

**Madison Water Utility  
Application to Increase Water Rates  
Notes to Application**

Attachment 1

Bills listed on this attachment, with the exception of the 6" meters in the Industrial class, are for usage over a 6-month period. The 6" Industrial meters listed are for usage during a 1-month period. Going forward, all customers will be billed monthly in units of 1,000 gallons.

Attachments 2A, 2B, 2C, 3A, 3B

The Utility does not currently have separate rates for Multi-Family customers; they have been classified in the past, and charged the same rates, as Commercial customers. For this reason, they have been combined into the same customer class in Attachments 2A and 2B. The Utility plans to propose different rates for Multi-Family customers going forward, based on an analysis of their consumption patterns. Projections in Attachments 3A and 3B break them out from Commercial customers so they are properly accounted for in the determination of appropriate rates.

Attachment 8

The reduction in taxes under "Other" is for capitalized taxes. The projections for 2014 and 2015 are based on the estimated balance of CWIP, from Attachment 9.

Attachment 9

Change in CWIP from January 1, 2014 to January 1, 2015 includes reclassification of an estimated \$10,709,132 to Utility Plant in Service and new Construction Work in Progress of \$1,026,000. (See Exhibits)

Attachment 10AB

Account 614 – 2015 test year amount is an annualized amount based on a 10-year average of expenses in this account. The 10-year average includes amounts recorded in the Utility's annual reports for 2004 through 2013, plus costs recorded in CWIP in 2007 and 2009 and not closed out yet for wellhead protection plans (See Exhibits).

Account 623 – Estimated 2014 and 2015 Test Year are based on a monthly analysis of gas and electric charges for 2013 and year to date 2014 (through July), adjusted for anticipated changes in gas and electric rates (see Exhibits).

Account 630 - Maintenance Supervisor position was vacant January through July 2013.

Account 643 - Increase in 2013 was due to UW 15 groundwater study to find the source of PCE contaminants which was closed in 2013. 2015 test year amount is an annualized amount based on a 10-year average of expenses in this account.

Account 672 – 2015 test year amount is an annualized amount based on a 10-year average of expenses in this account, including painting of Unit Well 26 tower in 2009.

Account 923 – 2015 test year amount is an annualized amount based on a 10-year average of expenses in this account, adjusted to include costs recorded in CWIP in 2010 and not closed out yet for the Eastside Water Supply Study.

### Attachment 11

Estimated additions to Utility Plant in Service for 2014 and 2015 include the following:

- \$18,833,920 of new construction in 2014 for projects expected to be completed in 2014
- \$7,583,000 of new construction in 2015 for projects expected to be completed in 2015
- \$10,709,132 of transfer from CWIP to Utility Plant in 2014 and \$5,278,018 in 2015

Estimates of Utility Financed new construction are taken from the Utility's 2014 and 2015 Capital Budgets (see Exhibits). Additions in 2014 are the sum of the 2013 carryover plus the estimates of work that will be completed in 2014. Estimates of work that will be completed in 2014 are the amount budgeted for 2014, less the 2014 carryover, less the amounts for projects for which construction will extend beyond 2014 (which were treated as additions to CWIP).

Estimates of CWIP expected to be booked as Utility Financed assets in 2014 and 2015 are from the Utility's report titled "Work in Progress: Work Orders in 10700", dated 12/31/2013 (see Exhibits).

Amounts recorded under Account 349 Other transmission and distribution plant as of 12/31/2013 were reclassified based on the work descriptions recorded on the Utility's report titled "Work in Progress: Work Orders in 10600", dated 12/31/2013 (see Exhibits). This account is used for capital projects that have been completed and placed in service but not yet classified.

Retirements for 2014 and 2015 were estimated based on 2008-2013 averages for retirements as a percentage of additions. Mains, services and hydrants were estimated based on a percentage applied to the cost of main replacement projects. The percentages for mains, services and hydrants were based on the 2008-2013 estimated cost of main replacements only (not included new main extensions) and the average amount recorded for mains, services and hydrants retirements as a percentage of the main replacements. It is assumed that 38.6% of mains and 38.0% of services and hydrants that are retired were utility-financed.

In total, it is anticipated that the Utility will complete approximately \$20.0 million of its capital improvement program in both 2014 and 2015. Of this amount, \$1,026,000 in 2014 and \$12,146,000 in 2015 is for projects that will be completed in future years. These amounts were treated as increases to CWIP. Another \$225,000 in 2014 and \$280,000 in 2015 is for studies and plans that will be treated as O&M expenses.

	Utility Plant Additions		CWIP Additions		O&M		Total
	2014	2015	2014	2015	2014	2015	
2014 CIP	\$18,833,920		\$1,026,000		\$225,000		\$20,084,920
2015 CIP		\$7,583,000		\$12,146,000		\$280,000	\$20,009,000
Existing CWIP	\$10,709,132	\$5,278,018					\$15,987,149
Total	\$29,543,052	\$12,861,018	\$1,026,000	\$12,146,000	\$225,000	\$280,000	\$56,081,069

#### Attachment 11a

Estimated additions to contributed plant are based on the average additions for 2008-2013. Estimated retirements are based on the average percentage of retirements as a percent of main replacement projects and an assumption of 61.4% of mains and 62.0% of services and hydrants that are retired were contributed.

#### Attachment 12

Account 328 – No depreciation accrual for 2014 or 2015 – assets are fully depreciated and no additions are anticipated.

Account 393 – No depreciation accrual for 2014 or 2015 – assets are fully depreciated and no additions are anticipated.

Account 395 – No depreciation accrual for 2014 or 2015 – assets are fully depreciated and no additions are anticipated.

Account 397 – Assets were fully depreciated at 12/31/2013. Depreciation accrual for 2014 is based on additions in 2014. Accrual for 2015 is based on anticipated additions for 2014 and 2015.

Additional adjustments are for clearing accounts.

#### Attachment 14

Amortization Expense – This is the amortization of the early retirement loss on the replacement of meters, authorized in a letter dated June 23, 2014.

The Utility is requesting a higher rate of return in order to provide adequate cash flow to support debt service for its capital improvement program. The Utility's anticipated cash flow is shown in the attached Exhibits under two financing scenarios.

#### Attachment 15

The Utility funds all of its construction projects from a special construction fund. Debt is issued on an ongoing basis (usually one debt issuance per year) as needed to replenish the fund. No debt issuance is anticipated in 2014; however a larger debt issuance is planned for 2015.



