

## Corrine Kleisle

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**From:** Tayrien, Mark [mtayrien@LaBellaPC.com]  
**Sent:** Monday, June 21, 2010 11:08 AM  
**To:** Corrine Kleisle  
**Cc:** 'Terry VanStean'; 'Richard Evangelist'; dalvaro@rochester.rr.com; greeneyed1229@yahoo.com; 'Denise Darcangelis'; 'Rebecca Gamba'  
**Subject:** RE: Water & Sewer Rate Study

Mayor,

Thank you. I look forward meeting with you all on Tuesday, the 6<sup>th</sup>, at your 7 pm meeting.

Regards,

Mark

**Mark W. Tayrien, AICP**  
Director  
**Stuart I. Brown Associates**  
*A Division of LaBella Associates. P.C.*  
585 295-6272 / 585 454-3066 (fax)  
[mtayrien@labellapc.com](mailto:mtayrien@labellapc.com)

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**From:** Corrine Kleisle [mailto:svillag3@rochester.rr.com]  
**Sent:** Monday, June 21, 2010 10:54 AM  
**To:** Tayrien, Mark  
**Cc:** 'Terry VanStean'; 'Richard Evangelist'; dalvaro@rochester.rr.com; greeneyed1229@yahoo.com; 'Denise Darcangelis'; 'Rebecca Gamba'  
**Subject:** Water & Sewer Rate Study

Mark:

Confirming our discussion last Friday you have been placed on the Village Board's agenda – Tuesday, July 6, 2010 at 7:00 P.M. at the Village Hall. Purpose is to review the draft and answer any questions the Board might have. Please advise if there is a problem with this scheduling. Thanks.

Corrine Kleisle, Mayor

## Corrine Kleisle

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**From:** Tayrien, Mark [mtayrien@LaBellaPC.com]  
**Sent:** Tuesday, June 08, 2010 1:41 PM  
**To:** ECO- Churchill, Peg; Corrine Kleisle  
**Cc:** ECO- WEDCNY  
**Subject:** Village of Lyons Water & Sewer Rate Study - draft and meeting  
**Attachments:** Summary report Revised.pdf

Peg and Corrine-

Please find attached a draft report regarding the water rates. This is revised significantly since the draft produced a month ago - primarily to incorporate more recent information, to correct some mis-understandings and lack of clarity regarding water loss within the system, and to re-evaluate the potential savings were the Village to abandon the water production facility and purchase all of its water instead. Good news is that some ambiguity regarding water loss has been resolved. Bad news is that the water loss is worse than earlier thought and that complicates any initiative where more water would be purchased.

The report includes 16 findings and 3 recommendations. The primary recommendations are to give serious thought to abandoning the current water production facility and to focus significant effort on reducing the water now lost through leaks and meter deficiencies – NO SUPPRISES THERE.

HEADS UP: Marty Aman has asked that I attend a SE Wayne Co Water Study meeting of the steering committee this Friday. I think he would like me to at least confirm that the Village's consideration of abandonment of the water production facility is a reasonable planning assumption for the purposes of the larger study. The attached draft HAS NOT been shared with Marty or anyone else and there is no request to share it on Friday. I have, however, shared some general observations informally (verbally) with Marty.

However, I told Marty I would only attend the meeting Friday if you were comfortable with it.

Thanks,

Mark

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**VILLAGE OF LYONS WATER AND SEWER RATE STUDY**

These analyses and reports regarding the Village of Lyons water and sewer rates have been conducted in cooperation with the Village of Lyons on behalf of the Wayne County Industrial Development Agency ("IDA").

**SUMMARY REPORT: VILLAGE OF LYONS WATER FUND AND COSTS ASSOCIATED WITH THE SALE OF WATER****Executive Summary**

In summary, the findings of this study are:

1. **Current Rates.** The current Village water rates are compound (one rate for the initial 5,000 gallons consumed in a quarter and another rate for each additional 1,000 gallons). The rates also differ depending upon whether a customer is within or outside the Village limits. For an average customer within the Village consuming 50,000 gallons in a year, the applicable compound rate is the equivalent of \$5.46 per thousand gallons. For an average customer outside the Village consuming 50,000 gallons in a year, the applicable compound rate is the equivalent of \$8.14 per thousand gallons.
2. **Annual expenditures per thousand gallons of water sold have increased significantly.** The average annual fund expenditure per thousand gallons of water sold is one measure of the value necessary to recover through rates charged to customers for water consumption. From 2000 to 2009, the volume of water sold by the Village decreased by more than one-third and fund expenditures increased by more than 15 percent. Combined, these two changes led to a dramatic increase in the average fund expenditure per thousand gallons sold. In the FYE 2000, the average expenditure per thousand gallons sold was approximately \$3.53. The expenditures budgeted in the FYE 2010 amounted to approximately \$6.69 per thousand gallons sold. Further declines in the volume of water sold will also lead to further increases in the average expenditure per thousand gallons of water sold, even in the absence of any further increase in the actual amounts expended.
3. **Ongoing decline in volume of water sold.** The recent decline in the volume of water sold by the Village is expected to persist, and even to intensify. Some, but not all, of the decline in the volume of water sold can be attributed to Parker Hannifin's closure.
4. **Forecast for volume sold in the future.** For future planning purposes, a forecast for the sale of as few as 80 million gallons per year would be reasonable. This is half the volume sold in FYE 2000.
5. **Significant water loss.** Water loss is a significant factor in estimating the need for water within the Village system. The volume lost in each of the past three years has ranged from 69 to 73 million gallons, or the equivalent of an average of 190,000 to 200,000 gallons per day. These volumes do not include raw water used to backflush filters at the filtration plant.

6. **There is a potential need to increase revenue to an average of \$8.39 per thousand gallons sold.** In the absence of other changes, the average effective water rate would need to be increased to approximately \$8.39 per thousand to generate sufficient revenue. Given the assumptions listed below and in the absence of other changes, expenditures of approximately \$8.39 per thousand should be anticipated. The compound and different rates for customers within and outside the Village would have to be modified to ensure average revenues at this level. The underlying assumptions are: 1) annual sale of approximately 80 million gallons (average of approximately 219 thousand gpd); 2) continued purchase of 73 million gallons per year from WCWSA at \$2.38 per thousand; 3) annual water fund expenditures consistent with current levels (\$671,525); and, 4) no significant capital investments or improvements (this is an unreasonable assumption that is discussed in more detail elsewhere in this report).
7. **Other factors could either increase or decrease the need for revenue of approximately \$8.39 per thousand gallons sold.** These factors include:
  - a. Retirement of existing debt;
  - b. Need for capital improvements;
  - c. Increasing the volume of water sold;
  - d. Reducing the annual expenditures required to sell water; and,
  - e. Abandoning water production and purchasing all water from WCWSA.
8. **Retiring existing debt.** Retirement of existing debt would only reduce the need for additional revenue by approximately \$0.28 per thousand gallons sold.
9. **Capital Improvement Costs.** The potential need for additional capital improvements associated with the production and filtration of water has been identified. Debt service associated with the cost of these improvements could increase annual expenditures per thousand gallons sold by an additional \$0.95 to \$1.90, depending upon the level of grant funding secured.
10. **Increased water sales.** The prospects for increasing the volume of water sold are low.
11. **Other decreases in annual expenditures.** With the exception of abandonment of the water production facility, the prospects for otherwise decreasing annual expenditures are marginal.
12. **Abandonment of the water production facility.** Much of the current annual expenditure is associated with the production of water and operation of the filtration plant. Depending upon the cost and volume of water purchased in such a scenario, abandonment of the water production facility and purchase of all water from WCWSA has the potential to reduce annual expenditures per thousand gallons sold.
13. **Reduction in expenditures associated with abandonment of the water production facility.** Abandonment of the water production and purchase of all water from WCWSA could reduce current expenditures by an estimated \$284,361 or \$3.55 per thousand gallons sold. Note: The

reduced expenditure of \$4.84 per thousand gallons sold would need to be increased to account for the cost of additional water purchased from WCWSA.

14. **Anticipated increase in expenditures associated with purchase of additional water from WCWSA .** The estimated increase in expenditures associated with purchase of additional water from WCWSA is impacted significantly by the volume of water lost.
15. **Reductions in potential savings associated with water loss.** In a “worst case” scenario in which the system continues to lose 73 million gallons per year, the potential savings identified above of \$4.84 per thousand gallons sold is reduced to only \$2.46 by the increased cost of water purchases. In a corresponding “best case” scenario in which the system loss is reduced by 3/4<sup>th</sup> to only 18.25 million gallons per year, the potential savings remains at \$4.09 per thousand gallons sold even given the need to purchase additional water.
16. **Rate structure and other expenditures.** An affordable rate structure will require low levels of expenditure for items other than the purchase of water, particularly where water volumes lost within the system remain high. For example, the annual expenditure of only \$160,000 in addition to the purchase of 80 million gallons sold to customers and 73 million gallons lost within the system accumulates to a combined expenditure of \$6.55 per thousand gallons sold.

