1968	A	bdg	Buildings	60	p	7/1/1969	1969	2030	\$15,044.07	\$14,044.07	\$347.13	\$1,562.06	12/31/2009	41	60	2029	4176	\$761	\$	107,743	\$
000231	WATER TOWER BASE FIRE # 4	A	bdg	Buildings	60	p	7/30/1984	1984	2050	\$391,000.00	\$220,824.66	\$8,689.80	\$170,175.34	12/31/2009	26	60	2044	4146	\$761	\$	826,230	\$
000808	WATER SYSTEM SECURITY ENHANCEMENTS	P	cwip	Cap. Work in Progress	2010		12/31/2009	2009	2010	\$13,033.48	\$0.00	\$0.00	\$13,033.48		1	0	2009	8570	\$761	\$	13,324	\$
000908	2008 FREIGHTLINER MT55/UTILMASTER WATER	P	cwip	Cap. Work in Progress	2010		11/14/2008	2008	2010	\$153,185.40	\$0.00	\$0.00	\$153,185.40		2	0	2008	8310	\$761	\$	161,499	\$
000263	29-01 AMR METERS	A	cap	Capital Equipment	4		4/30/2004	2004	2060	\$47,840.78	\$47,840.78	\$35,448.46	\$0.00	12/31/2008	7	4	2008	7115	\$761	\$	513,231	\$
000320	2003 AMR PROJECT IN TOWN WATER METERS	A	cap	Capital Equipment	4		4/30/2003	2003	2010	\$2,338,021.00	\$2,338,021.00	\$226,732.99	\$0.00	12/31/2007	7	4	2007	6694	\$761	\$	3,086,140	\$
000321	2002 AMR PROJECT IN TOWN WATER METERS	A	cap	Capital Equipment	4		4/30/2002	2002	2010	\$1,229,226.00	\$1,229,226.00	\$0.00	\$0.00	4/30/2006	8	4	2006	6538	\$761	\$	1,647,178	\$
000252	67TH ST WATER TANK	A	imp	Improvements	7		4/3/2001	2001	2010	\$1,879,167.00	\$1,879,167.00	\$71,587.31	\$0.00	12/31/2008	9	7	2008	6342	\$761	\$	2,595,929	\$
000250	SUMMIT STREET WATER TANK STEEL	A	imp	Improvements	60	p	7/1/1938	1938	2000	\$350,900.00	\$350,900.00	\$0.00	\$0.00	4/30/2006	72	60	1998	236	\$761	\$	13,026,419	\$
000250	DOWNERS DRIVE WATER TANK STEEL	A	imp	Improvements	60	p	7/1/1938	1938	2020	\$548,881.20	\$548,881.20	\$0.00	\$0.00	4/30/2006	63	60	2017	724	\$761	\$	6,641,917	\$
000251	71 ST WATER TANK STEEL	A	imp	Improvements	60	p	7/1/1957	1957	2020	\$453,300.00	\$453,300.00	\$0.00	\$0.00	4/30/2006	53	60	2017	724	\$761	\$	5,485,306	\$
000259	DOUGLAS & MAIN WTR IMPROV 60-96	A	imp	Improvements	60	p	4/30/2003	2003	2070	\$1,105,781.00	\$1,474,413.05	\$22,116.18	\$958,367.95	12/31/2009	7	60	2063	6694	\$761	\$	1,447,228	\$
000258	2000 HYDRANT & WTR IMPROV 04-00	A	imp	Improvements	60	p	4/30/2002	2002	2070	\$988,655.00	\$1,571,571.52	\$19,773.63	\$837,083.48	12/31/2009	8	60	2062	6538	\$761	\$	1,324,810	\$
000261	AA-WTR IMPROVEMENTS-HIST	A	imp	Improvements	60	p	4/30/1999	1999	2060	\$42,841.17	\$42,841.17	\$397.29	\$15,626.83	12/31/2009	11	60	2059	6060	\$761	\$	28,718	\$
000260	AA-WTR TANK IMPROV HISTORY	A	imp	Improvements	60	p	4/30/1999	1999	2060	\$3,161,592.00	\$674,397.21	\$63,237.77	\$2,487,194.79	12/31/2009	11	60	2059	6060	\$761	\$	4,570,744	\$
000262	AA-HYDRANTS & WTR IMPROV HIST	A	imp	Improvements	60	p	4/30/1999	1999	2060	\$714,683.00	\$152,448.60	\$14,294.10	\$562,234.40	12/31/2009	11	60	2059	6060	\$761	\$	1,033,224	\$
000257	MAPLE & BELMONT	A	imp	Improvements	60	p	4/30/1989	1989	2050	\$1,124,000.00	\$464,552.43	\$22,481.17	\$659,447.57	12/31/2009	21	60	2049	4615	\$761	\$	2,133,773	\$
000256	HIGHLAND GOOD SAM TANK	A	imp	Improvements	60	p	4/30/1989	1988	2050	\$80,840.88	\$80,840.88	\$17,340.96	\$63,499.92	12/31/2009	21	60	2049	4615	\$761	\$	1,680,858	\$
000255	04-98 71 ST TANK W/SHOULT	A	imp	Improvements	7		4/30/2004	2004	2020	\$117,060.00	\$94,706.62	\$16,765.03	\$22,353.38	12/31/2009	6	7	2011	7115	\$761	\$	144,141	\$
000248	FINLEY SQUARE WATER TANK STEEL	A	imp	Improvements	60	p	7/1/1970	1970	2030	\$523,300.00	\$459,295.94	\$11,637.10	\$64,004.06	12/31/2009	40	60	2030	1381	\$761	\$	3,319,719	\$
000665	HIGHLAND GOOD SAM TANK PAINTING	A	imp	Improvements	60	p	10/24/2006	2006	2070	\$581,833.48	\$180,877.90	\$58,676.43	\$400,956.58	12/31/2009	4	60	2066	7751	\$761	\$	657,650	\$
000874	SCADA SYSTEM RADIO	A	imp	Improvements	15	p	12/31/2008	2008	2030	\$52,473.20	\$5,498.21	\$5,498.21	\$76,974.99	12/31/2009	2	15	2023	8310	\$761	\$	86,949	\$
000239	WATERMAIN 1950-1959	A	inf	Infrastructure	70	p	4/30/1959	1950	2020	\$1,364,648.00	\$1,364,648.00	\$9,167.93	\$0.00	12/31/2009	60	70	2020	510	\$761	\$	23,442,512	\$
000238	WATERMAIN UP TO 1949	A	inf	Infrastructure	70	p	4/30/1949	1920	1990	\$1,311,876.00	\$1,311,876.00	\$0.00	\$0.00	4/30/2006	90	70	1990	251	\$761	\$	45,790,222	\$
000872	GHERTZ & WILSON WATERMAIN REPLACEMENT	A	inf	Infrastructure	70	p	10/21/2009	2009	2080	\$707,061.51	\$2,356.87	\$2,356.87	\$704,704.64	12/31/2009	1	70	2079	8570	\$761	\$	722,820	\$
000891	WATERMAIN REPLACE AUSTIN ST	A	inf	Infrastructure	70	p	10/21/2009	2009	2080	\$323,043.26	\$1,076.81	\$1,076.81	\$321,966.45	12/31/2009	1	70	2079	8570	\$761	\$	330,242	\$
000928	ROGERS ST WATERMAIN REPLACE	A	inf	Infrastructure	70	p	11/11/2009	2009	2080	\$640,174.01	\$2,133.91	\$2,133.91	\$638,040.10	12/31/2009	1	70	2079	8570	\$761	\$	654,422	\$
000929	ROGERS STREET RESURFACING	A	inf	Infrastructure	70	p	11/4/2009	2009	2080	\$300,000.00	\$1,000.00	\$1,000.00	\$299,000.00	12/31/2009	1	70	2079	8570	\$761	\$	306,686	\$
000247	TCE PROJECT	A	inf	Infrastructure	70	p	4/30/2005	2005	2080	\$569,250.00	\$53,117.92	\$11,385.27	\$516,132.08	12/31/2009	5	70	2075	7446	\$761	\$	669,782	\$
000244	WATERMAIN 2000-2003	A	inf	Infrastructure	70	p	4/30/2003	2000	2070	\$987,360.00	\$131,626.20	\$19,747.70	\$855,733.80	12/31/2009	10	70	2070	6222	\$761	\$	1,390,270	\$
000246	11-03 FAIRVIEW WATERMAIN IMPROVEMENTS	A	inf	Infrastructure	70	p	4/30/2005	2005	2080	\$491,729.88	\$50,981.40	\$10,927.65	\$440,748.48	12/31/2009	5	70	2075	7446	\$761	\$	578,572	\$
000245	12-03 WATERMAIN IMPROVEMENTS	A	inf	Infrastructure	70	p	4/30/2005	2005	2080	\$737,443.90	\$76,456.44	\$16,388.12	\$660,987.46	12/31/2009	5	70	2075	7446	\$761	\$	687,680	\$
000237	04-98 71 ST WATERMAIN IMPROV	A	inf	Infrastructure	70	p	4/30/2004	2004	2080	\$3,625.00	\$456.40	\$80.56	\$3,168.60	12/31/2009	6	70	2074	7115	\$761	\$	4,464	\$
000236	38-01 N. BELMONT WTRMAIN	A	inf	Infrastructure	70	p	4/30/2004	2004	2080	\$709,215.07	\$89,289.70	\$15,760.81	\$619,925.37	12/31/2009	6	70	2074	7115	\$761	\$	873,286	\$
000243	WATERMAIN 1990-1999	A	inf	Infrastructure	70	p	4/30/1999	1990	2060	\$2,933,505.00	\$625,743.75	\$58,671.90	\$2,307,761.25	12/31/2009	20	70	2060	4732	\$761	\$	5,431,200	\$
000242	WATERMAIN 1980-1989	A	inf	Infrastructure	70	p	4/30/1989	1980	2050	\$2,623,938.00	\$1,084,481.42	\$52,481.48	\$1,539,456.58	12/31/2009	30	70	2050	3237	\$761	\$	7,101,736	\$
000241	WATERMAIN 1970-1979	A	inf	Infrastructure	70	p	4/30/1979	1970	2040	\$3,768,405.00	\$2,311,131.04	\$75,376.24	\$1,457,273.96	12/31/2009	40	70	2040	1381	\$761	\$	23,906,587	\$
000240	WATERMAIN 1960-1969	A	inf	Infrastructure	70	p	4/30/1969	1960	2030	\$2,718,841.00	\$2,211,149.36	\$54,395.53	\$507,691.64	12/31/2009	50	70	2030	824	\$761	\$	28,907,483	\$
000667	WATERMAIN REPLACEMENT CORNELL	A	inf	Infrastructure	70	p	10/4/2006	2006	2080	\$359,395.96	\$22,797.87	\$7,199.96	\$336,998.09	12/31/2009	4	70	2076	7751	\$761	\$	406,227	\$
000666	WATERMAIN REPLACEMENT 56TH & WILCOX	A	inf	Infrastructure	70	p	10/26/2006	2006	2080	\$609,970.72	\$37,676.08	\$12,219.82	\$572,294.64	12/31/2009	4	70						

**SCHEDULE 10B -CAPITAL ASSET SUMMARY**

Asset Category	Values		Sum of Accumulated Depreciation	Sum of Book Value
	Sum of Original Cost			
Buildings	\$ 6,101,133	\$	1,763,785	\$ 4,337,349
Cap. Work in Progress	\$ 166,219	\$	-	\$ 166,219
Capital Equipment	\$ 4,004,288	\$	4,004,288	\$ -
Improvements	\$ 12,518,490	\$	5,942,920	\$ 6,575,570
Infrastructure	\$ 28,562,608	\$	9,463,372	\$ 19,206,922
Land	\$ 2,168,358	\$	-	\$ 2,168,358
Software	\$ 104,081	\$	27,769	\$ 76,312
Vehicles	\$ 120,408	\$	110,811	\$ 9,598
<b>Grand Total</b>	<b>\$ 53,745,586</b>	<b>\$</b>	<b>21,312,944</b>	<b>\$ 32,540,328</b>

Asset Category		Infrastructure
Sum of Replacement Cost (Original Cost)		
Replacement Year	Total	
1990	\$	45,790,222
2020	\$	23,442,512
2030	\$	28,907,483
2040	\$	23,906,587
2050	\$	7,101,736
2060	\$	5,431,200
2070	\$	1,390,270
2074	\$	877,750
2075	\$	2,116,034
2076	\$	1,095,681
2077	\$	1,622,369
2078	\$	1,223,668
2079	\$	6,887,740
<b>Grand Total</b>	<b>\$</b>	<b>149,793,251</b>

Asset Category		(Multiple Items)
Sum of Replacement Cost (Original Cost)		
Replacement Year	Total	
1987	\$	1,841,213
1998	\$	13,026,419
2006	\$	1,647,178
2007	\$	3,086,140
2008	\$	3,109,449
2011	\$	144,141
2012	\$	168,950
2017	\$	12,281,687
2023	\$	210,280
2029	\$	107,743
2030	\$	3,435,866
2032	\$	102,760
2038	\$	90,582
2044	\$	826,230
2048	\$	1,680,856
2049	\$	2,133,773
2057	\$	8,343,259
2059	\$	5,632,685
2062	\$	1,324,810
2063	\$	1,447,228
2066	\$	657,650
<b>Grand Total</b>	<b>\$</b>	<b>61,298,900</b>

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**SCHEDULE 11 - REPAIR, RENEWAL AND REPLACEMENT RESERVE (3R RESERVE)**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
<b>Required Annual Reinvestment - Above Ground Asset Data</b>											
<b>Planned Reinvestment</b>											
Buildings	\$ 60,000	\$ 825,000	\$ 660,000	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Capital Equipment	\$ 100,000	\$ 200,000	\$ -	\$ -	\$ 1,750,000	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -	
Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total Capital Investment</b>	<b>\$ 160,000</b>	<b>\$ 1,025,000</b>	<b>\$ 660,000</b>	<b>\$ 600,000</b>	<b>\$ 1,750,000</b>	<b>\$ 1,750,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Book Value of Fixed Assets</b>											
Buildings	\$ 6,101,133	\$ 6,161,133	\$ 6,986,133	\$ 7,646,133	\$ 8,246,133	\$ 8,246,133	\$ 8,246,133	\$ 8,246,133	\$ 8,246,133	\$ 8,246,133	
Capital Equipment	\$ 4,152,465	\$ 4,252,465	\$ 4,452,465	\$ 4,452,465	\$ 4,452,465	\$ 6,202,465	\$ 7,952,465	\$ 7,952,465	\$ 7,952,465	\$ 7,952,465	
Improvements	\$ 12,518,490	\$ 12,518,490	\$ 12,518,490	\$ 12,518,490	\$ 12,518,490	\$ 12,518,490	\$ 12,518,490	\$ 12,518,490	\$ 12,518,490	\$ 12,518,490	
<b>Total Book Value of Assets</b>	<b>\$ 22,772,088</b>	<b>\$ 22,932,088</b>	<b>\$ 23,957,088</b>	<b>\$ 24,617,088</b>	<b>\$ 25,217,088</b>	<b>\$ 26,967,088</b>	<b>\$ 28,717,088</b>	<b>\$ 28,717,088</b>	<b>\$ 28,717,088</b>	<b>\$ 28,717,088</b>	
	<b>Useful Life</b>		<b>Rate of Reinvestment</b>								
Buildings	50		2.00%	\$ 62,023	\$ -	\$ -	\$ -	\$ 164,923	\$ 164,923	\$ 164,923	\$ 164,923
Capital Equipment	15		6.67%	\$ 176,831	\$ 83,498	\$ 296,831	\$ 296,831	\$ -	\$ 530,164	\$ 530,164	\$ 530,164
Improvements	50		2.00%	\$ 250,370	\$ 250,370	\$ 250,370	\$ 250,370	\$ 250,370	\$ 250,370	\$ 250,370	
<b>Total Calculated Above Ground Reserve Contribution</b>				<b>\$ 489,223</b>	<b>\$ 333,867</b>	<b>\$ 547,201</b>	<b>\$ 547,201</b>	<b>\$ 415,292</b>	<b>\$ 415,292</b>	<b>\$ 945,457</b>	<b>\$ 945,457</b>
<b>Required Annual Reinvestment - Buried Asset Data</b>											
Current Year	2010										
Annual Inflation Rate	3.0%										
Total Cost of Replacement in Arrears (2008 Dollars)	\$ 45,790,222										
Number of Years to Pay Off	20										
Annual Cost for 20 Year Payoff	\$ 2,289,511										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Future Annual Replacement Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,442,512	
Remaining Cost of Replacement (Inflated)	\$ 2,358,196	\$ 2,428,942	\$ 2,501,811	\$ 2,576,865	\$ 2,654,171	\$ 2,733,796	\$ 2,815,810	\$ 2,900,284	\$ 2,987,293	\$ 3,076,911	
<b>Total Required Annual Reinvestment</b>	<b>2,358,196</b>	<b>2,428,942</b>	<b>2,501,811</b>	<b>2,576,865</b>	<b>2,654,171</b>	<b>2,733,796</b>	<b>2,815,810</b>	<b>2,900,284</b>	<b>2,987,293</b>	<b>26,519,423</b>	
CIP Planned Reinvestment - Buried Assets	\$ 125,000	\$ 5,830,000	\$ 2,340,000	\$ 2,400,000	\$ 3,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	
Planned Annual Reinvestment less Required Annual Reinvestment	\$ (2,233,196)	\$ 3,401,058	\$ 3,239,247	\$ 3,062,382	\$ 3,908,211	\$ 1,174,415	\$ (1,641,394)	\$ (2,900,284)	\$ (2,987,293)	\$ (26,519,423)	
<b>Total Calculated Buried Assets Reserve Contribution</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>244,634</b>	<b>3,287,398</b>	<b>3,721,761</b>	<b>3,884,051</b>	<b>3,930,245</b>	<b>3,977,825</b>	
Total Calculated 3R Contribution Above Ground & Buried Assets	\$ 489,223	\$ 333,867	\$ 547,201	\$ 547,201	\$ 659,927	\$ 3,702,690	\$ 4,667,218	\$ 4,829,508	\$ 4,875,702	\$ 4,923,282	
Phase-In of 3R Reserve Contribution	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
<b>Recommended 3R Reserve Contribution</b>	<b>\$ 489,223</b>	<b>\$ 333,867</b>	<b>\$ 547,201</b>	<b>\$ 547,201</b>	<b>\$ 659,927</b>	<b>\$ 3,702,690</b>	<b>\$ 4,667,218</b>	<b>\$ 4,829,508</b>	<b>\$ 4,875,702</b>	<b>\$ 4,923,282</b>	