## Exhibit 1 - support for Attachments 9, 11, 11a

### Categorization of Capital Improvement Program and CWIP

Project (Subaccounts)	Construction Docket No.	2014	2014	2014	2015	2015	2015	2015	2014 Increase to CWIP	2015 Increase to CWIP	2014 CIP	2015 CIP
		2014 Additions	2014 Retirements	2014 Adjustments	2015 Additions - Major (2014 Carryover)	2015 Retirements - Major	2015 Additions - Routine (2014 Carryover)	2015 Retirements - Routine				
343 Transmission and Distribution Mains <sup>(3)</sup>		\$825,000	\$0									
<b>Iron &amp; Manganese Filter at Well 19</b>									\$6,000	\$338,000		
<b>Well 12 Conversion to Two-Zone Well</b>									\$0	\$48,000		
<b>Upgrade of BPS 115</b>										\$1,667,000		
<b>East Side Replacement Well (Well 3)</b>									\$480,000			
Subtotal New Construction		\$18,833,920	\$1,427,061		\$4,248,000	\$0	\$3,335,000	\$86,717	\$1,026,000	\$12,146,000	\$19,859,920	\$19,729,000
<b>CWIP Being Placed into Service (\$17,042,198)</b>												
343 Mains		\$1,642,210								\$3,825,932		
345 Services		\$71,080								\$60,096		
348 Hydrants		\$211,960										
346 Meters		\$9,086									\$1,867	
317 Other Water Source Plant												
342 Distribution Reservoirs and Standpipes		\$1,370,537								\$208,654		
314 Wells and Springs		\$810,886								\$878,873		
321 Structures and Improvements		\$2,429,295								\$36,571		
332 Sand and Other Media Filtration Equipment		\$3,355,607										
334 Other Water Treatment Equipment										\$10,287		
325 Electric Pumping Equipment		\$485,979								\$192,138		
397 SCADA Equipment		\$29,234										
323 Other Power Production Equipment		\$73,061								\$3,344		
392 Transportation Equipment		\$205,133										
390 Structures and Improvements										\$36,864		
397 Communication Equipment		\$15,064								\$25,258		
Subtotal - CWIP <sup>(4)</sup>		\$10,709,132	\$0	\$0	\$0	\$0	\$5,278,018	\$1,867	\$0	\$329,539		
<b>Total Capital</b>		<b>\$29,543,052</b>	<b>\$1,427,061</b>		<b>\$4,248,000</b>			<b>\$8,613,018</b>	<b>\$88,584</b>			
<b>CIP Projects Treated as O&amp;M</b>												
923 West Side Water Master Plan		\$75,000								\$175,000		
923 Update Infrastructure Plan		\$150,000										
923 Asset Management Plan										\$105,000		
Subtotal - O&M		\$225,000								\$280,000	\$225,000	\$280,000
<b>Total CIP</b>											<b>\$20,084,920</b>	<b>\$20,009,000</b>

## Exhibit 2 - support for Attachment 10AB

### Operation and Maintenance Expenses: 2004-2013

Account Code	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average
614 <sup>(1)</sup>	1,345	274,639	44,525	168,184	51,381	62,298	28,793	114,386	0	469	74,602
630	53,998	56,617	50,556	63,349	63,213	64,390	68,078	66,157	70,113	44,182	60,065
643	4,647	11,852	79,856	74,482	62,314	11,970	20,307	9,896	8,837	103,312	38,747
672	9,766	3,864	8,161	5,462	36,461	419,975	10,923	7,700	13,164	13,430	52,891
923 <sup>(2)</sup>	154,372	301,604	217,945	590,093	163,970	44,190	704,640	102,429	92,788	70,257	244,229

**Notes:**

(1) 2007 and 2009 expenses are adjusted to include costs for wellhead protection plans incurred in those years that have not been closed out yet.

(2) 2010 expenses are adjusted to include costs for the Eastside Water Supply Study that has not been closed out yet.

Exhibit 3 - support for Attachment 10AB

2013 & 2014 Gas and Electrical Usage - MG&E Only

Bill Date	Gas	Electricity	Total
1/4/13	<u>5,216.88</u>	<u>157,338.77</u>	<u>162,555.65</u>
2/5/13	9,531.46	185,222.91	194,754.37
3/5/13	10,693.26	184,099.02	194,792.28
4/3/13	8,312.66	180,556.59	188,869.25
5/3/13	6,487.27	185,553.35	192,040.62
6/5/13	3,437.41	198,920.55	202,357.96
7/3/13	1,217.23	200,580.04	201,797.27
8/5/13	1,335.86	227,129.00	228,464.86
9/5/13	1,898.00	253,300.58	255,198.58
10/3/13	2,197.24	225,657.95	227,855.19
11/5/13	1,608.91	193,882.50	195,491.41
12/4/13	3,801.73	179,823.27	183,625.00
1/6/14	<u>8,629.98</u>	<u>183,813.88</u>	<u>192,443.86</u>
	59,151.01	2,398,539.64	2,457,690.65
2/5/14	12,810.13	194,546.67	207,356.80
3/5/14	14,710.99	174,682.80	189,393.79
4/3/14	12,658.87	167,041.14	179,700.01
5/5/14	8,138.53	172,205.20	180,343.73
6/4/14	3,456.18	182,177.52	185,633.70
7/3/14	<u>1,939.37</u>	<u>188,521.24</u>	190,460.61
7/3/14	Ytd 53,714.07	1,079,174.57	
7/3/13	2013 Ytd <u>39,679.29</u>	<u>1,134,932.46</u>	
	Change 14,034.78	-55,757.89	
	Change % 35.37%	-4.91%	
Last six (6) mos 2013	19,471.72	1,263,607.18	
Use 2014 Ytd% chge	<u>135.37%</u>	<u>95.09%</u>	
Proj last 6 mos 2014	26,358.97	1,201,527.65	
Projected 2014 total	80,073.04	2,280,702.22	2,360,775.27
MG&E % incre/(dec)	<u>-2.30%</u>	<u>2.80%</u>	
Budgeted 2015 exp	78,231.36	2,344,561.89	
Rounded 2015 Budg	78,000.00	2,400,000.00	MG&E
	<u>0</u>	<u>200,000.00</u>	Alliant Energy
	78,000.00	2,600,000.00	2,678,000.00



Exhibit 4 - support for Attachment 11


 <b>Madison Water Utility - 2014 Capital Budget</b> <b>2014-2030 Capital Improvement Budget</b>		Updated: <b>May 20, 2013</b>											
<b>DRAFT</b>				117,099,000 35,360,000 28,985,000 28,425,000 31,210,000 28,479,000 76.1% \$ 106,698,000 91.1%									
		<b>Annual Totals</b>		\$ 20,276,000 \$ 11,430,000 \$ 26,926,000 \$ 27,322,000 \$ 25,092,000 \$ 25,473,000 \$ 28,811,000 \$ 29,298,000 \$ 31,868,600									
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2013	2013 Carryover	2014	2015	2016	2017	2018	2019	2020
1	<b>Arbor Hills Supplemental Fire Flow Supply - BPS 118</b>		<b>2011</b>										
2		Booster Pump Station 118 was constructed and put into service in 2012. The last phase of the project, Phase 4 of the Cannonball Pipeline will be constructed in 2014.		Cannonball Pipeline			642,000						
3				<b>Project Total</b>	-	-	642,000	-	-	-	-	-	-
4													
5	<b>Unit Well No. 7 - Fe and Mn Filtration</b>		<b>2013</b>										
6		The East Side Water Supply project verified the need for a filter at Well 7. The public engagement process is proceeding and the project has been moved up to be constructed in 2013 and fully operational in 2014. Construction of a filter at Well 7 will address the water quality issues that exist due to iron and manganese levels that exceed or approach the EPA secondary standard. A filter would significantly reduce the iron and manganese levels in the water pumped from the facility into the system. Filtering the water and removing the iron and manganese will reduce the likelihood of customers experiencing colored water due to water pumped from Well 7 and will allow the Utility to increase the use of the well. The new facility will require additional property.		Public Participation									
7				UW 7 - Filter Design	426,000	50,000							
8				Property Purchase									
9				Construction Admin Services	319,000	250,000							
10				Construction of Unit Well No. 7 Fe and Mn Filter	5,320,000	5,000,000							
11				Hydraulic Improvement Pipelines					981,000	673,000			
12				<b>Project Total</b>	6,065,000	5,300,000	-	-	981,000	673,000	-	-	-
13													
14	<b>Booster Pump Station #106 Reconstruction</b>		<b>2013</b>										
15		Rebuilding the outdated Booster Pump Station 106 is scheduled to start construction in 2013 and be finished and in service in early 2014. Booster Pump Station 106 is a critical link between Pressure Zones 6 and 7 and allows water to be moved between zones. The facility is the oldest pump station in the system and has deteriorated to the point that it is difficult to maintain. It is also necessary to bring the pump station up to current safety standards and codes, to improve reliability of operation to the station, and to improve access and employee safety. With the pump station upgrade some pipeline replacement will be necessary to increase hydraulic capacity. Improvement to this facility provides significant operational flexibility to the Utility.		Public Engagement									
16				Consultant Design contract									
17				Construction of Pump Station	1,493,000	1,050,000							
18				Construction Contract Administration	45,000	32,000							
19				Pipeline Improvements			616,000	635,000	654,000				
20				<b>Project Total</b>	1,538,000	1,082,000	616,000	635,000	654,000	-	-	-	-
21													
22	<b>Paterson Street Building Remodel and Upgrade</b>		<b>2014</b>										
23		Rebuilding the Utility's Operations Center at Paterson Street is scheduled to start construction in 2014 and be finished and in service in early 2015. The existing facility is outdated and cramped and in need of replacement. The vehicle maintenance area is too small for modern equipment and compromises employee safety. Building air quality and ventilation does not meet modern standards. The office space, locker rooms and other functional storage spaces do not meet current needs. The project also includes the construction of a materials handling building that will free up space in the vehicle storage building and improve efficiency during winter operations.		Public Participation	40,000	30,000							
24				Architectural Services/Review	468,000	351,000							
25				Materials Storage Building									
26				Furnishings and Equipment				400,000					
27				Construction Admin			308,000						
28				Fleet Maintenance and Office Building Construction			6,158,000						
29				<b>Project Total</b>	508,000	381,000	6,466,000	400,000	-	-	-	-	-
30													
31	<b>Lakeview Reservoir Reconstruction (Res 113)</b>		<b>2014</b>										
32		The schedule for the construction of the Lakeview Reservoir has been pushed to 2014 with the reservoir on line in 2015. Reconstructing the Lakeview Reservoir will replace an aging storage tank and provide much needed additional gravity fed water storage in Zone 6E on the north side of the City. Improvements to the existing pump station feeding Pressure Zone 5 is also included in this project. This project is justified in the Water Master Plan and would improve fire fighting capacity and reliability within Pressure Zone 5.		Public Engagement	50,000	35,000							
33				Consultant Design contract	241,000	125,000							
34				Construction Services			134,000						
35				Construct Two Zone Lakeview Reservoir			2,680,000						
36				System Hydraulic Water Main Improvements				1,015,000					
37				Upgrade Booster Pumps @ Res. 113				560,000					
38				Water Main Improvements @ Res 113				381,000					
39				<b>Project Total</b>	291,000	160,000	2,814,000	1,956,000	-	-	-	-	-
40													