In summary, the recommendations of this study are:

1. **Water Production.** Given the value and importance of affordable rates, the high level of current expenditure per thousand gallons sold, the ongoing decline in the demand for water, the proportion of annual expenses associated with water production, and the potential need for significant capital improvements to maintain the water production facility, the Village should give serious consideration to a scenario in which the water production facility is abandoned and all water is purchased.
2. **Water Loss.** Given the expense associated with the need to purchase as much as 73 million gallons per year lost in the system, the Village should prioritize the identification and resolution of conditions underlying this loss. This would include recalibration and/or replacement of meters as well as the detection and repair of leaks. Investment in these measures would be more effective at maintaining affordable rates than would be comparable investments in the water production facility.
3. **Timing.** Significant reductions in the volume of water lost from the system prior to abandonment of the production facility should be a priority.



## Discussion

**FINDING 1. Water rate structure.** For those within the Village, water rates are now \$33.00 for the first 5,000 gallons plus \$4.70 for each additional 1,000 gallons. For an average customer within the Village consuming 50,000 gallons in a year, this compound rate is the equivalent of \$5.46 per thousand gallons. For those customers outside the Village, water rates are now \$53.00 for the first 5,000 gallons plus \$6.50 for each additional 1,000 gallons. For an average customer outside the Village consuming 50,000 gallons in a year, this compound rate is the equivalent of \$8.14 per thousand gallons.

**FINDING 2.** From 2000 to 2009, the volume of water sold by the Village decreased by more than one-third and expenditures increased by more than 15 percent. Combined, these changes led to a significant increase in the fund expenditure per thousand gallons sold. This is illustrated in Figure 1.

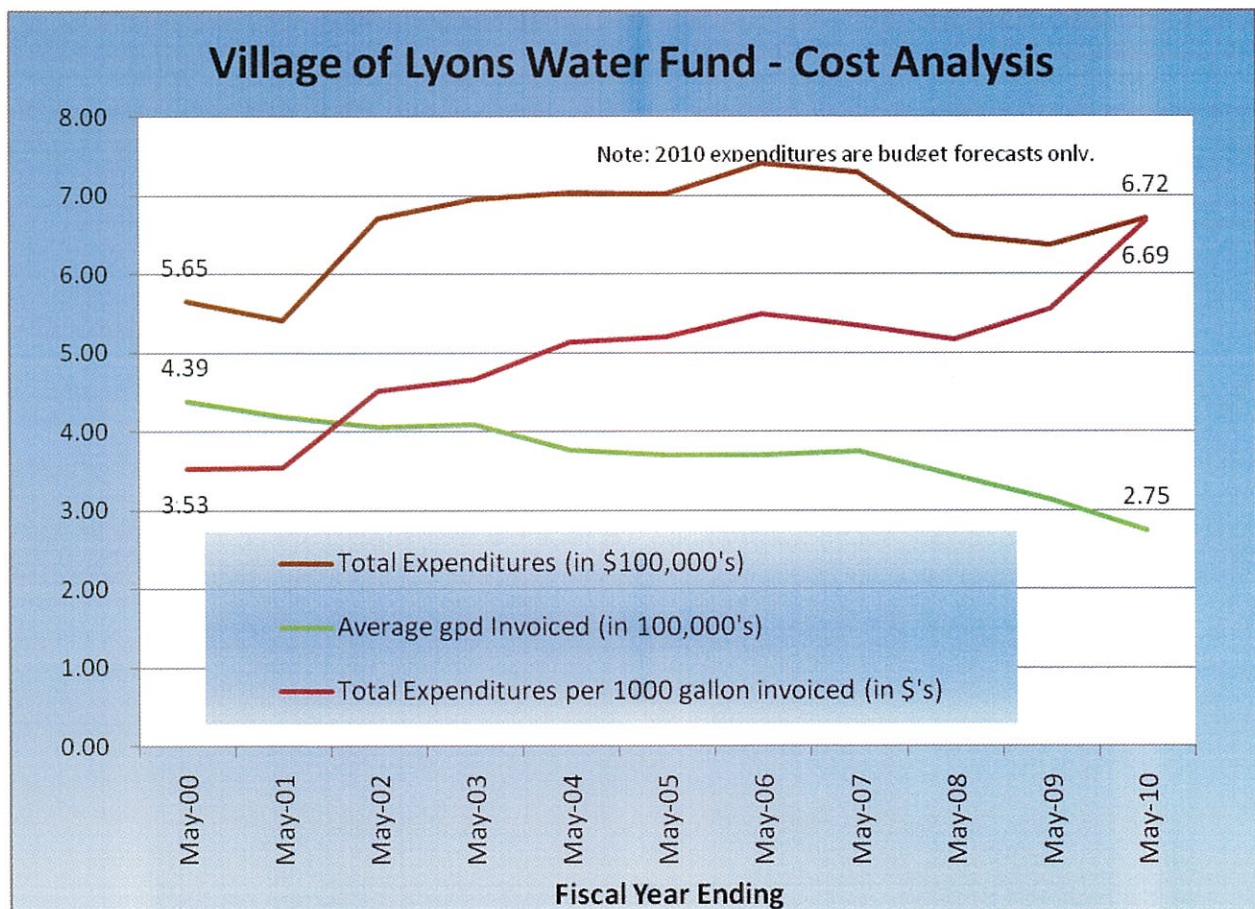


Figure 1

From 2000 to 2009, expenditures increased by about 13 percent, from just under \$565,000 to almost \$638,000. In 2000, more than 160 million gallons were sold (an average of about 439,000 gallons per day) and approximately \$3.53 was expended for every thousand gallons sold. By 2009 the volume sold was less than 115 million gallons (an average of about 314,000 gallons per day) and the average

expenditure per thousand gallons sold had increased to \$5.56. Sales decreased further in the FYE 2010 to just over 100 million gallons or a daily average of about 275 thousand gallons per day. The \$672,000 budgeted for expenditures in FYE 2010 represented approximately \$6.69 per thousand gallons sold. The decline in sales and increase in expenditures experienced between 2000 and 2009 are also summarized in the following table.

<b>Village of Lyons Water Fund – Volume of Water Sold and Expenditures</b>				
FYE Ending on May 31 of:	Annual Sales (thousands of gallons)	Annual Sales (average gallons per day)	Water Fund Expenditures (before interfund transfers)	Water Fund Expenditure per 1,000 gallons invoiced
<b>2000</b>	<b>160,178</b>	<b>438,844</b>	<b>\$ 564,937</b>	<b>\$ 3.53</b>
<b>2009</b>	<b>114,717</b>	<b>314,293</b>	<b>\$ 637,793</b>	<b>\$ 5.56</b>

**Interim increases in expenditures.** Expenditures were generally higher over the decade. By the FYE 2006 expenses had reached a high of \$740,722, an increase of almost 1/3<sup>rd</sup> from the FYE 2000 level. Although expenses decline declined somewhat subsequently, the expenditures made in 2009 were 13 percent higher than those in 2000. The level of expenditures budgeted for FYE 2010 (\$671,525) were 19% higher than those experienced in the FYE 2000.

**The most significant and consistent increases in expenditures were for contractual expenses.**

<b>Change in Water Fund Expenses by General Category</b>			
<b>General Category</b>	<b>FYE 2000</b>	<b>FYE 2010 (budgeted)</b>	<b>Change</b>
Eng., Ins., Taxes, Contingency	\$ 31,390	\$ 40,902	\$ 9,512
Personal Services and Benefits	\$ 261,771	\$ 228,692	\$ (33,079)
Equipment		\$ 41,500	\$ 41,500
<i>Contractual</i>	<i>\$ 224,000</i>	<i>\$ 338,658</i>	<i>\$ 114,568</i>
Debt Service & Capital Projects	\$ 37,776	\$ 21,863	\$ (15,913)
Interfund Transfers	\$ 10,000		\$ (10,000)
<b>Total</b>	<b>\$ 564,937</b>	<b>\$ 671,525</b>	<b>\$ 106,588</b>

Comparing the expenses experienced over the years within six general categories, only the contractual category has shown a consistent and significant increase. This is illustrated in the foregoing table which compares the expenses anticipated in the FYE 5/31/2010 to those experienced in 5/31/2000 within these categories.

**The increases in contractual expenditures were related to Source of Supply, Power and Pumping.** The increase in contractual expenses illustrated in the following table has been associated with Source of Supply, Power and Pumping. As shown below, contractual expenses related to Water Administration, Purification, and Transmission & Distribution have not shown comparable increases over the period.