Village of Downers Grove  
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SCHEDULE 12A - REVENUE REQUIREMENTS

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Operating Costs</b>											
Total Operating Expenses	7,867,340	8,180,707	8,764,289	9,394,053	10,040,085	10,741,918	11,504,870	12,334,780	13,238,063	14,221,769	15,293,642
Operating Reserve	0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
<i>Total Operating Expenses</i>	<i>7,867,340</i>	<i>8,280,707</i>	<i>8,864,289</i>	<i>9,494,053</i>	<i>10,140,085</i>	<i>10,841,918</i>	<i>11,604,870</i>	<i>12,434,780</i>	<i>13,338,063</i>	<i>14,321,769</i>	<i>15,393,642</i>
<b>Capital Costs</b>											
Existing Debt Service	503,708	503,003	496,155	0	0	0	0	0	0	0	0
Cash Funded Capital Projects	1,113,093	285,000	967,500	660,000	600,000	500,000	0	0	0	0	0
Projected Debt Service	0	0	0	875,343	875,343	875,343	1,404,744	1,404,744	1,404,744	1,404,744	1,404,744
3R Reserve	0	489,223	333,867	547,201	547,201	659,927	3,702,690	4,667,218	4,829,508	4,875,702	4,923,282
<i>Total Capital Expenses</i>	<i>1,616,801</i>	<i>1,277,226</i>	<i>1,797,522</i>	<i>2,082,544</i>	<i>2,022,544</i>	<i>2,035,270</i>	<i>5,107,434</i>	<i>6,071,962</i>	<i>6,234,252</i>	<i>6,280,446</i>	<i>6,328,026</i>
<b>Total Revenue Requirement</b>	<b>9,484,141</b>	<b>9,557,933</b>	<b>10,661,811</b>	<b>11,576,597</b>	<b>12,162,629</b>	<b>12,877,189</b>	<b>16,712,304</b>	<b>18,506,742</b>	<b>19,572,315</b>	<b>20,602,215</b>	<b>21,721,668</b>
Miscellaneous Other Revenues	339,836	339,416	345,098	350,951	356,980	363,189	369,585	376,173	382,958	389,947	397,145
Use of Fund Balance											
Revenues from Westmont & Knottingham	84,417	84,417	86,949	89,558	92,244	95,012	97,862	100,798	103,822	106,936	110,145
Revenues from Unmetered Water Sales	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Total Miscellaneous Revenues	429,253	428,833	437,048	445,509	454,224	463,201	472,447	481,970	491,780	501,883	512,289
<b>Net Revenue Requirement</b>	<b>9,054,889</b>	<b>9,129,101</b>	<b>10,224,764</b>	<b>11,131,088</b>	<b>11,708,405</b>	<b>12,413,988</b>	<b>16,239,857</b>	<b>18,024,771</b>	<b>19,080,535</b>	<b>20,100,332</b>	<b>21,209,378</b>
Revenues under Current Rates	7,560,051	7,573,804	7,498,066	7,423,085	7,348,855	7,275,366	7,202,612	7,130,586	7,059,280	6,988,688	6,918,801
Surplus / (Shortfall)	(1,494,838)	(1,555,297)	(2,726,698)	(3,708,003)	(4,359,550)	(5,138,622)	(9,037,245)	(10,894,185)	(12,021,255)	(13,111,644)	(14,290,578)
Required Breakeven Increase		20.54%	36.37%	49.95%	59.32%	70.63%	125.47%	152.78%	170.29%	187.61%	206.55%
Revenues with Annual Increases	\$ 7,560,051	\$ 7,573,804	\$ 9,124,101	\$ 10,219,764	\$ 11,126,088	\$ 11,703,405	\$ 12,408,988	\$ 16,234,857	\$ 18,019,771	\$ 19,075,535	\$ 20,095,332
Revenues from Unmetered Water Sales	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Surplus / (Shortfall)	\$ 7,555,051	\$ (1,550,297)	\$ (1,095,663)	\$ (906,325)	\$ (577,316)	\$ (705,583)	\$ (3,825,870)	\$ (1,784,914)	\$ (1,055,764)	\$ (1,019,796)	\$ (1,109,047)
Annual Additional Increases		20%	12%	9%	5%	6%	31%	11%	6%	5%	6%

Village of Downers Grove  
Water Rate Study

SCHEDULE 12B - COST ALLOCATION

	%	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Actual Fixed vs. Variable</b>											
<i>Operating Costs</i>											
	% Fixed										
Total Operating Expenses	55%	\$ 4,499,389	\$ 4,820,359	\$ 5,166,729	\$ 5,522,047	\$ 5,908,055	\$ 6,327,679	\$ 6,784,129	\$ 7,280,935	\$ 7,821,973	\$ 8,411,503
Operating Reserve	100%	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
<i>Capital Costs</i>											
Existing Debt Service	100%	\$ 503,003	\$ 496,155	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Funded Capital Projects	100%	\$ 285,000	\$ 967,500	\$ 660,000	\$ 600,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -
Projected Debt Service	100%	\$ -	\$ -	\$ 875,343	\$ 875,343	\$ 875,343	\$ 1,404,744	\$ 1,404,744	\$ 1,404,744	\$ 1,404,744	\$ 1,404,744
3R Reserve	100%	\$ 489,223	\$ 333,867	\$ 547,201	\$ 547,201	\$ 659,927	\$ 3,702,690	\$ 4,667,218	\$ 4,829,508	\$ 4,875,702	\$ 4,923,282
Total Fixed Revenue Requirements		\$ 5,876,615	\$ 6,717,881	\$ 7,349,273	\$ 7,644,591	\$ 8,043,325	\$ 11,535,113	\$ 12,956,091	\$ 13,615,187	\$ 14,202,419	\$ 14,839,529
<b>Percentage Fixed</b>		<b>61%</b>	<b>63%</b>	<b>63%</b>	<b>63%</b>	<b>62%</b>	<b>69%</b>	<b>70%</b>	<b>70%</b>	<b>69%</b>	<b>68%</b>
<i>Operating Costs</i>											
	% Variable										
Total Operating Expenses	45%	\$ 3,681,318	\$ 3,943,930	\$ 4,227,324	\$ 4,518,038	\$ 4,833,863	\$ 5,177,192	\$ 5,550,651	\$ 5,957,128	\$ 6,399,796	\$ 6,882,139
Operating Reserve	0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Capital Costs</i>											
Existing Debt Service	0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Funded Capital Projects	0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Projected Debt Service	0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3R Reserve	0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Variable Revenue Requirement		\$ 3,681,318	\$ 3,943,930	\$ 4,227,324	\$ 4,518,038	\$ 4,833,863	\$ 5,177,192	\$ 5,550,651	\$ 5,957,128	\$ 6,399,796	\$ 6,882,139
<b>Percentage Variable</b>		<b>39%</b>	<b>37%</b>	<b>37%</b>	<b>37%</b>	<b>38%</b>	<b>31%</b>	<b>30%</b>	<b>30%</b>	<b>31%</b>	<b>32%</b>
<b>Allocation for Rates</b>											
Net Revenue Requirements		\$ 9,129,101	\$ 10,224,764	\$ 11,131,088	\$ 11,708,405	\$ 12,413,988	\$ 16,239,857	\$ 18,024,771	\$ 19,080,535	\$ 20,100,332	\$ 21,209,378
<b>Fixed Costs</b>											
Administrative O&M Expenses		\$ 1,258,671	\$ 1,296,431	\$ 1,335,324	\$ 1,375,384	\$ 1,416,646	\$ 1,459,145	\$ 1,502,919	\$ 1,548,007	\$ 1,594,447	\$ 1,642,281
% of Existing Debt	0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
% of Capital Improvement Plan	0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Fixed Costs</b>		<b>\$ 1,258,671</b>	<b>\$ 1,296,431</b>	<b>\$ 1,335,324</b>	<b>\$ 1,375,384</b>	<b>\$ 1,416,646</b>	<b>\$ 1,459,145</b>	<b>\$ 1,502,919</b>	<b>\$ 1,548,007</b>	<b>\$ 1,594,447</b>	<b>\$ 1,642,281</b>
<b>Total Costs Allocated to User Rates</b>		<b>\$ 7,870,429</b>	<b>\$ 8,928,332</b>	<b>\$ 9,795,764</b>	<b>\$ 10,333,021</b>	<b>\$ 10,997,342</b>	<b>\$ 14,780,712</b>	<b>\$ 16,521,852</b>	<b>\$ 17,532,528</b>	<b>\$ 18,505,885</b>	<b>\$ 19,567,098</b>

SCHEDULE 13A- CUSTOMER AND CONSUMPTION INFORMATION

2008 Actuals												
Count of Account #	Metric Size	Church	Industrial	Multi Family	Office	Park	Pool	Rest	Retail	School	Single Family	Grand Total
Inside Village	5.8	8	13	179	32	1	74	201	3	11,788	12,212	
1	10	14	77	20	2				6	49	6	49
2	4	22	149	80	1				13	42	375	4
3	12	21	126	22	12				18	41	4	272
4	10		37	24	3				6	29	4	111
5	4		14	22	2				20	6		68
6	4		2	2	4				4	4		12
10												1
Inside Total	34	80	586	311	35	2	66	484	53	12,384	13,047	
Knottingham	5.8											236
1												5
Knottingham Total	0	0	0	0	0	0	0	0	0	0	241	241
Outside Village	5.8	3		1				1	1	1		1,036
1	10											84
2	4											6
3	12				1							14
4	10											76
5	4											14
10												16
Outside Total	3	0	0	0	1	0	1	6	2	1,136	2	1,101
Westmont	5.8											49
1												16
Westmont Total	0	0	0	0	0	0	0	0	0	0	0	64
Grand Total	37	80	602	317	36	2	67	410	57	13,815	15,313	

\*usage in CCFs  
 Inside Village Limits 2,273,135  
 Knottingham 26,866  
 Outside Village Limits 148,094  
 Westmont 7,096  
**Grand Total 2,465,191**

2009 Actuals												
Jurisdiction	Metric Size	Church	Industrial	Multi Family	Office	Park	Pool	Rest	Retail	School	Single Family	Grand Total
Inside Village	5.8	8	13	190	73	4		14	215	3	12,333	12,851
1	10	14	79	30	3				6	55	6	639
2	4	26	149	51	3				13	55	395	5
3	12	23	133	25	12				18	5	294	10
4	10		37	24	4				6	1	112	2
5	4		20	22	4				6	2	76	14
10												12
Inside Total	34	86	612	327	36	2	69	439	55	13,013	14,583	
Knottingham	5.8											244
1												5
Knottingham Total	0	0	0	0	0	0	0	0	0	0	249	249
Outside Village	5.8	3		1	3			3	5		1	1,089
1	10									1		98
2	4											107
3	12											148
4	10											89
5	4											62
10												14
Outside Total	3	0	0	0	0	0	1	6	2	1,194	2	1,230
Westmont	5.8											54
1												18
Westmont Total	0	0	0	0	0	0	0	0	0	0	0	72
Grand Total	38	86	628	333	37	2	70	445	57	14,566	16,115	

\*usage in CCFs  
 Total Usage 2,481,901  
 Inside Village Limits 2,191,901  
 Knottingham 22,515 0.51  
 Outside Village Limits 130,461  
 Westmont 7,441  
**Grand Total 2,342,258**

Jurisdiction	Water h-month	122%	22,440	30	89%	12	55.7%	88.7%
0								
100								
200								
Over								

2009 Detail

Inside Village - Commercial Customer Information			
# of Customer	Total Consumption	Allocated Consumption	% of Customers % of Consumption
1382	148,119	159,237	72%
100	807	113,697	17%
200	1264	491,341	46%
Over	7556	95,1073	100%

Inside Village - Industrial Customer Information			
# of Customer	Total Consumption	Allocated Consumption	% of Customers % of Consumption
0	124	10711	79%
130	31	6,010	8%
260	56	36,492	14%
Over	411	53,415	100%

Outside Village - Commercial Customer Information				
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption
94	1,678	10,578	51%	32%
16	2,600	8,300	9%	25%
72	25,200	11,900	66%	43%
183	32,331	32,871	100%	100%

Inside Village					
Single Family					
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption	% of Consumption
0	474	474	0.66%	0.05%	
1	220	1,440	77.27%	1.00%	6.03%
2	4,803	20,347	208.14%	6.78%	17.51%
5	14,885	122,371	801.26%	20.63%	28.48%
10	33,536	358,415	344.45%	26.95%	28.36%
20	16,401	455,850	163.50%	22.73%	13.71%
50	1,419	87,555	28.10%	1.65%	10.79%
and Over	72,146	1,192,452	1,192.45%	100%	100%

Multi Family					
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption	% of Consumption
0	46	46	3.37%	0.72%	11.88%
1	27	34	3.26%	23.13%	17.22%
2	127	518	9.78%	132.29%	34.45%
5	284	2,122	15.34%	295.83%	54.09%
10	656	9,200	36.26%	65.76%	51.81%
20	850	27,626	52.68%	185.42%	145.61%
50	1,402	310,994	240.98%	1,400.42%	810.64%
and Over	3,372	351,460	351.31%	12.38%	

Retail					
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption	% of Consumption
0	104	104	2.10%	0.75%	0.75%
1	2	262	2.08%	3.98%	0.71%
2	5	244	4.01%	11.15%	9.62%
5	284	2,246	7.05%	12.97%	5.73%
10	214	4,283	12.56%	14.34%	4.31%
20	404	12,563	26.12%	18.46%	9.96%
50	708	276,569	235.14%	32.34%	80.63%
and Over	2,189	291,674	180.6%	100%	100%

Industrial					
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption	% of Consumption
0	16	16	4.29	3.64%	0.69%
1	15	30	4.53	2.42%	0.67%
2	22	89	1.203	3.01%	1.90%
5	86	268	1.236	1.20%	2.91%
10	31	810	3.200	11.62%	5.20%
20	97	3,126	22.10%	11.45%	
50	202	38,911	48.81%	60.03%	37.18%
and Over	439	63,270	63.270	100%	100%

Other					
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption	% of Consumption
0	48	48	2.50%	1.68%	
1	80	100	2.142	2.27%	0.66%
2	119	549	6.130	9.32%	1.89%
5	206	1,629	9.334	9.36%	2.88%
10	299	3,193	16.643	16.50%	6.88%
20	415	14,001	39.391	15.80%	12.12%
50	1,123	304,949	248.799	51.05%	76.68%
and Over	2,200	324,478	324.478	100%	100%

Outside Village					
Single Family					
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption	% of Consumption
0	73	73	6.403	1.12%	6.08%
1	108	216	6.420	1.66%	6.92%
2	545	2,259	18.470	8.39%	17.31%
5	1,207	12,111	25.70%	23.04%	24.34%
10	2,493	39,236	28.368	11.32%	28.56%
20	1,423	41,588	17.018	21.92%	15.95%
50	144	10,778	3.578	2.82%	3.35%
and Over	6,493	106,724	106,724	100%	100%

Multi Family					
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption	% of Consumption
0	0	0	0%	0.00%	0.04%
0	0	96	0.00%	0.00%	0.34%
0	0	228	0.00%	0.00%	1.03%
0	0	480	0.00%	0.00%	1.69%
0	0	925	0.00%	0.00%	3.20%
0	0	99	2.699	2.08%	9.51%
96	28,202	31,802	91.9%	83.85%	
and Over	96	28,206	28,206	100%	100%

Retail					
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption	% of Consumption
1	2	33	2.86%	3.31%	
2	4	131	8.99%	11.43%	8.92%
0	77	127	25.71%	12.73%	
11	166	136	11.43%	14.93%	
0	217	157	15.18%	15.78%	
2	531	421	57.1%	42.18%	
and Over	35	998	998	100%	100%

Office					
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption	% of Consumption
4	4	35	11.43%	0.43%	
0	0	31	6.00%	0.38%	
0	0	93	0.00%	1.15%	
10	31	128	22.57%	1.65%	
5	76	186	14.20%	2.50%	
2	56	438	5.71%	5.49%	
14	2,853	4,155	40.00%	39.84%	
and Over	35	8,072	8,072	100%	100%

Church					
# of Customer	Total Consumption	Allocated Consumption	% of Customers	% of Consumption	% of Consumption
0	0	20	0.00%	0.22%	
0</					