Exhibit 4 - support for Attachment 11


 <b>Madison Water Utility - 2014 Capital Budget</b> <b>2014-2030 Capital Improvement Budget</b> <span style="font-size: 2em; color: blue;">DRAFT</span>				Updated: <b>May 20, 2013</b>																	
						76.1%		91.1%													
				Annual Totals																	
				\$ 20,276,000		\$ 11,430,000		\$ 26,926,000		\$ 27,322,000		\$ 25,092,000		\$ 25,473,000		\$ 28,811,000		\$ 29,298,000		\$ 31,868,600	
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2013	2013 Carryover	2014	2015	2016	2017	2018	2019	2020								
41	<b>UW 29 Filter Capacity Expansion</b>		<b>2014</b>																		
42	The filter system at Unit Well 29 was constructed with a capacity of 1100 gpm due to a concern with contaminants under the Sycamore Landfill. A sentry well was installed between the landfill and the well to monitor water quality. At this time based on pumping and water quality data there is no indication of a problem with the Sycamore Landfill with regard to Well 29 and the capacity of the filtration system will be increased to 2200 gpm. This will provide the Utility with improved flexibility and supply capacity on the east side of Pressure Zone 6.	Consultant Design contract	30,000	30,000																	
43		Increase Filter Capacity	400,000	400,000																	
44		Construction Contract Administration	16,000	16,000																	
45		<b>Project Total</b>		<b>446,000</b>	<b>446,000</b>																
46																					
47	<b>Zone 4 Fire Flow Supply Augmentation - Well 31</b>		<b>2015</b>																		
48	Two test wells were constructed in 2012 and the production well is scheduled to be drilled in 2013. Unit Well 31 is scheduled to be designed and construction to start in late 2013 and be finished and in service in 2014. The <b>Zone 4 Fire Flow Supply Augmentation</b> project will correct a significant system deficiency identified by the Water Master Plan in the southeast corner of the system within Pressure Zone 4. Due to significant expansion over the years to the south and east, the hydraulics of the system will not adequately serve this area for fire flow supply or system reliability and redundancy. There is also significant development pressure in the southeast and the proposed new well will support further development of the area. Adding a second source of supply to the area will improve fire flow capacity and bring the water system level of service for the area up to Utility standards.	Public Engagement	25,000	5,000																	
49		Production Well and Development	638,000	50,000																	
50		Consultant Design contract for design of Unit Well, Reservoir, Pump Station, and Pipelines	385,000	360,000																	
51		Construct Unit Well & Fe and Mn Filter																			
52		Consultant Construction Administration	241,000																		
53	Hydraulic Improvement Pipelines																				
54	<b>Project Total</b>		<b>1,289,000</b>	<b>415,000</b>																	
55																					
56	<b>Unit Well 12 Conversion to a Two Zone Well</b>		<b>2015</b>																		
57	The 2006 Water Master Plan recommended that Well 12 be converted to a two zone well. This conversion will provide operational flexibility and reliability to the west side supply system. Pumps and a pressure reducing valve will be added to the Well 12 facility to move water from Pressure Zone 7 to Pressure Zone 8 or from Pressure Zone 8 to Pressure Zone 7.	Consultant Design Contract																			
58		Construction Services																			
59		Construction																			
60		Water Main Improvements																			
61	<b>Project Total</b>																				
62																					
63	<b>Iron and Manganese Filter at Well 19</b>		<b>2015</b>																		
64	Construction of an <b>Iron and Manganese Filter at Well 19</b> will address the water quality in the Well 19 service area due to elevated levels of iron and manganese. Accumulation of iron and manganese solids in the system results in a need for additional flushing to minimize the risk of colored water reaching customers. Removing the iron and manganese from the water using a filter would improve finished water quality and reduce the risk of colored water in the Well 19 service area. The project will benefit existing customers in the west campus area. The budget anticipates construction of a filter in 2015 with the facility in full operation in 2016 following a significant public participation process and evaluation.	Public Participation																			
65		UW 19 - Filter Design Documents																			
66		Property Purchase																			
67		Construction Admin Services																			
68		Well 19 Fe and Mn Filter Construction																			
69	<b>Project Total</b>																				
70																					
71	<b>Zone 7 &amp; 8 Supplemental Supply - Whitney Way</b>		<b>2016</b>																		
72	The 2006 Water Master Plan recommends an additional well to serve Pressure Zones 7 and 8 to improve operational flexibility and system reliability. Adding a well to the area with the ability to pump water to either Zones 7 or 8 will provide additional water supply capacity the area and improve system reliability and redundancy. This facility will provide significant operational flexibility to the Utility within this portion of the system. It is expected that a significant public participation process will be used to site a well and identify water quality issues and system operational needs. Currently the project is scheduled for construction in 2016 and will be fully operational in 2017.	Public Engagement																			
73		Site Selection and Property Purchase																			
74		Drill test well																			
75		Drill production Well																			
76		Consultant Contract-Well Siting & Design																			
77		Construction of Filter, Reservoir and Pump Station																			
78		Consultant Contract Administration																			
79		Pipeline Improvements																			