Change in Water Fund Contractual Expenses			
Contractual Expense for:	FYE 2000	FYE 2010 (budgeted)	Change
Water Administration	\$ 5,002	\$ 8,630	\$ 3,628
Source of Supply, Power, Pumping	\$ 110,192	\$ 246,838	\$ 136,640
Purification	\$ 70,951	\$ 45,726	\$ (21,951)
Transmission & Distribution	\$ 37,849	\$ 34,100	\$ (3,749)
<b>Total</b>	<b>\$ 224,000</b>	<b>\$ 338,658</b>	<b>\$ 114,568</b>

***Of the \$246,838 in contractual expenditures budgeted in 2010 for Source of Supply, Power and Pumping, at least \$173,740 was required for purchase of water from WCWSA.*** The Village purchases water from the Authority under an agreement requiring the Village to purchase an average of no less than 200,000 gallons per day or approximately 73 million gallons per year. The Village may purchase a higher volume should it need to do so. The water is purchased at a cost of \$2.38 per thousand gallons. At this rate, the annual cost for the minimum purchase of 200,000 gallons per day is \$173,740.

***FINDING 3. The decline in the volume of water sold is expected to persist, and even to intensify. Some, but not all, of the decline in the volume of water sold can be attributed to Parker Hannifin.***

The Village takes meter readings and invoices for water consumption on a quarterly basis. In the quarter invoiced in January 2006, 35.86 million gallons were invoiced. In the quarter invoiced in April 2010, only 21.45 million gallons were invoiced – a decrease of more than 14 million gallons. Of the quarterly consumption invoiced in January 2006, 11.44 million was consumed by Parker Hannifin. Of the total quarterly consumption invoiced in April 2010, Parker Hannifin had consumed only 1.03 million.

On the following page, Figure 2 illustrates the volume of water invoiced by the Village on a quarterly basis over the past 18 quarters. In each quarter, the volume consumed by Parker Hannifin is shown as a red bar and the volume consumed by other Village customers is shown as a blue bar. As the chart shows:

- The volume of water sold varies considerably from quarter to quarter;
- An overall decline in the volume of water sold is recognizable; and,
- While much of the decline can be attributed to Parker Hannifin, consumption by other customers seems to have also declined over the period.

In an effort to normalize for seasonal variations, the following Figure 3 presents the combined consumption in four consecutive quarters by Parker Hannifin and by other customers. This same data is also presented again in Figure 4 as a line graph. In Figure 4, the red line graphs the consumption by Parker Hannifin and the blue line graphs the consumption by other customers. A trendline has been added to the consumption by other customers to illustrate the decline in demand which persists even when consumption by Parker Hannifin is excluded. As the graph shows, annual consumption by customers other than Parker Hannifin has already declined to below 90 million gallons.



