

Item #10B:
Village Trustee Nora
DRAFT Water Rate Analysis

Attachment A
Revenue Requirement - Rate Basis

	Actual FY16	Actual FY17	Actual FY18	Actual FY19	Forecasted FY20
OPERATING REVENUES					
Metered Sales					
User revenues	\$ 65,680	\$ 39,778	\$ 54,025	\$ 62,993	\$ 88,800
Total Metered Sales	<u>65,680</u>	<u>39,778</u>	<u>54,025</u>	<u>62,993</u>	<u>88,800</u>
Other Revenues					
Meter fees	-	5,105	390	394	2,000
Application fees	-	600	200	200	400
Interest income	367	390	416	343	500
Total Other Revenue	<u>367</u>	<u>6,095</u>	<u>1,006</u>	<u>937</u>	<u>2,900</u>
TOTAL OPERATING REVENUES	<u>66,047</u>	<u>45,873</u>	<u>55,031</u>	<u>63,930</u>	<u>91,700</u>
OPERATING EXPENSES					
Operation and Maintenance Expense					
Operating expenses					
Pumping	14,630	16,370	18,843	18,026	25,900
Lab fees	945	3,144	1,329	1,054	2,000
Permit Fees	-	201	4,136	2,800	150
Repair & maintenance	998	1,307	1,082	7,113	25,000
Security system	1,705	1,705	1,705	1,705	1,700
Supplies	3,473	5,981	6,399	6,601	12,000
Water meter hardware expenses	-	5,100	364	13,402	2,000
Water meter installation	-	75	375	450	500
Regulatory compliance	-	-	4,136	12,967	2,500
Administrative and General					
Management services	22,384	28,100	30,252	31,875	69,000
Professional services	5,914	500	49	510	12,000
Telephone	-	1,160	115	1,290	800
Bank service charges	325	300	300	300	300
Total Operating and Maintenance	<u>50,374</u>	<u>63,943</u>	<u>69,085</u>	<u>98,093</u>	<u>153,850</u>
Depreciation Expense (Schedule 2)	<u>895</u>	<u>895</u>	<u>162,356</u>	<u>80,000</u>	<u>16,470</u>
Total Other Expense	<u>895</u>	<u>895</u>	<u>70,000</u>	<u>80,000</u>	<u>16,470</u>
TOTAL OPERATING EXPENSES	<u>51,269</u>	<u>64,838</u>	<u>139,085</u>	<u>178,093</u>	<u>170,320</u>
NET CASH FLOW IN	<u>\$ 14,778</u>	<u>\$ (18,965)</u>	<u>\$ (84,054)</u>	<u>\$ (114,163)</u>	<u>\$ (78,620)</u>
RATE OR TAX LEVY DECREASE SUGGESTION					89%
Annual Gallons Sold and Forecasted	2,588,000	2,753,000	4,613,000	5,810,000	8,194,000
Thousand Gallons	2,588	2,753	4,613	5,810	8,194
Water Volume Rate	\$14.00	\$10.50	\$10.50	\$10.50	\$10.50
Fixed Fee	\$400	\$400	\$400	\$400	\$400

Attachment B
Forecast Revenue Requirement FY20 - FY25

	Forecasted					
	FY20	FY21	FY22	FY23	FY24	FY25
OPERATING REVENUES						
Metered sales						
User Revenues	\$ 88,800	\$ 88,800	\$ 88,800	\$ 187,700	\$ 187,700	\$ 229,300
Total Metered Sales	88,800	88,800	88,800	187,700	187,700	229,300
Other Revenues						
Meter fees	2,000	2,000	2,000	2,000	2,000	2,000
Application fees	400	400	400	400	400	400
Interest income	500	500	500	500	500	500
Total Other Revenue****	2,900	2,900	2,900	2,900	2,900	2,900
TOTAL OPERATING REVENUES	91,700	91,700	91,700	190,600	190,600	232,200
OPERATING EXPENSES						
Operation and Maintenance Expense						
Operating expenses						
Pumping*	25,900	25,900	25,900	54,200	54,200	66,100
Lab fees	2,000	2,000	2,000	2,000	2,000	2,000
Permit Fees	150	200	200	200	200	200
Repair & maintenance	25,000	25,400	25,800	26,300	26,800	27,300
Security System	1,700	1,700	1,700	1,700	1,700	1,700
Supplies	12,000	12,200	12,400	12,600	12,800	13,000
Water meter hardware expenses	2,000	2,000	2,000	2,000	2,000	2,000
Water meter installation	500	500	500	500	500	500
Regulatory compliance	2,500	2,500	2,500	2,500	2,500	2,500
Administrative and General						
Management services**	69,000	71,800	74,700	77,700	80,800	84,000
Professional services	12,000	12,200	12,400	12,600	12,800	13,000
Telephone	800	800	800	800	800	800
Bank service charges	300	300	300	300	300	300
Total Operating and Maintenance***	153,850	157,500	161,200	193,400	197,400	213,400
Depreciation Expense (Schedule 2)	16,470	32,941	49,411	65,882	82,352	98,823
Total Other Expense	16,470	32,941	70,000	65,882	82,352	98,823
TOTAL OPERATING EXPENSES	170,320	190,441	231,200	259,282	279,752	312,223
NET CASH FLOW IN	\$ (78,620)	\$ (98,741)	\$ (139,500)	\$ (68,682)	\$ (89,152)	\$ (80,023)
RATE INCREASE REQUIRED	89%	111%	157%	37%	47%	35%
Forecasted Annual sales Volume****						
Existing Customers	8,194,000	8,194,000	8,194,000	8,194,000	8,194,000	8,194,000
South 15 - FY2023				9,125,000	9,125,000	9,125,000
Archer Outlot - FY2025						3,832,500
Triangle Properties - FY2030						
Total Annual Forecasted Volume	8,194,000	8,194,000	8,194,000	17,319,000	17,319,000	21,151,500