Exhibit 4 - support for Attachment 11


 <b>Madison Water Utility - 2014 Capital Budget</b> <b>2014-2030 Capital Improvement Budget</b> <span style="font-size: 2em; color: blue;">DRAFT</span>				Updated: <b>May 20, 2013</b>										
				76.1%		\$ 106,698,000	91.1%							
				Annual Totals		\$ 20,276,000	\$ 11,430,000	\$ 26,926,000	\$ 27,322,000	\$ 25,092,000	\$ 25,473,000	\$ 28,811,000	\$ 29,298,000	\$ 31,868,600
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2013	2013 Carryover	2014	2015	2016	2017	2018	2019	2020	
80	<b>Project Total</b>				-	-	397,000	1,122,000	5,894,000	893,000	-	-	-	
82	<b>Booster Pump Station 109 (Spaanem Ave)</b>			<b>2016</b>										
83	Booster Pump Station 109 will provide the east side operational functionality and improve reliability to the water supply system. The pump station will move water from Pressure Zone 4 to Pressure Zone 6E and a pressure reducing valve station will allow water to move from Pressure Zone 6 E to Pressure Zone 4.			Public Engagement				50,000						
84				Site Selection and Property Purchase				168,000						
85				Consultant Design contract				102,000						
86				Construction Services					77,000					
87				Construct BPS 109					1,280,000					
88				Water Main Improvements						765,000	657,000			
89	<b>Project Total</b>				-	-	-	320,000	1,357,000	765,000	657,000	-	-	
91	<b>Iron and Manganese Filter at Well 30</b>			<b>2017</b>										
92	Iron and manganese concentrations at Well 30 exceed Utility water quality standards and guidelines. Construction of an Iron and Manganese Filter at Well 30 will address the water quality issues and risk of colored water events and customer complaints in the Well 30 service area. Annual system flushing is required in the Well 30 service area to minimize the risk of colored water events due to the accumulation of iron and manganese solids in the system. A filter would improve finished water quality and reduce the need for annual flushing in the Well 30 service area. The budget anticipates construction of a filter in 2018 following a significant public participation process and evaluation.			Public Participation					60,000					
93				UW 30 - Filter Design Documents					320,000					
94				Property Purchase						-				
95				Construction Admin Services						214,000				
96				Well 30 Fe and Mn Filter Construction						3,560,000				
97	<b>Project Total</b>				-	-	-	-	380,000	3,774,000	-	-	-	
99	<b>Booster Pump Station 129 Reconstruction</b>			<b>2017</b>										
100	Construction of a new and upgraded booster pump station 129 is scheduled for 2017. This project will replace the temporary pump station constructed on the Well 29 site in 1990. Pump Station 129 will continue to transfer water from Zone 6E to Zone 3 and back again through a PRV. This operation will provide supply and fire flow capability to the far east side of the system. It will benefit customers through gained reliability and flexibility of operations.			Public Engagement				56,000						
101				Design					121,000					
102				Construction Services						91,000				
103				Water Main Improvements							919,000	947,000		
104				Construct BPS 129						1,518,000				
105	<b>Project Total</b>				-	-	-	56,000	121,000	1,609,000	919,000	947,000	-	
107	<b>East Side Replacement Well (Well 3)</b>			<b>2018</b>										
108	Utility Well #3 was abandoned in early 2008 due to elevated levels of Carbon Tetrachloride. This project is intended to replace that lost supply capacity in Pressure Zone 6E. The need for a replacement well was verified by the East Side Water Supply project. The <b>East Isthmus Unit Well</b> will restore lost supply redundancy and reliability to the east Isthmus area. It is expected that the well will need a filter for iron and manganese removal and this is included in the budget for the project. There is also a possibility that VOC contamination will be present due to long term industrial land use on the Isthmus. The treatment plant will be designed with the intention of adding treatment if necessary. If the test well indicates that iron and manganese filtration is not needed, the capital cost will be significantly reduced.			Public Participation		15,000	15,000			20,000				
109				Drill test well and WQ analysis			150,000							
110				Property Purchase		250,000								
111				Drill new E. Isthmus Well						636,000				
112				Consultant Design contract						468,000				
113				Construction of Filter, Res & Pump Station							6,244,000			
114				Pipeline Improvements								1,071,000	736,000	
115				Construction Administration							250,000			
116	<b>Project Total</b>				-	265,000	215,000	-	-	1,124,000	6,494,000	1,071,000	736,000	
118	<b>Booster Pump Station/PRV 124 Construction</b>			<b>2018</b>										
119	Construction of a new booster pump station 124 to transfer water across the Yahara River and provide operational flexibility to the system. Pump Station 124 will transfer water from Zone 6W to Zone 6E and back again through a PRV. This operation will benefit customers through gained reliability and flexibility of operations. The pump station will allow the transfer of water from multiple wells if needed during a water shortage or equipment maintenance period.			Public Engagement					58,000					
120				Design						126,000				
121				Construction Services							95,000			
122				Water Main Improvements								947,000	975,000	
123				Construct BPS 129							1,579,000			
124	<b>Project Total</b>				-	-	-	-	58,000	126,000	1,674,000	947,000	975,000	

Exhibit 4 - support for Attachment 11


		<b>Madison Water Utility - 2014 Capital Budget</b> <b>2014-2030 Capital Improvement Budget</b>												
		<b>DRAFT</b> Updated: <b>May 20, 2013</b>												
					<b>Annual Totals</b>		\$ 20,276,000	\$ 11,430,000	\$ 26,926,000	\$ 27,322,000	\$ 25,092,000	\$ 25,473,000	\$ 28,811,000	\$ 29,298,000
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2013	2013 Carryover	2014	2015	2016	2017	2018	2019	2020	
126	<b>Zone 10 Far West Elevated Reservoir</b>		<b>2019</b>											
127	Construction of the Zone 10 Far West Side 750,000 gallon elevated reservoir is scheduled for 2020 and will follow a public engagement process and evaluation. The <b>Zone 10 Far West Elevated Reservoir</b> project will provide additional gravity fed water storage capacity within Pressure Zone 10. As Pressure Zone 10 has developed with not only residential but commercial and institutional facilities, the existing 250,000 gallon elevated tank on High Point Road no longer provides sufficient emergency reserve capacity. Providing minimum fire flow requirements to this area of the distribution system is necessary to meet minimum Utility standards. This project is identified in the 2006 Water Master Plan.			Public Engagement						60,000				
128				Site Selection and Property Purchase								438,000		
129				Consultant Design contract								217,000		
130				Construction Services									190,000	
131				Construct 750,000 gallon reservoir									<b>2,309,000</b>	
132				Reservoir piping improvements									406,000	
133				Water Main Improvements									812,000	
134			<b>Project Total</b>		-	-	-	-	-	<b>60,000</b>	<b>655,000</b>	<b>3,717,000</b>	-	
135														
136	<b>Booster Pump Station 114</b>		<b>2019</b>											
137	Booster Pump Station 114 will provide the ability to move water from Pressure Zone 6W to Zone 8 and back again. This improves the operational flexibility of the west side supply system and provides the means of spreading out the current water supply capacity within the system. Construction is scheduled to start in 2016 and be finished and in service by 2017. Construction of BPS 114 will benefit west side customers through gained system reliability and redundancy.			Public Engagement							61,000			
138				Site Selection and Property Purchase								438,000		
139				Consultant Design contract								148,000		
140				Construction Services									99,000	
141				Construct BPS 114									<b>1,642,000</b>	
142				Water Main Improvements									1,429,000	1,115,000
143			<b>Project Total</b>		-	-	-	-	-	-	<b>647,000</b>	<b>3,170,000</b>	<b>1,115,000</b>	
144														
145	<b>Northeast Side Supplemental Water Supply (American Family)</b>		<b>2020</b>											
146	The 2006 Water Master Plan recommended an additional well on the east side that could provide water to Zones 6E and 3. The need for this well was verified during the system analysis completed for the East Side Water Supply project. The well would be tentatively located in the NE corner of the system and would provide water to Zones 3 and 6E. While no site has been identified at this point, the Utility owns property for this purpose on Hoepker Road. A public participation process is expected to be used to site the well and develop the details of this project. This project is scheduled to start construction in 2021 and be finished and in service by 2022. Continued development pressure on the east side and the need for reliability and redundancy in the NE corner of the water system is the focus of this project.			Public Engagement						60,000				
147				Property Purchase								321,000		
148				Drill test well								151,000		
149				Drill Production Well									762,000	
150				Consultant Design contract									584,000	
151				Construction of Unit Well, Filter, Reservoir and Pump Station										<b>7,305,000</b>
152				Consultant Contract Administration										438,000
153			Pipelines											
154			<b>Project Total</b>		-	-	-	-	-	<b>60,000</b>	<b>472,000</b>	<b>1,346,000</b>	<b>7,743,000</b>	
155														
156	<b>Unit Well No. 8 - Fe and Mn Filtration</b>		<b>2021</b>											
157	<b>East Side Phase 2 - Unit Well No. 8 - Fe and Mn Mitigation</b> will address current water quality issues at Well 8 resulting from iron and manganese levels that exceed the EPA secondary standard's. Due to the colored water as a result of the iron and manganese, well operation is currently limited to summer only and a total production of approximately 100 million gallons per year. The need for this project was verified by the East Side Water Supply project and a public engagement process has started. Initially this project was scheduled for construction in 2013. Due to concerns about the nearby KIP Corporation contamination and neighborhood concerns about the facility in the park, the project has been delayed a year. A monitoring well will be installed in 2012 and additional data will be obtained regarding the KIP contamination. Installation of a filter would allow the well to be operational all year long and produce significantly greater quantities of water. Space will be included in the project for the future addition of an air stripper. The project will benefit existing customers in the east Isthmus area and improve the quality of the water pumped from Well 8.			Public Participation								30,000		
158				UW 8 - Filter Design Documents										541,600
159				Property Acquisition										500,000
160				Construction Admin Services										
161				Well 8 Fe and Mn Filter Construction										
162				Hydraulic Improvement Pipelines										
163			<b>Project Total</b>		-	-	-	-	-	-	-	-	<b>1,071,600</b>	
164														