SCHEDULE 1B - BI-MONTHLY CUSTOMER AND CONSUMPTION INFORMATION

2008		Customer Over					
Winter Bi-Monthly Multiplier		18.44%	32.89%	55.57%	47.86%	29.87%	37.01%
		Consumption Over					
		5.42%	13.95%	29.93%	28.38%	12.98%	19.51%
	Bi-Month 1	Bi-Month 2	Bi-Month 3	Bi-Month 4	Bi-Month 5	Bi-Month 6	Annual Total
<b>Inside Village - Single Family</b>							
# of Customers using More than WQ Multiplier	1,980	3,778	6,726	5,748	3,502	21,734	
# of Customers using Equal/Less than Multiplier	11,808	9,875	8,182	5,367	6,454	8,729	38,004
<b>Total Customers</b>	<b>11,808</b>	<b>11,853</b>	<b>11,909</b>	<b>12,093</b>	<b>12,202</b>	<b>12,231</b>	<b>60,338</b>
Total Usage Above WQM	6,099	19,686	72,722	55,269	18,993	172,769	
Total Usage within WQM Limits	191,712	161,667	165,182	172,451	168,169	159,902	827,971
<b>Total Usage</b>	<b>191,712</b>	<b>167,766</b>	<b>185,888</b>	<b>245,737</b>	<b>233,438</b>	<b>178,498</b>	<b>1,000,740</b>
<b>Inside Village - Multi Family</b>							
# of Customers using More than WQ Multiplier	121	178	302	285	190	1,076	
# of Customers using Equal/Less than Multiplier	551	431	383	269	285	377	1,765
<b>Total Customers</b>	<b>551</b>	<b>552</b>	<b>561</b>	<b>571</b>	<b>570</b>	<b>567</b>	<b>2,821</b>
Total Usage Above WQM	1,613	6,381	8,426	8,358	5,348	30,126	
Total Usage within WQM Limits	59,063	51,341	52,468	53,884	53,580	51,098	262,271
<b>Total Usage</b>	<b>59,063</b>	<b>52,854</b>	<b>58,849</b>	<b>62,310</b>	<b>61,938</b>	<b>56,446</b>	<b>292,397</b>
<b>Inside Village - Retail</b>							
# of Customers using More than WQ Multiplier	129	174	182	182	141	808	
# of Customers using Equal/Less than Multiplier	359	332	192	178	187	233	1,022
<b>Total Customers</b>	<b>359</b>	<b>361</b>	<b>366</b>	<b>360</b>	<b>369</b>	<b>374</b>	<b>1,830</b>
Total Usage Above WQM	2,122	6,133	15,637	17,940	4,925	46,757	
Total Usage within WQM Limits	47,189	34,122	40,802	43,232	42,775	36,487	197,728
<b>Total Usage</b>	<b>47,189</b>	<b>38,256</b>	<b>46,835</b>	<b>59,169</b>	<b>60,715</b>	<b>41,412</b>	<b>244,685</b>
<b>Inside Village - Industrial</b>							
# of Customers using More than WQ Multiplier	71	34	38	45	44	34	198
# of Customers using Equal/Less than Multiplier	71	37	33	28	32	43	175
<b>Total Customers</b>	<b>71</b>	<b>71</b>	<b>71</b>	<b>73</b>	<b>76</b>	<b>77</b>	<b>366</b>
Total Usage Above WQM	1,160	2,262	3,412	2,817	2,192	11,703	
Total Usage within WQM Limits	9,220	8,595	8,760	8,755	8,702	7,455	42,287
<b>Total Usage</b>	<b>9,220</b>	<b>9,758</b>	<b>10,962</b>	<b>12,167</b>	<b>11,519</b>	<b>9,647</b>	<b>54,050</b>
<b>Inside Village - Other</b>							
# of Customers using More than WQ Multiplier	168	217	231	245	202	1,063	
# of Customers using Equal/Less than Multiplier	351	186	157	144	129	170	786
<b>Total Customers</b>	<b>351</b>	<b>354</b>	<b>374</b>	<b>375</b>	<b>374</b>	<b>372</b>	<b>1,849</b>
Total Usage Above WQM	5,732	14,990	33,744	38,086	11,785	104,337	
Total Usage within WQM Limits	41,494	35,969	36,473	34,986	35,909	35,311	178,648
<b>Total Usage</b>	<b>41,494</b>	<b>41,701</b>	<b>51,463</b>	<b>68,730</b>	<b>73,995</b>	<b>47,096</b>	<b>282,985</b>

15.08		Customer Over					
Winter Quarter Multiplier		82.70%	85.55%	87.70%	78.13%	64.23%	79.20%
		Consumption Over					
		23.37%	49.42%	51.56%	40.32%	24.56%	41.80%
	Bi-Month 1	Bi-Month 2	Bi-Month 3	Bi-Month 4	Bi-Month 5	Bi-Month 6	Annual Total
<b>Inside Village - Single Family</b>							
# of Customers using More than WQ Multiplier	4,020	10,663	11,096	9,943	8,105	43,827	
# of Customers using Equal/Less than Multiplier	12,247	831	1,803	1,227	2,795	4,668	11,424
<b>Total Customers</b>	<b>12,247</b>	<b>4,851</b>	<b>12,466</b>	<b>12,623</b>	<b>12,738</b>	<b>13,773</b>	<b>55,451</b>
Total Usage Above WQM	15,851	145,518	139,800	80,819	35,896	417,884	
Total Usage within WQM Limits	147,729	57,193	143,268	143,051	139,844	133,928	619,284
<b>Total Usage</b>	<b>147,729</b>	<b>73,044</b>	<b>288,786</b>	<b>282,851</b>	<b>220,663</b>	<b>171,824</b>	<b>1,037,168</b>
<b>Inside Village - Multi Family</b>							
# of Customers using More than WQ Multiplier	225	497	527	490	418	2,157	
# of Customers using Equal/Less than Multiplier	570	40	83	60	102	166	451
<b>Total Customers</b>	<b>570</b>	<b>265</b>	<b>580</b>	<b>587</b>	<b>592</b>	<b>584</b>	<b>2,608</b>
Total Usage Above WQM	3,772	50,314	26,201	18,995	11,563	110,845	
Total Usage within WQM Limits	45,346	12,948	44,849	44,817	44,432	44,156	191,202
<b>Total Usage</b>	<b>45,346</b>	<b>16,720</b>	<b>95,163</b>	<b>71,018</b>	<b>63,427</b>	<b>55,719</b>	<b>302,047</b>
<b>Inside Village - Retail</b>							
# of Customers using More than WQ Multiplier	198	320	329	282	263	1,392	
# of Customers using Equal/Less than Multiplier	372	66	70	61	112	133	442
<b>Total Customers</b>	<b>372</b>	<b>264</b>	<b>390</b>	<b>394</b>	<b>394</b>	<b>396</b>	<b>1,834</b>
Total Usage Above WQM	7,327	22,075	41,212	29,419	13,951	115,084	
Total Usage within WQM Limits	30,398	20,407	29,334	29,783	28,596	27,871	138,991
<b>Total Usage</b>	<b>30,398</b>	<b>27,734</b>	<b>52,409</b>	<b>71,095</b>	<b>58,015</b>	<b>41,822</b>	<b>251,075</b>
<b>Inside Village - Industrial</b>							
# of Customers using More than WQ Multiplier	16	71	66	60	55	268	
# of Customers using Equal/Less than Multiplier	75	4	7	15	18	24	95
<b>Total Customers</b>	<b>75</b>	<b>20</b>	<b>78</b>	<b>81</b>	<b>78</b>	<b>79</b>	<b>336</b>
Total Usage Above WQM	1,036	7,816	4,056	3,670	2,016	18,594	
Total Usage within WQM Limits	7,607	1,739	7,530	6,598	6,699	6,314	28,880
<b>Total Usage</b>	<b>7,607</b>	<b>2,775</b>	<b>15,346</b>	<b>10,654</b>	<b>10,369</b>	<b>8,330</b>	<b>47,474</b>
<b>Inside Village - Other</b>							
# of Customers using More than WQ Multiplier	184	328	314	307	284	1,417	
# of Customers using Equal/Less than Multiplier	359	26	43	66	75	90	300
<b>Total Customers</b>	<b>359</b>	<b>210</b>	<b>371</b>	<b>380</b>	<b>382</b>	<b>374</b>	<b>1,717</b>
Total Usage Above WQM	6,937	21,761	55,882	35,275	15,233	135,088	
Total Usage within WQM Limits	31,488	22,343	29,202	26,803	29,348	27,363	138,046
<b>Total Usage</b>	<b>31,488</b>	<b>29,176</b>	<b>51,053</b>	<b>62,683</b>	<b>62,623</b>	<b>42,596</b>	<b>270,134</b>

Commercial	82.4227517	99.6387009	148.1170777	165.656595	136.0124277	103.498523	133.6671538
Industrial	101.426667	138.75	196.74339	131.530864	132.935897	105.443038	141.291667

Village of Downers Grove  
Water Rate Study

		Customer Over					
		14.70%	35.46%	52.40%	42.79%	31.04%	35.39%
		Consumption Over					
		14.76%	15.50%	26.45%	23.76%	10.92%	18.84%
	Bi-Month 1	Bi-Month 2	Bi-Month 3	Bi-Month 4	Bi-Month 5	Bi-Month 6	Annual Total
<b>Outside Village - Single</b>							
# of Customers using More than WQ Multiplier	157	385	572	466	341	1,921	
# of Customers using Equal/Less than Multiplier	1,065	907	694	517	630	759	5,807
<b>Total Customers</b>	<b>1,065</b>	<b>1,064</b>	<b>1,079</b>	<b>1,089</b>	<b>1,096</b>	<b>1,100</b>	<b>5,428</b>
Total Usage Above WQM	1,108	2,108	5,973	4,999	2,231	16,449	
Total Usage within WQM Limits	16,908	14,121	14,888	15,192	14,784	14,432	72,897
<b>Total Usage</b>	<b>16,908</b>	<b>15,229</b>	<b>18,976</b>	<b>21,165</b>	<b>19,783</b>	<b>16,663</b>	<b>89,816</b>
<b>Outside Village - Multi</b>							
# of Customers using More than WQ Multiplier	1	5	5	4	3	18	
# of Customers using Equal/Less than Multiplier	16	15	11	11	12	12	62
<b>Total Customers</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>80</b>
Total Usage Above WQM	5	77	247	417	122	868	
Total Usage within WQM Limits	5,317	4,332	4,600	4,505	4,249	4,315	22,201
<b>Total Usage</b>	<b>5,317</b>	<b>4,537</b>	<b>4,677</b>	<b>4,752</b>	<b>4,666</b>	<b>4,437</b>	<b>23,669</b>
<b>Outside Village - Retail</b>							
# of Customers using More than WQ Multiplier	1	1	4	4	3	13	
# of Customers using Equal/Less than Multiplier	6	4	5	2	2	3	16
<b>Total Customers</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>29</b>
Total Usage Above WQM	1	2	12	25	16	56	
Total Usage within WQM Limits	326	285	88	82	78	83	616
<b>Total Usage</b>	<b>326</b>	<b>286</b>	<b>90</b>	<b>94</b>	<b>103</b>	<b>99</b>	<b>672</b>
<b>Outside Village - Other</b>							
# of Customers using More than WQ Multiplier	2	4	8	10	5	29	
# of Customers using Equal/Less than Multiplier	12	8	11	5	3	7	32
<b>Total Customers</b>	<b>12</b>	<b>10</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>12</b>	<b>61</b>
Total Usage Above WQM	2,208	1,578	1,326	899	59	6,070	
Total Usage within WQM Limits	1,269	242	962	1,237	1,236	970	4,447
<b>Total Usage</b>	<b>1,269</b>	<b>2,450</b>	<b>2,540</b>	<b>2,563</b>	<b>2,135</b>	<b>1,029</b>	<b>10,717</b>

		Customer Over					
		75.00%	90.69%	87.28%	78.27%	62.19%	79.25%
		Consumption Over					
		21.19%	58.40%	47.36%	36.59%	22.05%	43.66%
	Bi-Month 1	Bi-Month 2	Bi-Month 3	Bi-Month 4	Bi-Month 5	Bi-Month 6	Annual Total
<b>Knottsham</b>							
# of Customers using More than WQ Multiplier	175	1,024	993	908	723	3,823	
# of Customers using Equal/Less than Multiplier	1,104	59	101	143	249	441	993
<b>Total Customers</b>	<b>1,104</b>	<b>234</b>	<b>1,125</b>	<b>1,136</b>	<b>1,157</b>	<b>1,164</b>	<b>4,816</b>
Total Usage Above WQM	744	16,671	12,255	7,343	3,165	40,178	
Total Usage within WQM Limits	13,213	2,787	12,629	12,470	11,279	11,771	51,936
<b>Total Usage</b>	<b>13,213</b>	<b>3,531</b>	<b>29,300</b>	<b>24,725</b>	<b>19,622</b>	<b>14,936</b>	<b>92,114</b>
<b>Westmont</b>							
# of Customers using More than WQ Multiplier	0	16	13	13	12	54	
# of Customers using Equal/Less than Multiplier	16	0	0	3	4	10	10
<b>Total Customers</b>	<b>16</b>	<b>0</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>64</b>
Total Usage Above WQM	0	5,674	818	1,333	894	8,719	
Total Usage within WQM Limits	3,758	0	3,758	3,563	3,506	3,673	14,400
<b>Total Usage</b>	<b>3,758</b>	<b>0</b>	<b>9,432</b>	<b>4,381</b>	<b>4,839</b>	<b>4,467</b>	<b>23,119</b>

Commercial	75.00%	90.69%	87.28%	78.27%	62.19%	79.25%
Industrial	21.19%	58.40%	47.36%	36.59%	22.05%	43.66%

SCHEDULE 13C - CUSTOMER AND CONSUMPTION PROJECTIONS

Village of Downers Grove  
Water Rate Study

Inside Village			2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Meter Size	AWWA Equivalents	Actual	Actual	Actual	Actual	Actual	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
Single Family Residential			11,788	12,331	12,331	12,331	12,331	12,331	12,331	12,331	12,331	12,331	12,331	12,331	12,331	12,331	12,331	12,331
5/8	1.00	543	639	639	639	639	639	639	639	639	639	639	639	639	639	639	639	639
1	1.50	48	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
1 1/2	5.00	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
2	8.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	15.00																	
Total EDU's			12,384	13,031	13,031	13,031	13,031	13,031	13,031	13,031	13,031	13,031	13,031	13,031	13,031	13,031	13,031	13,031
Multi Family			12,890	13,620	13,620	13,620	13,620	13,620	13,620	13,620	13,620	13,620	13,620	13,620	13,620	13,620	13,620	13,620
5/8			179	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190
1	1.50	77	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
1 1/2	5.00	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149
2	8.00	126	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
3	15.00	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
4	25.00	14	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
6	50.00	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Total EDU's			586	612	612	612	612	612	612	612	612	612	612	612	612	612	612	612
Retail			3,153	3,373	3,373	3,373	3,373	3,373	3,373	3,373	3,373	3,373	3,373	3,373	3,373	3,373	3,373	3,373
5/8			201	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215
1	1.50	49	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
1 1/2	5.00	62	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
2	8.00	41	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
3	15.00	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
4	25.00	20	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
6	50.00	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total EDU's			404	439	439	439	439	439	439	439	439	439	439	439	439	439	439	439
Industrial			1,948	2,124	2,124	2,124	2,124	2,124	2,124	2,124	2,124	2,124	2,124	2,124	2,124	2,124	2,124	2,124
5/8			13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
1	1.50	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
1 1/2	5.00	22	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
2	8.00	21	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
3	15.00	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total EDU's			80	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86
Other			462	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498
5/8			91	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
1	1.50	53	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
1 1/2	5.00	94	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96
2	8.00	80	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
3	15.00	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
4	25.00	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
6	50.00	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
10	120.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total EDU's			393	413	413	413	413	413	413	413	413	413	413	413	413	413	413	413
3,061			3,061	3,125	3,125	3,125	3,125	3,125	3,125	3,125	3,125	3,125	3,125	3,125	3,125	3,125	3,125	3,125
<b>Inside City Consumption</b>																		
<b>Residential</b>																		
0 - 1 CCFs				626	620	614	607	601	595	589	583	578	572	566	560			
1 - 2 CCFs				1,520	1,505	1,490	1,475	1,460	1,446	1,431	1,417	1,403	1,389	1,375	1,361			
Over 2 CCFs				1,173,267	1,161,534	1,149,919	1,138,420	1,127,036	1,115,765	1,104,608	1,093,562	1,082,626	1,071,800	1,061,082	1,050,471			
Total Consumption				1,175,413	1,163,659	1,152,022	1,140,502	1,129,097	1,117,806	1,106,628	1,095,562	1,084,606	1,073,760	1,063,022	1,052,392			
<b>Non-Residential</b>																		
0 - 1 CCFs				256	253	251	248	246	243	241	239	236	234	232	229			
1 - 2 CCFs				422	418	414	409	405	401	397	393	389	386	382	378			
Over 2 CCFs				1,005,810	995,752	985,794	975,936	966,177	956,515	946,950	937,481	928,106	918,825	909,637	900,540			
Total Consumption				1,006,488	996,423	986,459	976,594	966,828	957,160	947,588	938,113	928,731	919,444	910,147				
<b>Commercial Total Consumption</b>				953,073	943,542	934,107	924,766	915,518	906,363	897,299	888,326	879,443	870,649	861,942	853,323			
<b>Industrial Total Consumption</b>				53,415	52,881	52,352	51,829	51,310	50,797	50,289	49,786	49,288	48,796	48,308	47,824			
<b>Total Inside Village Consumption</b>				2,181,901	2,160,082	2,138,481	2,117,096	2,095,925	2,074,966	2,054,216	2,033,674	2,013,338	1,993,204	1,973,272	1,953,539			