### QUARTERLY WATER CONSUMPTION – PARKER HANNIFIN (PH) and OTHER CUSTOMERS

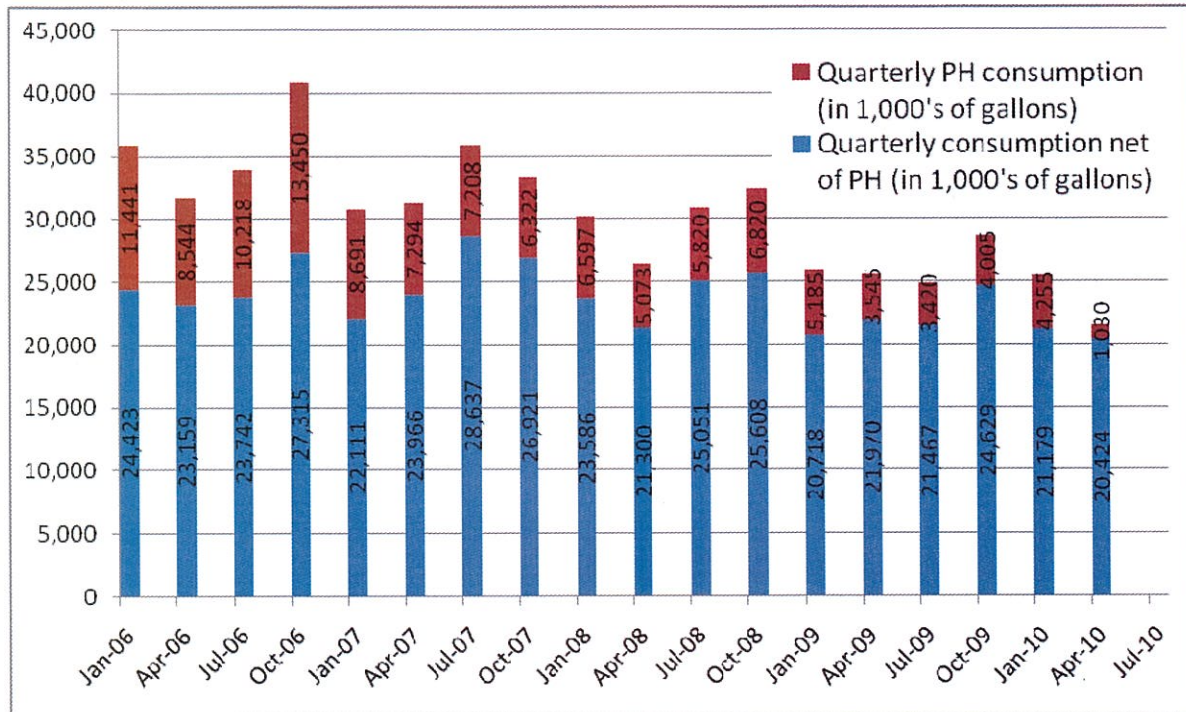


Figure 2

### WATER CONSUMPTION IN 4 QUARTERS – PARKER HANNIFIN (PH) and OTHER CUSTOMERS

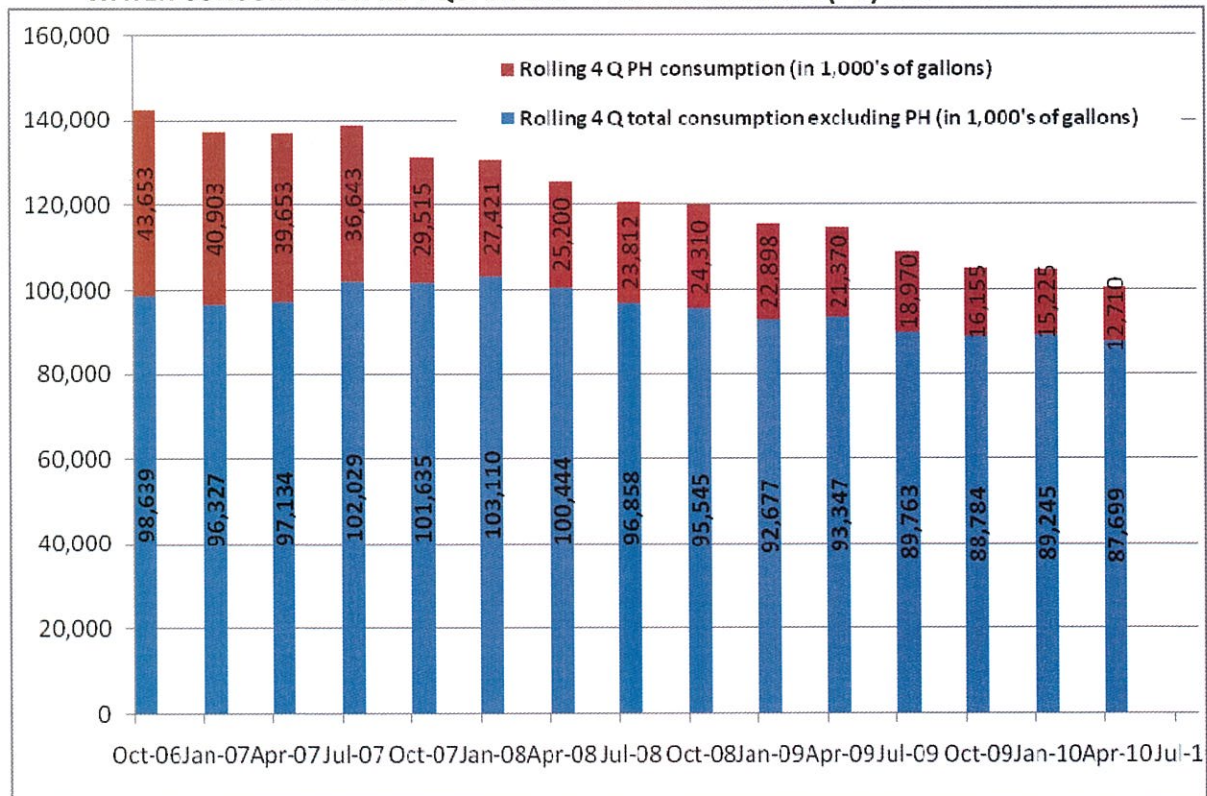


Figure 3

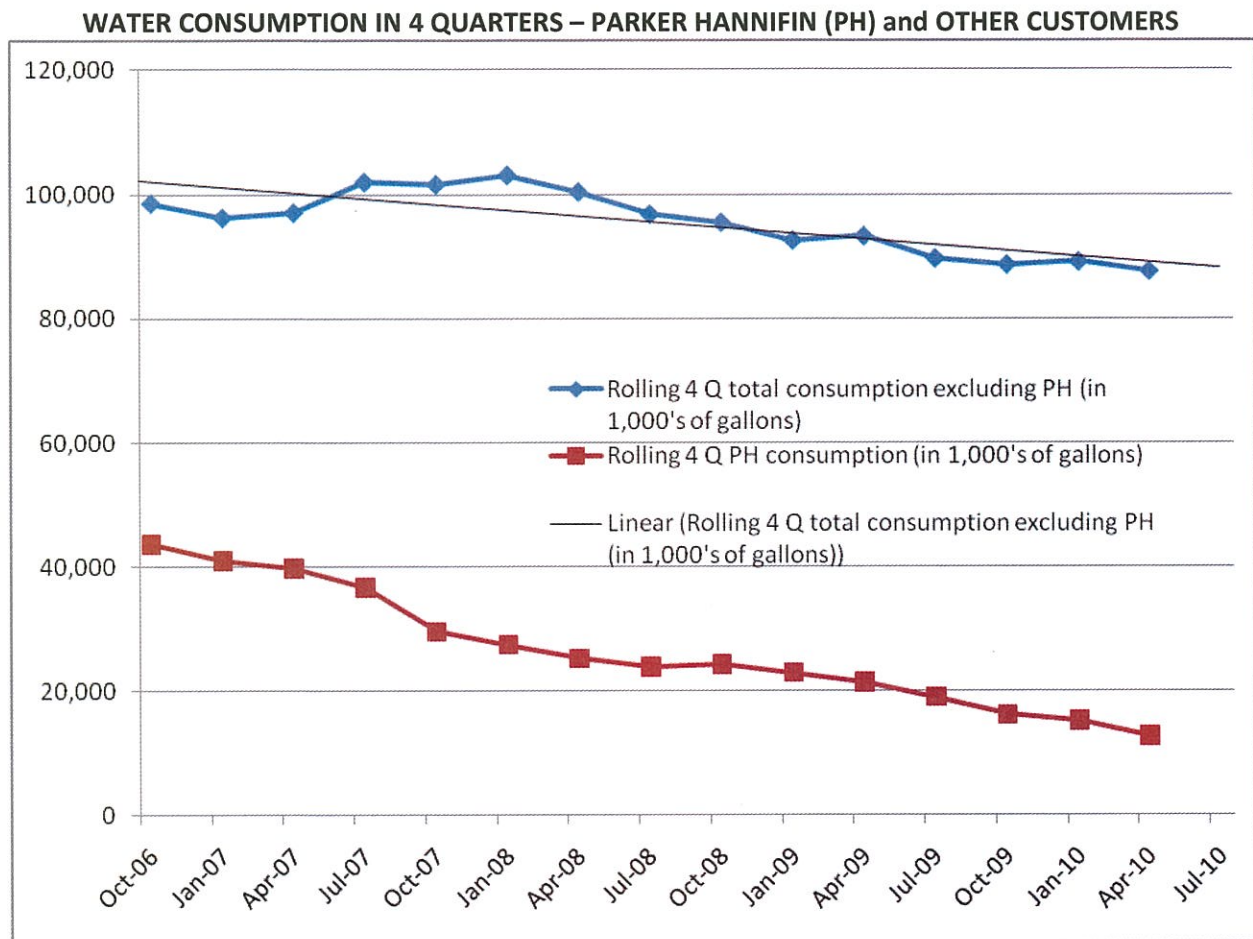


Figure 4

**FINDING 4.** For planning purposes, a forecast of future sales of as few as 80 million gallons per year would be reasonable.

A forecast for the future sale of as few as 80 million gallons per year is reasonable, based upon:

- The closure of Parker Hannifin, a significant water customer in the past;
- An ongoing decline in the volume of water sold to customers even when Parker Hannifin is excluded (see the trendline included above in Figure 4);
- The volume of water sold to customers (excluding Parker Hannifin) in a 4-quarter period has been less than 90 million gallons for over a year (see the information included above in Figure 3);
- Sales in the last quarter (excluding Parker Hannifin) amounted to only 20.4 million gallons (see Figure 2);
- The potential for development of Arcadia Water District 12 which would eliminate the ongoing annual purchase of about 6.5 million gallons by the Wayne County Water and Sewer Authority (WCWSA). The Authority currently purchases water from the Village through a connection on Old Lyons Road. Approximately 6.7 million gallons were purchased through this connection in 2008 and approximately 6.25 million gallons were purchased in 2009. (The Authority pays a

reduced rate of \$3.25 per thousand gallons which is higher, nonetheless, than the \$2.38 per thousand gallons paid by the Village when purchasing water from the Authority); and,

- The potential for additional sales as a consequence of new district development in adjoining communities is limited. An informal draft of the Southeastern Wayne County Water Study now being prepared for WCWSA estimates the unmet demand within the Town of Lyons and other county municipalities. Future unmet demand within Lyons is quantified as a potential 180 EDU. Even at a demand rate of 275 gpd per EDU this would be equivalent to only 18 million gallons per year. Capturing these sales would depend upon engineering feasibility, successful establishment of the new districts, funding of associated improvements, and competitive pricing by the Village. Alternate means to meet these needs without involvement by the Village are available and, in some instances, more feasible from an engineering perspective.

***FINDING 5. Water loss is a significant factor in estimating the need for water within the Village system. The volume lost in each of the past three years has ranged from 69 to 73 million gallons, or the equivalent of an average of 190,000 to 200,000 gallons per day.*** These volumes do not include raw water used to backflush filters at the filtration plant. The following table lists, for each of the past fourteen quarters, the total volume of water produced and purchased, the corresponding volume of water sold in the same period, the volume lost and the percent loss factor.

Quarter Invoiced in:	Produced and Purchased (1,000's of gallons)	Sold (1,000's of gallons)	Lost (1,000's of gallons)	Loss Factor
Jan-07	48,318	30,802	17,516	36%
Apr-07	49,814	31,260	18,554	37%
Jul-07	53,933	35,845	18,088	34%
Oct-07	49,552	33,243	16,309	33%
Jan-08	43,742	30,183	13,559	31%
Apr-08	47,775	26,373	21,402	45%
Jul-08	49,231	30,871	18,360	37%
Oct-08	49,288	32,428	16,860	34%
Jan-09	45,164	25,903	19,261	43%
Apr-09	44,219	25,515	18,704	42%
Jul-09	43,868	24,887	18,981	43%
Oct-09	45,151	28,634	16,517	37%
Jan-10	42,612	25,434	17,178	40%
Apr-10	41,212	21,454	19,758	48%

The foregoing table is based upon the metering of finished or treated water at the filtration plant and metering of the volume purchased from WCWSA. The indicated loss *does not* include the significant volume of water consumed in the backflushing of filters at the water filtration plant (reportedly as much as 100,000 to 150,000 gallons per day). The loss described in the table is presumably associated with unmetered usage, meters that have malfunctioned and leaks. It would be necessary to supply these lost volumes even in a scenario where the Village no longer produced a share of its water and instead purchased its entire supply from WCWSA.

The following table shows the production, sales and loss for each of the last three 4 quarter periods ending in April. As it shows, the loss in the most recent fiscal year was approximately 42% and amounted to more than 72 million gallons over the year or almost 200,000 gallons per day on average. To the extent that such losses are attributable to leaks, they should be anticipated to persist without reduction even in the face of declining consumption.

4 Quarters ending in:	Units	Produced and Purchased	Sold	Lost	Loss Factor
Apr-08	gallons per year in millions	195.0	125.6	69.4	36%
	average gallons per day	534,252	344,230	190,022	
Apr-09	gallons per year in millions	187.9	114.7	73.2	39%
	average gallons per day	514,800	314,293	200,507	
Apr-10	gallons per year in millions	172.8	100.4	72.4	42%
	average gallons per day	473,542	275,093	198,449	

**FINDING 6.** *In the absence of other changes, the average effective water rate would need to be increased to approximately \$8.39 per thousand to generate sufficient revenue.* Given the assumptions listed below and in the absence of other changes, expenditures of approximately \$8.39 per thousand should be anticipated:

- Continued purchase of at least 73 million gallons per year from WCWSA at \$2.38 per thousand;
- Annual water fund expenditures consistent with current levels (\$671,525);
- No significant capital investments or improvements (this is an unreasonable assumption that is discussed in more detail later in this report); and,
- Annual sale of approximately 80 million gallons (average of approximately 219 thousand gpd).

***FINDING 7. Other factors could either increase or decrease the need for revenue of approximately \$8.39 per thousand gallons sold. These factors include:***

- Retirement of existing debt;
- Need for capital improvements;
- Increasing the volume of water sold;
- Reducing the annual expenditures required to sell water; and,
- Abandoning water production and purchasing all water from WCWSA.