Exhibit 4 - support for Attachment 11



 <b>Madison Water Utility - 2014 Capital Budget</b> <b>2014-2030 Capital Improvement Budget</b>														
				Updated: <b>May 20, 2013</b>										
				<b>Annual Totals</b>		<b>\$ 20,276,000</b>	<b>\$ 11,430,000</b>	<b>\$ 26,926,000</b>	<b>\$ 27,322,000</b>	<b>\$ 25,092,000</b>	<b>\$ 25,473,000</b>	<b>\$ 28,811,000</b>	<b>\$ 29,298,000</b>	<b>\$ 31,868,600</b>
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2013	2013 Carryover	2014	2015	2016	2017	2018	2019	2020	
202	<b>Booster Pump Station 320</b>		<b>2024</b>											
203	Booster Pump Station 320 will provide the Utility with operational flexibility on the west side. The station will transfer water from Zones 7 to Zones 9 and 10 and back again through a PRV. This operation will provide flexibility in source of supply to the west side of the system. It will benefit customers through gained system reliability.			Public Engagement										
204				Site Selection and Property Purchase										
205				Consultant Design contract										
206				Construction Services										
207				Construct BPS 320										
208				Water Main Improvements										
209				<b>Project Total</b>		-	-	-	-	-	-	-	-	-
210														
211														
212	<b>Pipeline Replacement/Rehab/Improvements</b>		<b>Ongoing</b>	<b>Total Pipe Rehab Budget</b>	<b>7,500,000</b>	<b>1,700,000</b>	<b>10,018,000</b>	<b>9,033,000</b>	<b>9,938,000</b>	<b>10,262,000</b>	<b>11,032,000</b>	<b>11,869,000</b>	<b>12,778,000</b>	
213	Madison Water Utility has a planned system replacement and upgrade program that provides for annual main replacement and rehabilitation. Assessment of an aging infrastructure indicates the Utility needs to replace or rehabilitate over 400 miles of pipe in the next 40 years to renew and maintain the system. A planned annual increase in spending to accomplish this goal by 2050 will be continued. The Utility's Water Master Plan also recommends hydraulic improvements to the system. It is proposed to significantly increase pipeline investment for hydraulic needs in 2015 and then increase this budget over the next 15 years to meet Master Plan recommendations.			Reconstruction Pipe Projects	3,500,000	750,000	<b>3,000,000</b>	3,950,000	4,108,000	4,272,000	4,443,000	4,621,000	4,806,000	
214				Resurfacing Pipe Projects	3,500,000	750,000	<b>2,000,000</b>	3,850,000	4,000,000	4,400,000	4,840,000	5,324,000	5,856,000	
215				Pipe Lining Projects	500,000	200,000	<b>1,000,000</b>	1,100,000	1,445,000	1,590,000	1,749,000	1,924,000	2,116,000	
216				Verona Road Pipeline			<b>1,418,000</b>	133,000	385,000					
217				East Johnson			<b>2,600,000</b>							
218				New Pipeline Projects	840,000	400,000	<b>966,000</b>	1,082,000	1,163,000	1,250,000	1,344,000	1,445,000	1,553,000	
219				Master Plan Hydraulic Improvement Pipe Projects				713,000	799,000	895,000	1,002,000	1,122,000	1,257,000	
220				<b>Project Total</b>	<b>8,340,000</b>	<b>2,100,000</b>	<b>10,984,000</b>	<b>10,828,000</b>	<b>11,900,000</b>	<b>12,407,000</b>	<b>13,378,000</b>	<b>14,436,000</b>	<b>15,588,000</b>	
221														
222														
223	<b>Misc. Pump Station/PRV/Facility Projects</b>		<b>Ongoing</b>											
224	The Water Master Plan identified various minor improvement projects that are necessary to sustain the established level of service. For budgeting purposes, these projects are itemized under a single heading. Pressure Reducing stations will be constructed throughout the system as needed to reduce areas of excessive pressure.			PRV Station Gammon Rd			<b>50,000</b>							
225				Upgrade Booster Pumps @ UW 20	350,000	150,000								
226				Upgrade Booster Pumps @ Res. 115 w/generator			<b>850,000</b>							
227				Water Main Improvements @ BPS 115			<b>750,000</b>							
228				Generator @ UW 26	335,000	200,000								
229				PRV Projects 2 per year			<b>100,000</b>	104,000	108,000	112,000	116,000	121,000	126,000	
230				Misc. Projects	100,000	50,000	<b>500,000</b>	525,000	1,000,000	1,050,000	1,103,000	1,158,000	1,216,000	
231			Consultant Services	24,000	24,000	<b>270,000</b>	75,000	133,000	139,000	146,000	153,000	161,000		
232			<b>Project Total</b>	<b>809,000</b>	<b>424,000</b>	<b>2,520,000</b>	<b>704,000</b>	<b>1,241,000</b>	<b>1,301,000</b>	<b>1,365,000</b>	<b>1,432,000</b>	<b>1,503,000</b>		
233														
234	<b>System Wide Misc Projects</b>		<b>Ongoing</b>											
235	Several system wide tasks are included in the Capital Budget that cover a variety of repair, rehabilitation, and upgrade projects. The Utility's Infrastructure Management Plan recommends a reinvestment of \$2.5 (2005 dollars) in system facilities to sustain their viability for the long term. This would include Unit Well, pump station, and reservoir improvements and renewal. This budget proposes that an allotment for this purpose be started in 2014 and then increased annually to raise it to the recommended level. For budgeting purposes, these projects are itemized under a single heading.			West Side Water Master Plan	300,000	250,000					365,000			
236				Update Infrastructure Plan	200,000	150,000					243,000			
237				SCADA Maintenance and 6 Year Upgrade	33,000		<b>76,000</b>	78,000	250,000	263,000	40,000	40,000	42,000	
238				Flow Meter and VFD Retrofit			<b>125,000</b>							
239				Meter Program			<b>180,000</b>	187,000	194,000	202,000	210,000	218,000	227,000	
240				Private Well Connection Program	50,000	50,000	<b>50,000</b>	50,000						
241				Safety Additions to the Plant	29,000	29,000	<b>31,000</b>	33,000	35,000	37,000	39,000	41,000	43,000	
242				Olin Admin Office Maintenance	18,000	18,000	<b>19,000</b>	70,000	51,000	55,000	59,000	63,000	143,000	
243				Unit Well/PS/Reservoir Rehab/Maintenance	200,000	200,000	<b>950,000</b>	1,045,000	1,150,000	1,265,000	1,392,000	1,531,000	1,684,000	
244				Well 24 Generator Connection			<b>100,000</b>							
245			Generator emissions mods @ Wells 20 & 30			<b>100,000</b>								