SCHEDULE 13C - CUSTOMER AND CONSUMPTION PROJECTIONS

Village of Downers Grove  
Water Rate Study

Outside Village			FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20		
			Actual	Actual	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected		
Single Family Customers	Meter Size																
	5/8	1.00	1,036	1,089	1,089	1,089	1,089	1,089	1,089	1,089	1,089	1,089	1,089	1,089	1,089		
	1	1.50	84	98	98	98	98	98	98	98	98	98	98	98	98		
	1 1/2	5.00	6	7	7	7	7	7	7	7	7	7	7	7	7		
Total EDU's			1,126	1,194	1,194	1,194	1,194	1,194	1,194	1,194	1,194	1,194	1,194	1,194	1,194		
Multi Family Customers																	
	5/8	1.00	1	1	1	1	1	1	1	1	1	1	1	1	1		
	1	1.50	1	1	1	1	1	1	1	1	1	1	1	1	1		
	1 1/2	5.00	2	2	2	2	2	2	2	2	2	2	2	2	2		
	2	8.00	12	12	12	12	12	12	12	12	12	12	12	12	12		
Total EDU's			16	16	16	16	16	16	16	16	16	16	16	16	16		
Retail Customers																	
	5/8	1.00	5	5	5	5	5	5	5	5	5	5	5	5	5		
	1	1.50	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1 1/2	5.00	1	1	1	1	1	1	1	1	1	1	1	1	1		
Total EDU's			6	6	6	6	6	6	6	6	6	6	6	6	6		
Other																	
	5/8	1.00	6	6	6	6	6	6	6	6	6	6	6	6	6		
	1	1.50	2	3	3	3	3	3	3	3	3	3	3	3	3		
	1 1/2	5.00	1	1	1	1	1	1	1	1	1	1	1	1	1		
	2	8.00	2	2	2	2	2	2	2	2	2	2	2	2	2		
	4	25.00	2	2	2	2	2	2	2	2	2	2	2	2	2		
Total EDU's			13	14	14	14	14	14	14	14	14	14	14	14	14		
80			82	82	82	82	82	82	82	82	82	82	82	82	82		
<b>Outside City Consumption</b>																	
<b>Residential</b>																	
0 - 1 CCFs					73	72	72	71	70	69	69	68	67	67	66	65	
1 - 2 CCFs					198	196	194	192	190	188	186	185	183	181	179	177	
Over 2 CCFs					97,317	96,344	95,380	94,427	93,482	92,547	91,622	90,706	89,799	88,901	88,012	87,132	
<b>Total Consumption</b>					97,588	96,612	95,646	94,690	93,743	92,805	91,877	90,958	90,049	89,148	88,257	87,374	
<b>Non-Residential</b>																	
0 - 1 CCFs						4	4	4	4	4	4	4	4	4	4	4	
1 - 2 CCFs						12	12	12	12	11	11	11	11	11	11	11	
Over 2 CCFs						32,857	32,528	32,203	31,881	31,562	31,247	30,934	30,625	30,319	30,015	29,715	29,418
<b>Total Consumption</b>						32,873	32,544	32,219	31,897	31,578	31,262	30,949	30,640	30,333	30,030	29,730	29,432
<b>Knottingham</b>																	
Single Family Customers	Meter Size		<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>		
	5/8		Actual	Actual	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected		
	1		236	244	244	244	244	244	244	244	244	244	244	244	244		
			5	5	5	5	5	5	5	5	5	5	5	5	5		
Total Consumption			241	249	249	249	249	249	249	249	249	249	249	249	249		
			22,553	22,327	22,104	21,883	21,664	21,448	21,233	21,021	20,811	20,603	20,397	20,193			
<b>Westmont</b>																	
Single Family Customers	Meter Size		<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>		
	5/8		Actual	Actual	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected		
	1		49	54	54	54	54	54	54	54	54	54	54	54	54		
			15	18	18	18	18	18	18	18	18	18	18	18	18		
			64	72	72	72	72	72	72	72	72	72	72	72			
0 - 1 CCFs					405	401	397	393	389	385	381	377	374	370	366	363	
2 - 13 CCFs					3,960	3,920	3,881	3,842	3,804	3,766	3,728	3,691	3,654	3,618	3,581	3,546	
Over 13 CCFs					2,978	2,948	2,919	2,890	2,861	2,832	2,804	2,776	2,748	2,720	2,693	2,666	
<b>Total Outside Village</b>					7,343	7,270	7,197	7,125	7,054	6,983	6,913	6,844	6,776	6,708	6,641	6,574	
<b>Total System Consumption (CCF)</b>				160,357	158,753	157,166	155,594	154,038	152,498	150,973	149,463	147,969	146,489	145,024	143,574		
Total System Consumption (cubic Feet)				2,746,026	2,568,263	2,645,973	2,533,934	2,342,258	2,318,835	2,295,647	2,272,691	2,249,964	2,227,464	2,205,189	2,183,138	2,161,306	
Total System Consumption (MCF)				274,602.600	256,826.300	264,597.300	253,393.400	234,225.800	231,883.542	229,564.707	227,269.060	224,996.369	222,746.405	220,518.941	218,313.752	216,130.614	
Total System Consumption (gallons)				2,054,027.448	1,921,060.724	1,979,187.804	1,895,382.632	1,752,008.984	1,734,488.894	1,717,144.005	1,699,972.565	1,682,972.840	1,666,143.111	1,649,481.680	1,632,986.863	1,616,656.995	
				2054.027448	1921.060724	1979.187804	1895.382632	1752.008984	1734.488894	1717.144005	1699.972565	1682.972840	1666.143111	1649.481680	1632.986863	1616.656995	
				5.63	5.26	5.42	5.19	4.80	4.75	4.75	4.75	4.75	4.75	4.75	4.75		
				6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59		
				0.854070794	0.79878283	0.822952245	0.788105802	0.728490608	0.721205702								

SCHEDULE 14A - FY 08 RATE RECONCILIATION

Village of Downers Grove  
Water Rate Study

Actual Revenues Collected 2008  
\$ 6,900,114

Consumption Information *in CCFs		2008 Actuals	
		Bills	Consumption
Inside Village		83,082	2,223,335
Outside Village		6,966	148,094
Westmont			7,096
	0 - 1 CCFs		6%
	2 - 13 CCFs		54%
	Over 13 CCFs		41%
Knottingham			26,866

Current Rate Structure

Inside Village				Outside Village			
		2008	2008			2008	2008
Minimum Charge							
Cost Allocated =		\$ 435,829	\$ 451,966	Cost Allocated =		\$ 46,160	\$ 46,533
# of Customers Billed Minimum		83,082	83,082	# of Customers Billed Minimum		6,966	6,966
Minimum Charge	2.00	\$ 5.25	\$ 5.44	Minimum Charge	2.00	\$ 6.63	\$ 6.68
			-3.6%				-0.8%
		FY 10	FY 10			FY 10	FY 10
Consumption =		2,223,335	2,223,335	Consumption =		148,094	148,094
Cost Allocated =	90.83%	\$ 6,267,374	\$ 6,047,471	Cost Allocated =	7.78%	\$ 536,829	\$ 494,634
Unit Rate (per CCF)	1.00	\$ 2.62	\$ 2.72	Unit Rate (per CCF)	1.00	\$ 3.31	\$ 3.34
			-3.6%				-0.8%
<b>Westmont Customers</b>	0.27%			<b>Knottingham</b>	1.12%		
		2009	2009				
Level 1: 0 - 1 CCF				Consumption =		26,866	26,866
Consumption =		391	391	Cost Allocated =		\$ 77,281	\$ 77,374
Cost Allocated =		\$ 1,551	\$ 1,566	Unit Rate (per CCF)		\$ 2.88	\$ 2.88
Unit Rate (per CCF)	1.00	\$ 3.96	\$ 4.00				-0.1%
			-1.0%				
Level 2: 2 - 13 CCFs							
Consumption =		3,827	3,827				
Cost Allocated =		\$ 8,528	\$ 8,610				
Unit Rate (per CCF)	0.56	\$ 2.23	\$ 2.25				
			-1.0%				
Level 3: Over 13 CCFs							
Consumption =		2,878	2,878				
Cost Allocated =		\$ 8,551	\$ 8,633				
Unit Rate (per CCF)	0.75	\$ 2.97	\$ 3.00				
			-1.0%				
Collected Revenue - Inside Village		\$ 6,267,374	\$ 6,499,437				
Collected Revenue - Outside Village		\$ 536,829	\$ 541,167				
Collected Revenue - Knottingham		\$ 18,630	\$ 18,809				
Collected Revenue - Westmont		\$ 77,281	\$ 77,374				
Total Collected Revenue		\$ 6,900,114	\$ 7,136,787				
		\$ 6,900,114	-3.32%				

SCHEDULE 14B - FY 09 RATE RECONCILIATION

Actual Revenues Collected 2009  
\$ 7,164,670

		2009	
Consumption Information *in CCFs		Consumption	
Inside Village	Jan - Apr	415,884	
	May - Dec	1,770,927	
Outside Village	Jan - Apr	20,807	
	May - Dec	110,117	
Westmont	0 - 1 CCFs	405	
	2 - 13 CCFs	3,960	
	Over 13 CCFs	2,978	
Knottingham		22,553	

Current Rate Structure

<b>Inside Village</b>		92.46%				<b>Outside Village</b>		6.40%	
Minimum Charge		2009		2009				2009	
Consumption =		415,884		415,884		Consumption =		20,807	
Cost Allocated =		\$ 1,202,161		\$ 1,193,587		Cost Allocated =		\$ 69,379	
Unit Rate (per CCF)	0.9	\$ 2.89		\$ 2.87		Unit Rate (per CCF)	0.9	\$ 3.33	
								\$ 3.34	
								-0.2%	
Consumption =		1,770,927		1,770,927		Consumption =		110,117	
Cost Allocated =		\$ 5,422,292		\$ 5,383,618		Cost Allocated =		\$ 389,160	
Unit Rate (per CCF)	1.0	\$ 3.06		\$ 3.04		Unit Rate (per CCF)	1.0	\$ 3.53	
								\$ 3.54	
								-0.2%	
<b>Westmont Customers</b>		0.26%				<b>Knottingham</b>		0.88%	
Level 1: 0 - 1 CCF		2009		2009				2009	
Consumption =		405		405		Consumption =		22,553	
Cost Allocated =		\$ 1,550		\$ 1,620		Cost Allocated =		\$ 63,049	
Unit Rate (per CCF)	1.00	\$ 3.83		\$ 4.00		Unit Rate (per CCF)	2.80	\$ 2.88	
								-2.9%	
Level 2: 2 - 13 CCFs									
Consumption =		3,960		3,960					
Cost Allocated =		\$ 8,527		\$ 8,910					
Unit Rate (per CCF)	0.56	\$ 2.15		\$ 2.25					
Level 3: Over 13 CCFs									
Consumption =		2,978		2,978					
Cost Allocated =		\$ 8,550		\$ 8,934					
Unit Rate (per CCF)	0.75	\$ 2.87		\$ 3.00					
Collected Revenue - Inside Village		\$ 6,624,454		\$ 6,577,205					
Collected Revenue - Outside Village		\$ 458,539		\$ 459,310					
Collected Revenue - Westmont		\$ 18,628		\$ 19,464					
Collected Revenue - Knottingham		\$ 63,049		\$ 64,953					
Total Collected Revenue		\$ 7,164,670		\$ 7,120,931					
		\$ 7,164,670		0.61%					

SCHEDULE 14C - FY 10 RATE RECONCILIATION

Council Adopted Projected Revenues 2010  
\$ 7,955,137

Consumption Information *in CCFs		2010 (no growth from FY 09)		Consumption	
Inside Village	Jan - June			920,650	
	July - Dec			1,266,161	
Outside Village	Jan - June			58,056	
	July - Dec			72,868	
Westmont	0 - 1 CCFs			401	
	2 - 13 CCFs			3,920	
	Over 13 CCFs			2,948	
Knottingham				22,553	

Current Rate Structure

Inside Village		92.43%		2010 (no growth from FY 09)		Outside Village		6.45%		2010 (no growth from FY 09)		
Minimum Charge												
Consumption =				920,650	920,650	Consumption =				58,056	58,056	
Cost Allocated =				\$ 2,944,254	\$ 2,798,776	Cost Allocated =				\$ 216,954	\$ 205,518	
Unit Rate (per CCF)	0.9			\$ 3.20	\$ 3.04	5.2%	Unit Rate (per CCF)	0.9		\$ 3.74	\$ 3.54	5.6%
Consumption =				1,266,161	1,266,161	Consumption =				72,868	72,868	
Cost Allocated =				\$ 4,408,838	\$ 4,190,993	Cost Allocated =				\$ 296,152	\$ 280,542	
Unit Rate (per CCF)	1.0			\$ 3.48	\$ 3.31	5.2%	Unit Rate (per CCF)	1.0		\$ 4.06	\$ 3.85	5.6%
<b>Westmont Customers</b>		<b>0.26%</b>		<b>2010 (no growth from FY 09)</b>		<b>Knottingham</b>		<b>0.86%</b>		<b>2010 (no growth from FY 09)</b>		
Level 1: 0 - 1 CCF						Consumption =				22,553	22,553	
Consumption =				401	401	Cost Allocated =				\$ 68,414	\$ 64,953	
Cost Allocated =				\$ 1,708	\$ 1,604	Unit Rate (per CCF)				\$ 3.03	\$ 2.88	5.3%
Unit Rate (per CCF)	1.00			\$ 4.26	\$ 4.00	6.5%						
Level 2: 2 - 13 CCFs												
Consumption =				3,920	3,920							
Cost Allocated =				\$ 9,395	\$ 8,821							
Unit Rate (per CCF)	0.56			\$ 2.40	\$ 2.25	6.5%						
Level 3: Over 13 CCFs												
Consumption =				2,948	2,948							
Cost Allocated =				\$ 9,421	\$ 8,845							
Unit Rate (per CCF)	0.75			\$ 3.20	\$ 3.00	6.5%						
Collected Revenue - Inside Village				\$ 7,353,092	\$ 6,989,769							
Collected Revenue - Outside Village				\$ 513,106	\$ 486,060							
Collected Revenue - Westmont				\$ 20,524	\$ 19,269							
Collected Revenue - Knottingham				\$ 68,414	\$ 64,953							
Total Collected Revenue				\$ 7,955,137	\$ 7,560,051							
				\$ 7,955,137	5.23%							

SCHEDULE 14D - FY 11 RATE ANALYSIS

Village of Downers Grove  
Water Rate Study

	2011	
Downers Grove Revenue Requirements	\$	9,129,101
Rev. Req. - Fixed Portion	\$	1,258,671
Rev. Req. - Variable Portion	\$	7,870,429
<b>Consumption Information *in CCFs</b>		
	2011 (no growth from FY 09)	Total EDU's
Inside Village (including min. 2 CCFs)	2,139,346	22,738
Residential (No Min. Usage)	1,152,022	
Non-Residential (No Min. Usage)	986,459	
Commercial	953,073	
Industrial	53,415	
Outside Village (including min. 2 CCFs)	127,940	1,471
Residential (No Min. Usage)	95,646	
Non-Residential (No Min. Usage)	32,219	

Water Conservation	
<b>Alternative C</b>	
Residential Consumption Conservation	
Level 2 Reduction Level	4.0%
Level 3 Reduction Level	7.0%
<b>Alternative D</b>	
Residential Consumption Conservation	
Level 2 Reduction Level	4.0%
Level 3 Reduction Level	7.0%
Commercial Consumption Conservation	
Level 2 Reduction Level	4.0%
Level 3 Reduction Level	7.0%
Industrial Consumption Conservation	
Level 2 Reduction Level	4.0%
Level 3 Reduction Level	7.0%

Alternative A - Current Rate Structure

Inside Village	93.50%	2010		20.5%	Outside Village	6.50%	2010		20.5%
		2011	Current				2011	Current	
Consumption =		2,139,346	2,139,346		Consumption =		127,940	127,940	
Cost Allocated =		\$ 8,535,709	\$ 7,081,234		Cost Allocated =		\$ 593,392	\$ 492,570	
Unit Rate (per CCF)		\$ 3.99	\$ 3.31		Unit Rate (per CCF)		\$ 4.64	\$ 3.85	
Collected Revenue - Inside Village		\$ 8,535,709	\$ 7,081,234						
Collected Revenue - Outside Village		\$ 593,392	\$ 492,570						
Total Collected Revenue		\$ 9,129,101	\$ 7,573,804						
		\$ 9,129,101	20.54%						

Alternative B - Fixed Charge Based on Meter Size with Unit Rate Volume Charge

Bi-Monthly Fixed Charge									
Total EDU's		24,209							
Cost Allocated =	\$	1,258,671							
Bi-Monthly Fixed Charge	\$	8.67							
Inside Village	93.50%	2011		20.5%	Outside Village	6.50%	2011		20.5%
		2011	2011				2011	2011	
Variable Charges					Variable Charges				
Consumption =		2,138,481			Consumption =		127,865		
Cost Allocated =	\$	7,358,851			Cost Allocated =	\$	511,578		
Unit Rate (per CCF)	\$	3.44			Unit Rate (per CCF)	\$	4.00		
Collected Revenue - Fixed Charge	\$	1,258,671							
Collected Revenue - Inside Village	\$	7,358,851							
Collected Revenue - Outside Village	\$	511,578							
Total Collected Revenue	\$	9,129,101							
	\$	9,129,101							