*Pumping increases with forecast volume sales.

**Management services increases annually by 4%.

***Unless otherwise noted operating expenses reflect an annual inflation of 1.75%.

**** Forecasted volumes and revenues are based on FY20 with no growth.

Attachment C
Forecast Revenue Requirement FY26 - FY30

	FY26	FY27	Forecasted FY28	FY29	FY30
OPERATING REVENUES					
Metered sales					
User Revenues	\$ 229,300	\$ 229,300	\$ 229,300	\$ 229,300	\$ 243,400
Total Metered Sales	229,300	229,300	229,300	229,300	243,400
Other Revenues					
Meter fees	2,000	2,000	2,000	2,000	2,000
Application fees	400	400	400	400	400
Interest income	500	500	500	500	500
Total Other Revenue****	2,900	2,900	2,900	2,900	2,900
TOTAL OPERATING REVENUES	232,200	232,200	232,200	232,200	246,300
OPERATING EXPENSES					
Operation and Maintenance Expense					
Operating expenses					
Pumping*	66,100	66,100	66,100	66,100	70,100
Lab fees	2,000	2,000	2,000	2,000	2,000
Permit Fees	200	200	200	200	200
Repair & maintenance	27,800	28,300	28,800	29,300	29,800
Security System	1,700	1,700	1,700	1,700	1,700
Supplies	13,200	13,400	13,600	13,800	14,000
Water meter hardware expenses	2,000	2,000	2,000	2,000	2,000
Water meter installation	500	500	500	500	500
Regulatory compliance	2,500	2,500	2,500	2,500	2,500
Administrative and General					
Management services**	87,400	90,900	94,500	98,300	102,200
Professional services	13,200	13,400	13,600	13,800	14,000
Telephone	800	800	800	800	800
Bank service charges	300	300	300	300	300
Total Operating and Maintenance***	217,700	222,100	226,600	231,300	240,100
Depreciation Expense (Schedule 2)	115,293	131,763	148,234	164,704	181,175
Total Other Expense	115,293	131,763	148,234	164,704	181,175
TOTAL OPERATING EXPENSES	332,993	353,863	374,834	396,004	421,275
NET CASH FLOW IN	\$ (100,793)	\$ (121,663)	\$ (142,634)	\$ (163,804)	\$ (174,975)
RATE INCREASE REQUIRED	44%	53%	62%	71%	72%
Forecasted Annual sales Volume****					
Existing Customers	8,194,000	8,194,000	8,194,000	8,194,000	8,194,000
South 15 - FY2023	9,125,000	9,125,000	9,125,000	9,125,000	9,125,000
Archer Outlot - FY2025	3,832,500	3,832,500	3,832,500	3,832,500	3,832,500
Triangle Properties - FY2030					1,296,000
Total Annual Forecasted Volume	21,151,500	21,151,500	21,151,500	21,151,500	22,447,500

*Pumping increases with forecast volume sales.