Exhibit 4 - support for Attachment 11



		<b>Madison Water Utility - 2014 Capital Budget</b> <b>2014-2030 Capital Improvement Budget</b>						117,099,000					
		Updated:	<b>May 20, 2013</b>				<b>35,360,000</b>	<b>28,985,000</b>	<b>28,425,000</b>	<b>31,210,000</b>	<b>28,479,000</b>		
							76.1%	\$ 106,698,000	91.1%				
		<b>Annual Totals</b>		<b>\$ 20,276,000</b>	<b>\$ 11,430,000</b>	<b>\$ 26,926,000</b>	<b>\$ 27,322,000</b>	<b>\$ 25,092,000</b>	<b>\$ 25,473,000</b>	<b>\$ 28,811,000</b>	<b>\$ 29,298,000</b>	<b>\$ 31,868,600</b>	
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2013	2013 Carryover	2014	2015	2016	2017	2018	2019	2020
246				Dump Site Purchase			125,000						
247				General Consultant Services	67,000	67,000	74,000	81,000	89,000	98,000	108,000	113,000	119,000
248				Paterson Vehicle Storage Bldg Maintenance	34,000	34,000	50,000	54,000	58,000	62,000	67,000	72,000	77,000
249				Paterson Office and Shop Maintenance	59,000	59,000			25,000	26,000	27,000	28,000	29,000
250				<b>Project Total</b>	<b>990,000</b>	<b>857,000</b>	<b>1,880,000</b>	<b>1,598,000</b>	<b>1,852,000</b>	<b>2,008,000</b>	<b>2,550,000</b>	<b>2,106,000</b>	<b>2,364,000</b>
251													
				<b>Total Estimated Annual Costs</b>	<b>20,276,000</b>	<b>11,430,000</b>	<b>26,926,000</b>	<b>27,322,000</b>	<b>25,092,000</b>	<b>25,473,000</b>	<b>28,811,000</b>	<b>29,298,000</b>	<b>31,868,600</b>
252													
253				Facility Reinvestment and Renewal Goal			3.26				Facility Reinvestment and Renewal Goal		3.89
254				Facility Reinvestment and Renewal Actual			1.45				Facility Reinvestment and Renewal Actual		2.10
255													

Exhibit 5 - support for Attachment 11


		<b>Madison Water Utility - 2015 Capital Budget</b> <b>2015-2030 Capital Improvement Budget</b>									
		Updated: <b>May 21, 2014</b>									
		<b>DRAFT</b>									
				Annual Totals	\$ 20,009,000	\$ 24,586,000	\$ 28,416,500	\$ 27,786,000	\$ 20,684,000	\$ 17,982,000	\$ 28,778,000
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2014 Carry Over	2015	2016	2017	2018	2019	2020
1	<b>Arbor Hills Supplemental Fire Flow Supply - BPS 118</b>		<b>2011</b>								
2		Booster Pump Station 118 was constructed and put into service in 2012. The last phase of the project, Phase 4 of the Cannonball Pipeline is budgeted to be constructed in 2015.		Cannonball Pipeline	642,000						
3				<b>Project Total</b>	<b>642,000</b>	-	-	-	-	-	-
4											
5	<b>Unit Well No. 7 - Fe and Mn Filtration</b>		<b>2014</b>								
6		Construction of a filter at Well 7 will address the water quality issues that exist due to iron and manganese levels that exceed or approach the EPA secondary standard. A filter will significantly reduce the iron and manganese levels in the water pumped from the facility into the system. Filtering the water and removing the iron and manganese will reduce the likelihood of customers experiencing colored water due to water pumped from Well 7 and will allow the Utility to increase the use of the well. Construction is commencing in June 2014 and the facility will be fully operational June 2015. Piping improvements are included in the budget to improve hydraulics in the system and allow water from Well 7 to be pumped to a wide area of the east and north side of Madison. This improvement provides flexibility and reliability to the system.		Public Engagement							
7				UW 7 - Filter Design							
8				Property Purchase							
9				Construction Admin Services	144,000						
10				Construction of Unit Well No. 7 Fe and Mn Filter	<b>2,400,000</b>						
11				Hydraulic Improvement Pipelines			891,000				1,003,000
12				<b>Project Total</b>	<b>2,544,000</b>	-	<b>891,000</b>	-	-	-	<b>1,003,000</b>
13											
14	<b>Booster Pump Station #106 Reconstruction</b>		<b>2013</b>								
15		Rebuilding the outdated Booster Pump Station 106 will be finished by mid 2014. Booster Pump Station 106 is a critical link between Pressure Zones 6 and 7 and allows water to be moved between zones. The new facility replaces the oldest pump station and brings the pump station up to current safety standards and codes. The pump station improves reliability of operation and improves access and employee safety. To fully benefit from the pump station upgrade, hydraulic capacity improvements to the distribution system have been budgeted. These piping improvements will allow BPS 106 provide excellent water supply service to the near west side.		Public Engagement							
16				Consultant Design contract							
17				Construction of Pump Station							
18				Construction Contract Administration							
19				Pipeline Improvements	616,000	483,000	891,000	612,000			
20				<b>Project Total</b>	<b>616,000</b>	<b>483,000</b>	<b>891,000</b>	<b>612,000</b>	-	-	-
21											
22	<b>Paterson Street Building Remodel and Upgrade</b>		<b>2015</b>			7,623,000	Total Budgeted Construction Cost				
23		Rebuilding the Utility's Operations Center at Paterson Street is currently scheduled to start construction in 2015 and be finished and in service in early 2016. The existing facility is outdated and cramped and in need of replacement and this project has been in development for over 10 years. The vehicle maintenance area is too small for modern equipment and compromises employee safety. Building air quality and ventilation does not meet modern standards. The office space, locker rooms and other functional storage spaces do not meet current needs. The project also includes the construction of a materials handling building that will free up space in the vehicle storage building and improve efficiency during winter operations. Utility staff have been working with City Planning on efficient and effective use of the property considering the long term redevelopment of the area.		Public Engagement	24,000						
24				Architectural Services/Review	281,000						
25				Materials Storage Building			1,219,000				
26				Furnishings and Equipment			522,000				
27				Construction Admin	308,000						
28				Fleet Maintenance and Office Building Construction	<b>6,158,000</b>	<b>246,000</b>					
29				<b>Project Total</b>	<b>6,771,000</b>	<b>246,000</b>	<b>1,741,000</b>	-	-	-	-
30											
31	<b>Lakeview Reservoir Reconstruction (Res 113)</b>		<b>2015</b>								
32		The schedule for the construction of the Lakeview Reservoir has been pushed back to 2015 with the reservoir on line in late 2015. <b>Reconstructing the Lakeview Reservoir</b> will replace an aging storage tank for Pressure Zone 5 and provide much needed additional gravity fed water storage in Zone 6E on the north side of the City. Storage is needed in Zone 6E to provide additional operational flexibility and emergency backup. The reservoir is being developed as a two zone facility to optimize the use of the site. This project is justified in the Water Master Plan and will improve fire fighting capacity and reliability to both Pressure Zone 5 and Pressure Zone 6E.		Public Engagement							
33				Engineering Services	60,000						
34				Construct Two Zone Lakeview Reservoir	<b>2,680,000</b>	<b>1,820,000</b>					
35				System Hydraulic Water Main Improvements			594,500				
36				Upgrade Booster Pumps @ Res. 113		840,000					
37				Water Main Improvements @ Res 113		692,000					
38				<b>Project Total</b>	<b>2,740,000</b>	<b>3,352,000</b>	<b>594,500</b>	-	-	-	-
39											