**Alternative B Phase-In - Fixed Charge Based on Meter Size with Unit Rate Volume Charge**

<b>Bi-Monthly Fixed Charge</b>			
Total EDU's			24,209
% of Revenue Collected in Fixed Charge =	10.00%	\$	912,910
Bi-Monthly Fixed Charge		\$	6.28
<b>Inside Village</b>		93.50%	
			2011
Variable Charges			
Consumption =			2,138,481
Cost Allocated =	90.00%	\$	7,682,138
Unit Rate (per CCF)		\$	3.59
<b>Outside Village</b>		6.50%	
			2011
Variable Charges			
Consumption =			127,865
Cost Allocated =		\$	534,052
Unit Rate (per CCF)		\$	4.18
Collected Revenue - Fixed Charge		\$	912,910
Collected Revenue - Inside Village		\$	7,682,138
Collected Revenue - Outside Village		\$	534,052
Total Collected Revenue		\$	9,129,101
		\$	9,129,101

**Alternative C - Fixed Charge Based on Meter Size with Residential Inclining Block Rate**

<b>Bi-Monthly Fixed Charge</b>			
Total EDU's			24,209
Cost Allocated =		\$	1,258,671
Bi-Monthly Fixed Charge		\$	8.67
<b>Inside Village</b>		93.50%	
			2011
Variable Charges			
Residential Block Rate Structure	54%		
Level 1: 0 - 15 CCFs			
Consumption =	69%		790,801
Cost Allocated =		\$	2,514,046
Unit Rate (per CCF)	1.00	\$	3.18
Level 2: 15 - 30 CCFs			
Consumption =	21%		234,958
Cost Allocated =		\$	933,697
Unit Rate (per CCF)	1.25	\$	3.97
Level 3: Over 30 CCFs			
Consumption =	10%		108,321
Cost Allocated =		\$	516,547
Unit Rate (per CCF)	1.50	\$	4.77
Non-Residential Unit Rate	46%		
Consumption =			986,459
Cost Allocated =		\$	3,394,561
Unit Rate (per CCF)		\$	3.44
<b>Outside Village</b>		6.50%	
			2011
Variable Charges			
Residential Block Rate Structure	75%		
Level 1: 0 - 15 CCFs			
Consumption =	69%		66,012
Cost Allocated =		\$	243,974
Unit Rate (per CCF)	1.00	\$	3.70
Level 2: 15 - 30 CCFs			
Consumption =	20%		18,768
Cost Allocated =		\$	86,706
Unit Rate (per CCF)	1.25	\$	4.62
Level 3: Over 30 CCFs			
Consumption =	11%		9,378
Cost Allocated =		\$	51,992
Unit Rate (per CCF)	1.5	\$	5.54
Non-Residential Unit Rate	25%		
Consumption =			32,219
Cost Allocated =		\$	128,905
Unit Rate (per CCF)		\$	4.00
Collected Revenue - Fixed Charge		\$	1,258,671
Collected Revenue - Inside Village Residential Variable Charges		\$	3,964,291
Collected Revenue - Inside Village Non - Residential Variable Charges		\$	3,394,561
Collected Revenue - Outside Village Residential Variable Charges		\$	382,673
Collected Revenue - Outside Village Non - Residential Variable Charges		\$	128,905
Total Collected Revenue		\$	9,129,101

\$ 9,129,101

Alternative D - Fixed Charge Based on Meter Size with Multiple Class Inclining Block Rates

Bi-Monthly Fixed Charge		
Total EDU's		24,209
Cost Allocated =	\$	1,258,671
Bi-Monthly Fixed Charge	\$	8.67
<b>Inside Village</b>	<b>93.50%</b>	<b>2011</b>
Variable Charges		
Residential Block Rate Structure		
Level 1: 0 - 15 CCFs		
Consumption =	69%	790,801
Cost Allocated =	\$	2,356,918
Unit Rate (per CCF)	1.00	\$ 2.98
Level 2: 15 - 30 CCFs		
Consumption =	21%	234,958
Cost Allocated =	\$	875,341
Unit Rate (per CCF)	1.25	\$ 3.73
Level 3: Over 30 CCFs		
Consumption =	10%	108,321
Cost Allocated =	\$	484,263
Unit Rate (per CCF)	1.50	\$ 4.47
Commercial Unit Rate		
Level 1: 0 - 100 CCFs		
Consumption =	37%	355,235
Cost Allocated =	\$	1,058,749
Unit Rate (per CCF)	1.00	\$ 2.98
Level 2: 100 - 200 CCFs		
Consumption =	17%	152,925
Cost Allocated =	\$	569,726
Unit Rate (per CCF)	1.25	\$ 3.73
Level 3: Over 200 CCFs		
Consumption =	46%	407,843
Cost Allocated =	\$	1,823,316
Unit Rate (per CCF)	1.50	\$ 4.47
Industrial Unit Rate		
Level 1: 0 - 130 CCFs		
Consumption =	42%	22,223
Cost Allocated =	\$	66,234
Unit Rate (per CCF)	1.00	\$ 2.98
Level 2: 130 - 260 CCFs		
Consumption =	17%	8,890
Cost Allocated =	\$	33,118
Unit Rate (per CCF)	1.25	\$ 3.73
Level 3: Over 260 CCFs		
Consumption =	41%	20,397
Cost Allocated =	\$	91,186
Unit Rate (per CCF)	1.50	\$ 4.47
Collected Revenue - Fixed Charge	\$	1,258,671
Collected Revenue - Inside Village Residential Variable Charges	\$	3,716,521
Collected Revenue - Inside Village Commercial Variable Charges	\$	3,451,792
Collected Revenue - Inside Village Industrial Variable Charges	\$	190,539
Collected Revenue - Outside Village Residential Variable Charges	\$	370,919
Collected Revenue - Outside Village Commercial Variable Charges	\$	140,659
Total Collected Revenue	\$	9,129,101
<b>Outside Village</b>	<b>6.50%</b>	<b>2011</b>
Variable Charges		
Residential Block Rate Structure		
Level 1: 0 - 15 CCFs		
Consumption =	69%	66,012
Cost Allocated =	\$	236,480
Unit Rate (per CCF)	1.00	\$ 3.58
Level 2: 15 - 30 CCFs		
Consumption =	20%	18,768
Cost Allocated =	\$	84,043
Unit Rate (per CCF)	1.25	\$ 4.48
Level 3: Over 30 CCFs		
Consumption =	11%	9,378
Cost Allocated =	\$	50,396
Unit Rate (per CCF)	1.50	\$ 5.37
Commercial Unit Rate		
Level 1: 0 - 100 CCFs		
Consumption =	32%	10,367
Cost Allocated =	\$	37,141
Unit Rate (per CCF)	1.00	\$ 3.58
Level 2: 100 - 200 CCFs		
Consumption =	25%	7,809
Cost Allocated =	\$	34,971
Unit Rate (per CCF)	1.25	\$ 4.48
Level 3: Over 200 CCFs		
Consumption =	43%	12,756
Cost Allocated =	\$	68,548
Unit Rate (per CCF)	1.50	\$ 5.37

Village of Downers Grove  
Water Rate Study

SCHEDULE 15 - RATE PROJECTIONS

	Current Rates	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Net Revenue Requirements	\$	9,129,101	\$ 10,224,764	\$ 11,131,088	\$ 11,708,405	\$ 12,413,988	\$ 16,239,857	\$ 18,024,771	\$ 19,080,535	\$ 20,100,332	\$ 21,209,378
Rev. Req. - Fixed Portion	13.8%	\$ 1,258,671	\$ 1,296,431	\$ 1,335,324	\$ 1,375,384	\$ 1,416,646	\$ 1,459,145	\$ 1,502,919	\$ 1,548,007	\$ 1,594,447	\$ 1,642,281
Rev. Req. - Variable Portion	86.2%	\$ 7,870,429	\$ 8,928,332	\$ 9,795,764	\$ 10,333,021	\$ 10,997,342	\$ 14,780,712	\$ 16,521,852	\$ 17,532,528	\$ 18,505,885	\$ 19,567,098
Total Inside Village EDU's		22,738	22,738	22,738	22,738	22,738	22,738	22,738	22,738	22,738	22,738
Total Outside Village EDU's		1,471	1,471	1,471	1,471	1,471	1,471	1,471	1,471	1,471	1,471
<b>Inside Village Consumption</b>											
0 - 1 CCF		864	856	847	839	830	822	814	806	798	790
Over 1 CCF		2,137,617	2,116,241	2,095,078	2,074,127	2,053,386	2,032,852	2,012,524	1,992,398	1,972,474	1,952,750
Residential (in CCFs)		1,152,022	1,140,502	1,129,097	1,117,806	1,106,628	1,095,562	1,084,606	1,073,760	1,063,022	1,052,392
Non-Residential (in CCFs)		<b>986,459</b>	<b>976,594</b>	<b>966,828</b>	<b>957,160</b>	<b>947,588</b>	<b>938,113</b>	<b>928,731</b>	<b>919,444</b>	<b>910,250</b>	<b>901,147</b>
Commercial (in CCFs)		934,107	924,766	915,518	906,363	897,299	888,326	879,443	870,649	861,942	853,323
Industrial (in CCFs)		52,352	51,829	51,310	50,797	50,289	49,786	49,288	48,796	48,308	47,824
<b>Outside Village Consumption</b>											
0 - 1 CCF		75	75	74	73	72	72	71	70	70	69
Over 1 CCF		127,789	126,511	125,246	123,994	122,754	121,526	120,311	119,108	117,917	116,738
Residential (in CCFs)		95,646	94,690	93,743	92,805	91,877	90,958	90,049	89,148	88,257	87,374
Non-Residential (in CCFs)		32,219	31,897	31,578	31,262	30,949	30,640	30,333	30,030	29,730	29,432

Alternative A - Current Rate Structure

Breakeven Rates

Inside Village		<b>93.50%</b>										
Unit Rate per CCF	\$	3.31	\$ 3.99	\$ 4.51	\$ 4.96	\$ 5.27	\$ 5.65	\$ 7.46	\$ 8.37	\$ 8.95	\$ 9.52	\$ 10.15
			20.5%	13.1%	10.0%	6.2%	7.1%	32.1%	12.1%	6.9%	6.4%	6.6%
Outside Village		<b>6.50%</b>										
Unit Rate per CCF	\$	3.85	\$ 4.64	\$ 5.25	\$ 5.77	\$ 6.13	\$ 6.57	\$ 8.68	\$ 9.73	\$ 10.40	\$ 11.07	\$ 11.80
			20.5%	13.1%	10.0%	6.2%	7.1%	32.1%	12.1%	6.9%	6.4%	6.6%
Total Collected Revenue - Inside Village	\$	8,535,709	\$ 9,560,154	\$ 10,407,568	\$ 10,947,358	\$ 11,607,078	\$ 15,184,266	\$ 16,853,161	\$ 17,840,301	\$ 18,793,810	\$ 19,830,769	
Total Collected Revenue - Outside Village	\$	593,392	\$ 664,610	\$ 723,521	\$ 761,046	\$ 806,909	\$ 1,055,591	\$ 1,171,610	\$ 1,240,235	\$ 1,306,522	\$ 1,378,610	
Total Collected Revenue	\$	9,129,101	\$ 10,224,764	\$ 11,131,088	\$ 11,708,405	\$ 12,413,988	\$ 16,239,857	\$ 18,024,771	\$ 19,080,535	\$ 20,100,332	\$ 21,209,378	
<b>Total Required Revenue</b>	\$	<b>9,129,101</b>	\$ <b>10,224,764</b>	\$ <b>11,131,088</b>	\$ <b>11,708,405</b>	\$ <b>12,413,988</b>	\$ <b>16,239,857</b>	\$ <b>18,024,771</b>	\$ <b>19,080,535</b>	\$ <b>20,100,332</b>	\$ <b>21,209,378</b>	
Total Surplus/Shortfall	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

User Defined Rates

<b>Inside Village</b>																						
Unit Rate per CCF	\$	3.31	14.7%	\$3.80	14.0%	\$4.33	14.0%	\$4.93	10.0%	\$5.43	9.0%	\$5.92	10.0%	\$6.51	10.0%	\$7.16	10.0%	\$7.87	10.0%	\$8.66	10.0%	\$9.53
<b>Outside Village</b>																						
Unit Rate per CCF	\$	3.85	14.7%	\$4.42	14.0%	\$5.03	14.0%	\$5.74	10.0%	\$6.31	9.0%	\$6.88	10.0%	\$7.57	10.0%	\$8.33	10.0%	\$9.16	10.0%	\$10.07	10.0%	\$11.08
Total Collected Revenue - Inside Village	\$	8,122,175	\$ 9,166,687	\$ 10,345,523	\$ 11,266,275	\$ 12,157,437	\$ 13,239,449	\$ 14,417,760	\$ 15,700,940	\$ 17,098,324	\$ 18,620,075											
Total Collected Revenue - Outside Village	\$	564,978	\$ 637,634	\$ 719,634	\$ 783,681	\$ 845,670	\$ 920,935	\$ 1,002,898	\$ 1,092,156	\$ 1,189,358	\$ 1,295,211											
Total Collected Revenue	\$	8,687,153	\$ 9,804,321	\$ 11,065,157	\$ 12,049,956	\$ 13,003,107	\$ 14,160,384	\$ 15,420,658	\$ 16,793,097	\$ 18,287,682	\$ 19,915,286											
<b>Total Required Revenue</b>	\$	<b>9,129,101</b>	\$ <b>10,224,764</b>	\$ <b>11,131,088</b>	\$ <b>11,708,405</b>	\$ <b>12,413,988</b>	\$ <b>16,239,857</b>	\$ <b>18,024,771</b>	\$ <b>19,080,535</b>	\$ <b>20,100,332</b>	\$ <b>21,209,378</b>											
Total Surplus/Shortfall	\$	(441,947)	\$ (420,442)	\$ (65,931)	\$ 341,551	\$ 589,120	\$ (2,079,473)	\$ (2,604,113)	\$ (2,287,439)	\$ (1,812,649)	\$ (1,294,092)											



**SCHEDULE 15 - RATE PROJECTIONS**

Village of Downers Grove  
Water Rate Study

**Alternative B - Fixed Charge Based on Meter Size with Unit Rate Volume Charge**

**User Defined Rates**

Bi-Monthly Fixed Charge	\$8.25	\$9.31	\$10.50	\$11.44	\$12.34	\$13.44	\$14.64	\$15.94	\$17.36	\$18.90
<b>Inside Village</b>	<b>93.5%</b>									
Unit Rate per CCF	\$3.27	\$3.73	\$4.26	\$4.68	\$5.10	\$5.61	\$6.17	\$6.79	\$7.47	\$8.22
<b>Outside Village</b>	<b>6.5%</b>									
Unit Rate per CCF	\$3.81	\$4.34	\$4.95	\$5.44	\$5.93	\$6.53	\$7.18	\$7.90	\$8.69	\$9.55
Total Collected Revenue - Fixed Charge	\$ 1,197,738	\$ 1,351,767	\$ 1,525,604	\$ 1,661,383	\$ 1,792,799	\$ 1,952,358	\$ 2,126,117	\$ 2,315,342	\$ 2,521,407	\$ 2,745,813
Total Collected Revenue - Inside Village	\$ 7,002,603	\$ 7,903,138	\$ 8,919,482	\$ 9,713,316	\$ 10,481,639	\$ 11,414,505	\$ 12,430,396	\$ 13,536,701	\$ 14,741,467	\$ 16,053,458
Total Collected Revenue - Outside Village	\$ 486,812	\$ 549,416	\$ 620,071	\$ 675,257	\$ 728,670	\$ 793,522	\$ 864,145	\$ 941,054	\$ 1,024,808	\$ 1,116,016
Total Collected Revenue	\$ 8,687,153	\$ 9,804,321	\$ 11,065,157	\$ 12,049,956	\$ 13,003,107	\$ 14,160,384	\$ 15,420,658	\$ 16,793,097	\$ 18,287,682	\$ 19,915,286
<b>Total Required Revenue</b>	<b>\$ 9,129,101</b>	<b>\$ 10,224,764</b>	<b>\$ 11,131,088</b>	<b>\$ 11,708,405</b>	<b>\$ 12,413,988</b>	<b>\$ 16,239,857</b>	<b>\$ 18,024,771</b>	<b>\$ 19,080,535</b>	<b>\$ 20,100,332</b>	<b>\$ 21,209,378</b>
Total Surplus/Shortfall	\$ (441,947)	\$ (420,442)	\$ (65,931)	\$ 341,551	\$ 589,120	\$ (2,079,473)	\$ (2,604,113)	\$ (2,287,439)	\$ (1,812,649)	\$ (1,294,092)