***FINDING 8. Retirement of existing debt would only reduce the need for additional revenue by approximately \$0.28 per thousand gallons sold.*** Although the term of the various debt instruments now impacting water fund expenditures varies, each of these bonds will eventually be retired. However, debt service comprised only a very small proportion of the anticipated \$672,000 in 2010 expenses used as a benchmark in forecasting future costs per thousand gallons of water sold. In fact, debt service budgeted for the FYE 2010 amounted to less than \$22,000. The balance of the \$672,000 in benchmark expenses was unrelated to debt service and would not be affected by the retirement of current bonds. Assuming the annual sale of no more than 80 million gallons (has comprised a relatively small proportion of water fund expenditures in recent years (\$50,000 or less, equivalent to less than 7.5% of combined expenditures), the anticipated high cost per gallon sold would likely persist even in the absence of any debt. Assuming the anticipated annual sale of 80 million gallons (average of approximately 219 thousand gpd), retirement of all current water fund debt would reduce the cost per thousand gallons sold by no more than \$0.28, or less than 3.4 percent.

***FINDING 9. There is an anticipated need for additional capital investments that could increase the cost per thousand gallons sold. Depending upon the receipt of grant funds, the potential increase in expenditures would be from \$0.95 to \$1.90 per thousand gallons sold. The potential improvements are associated with the production and filtration of water.***

Although the authors of this report interviewed Village officials involved in operating and maintaining the Village water system, MRB Group engineers have completed a more detailed survey of potential needs within the Village as part of the Southeastern Wayne County water study. This study was funded in part by Wayne County IDA and conducted under the auspices of the Wayne County Water and Sewer Authority. According to MRB Group, the following major improvement needs listed below should be anticipated. (Although MRB Group's hydraulic analysis also indicated an area within the Village with low water pressure and will lead to a recommendation for upgrades to water lines within the area following the development a district to the north within the Town connecting to the Authority's system, these improvements are excluded from the following list and from further consideration in this report.) The potential improvement needs taken into account in this report are:



- Upgrade or replacement of the Route 31 pump station;
- Improvement to the Treatment Plant including a new well with pump, pre-oxidation system, filters to remove iron, new softener vessels, replacement pumps, piping and associated valves, chemical feed system, site work, electrical work and integration, an adjoining building and HVAC; and,
- Development of a sewer line to convey filter backwash effluent from the treatment plant to the neighboring WWTP (the volume of water consumed in backflushing filters at the Treatment Plant is discussed in more detail later in this report – the potential cost to treat this backflush effluent at the WWTP has not been included in this report as a potential water fund expense).

***The cost of debt service for needed capital investments could increase the cost per thousand gallons by an additional \$0.95 to \$1.90 per thousand gallons sold.*** The anticipated project cost for the foregoing improvements is approximately \$3.7 million. Assuming an interest rate of 2.5 percent and a term of 38 years, the annual debt service for such a project would approximate \$152,000. Continuing with the assumption that annual water sales would approximate only 80 million gallons (average of approximately 219 thousand gpd), the estimated debt service required to finance these improvements would increase the cost per thousand gallons sold by an additional \$1.90 (for a total expenditure of approximately \$10.29 per thousand gallons sold). Any grant funding received for such a project would reduce the impact to costs proportionately. In other words, were half of the project cost to be funded by grants, the increase in cost per thousand gallons sold would be reduced to \$0.95 rather than the full \$1.90 referenced above.

***FINDING 10. The prospects for increasing the volume of water sold are low.*** As was discussed earlier in this report, the potential for additional sales as a consequence of new district development in adjoining communities is limited. An informal draft of the Southeastern Wayne County Water Study now being prepared for WCWSA estimates the unmet demand within the Town of Lyons and other county municipalities. Future unmet demand within Lyons is quantified as a potential 180 EDU. Even at a demand rate of 275 gpd per EDU this would be equivalent to only 18 million gallons per year. Capturing these sales would depend upon engineering feasibility, successful establishment of the new districts, funding of associated improvements, and competitive pricing by the Village. Alternate means to meet these needs without involvement by the Village are available and, in some instances, more feasible from an engineering perspective.

***FINDING 11. With the exception of abandonment of the water production facility, the prospects for otherwise decreasing annual expenditures are marginal.*** In general, other than water purchases, the expenses now budgeted appear to be fixed and do not seem to scale in proportion to the volume of water sold.

**FINDING 12. Abandonment of the water production facility and purchase of all water from WCWSA has the potential to reduce annual expenditures per thousand gallons sold.** Much of the current annual expenditure is associated with the production of water and operation of the filtration plant. Depending upon the cost and volume of water purchased in such a scenario, abandonment of the water production facility and purchase of all water from WCWSA has the potential to reduce annual expenditures per thousand gallons sold.

**FINDING 13. Abandonment of the water production facility and purchase of all water from WCWSA would reduce current expenditures by an estimated \$284,361 or \$3.55 per thousand gallons sold. The reduced expenditures of \$4.84 per thousand gallons sold would need to be increased to account for the cost of additional water purchased from WCWSA.**

<b>Purchase Only Scenario - Potential Savings</b> <b>(Includes only the purchase of 73 million gallons per year – 200,000 gpd)</b> <b>(Does not include anticipated savings in potential capital improvement costs)</b>					
<b>Expense</b>	<b>Costs As Budgeted FYE 2010</b>	<b>Share of Employee Benefits</b>	<b>Including Employee Benefits</b>	<b>Water Production Costs Avoided</b>	<b>Reduced Cost (does not include purchase of additional water)</b>
<b>Misc.</b>	\$40,902		\$40,902		\$40,902
<b>Water Admin.</b>	\$38,202	\$19,302	57, 504		\$57, 504
<b>Source of Supply, Power, Pumping</b>	\$291,938	\$19,321	\$311,259	\$137,519	\$173,740
<b>Purification</b>	\$78,600	\$19,321	\$97,921	\$97,921	\$-0-
<b>Transmission and Distribution</b>	\$109,700	\$32,375	\$142,075	\$48,921	\$93,154
<b>Employee Benefits</b>	\$90,319	\$(90,319)			
<b>Debt Service</b>	\$21,863		\$21,863		\$21,863
<b>Total</b>	\$671,525	\$-0-	\$671,524	\$284,361	\$387,164
<b>Amount per thousand gallons sold (assumes 80 million gallons per year)</b>	\$ 8.39		\$ 8.39	\$3.55	\$4.84

In the foregoing table, the expenditures budgeted for FYE 2010 have been summarized and the amounts budgeted for employee benefits have then been included with their corresponding personal service costs (see column 4). The potential reduction in expenditures associated with abandonment of the current water production facility have been estimated as follows:

- The budgets for Miscellaneous, Water Administration and Debt Service remain unchanged;
- All Personal Service, Benefit, and Equipment costs associated with the Source of Supply, Power & Pumping and with Purification have been eliminated.
- In the Transmission and Distribution category, only the \$20,000 in Personal Service budgeted for water leaks and its associated share of the Employee Benefit budget remains;
- In the Transmission and Distribution category, all the budgeted amounts for equipment and for contractual expenditures remain unchanged;
- In the Source of Supply, Power & Pumping and Purification categories, only the budgeted contractual expenditures necessary to purchase the current 73 million gallons per year commitment from WCWSA has been retained. All other contractual expenditures in these two categories have been eliminated; and,
- Expenditures required to purchase additional water from WCWSA following abandonment of the water production facility have *not* been included above.

***FINDING 14. The estimated increase in expenditures associated with purchase of additional water from WCWSA is impacted by the volume of water lost .***

***Required volumes in an “abandon production and purchase only” scenario.*** In a scenario in which the Village abandoned its production facility and purchased all of its water from the Authority, there would likely be a need to purchase additional water from the WCWSA. Although there would be no need to purchase water now consumed in the backflushing of filters at the Treatment Facility, there would be a need to purchase the volumes of water lost to leakage, ineffective metering and unmetered usage (in addition to the volumes actually sold to customers). As was discussed above, the volume of water now lost within the system has ranged from 69 to 72 million gallons over the past three years (190,000 to 200,000 gallons on an average daily basis). It should also be noted that losses to leakage and unmetered usage should be expected to continue at the current levels regardless of any underlying decline in demand throughout the system.

***Additional cost for water.*** As the first table on the following page shows, the additional cost for water in such a scenario could be a significant factor offsetting much of the potential benefit estimated in the preceding section as resulting from an abandonment of the water production facility. In the far right hand column, the table presents the costs to purchase both the lost volumes as well as those sold to customers and compares this to the cost for water now purchased from WCWSA. As shown in the table, the estimated increase in costs for water purchases would be approximately \$2.38 per thousand gallons sold, assuming water loss continues at the present rate.