Exhibit 5 - support for Attachment 11


		<b>Madison Water Utility - 2015 Capital Budget</b> <b>2015-2030 Capital Improvement Budget</b>										
		Updated: <b>May 21, 2014</b>										
		<b>DRAFT</b>										
				Annual Totals	\$ 20,009,000	\$ 24,586,000	\$ 28,416,500	\$ 27,786,000	\$ 20,684,000	\$ 17,982,000	\$ 28,778,000	
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2014 Carry Over	2015	2016	2017	2018	2019	2020	
40	<b>UW 29 Filter Capacity Expansion</b>		<b>2014</b>									
41	The filter system at Unit Well 29 was constructed with 50% capacity of the well. The filters are rated at 1,100 gpm due to a concern with contaminants under the Sycamore Landfill. A sentry well was installed between the landfill and the well to monitor water quality. Current pumping and water quality data show no indication of a problem with the Sycamore Landfill with regard to Well 29 operation at the sentry well. It is proposed to increase the capacity of the filtration system to 2,200 gpm to match the capacity of the well while maintaining the annual pumping at 560 million gallons per year. This provides improved operational flexibility and peak demand supply capacity on the east side of Pressure Zone 6E.			Engineering Services	30,000							
42				Increase Filter Capacity	400,000							
43				Construction Engineering	16,000							
44				<b>Project Total</b>	<b>446,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
45												
46	<b>Zone 4 Fire Flow Supply Augmentation - Well 31</b>		<b>2015</b>									
47	The <u>Well 31</u> project will correct a significant system deficiency identified by the Water Master Plan in the southeast corner of the system. Due to significant expansion of the system over the years to the south and east, the hydraulics of the system will not adequately serve this area for fire flow supply or system reliability and redundancy. Adding a second source of supply to the area will improve fire flow capacity and bring the water system level of service for the area up to Utility standards. Two test wells were constructed in 2012 and the production well was drilled in 2013. Unit Well 31 is scheduled to be designed in 2014 and construction will start in mid 2015 and be finished and in service in 2016.			Public Engagement	5,000							
48				Drill Production Well								
49				Engineering Services	180,000							
50				Construction	5,150,000							
51				Construction Administration	258,000							
52				Hydraulic Improvement Pipelines			654,000					
53	<b>Project Total</b>	<b>185,000</b>	<b>5,408,000</b>	<b>654,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>			
54												
55	<b>Unit Well 12 Conversion to a Two Zone Well</b>		<b>2015</b>									
56	The 2006 Water Master Plan recommended that Well 12 be converted to a two zone well. This conversion will provide operational flexibility and reliability to the west side supply system. Pumps and a pressure reducing valve will be added to the Well 12 facility to move water from Pressure Zone 7 to Pressure Zone 8 or from Pressure Zone 8 to Pressure Zone 7.			Engineering Services	48,000							
57				Construction Administration	30,000							
58				Construction	600,000							
59				Water Main Improvements	361,000							
60	<b>Project Total</b>	<b>48,000</b>	<b>991,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>			
61												
62	<b>Upgrade of BPS 115</b>		<b>2015</b>									
63	The upgrade of <u>Booster Pump Station 115</u> will mitigate a long standing low pressure problem in the Bunker Hill Reservoir area. The station will also provide the Utility with operational flexibility and an supplemental water supply point to the east side of I-90. The station will transfer water from Zone 6E to Zone 3 and back again through a PRV. UW Hospital is building a new facility in the American Family area and requires a redundant water supply. This project will meet that need. The upgraded pump station will benefit customers through gained system reliability.			Engineering Services	67,000							
64				Upgrade BPS 115 to a 2 Zone facility with Generator	850,000							
65				Water Main Improvements	750,000	700,000						
66				<b>Project Total</b>	<b>1,667,000</b>	<b>700,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
67												
68	<b>Iron and Manganese Filter at Well 19</b>		<b>2016</b>									
69	Construction of an <u>Iron and Manganese Filter at Well 19</u> will address the water quality in the Well 19 service area due to elevated levels of iron and manganese. The iron and manganese levels exceed Madison Water Utility water quality goals. Accumulation of iron and manganese solids in the distribution system results in a need for additional flushing to minimize the risk of colored water reaching customers. Removing the iron and manganese from the water using a filter improves finished water quality and reduces the need for frequent flushing. The project will benefit existing customers in the west campus area in Pressure Zone 6W.			Public Engagement	53,000							
70				Engineering Services	285,000	143,000						
71				Construction			3,290,000					
72				<b>Project Total</b>	<b>338,000</b>	<b>143,000</b>	<b>3,290,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
73												
74	<b>Far West Elevated Reservoir</b>		<b>2016</b>									
75	The intent is to combine Pressure Zones 10 and 11 and construct a single Far West Side 1.0 MG elevated reservoir to hydraulically balance the two zones and supplement the storage at High Point Road. The <u>Far West Elevated Reservoir</u> project will provide additional gravity fed water storage capacity within Pressure Zone 10 and will add needed storage capacity to current Zone 11. The 250,000 gallon High Point Road reservoir is reaching its capacity and does not provide sufficient emergency reserve capacity. Providing minimum fire flow requirements to this area of the distribution system is necessary to meet minimum Utility standards. The project also provides a second feed to the area by using BPS 128 improving reliability. This 2006 Water Master Plan identified two elevated reservoirs for the far west side and this project will combine those two projects.			Public Engagement		55,000						
76				Engineering Services		301,000						
77				Construct 1 MG reservoir			2,737,000					
78				Reservoir piping improvements			338,000					
79				Water Main Improvements				927,000				
80	<b>Project Total</b>	<b>-</b>	<b>356,000</b>	<b>3,075,000</b>	<b>927,000</b>	<b>-</b>	<b>-</b>	<b>-</b>				
81												