**Alternative B Phase-In - Fixed Charge Based on Meter Size with Unit Rate Volume Charge**

6.50      2.17  
11.67

**User Defined Rates**

% of Revenues Collected in Fixed Charge		9.50%	12%	14%	14%	14%	14%	14%	14%	14%	14%
Bi-Monthly Fixed Charge	\$ 5.68	\$ 7.76	\$ 10.50	\$ 11.44	\$ 12.34	\$ 13.44	\$ 14.64	\$ 15.94	\$ 17.36	\$ 18.90	
% of Revenues Collected in Variable Charges		91%	89%	86%	86%	86%	86%	86%	86%	86%	
<b>Inside Village</b>	<b>93.5%</b>										
Unit Rate per CCF	\$ 3.44	\$ 3.83	\$ 4.26	\$ 4.68	\$ 5.10	\$ 5.61	\$ 6.17	\$ 6.79	\$ 7.47	\$ 8.22	
<b>Outside Village</b>	<b>6.5%</b>										
Unit Rate per CCF	\$ 4.00	\$ 4.46	\$ 4.95	\$ 5.44	\$ 5.93	\$ 6.53	\$ 7.18	\$ 7.90	\$ 8.69	\$ 9.55	
Total Collected Revenue - Fixed Charge	\$ 825,280	\$ 1,127,497	\$ 1,525,604	\$ 1,661,383	\$ 1,792,799	\$ 1,952,358	\$ 2,126,117	\$ 2,315,342	\$ 2,521,407	\$ 2,745,813	
Total Collected Revenue - Inside Village	\$ 7,350,852	\$ 8,112,831	\$ 8,919,482	\$ 9,713,316	\$ 10,481,639	\$ 11,414,505	\$ 12,430,396	\$ 13,536,701	\$ 14,741,467	\$ 16,053,458	
Total Collected Revenue - Outside Village	\$ 511,022	\$ 563,994	\$ 620,071	\$ 675,257	\$ 728,670	\$ 793,522	\$ 864,145	\$ 941,054	\$ 1,024,808	\$ 1,116,016	
Total Collected Revenue	\$ 8,687,153	\$ 9,804,321	\$ 11,065,157	\$ 12,049,956	\$ 13,003,107	\$ 14,160,384	\$ 15,420,658	\$ 16,793,097	\$ 18,287,682	\$ 19,915,286	
<b>Total Required Revenue</b>	<b>\$ 9,129,101</b>	<b>\$ 10,224,764</b>	<b>\$ 11,131,088</b>	<b>\$ 11,708,405</b>	<b>\$ 12,413,988</b>	<b>\$ 16,239,857</b>	<b>\$ 18,024,771</b>	<b>\$ 19,080,535</b>	<b>\$ 20,100,332</b>	<b>\$ 21,209,378</b>	
Total Surplus/Shortfall	\$ (441,947)	\$ (420,442)	\$ (65,931)	\$ 341,551	\$ 589,120	\$ (2,079,473)	\$ (2,604,113)	\$ (2,287,439)	\$ (1,812,649)	\$ (1,294,092)	

**Alternative C - Fixed Charge Based on Meter Size with Residential Inclining Block Rate**

**User Defined Rates**

Bi-Monthly Fixed Charge	\$ 8.25	\$ 9.31	\$ 10.50	\$ 11.44	\$ 12.34	\$ 13.44	\$ 14.64	\$ 15.94	\$ 17.36	\$ 18.90
<b>Inside Village</b>	<b>93.50%</b>									
Variable Charges										
Residential Block Rate Structure	Conservation									
Level 1: 0 - 15 CCFs	54%									
Unit Rate (per CCF)	\$ 3.03	\$ 3.45	\$ 3.93	\$ 4.32	\$ 4.71	\$ 5.19	\$ 5.70	\$ 6.27	\$ 6.90	\$ 7.59
Level 2: 15 - 30 CCFs	21%									
Unit Rate (per CCF)	\$ 3.78	\$ 4.31	\$ 4.91	\$ 5.41	\$ 5.89	\$ 6.48	\$ 7.13	\$ 7.84	\$ 8.63	\$ 9.49
Level 3: Over 30 CCFs	10%									
Unit Rate (per CCF)	\$ 4.54	\$ 5.17	\$ 5.90	\$ 6.49	\$ 7.07	\$ 7.78	\$ 8.56	\$ 9.41	\$ 10.35	\$ 11.39
Non-Residential Unit Rate	46%									
	\$ 3.27	\$ 3.73	\$ 4.26	\$ 4.68	\$ 5.10	\$ 5.61	\$ 6.17	\$ 6.79	\$ 7.47	\$ 8.22

**SCHEDULE 15 - RATE PROJECTIONS**

Village of Downers Grove  
Water Rate Study

<b>Outside Village</b>		<b>6.50%</b>											
Variable Charges													
Residential Block Rate Structure													
Level 1: 0 - 15 CCFs		69%											
Unit Rate (per CCF)	1.00	\$ 3.52	\$ 4.01	\$ 4.57	\$ 5.03	\$ 5.48	\$ 6.03	\$ 6.63	\$ 7.29	\$ 8.02	\$ 8.83		
Level 2: 15 - 30 CCFs		20%											
Unit Rate (per CCF)	1.25	\$ 4.40	\$ 5.01	\$ 5.71	\$ 6.28	\$ 6.85	\$ 7.54	\$ 8.29	\$ 9.12	\$ 10.03	\$ 11.03		
Level 3: Over 30 CCFs		11%											
Unit Rate (per CCF)	1.5	\$ 5.28	\$ 6.01	\$ 6.86	\$ 7.54	\$ 8.22	\$ 9.04	\$ 9.95	\$ 10.94	\$ 12.04	\$ 13.24		
Non-Residential Unit Rate		25%											
		\$ 3.81	\$ 4.34	\$ 4.95	\$ 5.44	\$ 5.93	\$ 6.53	\$ 7.18	\$ 7.90	\$ 8.69	\$ 9.55		
Collected Revenue - Fixed Charge		\$ 1,197,738	\$ 1,351,767	\$ 1,525,604	\$ 1,661,383	\$ 1,792,799	\$ 1,952,358	\$ 2,126,117	\$ 2,315,342	\$ 2,521,407	\$ 2,745,813		
Collected Revenue - Inside Village Residential Variable Charges		\$ 3,772,376	\$ 4,257,504	\$ 4,805,019	\$ 5,232,665	\$ 5,646,569	\$ 6,149,114	\$ 6,696,385	\$ 7,292,363	\$ 7,941,383	\$ 8,648,166		
Collected Revenue - Inside Village Non - Residential Variable Charges		\$ 3,230,227	\$ 3,645,635	\$ 4,114,463	\$ 4,480,650	\$ 4,835,070	\$ 5,265,391	\$ 5,734,011	\$ 6,244,338	\$ 6,800,084	\$ 7,405,291		
Collected Revenue - Outside Village Residential Variable Charges		\$ 364,147	\$ 410,977	\$ 463,828	\$ 505,109	\$ 545,063	\$ 593,574	\$ 646,402	\$ 703,931	\$ 766,581	\$ 834,807		
Collected Revenue - Outside Village Non - Residential Variable Charges		\$ 122,665	\$ 138,439	\$ 156,243	\$ 170,148	\$ 183,607	\$ 199,948	\$ 217,744	\$ 237,123	\$ 258,227	\$ 281,209		
Total Collected Revenue		\$ 8,687,153	\$ 9,804,321	\$ 11,065,157	\$ 12,049,956	\$ 13,003,107	\$ 14,160,384	\$ 15,420,658	\$ 16,793,097	\$ 18,287,682	\$ 19,915,286		
<b>Total Required Revenue</b>		<b>\$ 9,129,101</b>	<b>\$ 10,224,764</b>	<b>\$ 11,131,088</b>	<b>\$ 11,708,405</b>	<b>\$ 12,413,988</b>	<b>\$ 16,239,857</b>	<b>\$ 18,024,771</b>	<b>\$ 19,080,535</b>	<b>\$ 20,100,332</b>	<b>\$ 21,209,378</b>		
Total Surplus/Shortfall		\$ (441,947)	\$ (420,442)	\$ (65,931)	\$ 341,551	\$ 589,120	\$ (2,079,473)	\$ (2,604,113)	\$ (2,287,439)	\$ (1,812,649)	\$ (1,294,092)		

**Alternative D - Fixed Charge Based on Meter Size with Multiple Class Inclining Block Rate**

**User Defined Rates**

Bi-Monthly Fixed Charge		\$ 8.25	\$ 9.31	\$ 10.50	\$ 11.44	\$ 12.34	\$ 13.44	\$ 14.64	\$ 15.94	\$ 17.36	\$ 18.90		
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**Inside Village**

**93.50%**

Variable Charges													
Residential Block Rate Structure													
Level 1: 0 - 15 CCFs		69%											
Unit Rate (per CCF)	1.00	\$ 2.86	\$ 3.27	\$ 3.72	\$ 4.09	\$ 4.46	\$ 4.91	\$ 5.40	\$ 5.94	\$ 6.53	\$ 7.19		
Level 2: 15 - 30 CCFs		21% <b>4%</b>											
Unit Rate (per CCF)	1.25	\$ 3.58	\$ 4.08	\$ 4.65	\$ 5.12	\$ 5.58	\$ 6.14	\$ 6.75	\$ 7.43	\$ 8.17	\$ 8.99		
Level 3: Over 30 CCFs		10% <b>7%</b>											
Unit Rate (per CCF)	1.50	\$ 4.30	\$ 4.90	\$ 5.58	\$ 6.14	\$ 6.69	\$ 7.36	\$ 8.10	\$ 8.91	\$ 9.80	\$ 10.78		
Commercial Unit Rate													
Level 1: 0 - 100 CCFs		37%											
Unit Rate (per CCF)	1.00	\$ 2.86	\$ 3.27	\$ 3.72	\$ 4.09	\$ 4.46	\$ 4.91	\$ 5.40	\$ 5.94	\$ 6.53	\$ 7.19		
Level 2: 100 - 200 CCFs		17% <b>4%</b>											
Unit Rate (per CCF)	1.25	\$ 3.58	\$ 4.08	\$ 4.65	\$ 5.12	\$ 5.58	\$ 6.14	\$ 6.75	\$ 7.43	\$ 8.17	\$ 8.99		
Level 3: Over 200 CCFs		46% <b>7%</b>											
Unit Rate (per CCF)	1.50	\$ 4.30	\$ 4.90	\$ 5.58	\$ 6.14	\$ 6.69	\$ 7.36	\$ 8.10	\$ 8.91	\$ 9.80	\$ 10.78		
Industrial Unit Rate													
Level 1: 0 - 130 CCFs		42%											
Unit Rate (per CCF)	1.00	\$ 2.86	\$ 3.27	\$ 3.72	\$ 4.09	\$ 4.46	\$ 4.91	\$ 5.40	\$ 5.94	\$ 6.53	\$ 7.19		
Level 2: 130 - 260 CCFs		17% <b>4%</b>											
Unit Rate (per CCF)	1.25	\$ 3.58	\$ 4.08	\$ 4.65	\$ 5.12	\$ 5.58	\$ 6.14	\$ 6.75	\$ 7.43	\$ 8.17	\$ 8.99		
Level 3: Over 260 CCFs		41% <b>7%</b>											
Unit Rate (per CCF)	1.50	\$ 4.30	\$ 4.90	\$ 5.58	\$ 6.14	\$ 6.69	\$ 7.36	\$ 8.10	\$ 8.91	\$ 9.80	\$ 10.78		

SCHEDULE 15 - RATE PROJECTIONS

Village of Downers Grove  
Water Rate Study

Outside Village	6.50%																					
Variable Charges																						
Residential Block Rate Structure																						
Level 1: 0 - 15 CCFs	69%																					
Unit Rate (per CCF)	1.00	\$	3.41	\$	3.89	\$	4.43	\$	4.87	\$	5.31	\$	5.84	\$ 6.43	\$ 7.07	\$ 7.78	\$ 8.55					
Level 2: 15 - 30 CCFs	20%																					
Unit Rate (per CCF)	1.25	4%	\$	4.26	\$	4.86	\$	5.54	\$	6.09	\$	6.64	\$	7.30	\$	8.03	\$	8.84	\$	9.72	\$	10.69
Level 3: Over 30 CCFs	11%																					
Unit Rate (per CCF)	1.50	7%	\$	5.11	\$	5.83	\$	6.65	\$	7.31	\$	7.97	\$	8.76	\$	9.64	\$	10.61	\$	11.67	\$	12.83
Commercial Unit Rate																						
Level 1: 0 - 100 CCFs	32%																					
Unit Rate (per CCF)	1.00	\$	3.41	\$	3.89	\$	4.43	\$	4.87	\$	5.31	\$	5.84	\$	6.43	\$	7.07	\$	7.78	\$	8.55	
Level 2: 100 - 200 CCFs	25%																					
Unit Rate (per CCF)	1.25	4%	\$	4.26	\$	4.86	\$	5.54	\$	6.09	\$	6.64	\$	7.30	\$	8.03	\$	8.84	\$	9.72	\$	10.69
Level 3: Over 200 CCFs	43%																					
Unit Rate (per CCF)	1.50	7%	\$	5.11	\$	5.83	\$	6.65	\$	7.31	\$	7.97	\$	8.76	\$	9.64	\$	10.61	\$	11.67	\$	12.83
Collected Revenue - Fixed Charge		\$	1,197,738	\$	1,351,767	\$	1,525,604	\$	1,661,383	\$	1,792,799	\$	1,952,358	\$	2,126,117	\$	2,315,342	\$	2,521,407	\$	2,745,813	
Collected Revenue - Inside Village Residential Variable Charges		\$	3,571,782	\$	4,031,114	\$	4,549,515	\$	4,954,422	\$	5,346,316	\$	5,822,138	\$	6,340,309	\$	6,904,596	\$	7,519,105	\$	8,188,306	
Collected Revenue - Inside Village Commercial Variable Charges		\$	3,251,347	\$	3,669,470	\$	4,141,364	\$	4,509,945	\$	4,866,682	\$	5,299,817	\$	5,771,500	\$	6,285,164	\$	6,844,543	\$	7,453,708	
Collected Revenue - Inside Village Industrial Variable Charges		\$	179,474	\$	202,555	\$	228,603	\$	248,949	\$	268,641	\$	292,550	\$	318,586	\$	346,941	\$	377,818	\$	411,444	
Collected Revenue - Outside Village Residential Variable Charges		\$	352,963	\$	398,354	\$	449,582	\$	489,595	\$	528,322	\$	575,342	\$	626,548	\$	682,311	\$	743,036	\$	809,166	
Collected Revenue - Outside Village Commercial Variable Charges		\$	133,849	\$	151,062	\$	170,489	\$	185,662	\$	200,348	\$	218,179	\$	237,597	\$	258,743	\$	281,772	\$	306,849	
Total Collected Revenue		\$	8,687,153	\$	9,804,321	\$	11,065,157	\$	12,049,956	\$	13,003,107	\$	14,160,384	\$	15,420,658	\$	16,793,097	\$	18,287,682	\$	19,915,286	
<b>Total Required Revenue</b>		\$	<b>9,129,101</b>	\$	<b>10,224,764</b>	\$	<b>11,131,088</b>	\$	<b>11,708,405</b>	\$	<b>12,413,988</b>	\$	<b>16,239,857</b>	\$	<b>18,024,771</b>	\$	<b>19,080,535</b>	\$	<b>20,100,332</b>	\$	<b>21,209,378</b>	
Total Surplus/Shortfall		\$	(441,947)	\$	(420,442)	\$	(65,931)	\$	341,551	\$	589,120	\$	(2,079,473)	\$	(2,604,113)	\$	(2,287,439)	\$	(1,812,649)	\$	(1,294,092)	

SCHEDULE 16A - INSIDE VILLAGE SAMPLE BILLS

	Current Rates	2011	2012	2013	2014	2015	
<b>Alternative A - Current Rate Structure</b>							
Inside Village - Unit Rate per CCF (Min 2 CCFs)	\$	3.31	\$ 3.80	\$ 4.33	\$ 4.93	\$ 5.43	\$ 5.92
<b>Alternative B - Fixed Charge Based on Meter Size with Unit Rate Volume Charge</b>							
Inside Village - Bi-Monthly Fixed Charge	\$	8.25	\$ 9.31	\$ 10.50	\$ 11.44	\$ 12.34	
Inside Village - Unit Rate per CCF (No Minimum)	\$	3.27	\$ 3.73	\$ 4.26	\$ 4.68	\$ 5.10	
<b>Alternative C - Fixed Charge Based on Meter Size with Residential Inclining Block Rate</b>							
Inside Village - Bi-Monthly Fixed Charge	\$	8.25	\$ 9.31	\$ 10.50	\$ 11.44	\$ 12.34	
Inside Village - Residential Inclining Block Rate							
Level 1: 0 - 15 CCFs per CCF	\$	3.03	\$ 3.45	\$ 3.93	\$ 4.32	\$ 4.71	
Level 2: 15 - 30 CCFs per CCF	\$	3.78	\$ 4.31	\$ 4.91	\$ 5.41	\$ 5.89	
Level 3: Over 30 CCFs per CCF	\$	4.54	\$ 5.17	\$ 5.90	\$ 6.49	\$ 7.07	
Inside Village - Non-Residential Unit Rate per CCF	\$	3.27	\$ 3.73	\$ 4.26	\$ 4.68	\$ 5.10	
<b>Alternative D - Fixed Charge Based on Meter Size with Multiple Class Inclining Block Rates</b>							
Inside Village - Bi-Monthly Fixed Charge	\$	8.25	\$ 9.31	\$ 10.50	\$ 11.44	\$ 12.34	
Inside Village - Residential Inclining Block Rate							
Level 1: 0 - 15 CCFs per CCF	\$	2.86	\$ 3.27	\$ 3.72	\$ 4.09	\$ 4.46	
Level 2: 15 - 30 CCFs per CCF	\$	3.58	\$ 4.08	\$ 4.65	\$ 5.12	\$ 5.58	
Level 3: Over 30 CCFs per CCF	\$	4.30	\$ 4.90	\$ 5.58	\$ 6.14	\$ 6.69	
Commercial Unit Rate per CCF							
Level 1: 0 - 100 CCFs per CCF	\$	2.86	\$ 3.27	\$ 3.72	\$ 4.09	\$ 4.46	
Level 2: 100 - 200 CCFs per CCF	\$	3.58	\$ 4.08	\$ 4.65	\$ 5.12	\$ 5.58	
Level 3: Over 200 CCFs per CCF	\$	4.30	\$ 4.90	\$ 5.58	\$ 6.14	\$ 6.69	
Industrial Unit Rate							
Level 1: 0 - 130 CCFs	\$	2.86	\$ 3.27	\$ 3.72	\$ 4.09	\$ 4.46	
Level 2: 130 - 260 CCFs	\$	3.58	\$ 4.08	\$ 4.65	\$ 5.12	\$ 5.58	
Level 3: Over 260 CCFs	\$	4.30	\$ 4.90	\$ 5.58	\$ 6.14	\$ 6.69	