***Economic effect of reducing volume of water lost.*** In such a scenario, identifying and resolving the conditions responsible for the loss of 73 million gallons of water per year could impact expenditures significantly through reduced costs for water purchase. The table illustrates three alternate scenarios in adjacent columns: one in which the volume of lost water is reduced by 3/4<sup>th</sup> to only 18.25 million

gallons per year, one in which the volume lost is reduced by  $\frac{1}{2}$  and another in which the volume of lost water is reduced by only  $\frac{1}{4}^{\text{th}}$ , to 54.75 million gallons per year. The difference between the best and worst case scenarios illustrated in the table below amounts to approximately \$1.57 per thousand gallons sold.

<b>Purchase Only Scenario: Anticipated Additional Costs for Purchase of Water</b>					
	<b>Volume of "Lost" Water Required to Purchase</b>				
	million per year	18.25	36.50	54.75	73.00
	thousand gpd avg.	50	100	150	200
<b>Costs (all at \$2.38 per thousand)</b>					
<b>Cost to purchase "lost" water volume</b>		\$43,435	\$86,870	\$130,305	\$173,740
<b>Cost to purchase sold water volume (assumes 80 million gallons per year)</b>		\$190,400	\$190,400	\$190,400	\$190,400
<b>Total Cost to purchase all lost and sold water</b>		\$233,835	\$277,270	\$320,705	\$364,140
<b>Current Estimated Cost of Water Purchase (73 million gallons per year)</b>		\$173,740	\$173,740	\$173,740	\$173,740
<b>Estimated increase in cost of water purchase</b>		\$60,095	\$103,530	\$146,965	\$190,400
<b>Estimated increase in cost per thousand sold (assumes 80 million gallons per year)</b>		\$0.75	\$1.29	\$1.84	\$2.38

**FINDING 15.** In a "worst case" scenario in which the system continues to lose 73 million gallons per year, the potential savings identified above of \$4.84 per thousand gallons sold is reduced to only \$2.46 by the increased cost of water purchases. In a corresponding "best case" scenario in which the system loss is reduced by  $\frac{3}{4}^{\text{th}}$  to only 18.25 million gallons per year, the potential savings remains at \$4.09 per thousand gallons sold even given the need to purchase additional water.

<b>Purchase Only Scenario: Anticipated Net Savings</b>					
	<b>Volume of "Lost" Water Required to Purchase</b>				
	million per year	18.25	36.50	54.75	73.00
	thousand gpd avg.	50	100	150	200
<b>Anticipated savings before additional water purchases per thousand sold</b>		\$4.84	\$4.84	\$4.84	\$4.84
<b>Estimated increase in cost per thousand sold</b>		\$0.75	\$1.29	\$1.84	\$2.38
<b>Net savings per thousand sold</b>		\$4.09	\$3.55	\$3.00	\$2.46

***FINDING 16. An affordable rate structure will require that low levels of expenditures for items other than the purchase of water, particularly where water volumes lost within the system remain high.***

The following table separates the costs for water purchase in each of the four alternative scenarios presented in the foregoing section from other costs. The table first presents the total cost for water purchase as an amount per 100,000 gallons sold. The table then presents the resulting expenditure per thousand gallons sold taking into account hypothetical expenditure levels in other categories. For example, the table shows that the annual expenditure of \$160,000 in addition to the purchase of 80 million gallons sold to customers and 73 million gallons lost within the system accumulates to a combined expenditure of \$6.55 per thousand gallons sold. This table helps to illustrate how only relatively low levels of expenditures can contribute to excessive rates, particularly in scenarios where the volume of water lost remains high.

<b>Purchase Only Scenario</b>				
<b>Effective Rate per Thousand Gallons Sold Given Different Levels of Expenditure</b>				
<b>Price per 1,000 gallons</b>	<b>\$2.38</b>			
<b>Gallons purchased and resold annually</b>	<b>80 million</b>			
<b>Excess gallons required to be purchased annually</b>	<b>18.25 million</b>	<b>36.50 million</b>	<b>54.75 million</b>	<b>73.00 million</b>
<b>Total Cost for all water purchases</b>	<b>\$ 233,835</b>	<b>\$ 277,270</b>	<b>\$ 320,705</b>	<b>\$ 364,140</b>
<b>Total cost for water purchases per 1,000 gallons sold</b>	<b>\$ 2.92</b>	<b>\$ 3.47</b>	<b>\$ 4.01</b>	<b>\$ 4.55</b>
<b>Other annual expenditures for Operation and Maintenance (administration, distribution, leak repair, etc.)</b>	<b>Total Expenditure per 1,000 gallons sold (No Additional Capital Cost)</b>			
<b>\$80,000</b>	<b>\$ 3.92</b>	<b>\$ 4.47</b>	<b>\$ 5.01</b>	<b>\$ 5.55</b>
<b>\$160,000</b>	<b>\$ 4.92</b>	<b>\$ 5.47</b>	<b>\$ 6.01</b>	<b>\$ 6.55</b>
<b>\$240,000</b>	<b>\$ 5.92</b>	<b>\$ 6.47</b>	<b>\$ 7.01</b>	<b>\$ 7.55</b>
<b>\$320,000</b>	<b>\$ 6.92</b>	<b>\$ 7.47</b>	<b>\$ 8.01</b>	<b>\$ 8.55</b>
<b>\$400,000</b>	<b>\$ 7.92</b>	<b>\$ 8.47</b>	<b>\$ 9.01</b>	<b>\$ 9.55</b>



## Recommendations

In summary, the recommendations of this study are:

1. **Water Production.** Given the value and importance of affordable rates, the high level of current expenditure per thousand gallons sold, the ongoing decline in the demand for water, the proportion of annual expenses associated with water production and the potential need for significant capital improvements associated with the water production facility, **the Village should give serious consideration to a scenario in which the water production facility is abandoned and all water is purchased.** Other risks associated with long term continuation of the water production facility include the need to pipe and then treat raw water discharged from the filter backflushing operation.
2. **Water Loss.** Given the expense associated with the need to purchase as much as 73 million gallons per year lost in the system, **the Village should prioritize the identification and resolution of conditions underlying this loss.** This would include recalibration and/or replacement of meters as well as the detection and repair of leaks. Investment in these measures would be more effective at maintaining affordable rates than would be comparable investments in the water production facility.
3. **Timing.** Significant reductions in the volume of water lost from the system prior to abandonment of the production facility should be a priority.

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***AGREEMENT FOR THE SALE OF WATER***

***from the***

***WAYNE COUNTY WATER AND SEWER AUTHORITY***

***to the***

***VILLAGE OF LYONS***

# **AGREEMENT FOR THE SALE OF WATER**

**from the**

**WAYNE COUNTY WATER AND SEWER AUTHORITY**

**to the**

**VILLAGE OF LYONS**

This Agreement is made and entered into effective the 1<sup>st</sup> day of January, 2001 by and between the **Wayne County Water and Sewer Authority**, a public benefit corporation with offices located at 3377 Daansen Road, Walworth, New York 14568 (hereinafter referred to as "W.C.W.S.A.") and the **Village of Lyons**, municipal corporation with offices located at 76 William Street, Lyons, New York 14489 (hereinafter referred to as the "Village").

## **Recitals**

WHEREAS, with present capacity, W.C.W.S.A. has a surplus of water available for sale; and

WHEREAS, the Village is in need of a backup supply and reliable supply of water; and

WHEREAS, it is deemed mutually advantageous for the W.C.W.S.A. to supply and the Village to purchase surplus water under the terms and conditions set forth herein;

NOW THEREFORE, it is hereby mutually agreed as follows:

1. **Duration.** The initial term of this Agreement shall be twenty (20) years. This Agreement shall commence on January 1, 2001 and will continue through December 31, 2020. At the end of the twenty (20) year term, this Agreement shall automatically renew for an additional twenty (20) year term unless a party has given the other party at least one (1) year advance written notice of intent not to renew. If either party elects not to renew this Agreement at the end of the initial term, then this Agreement shall terminate at the end of such term.

## 2. Supply of Water.

a. *Supply.* W.C.W.S.A. agrees to sell and the Village agrees to purchase water through an existing master metered connection on Route 31 near the western municipal boundary of the Village, or at other locations as mutually agreed upon by both parties, in accordance with the terms and conditions set forth herein.

b. *Quantity of Purchase.*

i. The Village agrees to purchase from the W.C.W.S.A. a minimum annual quantity of water in 2002 and for each calendar year thereafter of not less than of seventy-three million (73,000,000) gallons of water. The minimum quantities shall be calculated each calendar year and not on a monthly or other partial year period. This minimum amount shall be guaranteed by the Village and shall be paid for at the rate set forth in Section 4 of this Agreement.

ii. During the calendar year 2001, the Village shall purchase a minimum quantity of water based upon an annualized minimum of seventy-three million (73,000,000) gallons per year, but prorated based on the date that the pump station to be constructed by W.C.W.S.A. on Route 31 becomes fully operational (i.e., not at initial startup and testing). The minimum quantity of water for 2001 shall be determined by the following formula:

$$73 \text{ MG} \times \frac{\text{no. of days left in 2001 after pump station comes on line}}{365}$$

iii. The anticipated mode of "normal operations" would provide for a flow of approximately 200,000 gallons per day into the Village. The Village shall have the flexibility of purchasing up to 400,000 gallons per day at the rates as set forth in Section 4 herein. Additional quantities beyond 400,000 gallons per day may be delivered by the W.C.W.S.A. in accordance with this Agreement subject to availability of supply, but W.C.W.S.A. reserves the right to charge a premium for additional

quantities purchased if premiums are assessed to the W.C.W. S.A. by its suppliers.