**Management services increases annually by 4%.

***Unless otherwise noted operating expenses reflect an annual inflation of 1.75%.

**** Forecasted volumes and revenues are based on FY20 with no growth.

Village of Long Grove
Revenue Requirement - Cash Basis
Schedule 1

Existing Customers

	Actual FY16	Actual FY17	Actual FY18	Actual FY19	Forecasted FY20
OPERATING REVENUES					
Metered Sales					
User Revenues	\$ 65,680	\$ 39,778	\$ 54,025	\$ 62,993	\$ 88,800
Total Metered Sales	65,680	39,778	54,025	62,993	88,800
Annual Gallons Sold	2,588,000	2,753,000	4,613,000	5,810,000	8,194,000
Thousand Gallons	2,588	2,753	4,613	5,810	8,194
Revenue per Thousand Gallons	\$ 25.38	\$ 14.45	\$ 11.71	\$ 10.84	\$ 10.84
Pumping Cost	14,630	16,370	18,843	18,026	25,900
Cost per Thousand Gallons	\$ 5.65	\$ 5.95	\$ 4.08	\$ 3.10	\$ 3.10

Forecasted Volumes for proposed properties

	GPD*	Annual Volume	Pumping Cost	Revenue Estimate	Revenue Rounded
South 15	25,000	9,125	\$ 28,300	\$ 98,935	\$ 98,900
Archer Outlot	10,500	3,833	11,900	41,553	41,600
Triangle Properties	3,551	1,296	4,000	14,051	14,100

*Gallons per Day is based on calculated Residential Equivalents used in Connection fee study

Village of Long Grove
Depreciation Schedule
Schedule 2

	Original Cost	Useful Life	Annual Depreciation
Downtown Public Water Sys	\$ 3,422,116	30	\$ 114,071
WM-Equipment-Fire Hydrant	9,381	40	235
WM-Equipment-Dehumidifier	3,300	0	-
SSA-Deep Well -Pump #1	379,193	20	18,960
SSA-Deep Well -Pump #1 & 2	201,017	10	20,102
WM-Water Loop Mains	1,424,865	50	28,497
WM-Water Loop Hydrants	280,102	50	5,602
WM-Water Loop Service Boxes	254,550	50	5,091
WM - Estimate new FY20	540,000	50	10,800
WM-Water System Ext Seasons to School	537,945	50	10,759
	\$ 5,974,524		\$ 214,116

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Depreciation will ramp up over the next 13 years to coincide with the phase out of SSA connection fee reduction.

Village of Long Grove
 Depreciation Schedule
 Schedule 2

	FY20	FY21	FY22	FY23	FY24	FY25	FY26
Downtown Public Water Sys	\$ 8,775	\$ 17,549	\$ 26,324	\$ 35,099	\$ 43,873	\$ 52,648	\$ 61,423
WM-Equipment-Fire Hydrant	18	36	54	72	90	108	126
WM-Equipment-Dehumidifier	-	-	-	-	-	-	-
SSA-Deep Well -Pump #1	1,458	2,917	4,375	5,834	7,292	8,751	10,209
SSA-Deep Well -Pump #1 & 2	1,546	3,093	4,639	6,185	7,731	9,278	10,824
WM-Water Loop Mains	2,192	4,384	6,576	8,768	10,961	13,153	15,345
WM-Water Loop Hydrants	431	862	1,293	1,724	2,155	2,586	3,016
WM-Water Loop Service Boxes	392	783	1,175	1,566	1,958	2,350	2,741
WM - Estimate new FY20	831	1,662	2,492	3,323	4,154	4,985	5,815
WM-Water System Ext Seasons to School	828	1,655	2,483	3,310	4,138	4,966	5,793
	\$ 16,470	\$ 32,941	\$ 49,411	\$ 65,882	\$ 82,352	\$ 98,823	\$ 115,293

Depreciation will ramp up over the next 13 years to coincide with the phase out of SSA connection fee reduction.

Village of Long Grove
Depreciation Schedule
Schedule 2

	FY27	FY28	FY29	FY30	FY31	FY32
Downtown Public Water Sys	\$ 70,197	\$ 78,972	\$ 87,747	\$ 96,521	\$ 105,296	\$ 114,071
WM-Equipment-Fire Hydrant	144	162	180	198	216	235
WM-Equipment-Dehumidifier	-	-	-	-	-	-
SSA-Deep Well -Pump #1	11,667	13,126	14,584	16,043	17,501	18,960
SSA-Deep Well -Pump #1 & 2	12,370	13,917	15,463	17,009	18,555	20,102
WM-Water Loop Mains	17,537	19,729	21,921	24,113	26,305	28,497
WM-Water Loop Hydrants	3,447	3,878	4,309	4,740	5,171	5,602
WM-Water Loop Service Boxes	3,133	3,525	3,916	4,308	4,699	5,091
WM - Estimate new FY20	6,646	7,477	8,308	9,138	9,969	10,800
WM-Water System Ext Seasons to School	6,621	7,448	8,276	9,104	9,931	10,759
	\$ 131,763	\$ 148,234	\$ 164,704	\$ 181,175	\$ 197,645	\$ 214,116

Depreciation will ramp up over the next 13 years to coincide with the phase out of SSA connection fee reduction.