Meter Size	Equivalent	2011	2012	2013	2014	2015
5/8	1.00	\$8.20	\$5.68	\$7.76	\$10.50	
1	1.50	\$12.37	\$8.52	\$11.64	\$15.75	
1 1/2	5.00	\$41.23	\$28.41	\$38.81	\$52.52	
2	8.00	\$65.97	\$45.45	\$62.10	\$84.02	
3	15.00	\$123.69	\$85.22	\$116.43	\$157.55	
4	25.00	\$206.15	\$142.04	\$194.06	\$262.58	
6	50.00	\$412.29	\$284.08	\$388.11	\$525.15	
10	120.00	\$989.50	\$681.80	\$931.47	\$1,260.36	

<b>Alternative A</b>													
Meter Size	Water Consumption (in CCFs)	Customer Class	Current Bill	2011	% Difference	2012	% Difference	2013	% Difference	2014	% Difference	2015	% Difference
5/8	1	Residential	\$6.62	\$7.59	14.70%	\$ 8.66	14.00%	\$ 9.87	14.00%	\$ 10.85	10.00%	\$ 11.83	9.00%
5/8	10	Residential	\$33.10	\$37.97	14.70%	\$ 43.28	14.00%	\$ 49.34	14.00%	\$ 54.27	10.00%	\$ 59.16	9.00%
5/8	15	Residential	\$49.65	\$56.95	14.70%	\$ 64.92	14.00%	\$ 74.01	14.00%	\$ 81.41	10.00%	\$ 88.74	9.00%
5/8	40	Residential	\$132.40	\$151.86	14.70%	\$ 173.12	14.00%	\$ 197.36	14.00%	\$ 217.10	10.00%	\$ 236.64	9.00%
5/8	5	Commercial	\$16.55	\$18.98	14.70%	\$ 21.64	14.00%	\$ 24.67	14.00%	\$ 27.14	10.00%	\$ 29.58	9.00%
1 1/2	50	Commercial	\$165.50	\$189.83	14.70%	\$ 216.40	14.00%	\$ 246.70	14.00%	\$ 271.37	10.00%	\$ 295.79	9.00%
1 1/2	100	Commercial	\$331.00	\$379.66	14.70%	\$ 432.81	14.00%	\$ 493.40	14.00%	\$ 542.74	10.00%	\$ 591.59	9.00%
1 1/2	250	Commercial	\$827.50	\$949.14	14.70%	\$ 1,082.02	14.00%	\$ 1,233.51	14.00%	\$ 1,356.86	10.00%	\$ 1,478.97	9.00%
5/8	60	Industrial	\$198.60	\$227.79	14.70%	\$ 259.69	14.00%	\$ 296.04	14.00%	\$ 325.65	10.00%	\$ 354.95	9.00%
2	120	Industrial	\$397.20	\$455.59	14.70%	\$ 519.37	14.00%	\$ 592.08	14.00%	\$ 651.29	10.00%	\$ 709.91	9.00%
2	200	Industrial	\$662.00	\$759.31	14.70%	\$ 865.62	14.00%	\$ 986.80	14.00%	\$ 1,085.48	10.00%	\$ 1,183.18	9.00%
2	400	Industrial	\$1,324.00	\$1,518.63	14.70%	\$ 1,731.24	14.00%	\$ 1,973.61	14.00%	\$ 2,170.97	10.00%	\$ 2,366.36	9.00%

<b>Alternative B</b>													
Meter Size	Water Consumption (in CCFs)	Customer Class	Current Bill	2011	% Difference	2012	% Difference	2013	% Difference	2014	% Difference	2015	% Difference
5/8	1	Residential	\$6.62	\$11.52	74.02%	\$13.04	13.18%	\$14.76	13.19%	\$16.12	9.22%	\$17.45	8.23%
5/8	10	Residential	\$33.10	\$40.99	23.84%	\$46.64	13.77%	\$53.06	13.77%	\$58.25	9.78%	\$63.37	8.79%
5/8	15	Residential	\$49.65	\$57.36	15.54%	\$65.30	13.84%	\$74.34	13.84%	\$81.66	9.84%	\$88.88	8.85%
5/8	40	Residential	\$132.40	\$139.23	5.16%	\$158.63	13.93%	\$180.73	13.93%	\$198.69	9.94%	\$216.44	8.94%
5/8	5	Commercial	\$16.55	\$24.62	48.75%	\$27.97	13.62%	\$31.78	13.62%	\$34.84	9.64%	\$37.86	8.64%
1 1/2	50	Commercial	\$165.50	\$204.96	23.84%	\$233.18	13.77%	\$265.30	13.77%	\$291.25	9.78%	\$316.84	8.79%
1 1/2	100	Commercial	\$331.00	\$368.69	11.39%	\$419.83	13.87%	\$476.08	13.87%	\$525.31	9.88%	\$571.96	8.88%
1 1/2	250	Commercial	\$827.50	\$859.87	3.91%	\$979.78	13.95%	\$1,116.42	13.95%	\$1,227.49	9.95%	\$1,337.34	8.95%
5/8	60	Industrial	\$198.60	\$204.72	3.08%	\$233.29	13.95%	\$265.84	13.95%	\$292.31	9.96%	\$318.49	8.96%
2	120	Industrial	\$397.20	\$458.91	15.54%	\$522.41	13.84%	\$594.70	13.84%	\$653.25	9.84%	\$711.04	8.85%
2	200	Industrial	\$662.00	\$720.88	8.89%	\$821.05	13.90%	\$935.15	13.90%	\$1,027.74	9.90%	\$1,119.24	8.90%
2	400	Industrial	\$1,324.00	\$1,375.79	3.91%	\$1,567.65	13.95%	\$1,786.28	13.95%	\$1,963.98	9.95%	\$2,139.74	8.95%

<b>Alternative C</b>													
Meter Size	Water Consumption (in CCFs)	Customer Class	Current Bill	2011	% Difference	2012	% Difference	2013	% Difference	2014	% Difference	2015	% Difference
5/8	1	Residential	\$6.62	\$11.27	70.26%	\$12.75	13.17%	\$14.43	13.17%	\$15.76	9.20%	\$17.06	8.21%
5/8	10	Residential	\$33.10	\$38.50	16.31%	\$43.79	13.76%	\$49.82	13.76%	\$54.68	9.77%	\$59.48	8.77%
5/8	15	Residential	\$49.65	\$53.62	8.00%	\$61.04	13.82%	\$69.48	13.83%	\$76.31	9.83%	\$83.05	8.84%
5/8	40	Residential	\$132.40	\$155.72	17.62%	\$177.43	13.94%	\$202.17	13.94%	\$222.27	9.94%	\$242.15	8.94%
5/8	5	Commercial	\$16.55	\$24.62	48.75%	\$27.97	13.62%	\$31.78	13.62%	\$34.84	9.64%	\$37.86	8.64%
1 1/2	50	Commercial	\$165.50	\$204.96	23.84%	\$233.18	13.77%	\$265.30	13.77%	\$291.25	9.78%	\$316.84	8.79%
1 1/2	100	Commercial	\$331.00	\$368.69	11.39%	\$419.83	13.87%	\$476.08	13.87%	\$525.31	9.88%	\$571.96	8.88%
1 1/2	250	Commercial	\$827.50	\$859.87	3.91%	\$979.78	13.95%	\$1,116.42	13.95%	\$1,227.49	9.95%	\$1,337.34	8.95%
5/8	60	Industrial	\$198.60	\$204.72	3.08%	\$233.29	13.95%	\$265.84	13.95%	\$292.31	9.96%	\$318.49	8.96%
2	120	Industrial	\$397.20	\$458.91	15.54%	\$522.41	13.84%	\$594.70	13.84%	\$653.25	9.84%	\$711.04	8.85%
2	200	Industrial	\$662.00	\$720.88	8.89%	\$821.05	13.90%	\$935.15	13.90%	\$1,027.74	9.90%	\$1,119.24	8.90%
2	400	Industrial	\$1,324.00	\$1,375.79	3.91%	\$1,567.65	13.95%	\$1,786.28	13.95%	\$1,963.98	9.95%	\$2,139.74	8.95%

<b>Alternative D</b>													
Meter Size	Water Consumption (in CCFs)	Customer Class	Current Bill	2011	% Difference	2012	% Difference	2013	% Difference	2014	% Difference	2015	% Difference
5/8	1	Residential	\$6.62	\$11.11	67.83%	\$ 12.57	13.15%	\$ 14.23	13.16%	\$ 15.53	9.19%	\$ 16.81	8.20%
5/8	10	Residential	\$33.10	\$36.89	11.45%	\$ 41.96	13.75%	\$ 47.73	13.75%	\$ 52.39	9.76%	\$ 56.98	8.76%
5/8	15	Residential	\$49.65	\$51.21	3.14%	\$ 58.29	13.82%	\$ 66.34	13.82%	\$ 72.86	9.83%	\$ 79.29	8.83%
5/8	40	Residential	\$132.40	\$147.88	11.69%	\$ 168.49	13.94%	\$ 191.98	13.94%	\$ 211.06	9.94%	\$ 229.93	8.94%
5/8	5	Commercial	\$16.55	\$22.57	36.36%	\$ 25.63	13.58%	\$ 29.12	13.59%	\$ 31.91	9.60%	\$ 34.66	8.61%
1 1/2	50	Commercial	\$165.50	\$184.45	11.45%	\$ 209.80	13.75%	\$ 238.64	13.75%	\$ 261.93	9.76%	\$ 284.88	8.76%
1 1/2	100	Commercial	\$331.00	\$327.66	-1.01%	\$ 373.07	13.86%	\$ 424.77	13.86%	\$ 466.66	9.86%	\$ 508.04	8.87%
1 1/2	250	Commercial	\$827.50	\$900.53	8.83%	\$ 1,026.14	13.95%	\$ 1,169.27	13.95%	\$ 1,285.62	9.95%	\$ 1,400.70	8.95%
5/8	60	Industrial	\$198.60	\$180.11	-9.31%	\$ 205.23	13.95%	\$ 233.85	13.95%	\$ 257.12	9.95%	\$ 280.14	8.95%
2	120	Industrial	\$397.20	\$409.69	3.14%	\$ 466.29	13.82%	\$ 530.72	13.82%	\$ 582.87	9.83%	\$ 634.33	8.83%
2	200	Industrial	\$662.00	\$688.96	4.07%	\$ 784.66	13.89%	\$ 893.67	13.89%	\$ 982.11	9.90%	\$ 1,069.50	8.90%
2	400	Industrial	\$1,324.00	\$1,505.30	13.69%	\$ 1,715.29	13.95%	\$ 1,954.58	13.95%	\$ 2,149.12	9.95%	\$ 2,341.54	8.95%

SCHEDULE 16B - OUTSIDE VILLAGE SAMPLE BILLS

		Current Rates	2011	2012	2013	2014	2015
<b>Alternative A - Current Rate Structure</b>							
Outside Village - Unit Rate per CCF (Min 2 CCFs)	\$	3.85	\$ 4.42	\$ 5.03	\$ 5.74	\$ 6.31	\$ 6.88
<b>Alternative B - Fixed Charge Based on Meter Size with Unit Rate Volume Charge</b>							
Outside Village - Bi-Monthly Fixed Charge	\$	8.25	\$ 9.31	\$ 10.50	\$ 11.44	\$ 12.34	
Outside Village - Unit Rate per CCF (No Minimum)	\$	3.81	\$ 4.34	\$ 4.95	\$ 5.44	\$ 5.93	
<b>Alternative C - Fixed Charge Based on Meter Size with Residential Inclining Block Rate</b>							
Outside Village - Bi-Monthly Fixed Charge	\$	8.25	\$ 9.31	\$ 10.50	\$ 11.44	\$ 12.34	
Outside Village - Residential Inclining Block Rate							
Level 1: 0 - 15 CCFs per CCF	\$	3.52	\$ 4.01	\$ 4.57	\$ 5.03	\$ 5.48	
Level 2: 15 - 30 CCFs per CCF	\$	4.40	\$ 5.01	\$ 5.71	\$ 6.28	\$ 6.85	
Level 3: Over 30 CCFs per CCF	\$	5.28	\$ 6.01	\$ 6.86	\$ 7.54	\$ 8.22	
Outside Village - Non-Residential Unit Rate per CCF	\$	3.81	\$ 4.34	\$ 4.95	\$ 5.44	\$ 5.93	
<b>Alternative D - Fixed Charge Based on Meter Size with Multiple Class Inclining Block Rates</b>							
Outside Village - Bi-Monthly Fixed Charge	\$	8.25	\$ 9.31	\$ 10.50	\$ 11.44	\$ 12.34	
Outside Village - Residential Inclining Block Rate							
Level 1: 0 - 15 CCFs per CCF	\$	3.41	\$ 3.89	\$ 4.43	\$ 4.87	\$ 5.31	
Level 2: 15 - 30 CCFs per CCF	\$	4.26	\$ 4.86	\$ 5.54	\$ 6.09	\$ 6.64	
Level 3: Over 30 CCFs per CCF	\$	5.11	\$ 5.83	\$ 6.65	\$ 7.31	\$ 7.97	
Commercial Unit Rate per CCF							
Level 1: 0 - 100 CCFs per CCF	\$	3.41	\$ 3.89	\$ 4.43	\$ 4.87	\$ 5.31	
Level 2: 100 - 200 CCFs per CCF	\$	4.26	\$ 4.86	\$ 5.54	\$ 6.09	\$ 6.64	
Level 3: Over 200 CCFs per CCF	\$	5.11	\$ 5.83	\$ 6.65	\$ 7.31	\$ 7.97	

Meter Size	Equivalent	
5/8	1.00	\$8.25
1	1.50	\$12.37
1 1/2	5.00	\$41.23
2	8.00	\$65.97
3	15.00	\$123.69
4	25.00	\$206.15
6	50.00	\$412.29
10	120.00	\$989.50

		<b>Alternative A</b>											
Meter Size	Water Consumption (in CCFs)	Customer Class	Current Bill	2011		2012		2013		2014		2015	
				% Difference	% Difference	% Difference	% Difference	% Difference	% Difference				
5/8	1	Residential	\$7.70	\$8.83	14.70%	\$ 10.07	14.00%	\$ 11.48	14.00%	\$ 12.63	10.00%	\$ 13.76	9.00%
5/8	15	Residential	\$57.75	\$66.24	14.70%	\$ 75.51	14.00%	\$ 86.08	14.00%	\$ 94.69	10.00%	\$ 103.22	9.00%
5/8	20	Residential	\$77.00	\$88.32	14.70%	\$ 100.68	14.00%	\$ 114.78	14.00%	\$ 126.26	10.00%	\$ 137.62	9.00%
5/8	25	Residential	\$96.25	\$110.40	14.70%	\$ 125.85	14.00%	\$ 143.47	14.00%	\$ 157.82	10.00%	\$ 172.03	9.00%
5/8	5	Commercial	\$19.25	\$22.08	14.70%	\$ 25.17	14.00%	\$ 28.69	14.00%	\$ 32.55	10.00%	\$ 34.41	9.00%
1 1/2	50	Commercial	\$192.50	\$220.80	14.70%	\$ 251.71	14.00%	\$ 286.85	14.00%	\$ 315.64	10.00%	\$ 344.05	9.00%
2	100	Commercial	\$385.00	\$441.60	14.70%	\$ 503.42	14.00%	\$ 573.90	14.00%	\$ 631.29	10.00%	\$ 688.10	9.00%
3	150	Commercial	\$577.50	\$662.39	14.70%	\$ 755.13	14.00%	\$ 860.85	14.00%	\$ 946.93	10.00%	\$ 1,032.15	9.00%
5/8	60	Industrial	\$231.00	\$264.96	14.70%	\$ 302.05	14.00%	\$ 344.34	14.00%	\$ 378.77	10.00%	\$ 412.86	9.00%
1 1/2	120	Industrial	\$462.00	\$529.91	14.70%	\$ 604.10	14.00%	\$ 688.68	14.00%	\$ 757.54	10.00%	\$ 825.72	9.00%
2	200	Industrial	\$770.00	\$883.19	14.70%	\$1,006.84	14.00%	\$1,147.79	14.00%	\$1,262.57	10.00%	\$1,376.20	9.00%
3	350	Industrial	\$1,347.50	\$1,545.58	14.70%	\$1,761.96	14.00%	\$2,008.64	14.00%	\$2,209.50	10.00%	\$2,408.36	9.00%