- c. ***Water Pressure and Continuity of Service.*** It is understood and agreed that the W.C.W.S.A. makes no guarantee as to the pressure, quantity or continuity of service, and shall not be held liable for loss or damage from a pressure deficiency or failure in the supply of water, whether caused by shutting off the water in case of accident or for alterations, extensions, connections or repairs, or for any cause. In the event of an emergency or other necessity, the W.C.W.S.A. shall have the right to shut off or reduce the flow of water for such periods as necessary. In all cases other than emergencies, the W.C.W.S.A. shall give the Village written notice at least forty-eight (48) hours prior to any shut off or flow reduction. The W.C.W.S.A. shall restore service and make water available as soon as it can reasonably do so.
- d. ***Water Quality.*** All water supplied by W.C.W. S.A. pursuant to this Agreement shall meet all applicable Federal and New York State requirements, including, without limitation, the provisions of the New York Sanitary Code.

### 3. **Improvements and Meters.**

- a. ***Pumping Station.*** In order to facilitate the supply of water into the Village, the W.C.W.S.A. shall install at its sole expense a pumping station on Route 31. This station shall be located in or adjacent to the existing master meter pit near the westerly municipal boundary of the Village of Lyons. W.C.W.S.A. shall be liable for the maintenance and repair of said pumping station during the term of this contract.
- b. ***Master Meters.*** Master meters will be maintained by the W.C.W.S.A. within the accuracy limits as specified for the repair of the meters in the then latest revision of the AWWA standards for testing cold water meters, Series C-700. Either party shall have the right to test at its own expense the meter accuracy at any reasonable time. Both parties shall have unlimited access to the master meter during the term of this Agreement. In the event any master meter is found to be in improper working order or inaccurate, the Village shall report immediately to W.C.W.S.A.,



and the W.C.W.S.A. will promptly repair or replace the master meter at its own expense. When an independent test shows that a meter has stopped registering or is improperly registering, the W.C.W.S.A. will estimate consumption based upon actual consumption during the same period of previous years or such other method as may be reasonable and agreed upon by both parties.

#### **4. Pricing and Billing.**

a. **Wholesale Rate.** In consideration for the water it purchases from W.C.W.S.A., the Village agrees to pay to the W.C.W.S.A. based on the water metered and as otherwise provided herein. W.C.W.S.A. shall from time to time at its sole discretion set a wholesale rate for the water to be supplied to the Village, and shall give the Village at least ninety (90) days advance written notice of any change in the rate. At the request of the Village at any time during the ninety-day notice period, W.C.W.S.A. shall allow the Village to review the facts and circumstances surrounding the proposed rate change. The wholesale rate shall be set to cover the Village's share of the following W.C.W.S.A. costs:

- i. The cost of water to the W.C.W.S.A., including direct and indirect costs associated with such supply, and
- ii. The cost of operation and maintenance of W.C.W.S.A.'s transmission, pumping and storage system, including but not limited to the maintenance of adequate reserves, as well as the cost of future improvements to the water system, provided that the Village's wholesale water rate shall not include the costs incurred by W.C.W.S.A. in extending its system to new service areas.
- iii. The administrative costs of W.C.W.S.A.

b. **Initial Rate.** The initial rate to be charged by W.C.W.S.A. to the Village for water starting January 1, 2001 shall be \$1.95 per thousand gallons and this rate shall apply until changed by the W.C.W.S.A. in accordance with the terms of this Agreement.

c. ***Meter Reading.*** On or about the first day of each month, the W.C.W.S.A. shall cause the master meter to be read to determine the quantity of water delivered to the Village during the previous month. The Village shall have the right to read the meters on its own behalf to confirm the readings made by the W.C.W.S.A.

d. ***Billing.*** On or about the first day of each month, the W.C.W.S.A. shall send the Village a bill for the aggregate quantity of water supplied to the Village based upon the meter readings made.

e. ***Payment.*** Payment shall be due within thirty (30) days of receipt of each bill.

f. ***Payment for Minimum Quantity.*** If the Village has failed to purchase the minimum quantity of water during the term, it shall pay W.C.W.S.A. for the unused quantity within thirty (30) days of the end of each calendar year.

## 5. **Priority of Sale.**

a. ***Surplus Water.*** The parties acknowledge that W.C.W.S.A. has supply agreements in place that enable W.C.W.S.A. to purchase up to a stated quantity of surplus water per year, for the purpose of reselling the water to W.C.W.S.A.'s customers. In the event the W.C.W.S.A.'s suppliers curtail the amount of water available to W.C.W.S.A. and its customers, it is agreed and understood that W.C.W.S.A. will treat the Village in the same manner as the W.C.W.S.A.'s retail customers, in terms of making water available. If water becomes unavailable to W.C.W.S.A., W.C.W.S.A. shall have the right to shut off and discontinue the flow of water for such period as necessary, restoring the service and making water available as soon as it can reasonably do so.

b. ***Service Area.*** The parties contemplate that the Village is purchasing water primarily to serve its customers within the Village of Lyons. The Village may continue to serve approved out of Village service areas which exist as of the date of this Agreement. Upon completion of the required pump station near the Route 31 meter vault, the parties acknowledge that under normal operating conditions

the Village will no longer sell water to the Wayne County Complex or along Route 31 West of the meter vault. The Village agrees not to expand the sale of water to out of Village service areas without the prior written consent of the W.C.W.S.A.

c. *Other Contracts.* The W.C.W.S.A. reserves the right to enter into other supply agreements with municipalities and water districts other than the Village provided that the Village shall either be treated equally or have a right of priority over such other supply agreements entered into after the date of this Agreement.

**6. Miscellaneous.**

a. *Assignment.* No party may assign its rights or obligations under this agreement, unless the written consent of all other parties hereto is obtained.

b. *Amendments.* This Agreement may be amended or modified only by a subsequent written document executed by all parties hereto.

c. *Counterparts.* This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

d. *Prior Agreement.* The parties agree that the prior Water Supply Agreement between them dated July 30, 1998, shall terminate effective December 31, 2000.

IN WITNESS WHEREOF, the parties have signed this Agreement as of the date first above written.

WAYNE COUNTY WATER AND SEWER AUTHORITY

By: David C. Lyon

David C. Lyon, Chairman

VILLAGE OF LYONS

By: John W. Salone III

John W. Salone III, Mayor

STATE OF NEW YORK )

COUNTY OF WAYNE ) ss:

On the 10<sup>th</sup> day of November, 2000, before me, personally appeared David C. Lyon, to me known, who, being duly sworn, did depose and say that he resides in the County of Wayne, New York and that he is the Chairman of the Wayne County Water and Sewer Authority, the Authority described in and which executed the above instrument; and that he signed his name thereto by order of the Board of said Authority.

Lynne A. Notareschi  
Notary Public

LYNNE A. NOTARESCHI  
Notary Public, State of New York  
WAYNE COUNTY, N.Y.  
Commission Expires  
June 15, 2002

STATE OF NEW YORK )

COUNTY OF WAYNE ) ss:

On the 21<sup>st</sup> day of November, 2000 before me, personally appeared John W. Salone, III, to me known, who, being duly sworn, did depose and say that he resides in the County of Wayne, New York and that he is Mayor of the Village of Lyons, the municipal corporation described in and which executed the above instrument; and that he signed his name thereto by order of the board of said Village.

Diana Marro  
Notary Public

DIANA MARRO  
Notary Public, State of New York  
Qualified in Wayne Co., No. 4893902  
Commission Expires May 18 2004

IN WITNESS WHEREOF, the parties have signed this Agreement as of the date first above written.

WAYNE COUNTY WATER AND SEWER AUTHORITY

By: David C. Lyon

David C. Lyon, Chairman

VILLAGE OF LYONS

By: \_\_\_\_\_

John W. Salone III, Mayor

STATE OF NEW YORK )

COUNTY OF WAYNE ) ss:

On the 10<sup>th</sup> day of November, 2000, before me, personally appeared David C. Lyon, to me known, who, being duly sworn, did depose and say that he resides in the County of Wayne, New York and that he is the Chairman of the Wayne County Water and Sewer Authority, the Authority described in and which executed the above instrument; and that he signed his name thereto by order of the Board of said Authority.