		<b>Alternative B</b>											
Meter Size	Water Consumption (in CCFs)	Customer Class	Current Bill	2011		2012		2013		2014		2015	
				% Difference	% Difference	% Difference	% Difference	% Difference	% Difference				
5/8	1	Residential	\$7.70	\$12.05	56.53%	\$13.65	13.22%	\$15.45	13.22%	\$16.88	9.25%	\$18.28	8.26%
5/8	12	Residential	\$46.20	\$53.93	16.74%	\$61.39	13.83%	\$69.88	13.83%	\$76.75	9.83%	\$83.53	8.84%
5/8	20	Residential	\$77.00	\$84.39	9.60%	\$96.11	13.89%	\$109.46	13.89%	\$120.29	9.89%	\$130.99	8.90%
5/8	25	Residential	\$96.25	\$103.43	7.46%	\$117.81	13.91%	\$134.20	13.91%	\$147.50	9.91%	\$160.66	8.92%
5/8	5	Commercial	\$19.25	\$27.28	41.72%	\$31.01	13.66%	\$35.24	13.66%	\$38.65	9.67%	\$42.01	8.68%
1 1/2	50	Commercial	\$192.50	\$231.59	20.31%	\$263.54	13.80%	\$299.81	13.80%	\$329.32	9.81%	\$358.34	8.81%
2	100	Commercial	\$385.00	\$446.69	16.02%	\$508.48	13.83%	\$578.81	13.83%	\$635.77	9.84%	\$691.99	8.84%
3	150	Commercial	\$577.50	\$694.77	20.31%	\$790.63	13.80%	\$899.73	13.80%	\$987.97	9.81%	\$1,075.02	8.81%
5/8	60	Commercial	\$231.00	\$236.68	2.46%	\$269.72	13.96%	\$307.38	13.96%	\$338.00	9.96%	\$368.29	8.96%
1 1/2	120	Commercial	\$462.00	\$498.10	7.81%	\$567.36	13.91%	\$646.26	13.91%	\$710.31	9.91%	\$773.61	8.91%
2	200	Commercial	\$770.00	\$827.41	7.46%	\$942.50	13.91%	\$1,073.60	13.91%	\$1,180.04	9.91%	\$1,285.24	8.92%
3	350	Commercial	\$1,347.50	\$1,456.22	8.07%	\$1,658.68	13.90%	\$1,889.31	13.90%	\$2,076.50	9.91%	\$2,261.52	8.91%

		<b>Alternative C</b>											
Meter Size	Water Consumption (in CCFs)	Customer Class	Current Bill	2011		2012		2013		2014		2015	
				% Difference	% Difference	% Difference	% Difference	% Difference	% Difference				
5/8	1	Residential	\$7.70	\$11.76	52.76%	\$13.32	13.20%	\$15.07	13.20%	\$16.47	9.23%	\$17.82	8.24%
5/8	12	Residential	\$46.20	\$50.45	9.20%	\$57.42	13.81%	\$65.35	13.82%	\$71.77	9.82%	\$78.11	8.83%
5/8	20	Residential	\$77.00	\$82.98	7.77%	\$94.51	13.89%	\$107.63	13.89%	\$118.28	9.89%	\$128.80	8.89%
5/8	25	Residential	\$96.25	\$104.96	9.05%	\$119.56	13.91%	\$136.20	13.91%	\$149.70	9.92%	\$163.05	8.92%
5/8	5	Commercial	\$19.25	\$27.28	41.72%	\$31.01	13.66%	\$35.24	13.66%	\$38.65	9.67%	\$42.01	8.68%
1 1/2	50	Commercial	\$192.50	\$231.59	20.31%	\$263.54	13.80%	\$299.81	13.80%	\$329.32	9.81%	\$358.34	8.81%
2	100	Commercial	\$385.00	\$446.69	16.02%	\$508.48	13.83%	\$578.81	13.83%	\$635.77	9.84%	\$691.99	8.84%
3	150	Commercial	\$577.50	\$694.77	20.31%	\$790.63	13.80%	\$899.73	13.80%	\$987.97	9.81%	\$1,075.02	8.81%
5/8	60	Commercial	\$231.00	\$236.68	2.46%	\$269.72	13.96%	\$307.38	13.96%	\$338.00	9.96%	\$368.29	8.96%
1 1/2	120	Commercial	\$462.00	\$498.10	7.81%	\$567.36	13.91%	\$646.26	13.91%	\$710.31	9.91%	\$773.61	8.91%
2	200	Commercial	\$770.00	\$827.41	7.46%	\$942.50	13.91%	\$1,073.60	13.91%	\$1,180.04	9.91%	\$1,285.24	8.92%
3	350	Commercial	\$1,347.50	\$1,456.22	8.07%	\$1,658.68	13.90%	\$1,889.31	13.90%	\$2,076.50	9.91%	\$2,261.52	8.91%

		<b>Alternative D</b>											
Meter Size	Water Consumption (in CCFs)	Customer Class	Current Bill	2011		2012		2013		2014		2015	
				% Difference	% Difference	% Difference	% Difference	% Difference	% Difference				
5/8	1	Residential	\$7.70	\$11.65	51.36%	\$ 13.19	13.19%	\$ 14.93	13.20%	\$ 16.31	9.23%	\$ 17.65	8.24%
5/8	12	Residential	\$46.20	\$49.15	6.39%	\$ 55.94	13.81%	\$ 63.67	13.81%	\$ 69.92	9.82%	\$ 76.09	8.82%
5/8	20	Residential	\$77.00	\$80.69	4.79%	\$ 91.89	13.88%	\$ 104.65	13.88%	\$ 115.00	9.89%	\$ 125.22	8.89%
5/8	25	Residential	\$96.25	\$101.99	5.97%	\$ 116.18	13.91%	\$ 132.34	13.91%	\$ 145.45	9.91%	\$ 158.42	8.91%
5/8	5	Commercial	\$19.25	\$25.29	31.38%	\$ 28.74	13.63%	\$ 32.65	13.63%	\$ 35.80	9.65%	\$ 38.90	8.65%
1 1/2	50	Commercial	\$192.50	\$211.68	9.96%	\$ 240.84	13.78%	\$ 274.03	13.78%	\$ 300.86	9.79%	\$ 327.31	8.79%
2	100	Commercial	\$385.00	\$406.86	5.68%	\$ 463.07	13.82%	\$ 527.05	13.82%	\$ 578.84	9.82%	\$ 629.93	8.83%
3	150	Commercial	\$577.50	\$677.65	17.34%	\$ 771.11	13.79%	\$ 874.47	13.79%	\$ 963.48	9.80%	\$1,048.33	8.81%
5/8	60	Commercial	\$231.00	\$212.78	-7.89%	\$ 242.48	13.96%	\$ 276.32	13.96%	\$ 303.84	9.96%	\$ 331.06	8.96%
1 1/2	120	Commercial	\$462.00	\$467.35	1.16%	\$ 532.31	13.90%	\$ 606.30	13.90%	\$ 666.36	9.90%	\$ 725.70	8.91%
2	200	Commercial	\$770.00	\$832.99	8.18%	\$ 948.85	13.91%	\$1,080.84	13.91%	\$1,188.00	9.91%	\$1,293.92	8.92%
3	350	Commercial	\$1,347.50	\$1,657.73	23.02%	\$1,888.40	13.91%	\$2,151.18	13.92%	\$2,364.57	9.92%	\$2,575.51	8.92%

**SCHEDULE 17 - CAPACITY FEE**

Average Day System Capacity

IDNR Water Allocation	6.589	MGD
Five Year Average System Daily Usage	5.261	MGD
Percentage of Average Daily Capacity Utilized	79.8%	

Equivalent Dwelling Unit Analysis

Current Number of EDUs in System	22,738
Percentage of Average Daily Capacity Utilized	79.8%
Remaining EDUs Available	5,740

Total EDU's at Full Capacity Utilization 28,478

**System Buy-In Method**

Replacement Cost New Less Depreciation (RCNLD)	\$ 58,769,658								
Cost per EDU	\$ 2,064	<u>Meter Size</u>	<u>Line Size</u>	<u>AWWA Demand Factors</u>	<u>Calculated Capacity Fee</u>	<u>Current Demand Factors</u>	<u>Current Connection Fee</u>	<u>Current Capacity Fee</u>	<u>Total Current Capacity</u>
		5/8"	1"	1	\$2,100	1	\$1,900	\$600	\$2,500
		3/4"	1 1/4"	1.1	\$2,300			\$600	
		1"	1 1/2"	2.5	\$5,200	1.2	\$2,200	\$600	\$2,800
		1 1/2"	2"	5.0	\$10,300	1.3	\$2,400	\$600	\$3,000
		2"	4"	8.0	\$16,500	1.5	\$2,900	\$600	\$3,500
		3"	6"	15.0	\$31,000	3.4	\$6,500	\$600	\$7,100
		4"	8"	25.0	\$51,600	6.2	\$11,800	\$600	\$12,400
		6"	10"	50.0	\$103,200	9.6	\$18,300	\$600	\$18,900
		8"	12"	120.0	\$247,600	13.8	\$26,300	\$600	\$26,900

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**SCHEDULE 18 - CAPITAL FEES**

	<b>Current</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Tap Fees</b>											
1"	\$200	\$230	\$240	\$250	\$260	\$270	\$280	\$290	\$300	\$310	\$320
1 1/2"	\$250	\$370	\$380	\$390	\$400	\$410	\$420	\$430	\$440	\$450	\$460
2"	\$325	\$425	\$440	\$450	\$460	\$470	\$480	\$490	\$500	\$520	\$540
Over 2"	\$400	\$590	\$610	\$630	\$650	\$670	\$690	\$710	\$730	\$750	\$770
<b>Meter Fees</b>											
5/8" to 3/4"	\$250	\$260	\$270	\$280	\$290	\$300	\$310	\$320	\$330	\$340	\$350
1"	\$325	\$370	\$380	\$390	\$400	\$410	\$420	\$430	\$440	\$450	\$460
1 1/2"	\$400	\$1,500	\$1,550	\$1,600	\$1,650	\$1,700	\$1,750	\$1,800	\$1,850	\$1,910	\$1,970
2"	\$500	\$1,780	\$1,830	\$1,880	\$1,940	\$2,000	\$2,060	\$2,120	\$2,180	\$2,250	\$2,320
3"	\$0	\$2,940	\$3,030	\$3,120	\$3,210	\$3,310	\$3,410	\$3,510	\$3,620	\$3,730	\$3,840
4"	\$0	\$3,900	\$4,020	\$4,140	\$4,260	\$4,390	\$4,520	\$4,660	\$4,800	\$4,940	\$5,090
6"	\$0	\$6,240	\$6,430	\$6,620	\$6,820	\$7,020	\$7,230	\$7,450	\$7,670	\$7,900	\$8,140
<b>Capacity Fees</b>											
1"	\$1,900	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100	\$2,100
1 1/4"	\$0	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300
1 1/2"	\$2,200	\$5,200	\$5,200	\$5,200	\$5,200	\$5,200	\$5,200	\$5,200	\$5,200	\$5,200	\$5,200
2"	\$2,400	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300
4"	\$2,900	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500	\$16,500
6"	\$6,500	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000
8"	\$11,800	\$51,600	\$51,600	\$51,600	\$51,600	\$51,600	\$51,600	\$51,600	\$51,600	\$51,600	\$51,600
10"	\$18,300	\$103,200	\$103,200	\$103,200	\$103,200	\$103,200	\$103,200	\$103,200	\$103,200	\$103,200	\$103,200
12"	\$26,300	\$247,600	\$247,600	\$247,600	\$247,600	\$247,600	\$247,600	\$247,600	\$247,600	\$247,600	\$247,600

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**SCHEDULE 19 - OPERATING CASH FLOW**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Revenue</b>											
User Fee Revenue	\$ 7,560,051	\$ 8,687,153	\$ 9,804,321	\$ 11,065,157	\$ 12,049,956	\$ 13,003,107	\$ 14,160,384	\$ 15,420,658	\$ 16,793,097	\$ 18,287,682	\$ 19,915,286
Revenues Collected - Westmont & Knottingham	\$	\$ 84,417	\$ 86,949	\$ 89,558	\$ 92,244	\$ 95,012	\$ 97,862	\$ 100,798	\$ 103,822	\$ 106,936	\$ 110,145
Miscellaneous Revenue	\$ 339,836	\$ 339,416	\$ 345,098	\$ 350,951	\$ 356,980	\$ 363,189	\$ 369,585	\$ 376,173	\$ 382,958	\$ 389,947	\$ 397,145
Revenues from Unmetered Water Sales	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Use of Available Fund Balance											
<b>Total Operating Revenue</b>	<b>\$ 7,904,887</b>	<b>\$ 9,115,986</b>	<b>\$ 10,241,369</b>	<b>\$ 11,510,666</b>	<b>\$ 12,504,180</b>	<b>\$ 13,466,308</b>	<b>\$ 14,632,831</b>	<b>\$ 15,902,629</b>	<b>\$ 17,284,876</b>	<b>\$ 18,789,565</b>	<b>\$ 20,427,576</b>
<b>Operating and Capital Expenses</b>											
Total Operating Expenses	\$ 7,867,340	\$ 8,180,707	\$ 8,764,289	\$ 9,394,053	\$ 10,040,085	\$ 10,741,918	\$ 11,504,870	\$ 12,334,780	\$ 13,238,063	\$ 14,221,769	\$ 15,293,642
Operating Reserve	\$ -	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Existing Debt Service	\$ 503,708	\$ 503,003	\$ 496,155	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Funded Capital Projects	\$ 1,113,093	\$ 285,000	\$ 967,500	\$ 660,000	\$ 600,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -
Projected Debt Service	\$ -	\$ -	\$ -	\$ 875,343	\$ 875,343	\$ 875,343	\$ 1,404,744	\$ 1,404,744	\$ 1,404,744	\$ 1,404,744	\$ 1,404,744
3R Reserve	\$ -	\$ 489,223	\$ 333,867	\$ 547,201	\$ 547,201	\$ 659,927	\$ 3,702,690	\$ 4,667,218	\$ 4,829,508	\$ 4,875,702	\$ 4,923,282
<b>Total Expenses</b>	<b>\$ 9,484,141</b>	<b>\$ 9,557,933</b>	<b>\$ 10,661,811</b>	<b>\$ 11,576,597</b>	<b>\$ 12,162,629</b>	<b>\$ 12,877,189</b>	<b>\$ 16,712,304</b>	<b>\$ 18,506,742</b>	<b>\$ 19,572,315</b>	<b>\$ 20,602,215</b>	<b>\$ 21,721,668</b>
<b>Net Surplus (Deficit)</b>	<b>\$ (1,579,254)</b>	<b>\$ (441,947)</b>	<b>\$ (420,442)</b>	<b>\$ (65,931)</b>	<b>\$ 341,551</b>	<b>\$ 589,120</b>	<b>\$ (2,079,473)</b>	<b>\$ (2,604,113)</b>	<b>\$ (2,287,439)</b>	<b>\$ (1,812,649)</b>	<b>\$ (1,294,092)</b>



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SCHEDULE 20 - CASH BALANCE

	End 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>"3R" Investments</b>												
Begin FY Cash "3R" Cash Reserves	\$0	\$0	\$0	\$94,259	\$94,260	\$94,260	\$641,461	\$1,301,387	\$5,004,078	\$9,671,296	\$14,500,804	\$19,376,506
Annual Contribution		\$0	\$489,223	\$333,867	\$547,201	\$547,201	\$659,927	\$3,702,690	\$4,667,218	\$4,829,508	\$4,875,702	\$4,923,282
<b>Operating (Checking Account)</b>												
Begin FY Operating Cash Balance (Checking Account)	\$2,312,236	\$2,312,236	\$732,982	\$685,998	\$599,423	\$1,080,692	\$1,422,244	\$2,011,363	(\$68,110)	(\$2,672,223)	(\$4,959,661)	(\$6,772,311)
Annual Operating Surplus (Shortfall)		(\$1,579,254)	(\$441,947)	(\$420,442)	(\$65,931)	\$341,551	\$589,120	(\$2,079,473)	(\$2,604,113)	(\$2,287,439)	(\$1,812,649)	(\$1,294,092)
Transfer from Available "3R" Cash Reserves			\$394,964	\$333,867	\$547,201							
Transfer from O&M Reserve Cash Reserves												
<b>Total Available Cash Balance - Begin FY</b>		<b>\$2,312,236</b>	<b>\$732,982</b>	<b>\$780,258</b>	<b>\$693,683</b>	<b>\$1,174,952</b>	<b>\$2,063,704</b>	<b>\$3,312,751</b>	<b>\$4,935,968</b>	<b>\$6,999,073</b>	<b>\$9,541,143</b>	<b>\$12,604,196</b>
<b>Total Available Cash Balance - End FY</b>	<b>\$2,312,236</b>	<b>\$732,982</b>	<b>\$780,258</b>	<b>\$693,683</b>	<b>\$1,174,952</b>	<b>\$2,063,704</b>	<b>\$3,312,751</b>	<b>\$4,935,968</b>	<b>\$6,999,073</b>	<b>\$9,541,143</b>	<b>\$12,604,196</b>	<b>\$16,233,386</b>