Lynne A. Notareschi  
Notary Public

LYNNE A. NOTARESCHI  
Notary Public, State of New York  
WAYNE COUNTY, N.Y.  
Commission Expires  
June 15, 2002

STATE OF NEW YORK )

COUNTY OF WAYNE ) ss:

On the \_\_\_\_\_ day of \_\_\_\_\_, 2000 before me, personally appeared John W. Salone, III, to me known, who, being duly sworn, did depose and say that he resides in the County of Wayne, New York and that he is Mayor of the Village of Lyons, the municipal corporation described in and which executed the above instrument; and that he signed his name thereto by order of the board of said Village.

\_\_\_\_\_  
Notary Public



## WATER SUPPLY AGREEMENT

THIS AGREEMENT, made this 30<sup>th</sup> day of July, 1998, by and between the Village Board of the Village of Lyons, a municipal corporation, with its principal office located at 76 William Street in the Village of Lyons, Wayne County, New York, hereinafter referred to as the "Supplier," and the Wayne County Water and Sewer Authority, a public benefit corporation, with offices located at 32 Main Street, Macedon, New York, hereinafter referred to as the "Authority."

### RECITALS:

**WHEREAS**, the Supplier now owns and operates a water treatment plant and distribution system; and

**WHEREAS**, the Supplier is able to produce a supply of water in excess of the amount necessary to meet the present demands of the village residents and its other customers; and

**WHEREAS**, the Authority desires to purchase surplus water for resale by the Authority to its customers.

**NOW THEREFORE**, for mutual consideration the receipt of which is hereby acknowledged, the parties agree as follows:

1. **Duration.** The term of this Agreement will commence on the date that the Newark-Lyons Water Transmission main is certified for operation by NYSDOH and will continue until December 31, 2008. This term will automatically be extended for an additional 10-year period unless either party notifies the other of any changes in the Agreement prior to 180 days before the expiration of the Agreement.

2. **Supply of Water.** Supplier agrees to sell and the Authority agrees to purchase water at master meters to be located at or near the Village corporate limits or other mutually agreeable location in accordance with the terms and conditions set forth herein.

The need for any additional metering, including the cost, maintenance, and ownership thereof as may be necessitated by any future additional sale of water to the Authority shall be negotiated between the parties hereto.

3. **Water Pressure and Continuity of Service.** It is understood and agreed that the Supplier makes no guarantee as to the pressure, quantity, or continuity of service and shall not be held liable for loss or damage from a pressure deficiency or failure in the supply of water, whether caused by shutting off the water in case of accident, or for alterations, extensions, connections or repairs, or for any cause other than set forth in Section 11 herein. In the event of an emergency or other necessity, the Supplier shall have the right to shut off or reduce the flow of water for such periods as is reasonably necessary. In all cases other than emergencies, the Supplier shall give the Authority written notice at least forty-eight (48) hours prior to any shut off or flow reduction. The Supplier shall restore service and make water available as soon as it can reasonably do so.

4. **Water Quality.** All water supplied by the Supplier pursuant to this Agreement shall meet all applicable federal and New York State requirements including, without limitation, the provisions of the New York Sanitary Code.

5. **Quantity of Water.** Beginning January 1, 1999, the Authority shall purchase a minimum annual supply of water of not less than 6.0 million gallons per calendar year. This minimum amount shall be guaranteed by the Authority and shall be paid for at the rate set forth in paragraph 8 herein.

The Authority shall further have the option of purchasing an additional quantity of water per year at the prevailing rates established in paragraph 8. This additional supply can be drawn by the Authority at its discretion and will not affect the minimum guaranteed amount described above.

6. **Emergency Supply.** The Newark-Lyons Transmission Main represents a piped connection between two existing suppliers. In the event of an emergency situation in Newark or Lyons, the Authority can purchase greater quantities of water from the Supplier for a limited period of time and so as not to cause a shortage of water in that community acting as the emergency supplier. The Authority will notify and request that the emergency supply be implemented within 24 hours of the emergency situation.

7. **Meters.** The Authority shall supply and install a meter pit at the village corporate limits on Route 31, and shall continue to be liable for the maintenance and repair of said meter pit during the term of this contract. The Authority shall provide and install the master meter in said meter pit. Either party shall have the right to test, at its own expense, the meter accuracy at reasonable times and upon reasonable notice to the other party.

In the event the master meter is found to be in improper working order, or inaccurate, the party learning of the improper meter function shall immediately notify the other party and the Authority will then promptly repair or replace the master meter at its own expense. When an independent test shows that the meter has stopped registering or is improperly registering, the Supplier will estimate consumption based on actual consumption during the same period of previous years, or in such other method as may be reasonable and agreed upon between the parties.

8. **Price.** The price paid by the Authority to the Supplier for water supplied pursuant to this Agreement shall be \$2.20 per thousand gallons of water with a guaranteed minimum purchase as specified in paragraph 5.

The rate charged to the Authority for metered water shall be subject to periodic change by the Supplier with the requirement that any rate change shall be the same increase as the basic rate charge excluding the minimum quarterly charge levied upon the Village of Lyons residential customers.

9. **Billing and Payment.**

a. **Billing.** Billing shall be on a quarterly basis in arrears at the end of the quarter. On or about the last day of each quarter, the Supplier shall cause the master meter to be read to determine the quantity of water delivered to the Authority during the previous quarter. The Authority shall have the right to read the meter on its own behalf to verify the Supplier's reading.

b. **Payment.** Payment shall be due within thirty (30) days of receipt of each bill, which bill shall be sent to the Authority by regular first class mail.

10. **Priority of Sale.**

a. **Surplus Water.** It is understood and agreed that the water supplied by the Supplier pursuant to this Agreement is surplus water not needed by the Supplier. If the Supplier shall determine that such surplus water is not available due to increased demands within the Village of Lyons, the Supplier shall have the right to discontinue the flow of water in excess of the minimum guarantees as stated in paragraph 5 upon Notice to the Authority within 180 days of said curtailment of supply. If the Village is unable to supply the minimum guarantee because of proposed increased demands within the Village, then the contract will be renegotiated at that time.

b. The Supplier has the right to purchase water from the Authority, upon proper notification, at a rate not to exceed the sale price of water to the Authority as stated in paragraph 8.

11. **Approvals.** The Authority shall be responsible for securing any state or federal approvals necessary for the performance of this Agreement.

12. **Indemnification.** Supplier agrees to indemnify, defend, and hold the Authority and the other user communities harmless from any and all actions, claims, losses and expenses (including reasonable attorney fees and expenses) arising out of the supply of water to the Authority, except as otherwise limited by this Agreement, and except to the extent caused by the carelessness, fault, or negligence of the Authority, its agents, servants, assigns, and employees.

13. **Miscellaneous.**

a. **Assignments.** No party may assign its rights or obligations under this Agreement, unless the written consent of all other parties hereto is obtained.

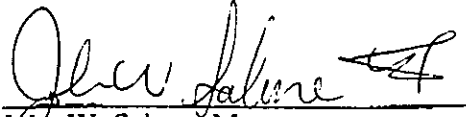
b. **Amendments.** This Agreement may be amended or modified only in writing and executed by all parties hereto.

c. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

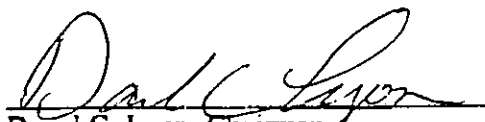
d. **Responsibilities.** The Authority is responsible for all operations of the water system beyond the master meter pit.

IN WITNESS WHEREOF, the parties have signed this Agreement the day and year first above written.

VILLAGE OF LYONS

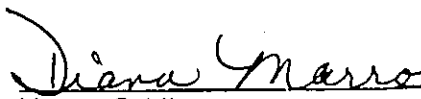
By:   
John W. Salone, Mayor

WAYNE COUNTY WATER & SEWER AUTHORITY

By:   
David C. Lyon, Chairman

STATE OF NEW YORK)  
COUNTY OF WAYNE)


On this 30<sup>th</sup> day of July, 1998, before me personally came JOHN W. SALONE, to me personally known, who, being by me duly sworn, did depose and say that he resides in the Village of Lyons, New York and that he is the Mayor of the Village of Lyons, the municipal corporation described in, and which executed the within instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Trustees of said Corporation and that he signed his name thereto by like order.

By:   
Notary Public

DIANA MARRO  
Notary Public, State of New York  
Qualified in Wayne Co., No. 4893902  
Commission Expires May 18, 1999

STATE OF NEW YORK )  
COUNTY OF WAYNE)

On this 4<sup>th</sup> day of August, 1998, before me personally came DAVID C. LYON, to me personally known, who, being by me duly sworn, did depose and say that he resides in the Town of Palmyra, New York and that he is the: Chairman of the Wayne County Water & Sewer Authority, the public benefit corporation described in, and which executed the within instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of said Corporation and that he signed his name thereto by like order.

By:   
Notary Public

CHRISTINE J. CASSETTA-ACQUISTA  
NOTARY PUBLIC, County of Wayne  
New York State #5029282  
My Commission Expires June 13, 2000