Exhibit 5 - support for Attachment 11


		<b>Madison Water Utility - 2015 Capital Budget</b> <b>2015-2030 Capital Improvement Budget</b>													
		DRAFT		Updated: <b>May 21, 2014</b>											
				<i>Annual Totals</i>		\$ 20,009,000	\$ 24,586,000	\$ 28,416,500	\$ 27,786,000	\$ 20,684,000	\$ 17,982,000	\$ 28,778,000			
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2014 Carry Over	2015	2016	2017	2018	2019	2020				
82	<b>Zone 7 &amp; 8 Supplemental Supply - Whitney Way</b>		<b>2017</b>												
83	The 2006 Water Master Plan recommends an additional well to serve Pressure Zones 7 and 8 to improve operational flexibility and system reliability. This recommendation was verified in 2009 during some preliminary planning for the project. Adding a well to the area with the ability to pump water to either Zones 7 or 8 will provide additional water supply capacity the west side and improve system reliability and redundancy. This facility will provide significant operational flexibility to the Utility within this portion of the system and ultimately benefit 5 different pressure zones across the entire west side. Projected development and growth on the west side and the Utility stated policy of limiting average well pumping to 50% of capacity for long term groundwater management make this an important water supply project.			Public Engagement	25,000										
84				Site Selection and Property Purchase	264,000										
85				Drill test well	108,000										
86				Drill production Well					863,000						
87				Well Siting Eng Services					129,000						
88				Unit Well Engineering Services						683,000					
89				Construction Administration							5,250,000				
90				Pipeline Improvements											1,471,000
91				<b>Project Total</b>				<b>397,000</b>	<b>129,000</b>	<b>1,546,000</b>	<b>5,250,000</b>	<b>-</b>	<b>-</b>	<b>1,471,000</b>	
92															
93	<b>Iron and Manganese Filter at Well 30</b>		<b>2020</b>												
94	Iron and manganese concentrations at Well 30 exceed Utility water quality standards and guidelines. Construction of an Iron and Manganese Filter at Well 30 will address the water quality issues and risk of colored water events and customer complaints in the Well 30 service area. Annual system flushing is required in the Well 30 service area to minimize the risk of colored water events due to the accumulation of iron and manganese solids in the system. A filter would improve finished water quality and reduce the need for annual flushing in the Well 30 service area.			Public Engagement						61,000					
95				Engineering Services								499,000			
96				Construction										3,840,000	
97				<b>Project Total</b>				<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>560,000</b>	<b>3,840,000</b>	
98															
99	<b>VOC Air Stripper at Well 18</b>		<b>2018</b>												
100	Construction of an <u>VOC Air Stripper at Well 18</u> will address the pending water quality and regulatory issues due to increasing VOC levels at the well. Recent Water Quality monitoring at the well has indicated an increasing trend in the VOC levels. Additionally, regulatory changes may result in lower VOC limits dictating the need to treat the water at Well 18. Well 18 provides an excellent source of water to the south side of Madison within Pressure Zone 6W and it is in the Utility's best interests to maintain the well.			Public Engagement				58,000							
101				Engineering Services					-	378,000					
102				Construction								2,910,000			
103				<b>Project Total</b>				<b>-</b>	<b>-</b>	<b>-</b>	<b>436,000</b>	<b>2,910,000</b>	<b>-</b>	<b>-</b>	
104															
105	<b>Unit Well No. 8 - Fe and Mn Filtration</b>		<b>2017</b>												
106	<u>East Side Phase 2 - Unit Well No. 8 - Fe and Mn Mitigation</u> will address current water quality issues at Well 8 resulting from iron and manganese levels that exceed the EPA secondary standard's. Due to the colored water as a result of the iron and manganese, well operation is currently limited to summer only and a total production of approximately 100 million gallons per year. The need for this project was verified by the East Side Water Supply project and a public engagement process was started. Initially this project was scheduled for construction in 2013. Due to concerns about the nearby Madison Kipp Corporation, the project was delayed. Installation of a filter would allow the well to be operational all year long. The project will benefit existing customers in the east Isthmus area and improve the quality of the water pumped from Well 8. Space will be included in the project for the future addition of an air stripper if it is needed.			Public Engagement		55,000									
107				Engineering Services					696,000						
108				Property Acquisition						500,000					
109				Well 8 Fe and Mn Filter Construction							5,350,000				
110				Hydraulic Improvement Pipelines								1,040,000		1,104,000	
111				<b>Project Total</b>				<b>-</b>	<b>55,000</b>	<b>1,196,000</b>	<b>5,350,000</b>	<b>1,040,000</b>	<b>-</b>	<b>1,104,000</b>	
112															
113	<b>Booster Pump Station 129 Reconstruction</b>		<b>2021</b>												
114	This project will replace the temporary pump station constructed on the Well 29 site in 1990. Pump Station 129 will continue to transfer water from Zone 6E to Zone 3 and back again through a PRV. This operation will provide supply and fire flow capability to the far east side of the system. It will benefit customers through gained reliability and flexibility of operations.			Public Engagement								63,000			
115				Engineering Services										231,000	
116				Water Main Improvements											
117				Construct BPS 129											
118	<b>Project Total</b>				<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>294,000</b>			
119															

Exhibit 5 - support for Attachment 11



		<b>Madison Water Utility - 2015 Capital Budget</b> <b>2015-2030 Capital Improvement Budget</b>									
		Updated: <b>May 21, 2014</b>									
		<b>DRAFT</b>									
				<b>Annual Totals</b>	<b>\$ 20,009,000</b>	<b>\$ 24,586,000</b>	<b>\$ 28,416,500</b>	<b>\$ 27,786,000</b>	<b>\$ 20,684,000</b>	<b>\$ 17,982,000</b>	<b>\$ 28,778,000</b>
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2014 Carry Over	2015	2016	2017	2018	2019	2020
120	<b>East Side Replacement Well (Well 3)</b>		<b>2021</b>								
121		Utility Well #3 was abandoned in early 2008 due to elevated levels of Carbon Tetrachloride. This project is intended to replace that lost supply capacity in Pressure Zone 6E. The need for a replacement well was verified by the East Side Water Supply project. The <u>East Isthmus Unit Well</u> will restore lost supply redundancy and reliability to the east Isthmus area. It is expected that the well will need a filter for iron and manganese removal and this is included in the budget for the project. There is also a possibility that VOC contamination will be present due to long term industrial land use on the Isthmus. The treatment plant will be designed with the intention of adding treatment if necessary. If the test well indicates that iron and manganese filtration is not needed, the capital cost will be significantly reduced.		Public Engagement						63,000	
122				Drill test well and WQ analysis							
123				Property Purchase							
124				Drill new E. Isthmus Well							951,000
125				Consultant Design contract							799,000
126				Construction of Filter, Res & Pump Station							
127				Pipeline Improvements							
128				<b>Project Total</b>		-	-	-	-	-	-
129											
130	<b>Booster Pump Station/PRV 124 Construction</b>		<b>2021</b>								
131		Construction of a new booster pump station 124 to transfer water across the Yahara River and provide operational flexibility to the system. Pump Station 124 will transfer water from Zone 6W to Zone 6E and back again through a PRV. This operation will benefit customers through gained reliability and flexibility of operations. The pump station will allow the transfer of water from multiple wells if needed during a water shortage or equipment maintenance period.		Public Engagement						63,000	
132				Engineering Services							231,000
133				Water Main Improvements							
134				Construct BPS 124							
135			<b>Project Total</b>		-	-	-	-	-	-	<b>294,000</b>
136											
143	<b>Pressure Zone 9 Storage</b>		<b>2022</b>								
144		Storage capacity within Pressure Zone 9 was identified in the Water Master Plan as being deficient. With the replacement of the elevated reservoir on Prairie Road in 2011 and 2012 with a 400,000 gallon tank, this situation was partially mitigated. A second reservoir with a capacity of 750,000 gallons will resolve the remainder of the Zone 9 storage deficiency. An elevated reservoir in the western portion of Zone 9 will provide hydraulic balance to the system. Pressure Zone 9 has developed significantly with not only residential but commercial and institutional facilities. The fire flow requirements have increased due to this development to the point that current facilities do not meet minimum standards.		Public Engagement						63,000	
145				Reservoir Property Purchase							
146				Consultant Design Services							
147				Construct 750,000 gallon elevated reservoir							
148				Reservoir Pipeline Construction							
149			<b>Project Total</b>		-	-	-	-	-	-	<b>63,000</b>
150											
151	<b>Pump Station 220 - Raymond Road PS</b>		<b>2022</b>								
152		Construction of a booster pump station on the west side to move water between Zones 7, 9 and 10 and back again through a pressure reducing valve is scheduled to start in 2022 and be finished and in service by the end of the year. <u>Booster Pump Station 220 - Raymond Road Pump Station</u> will setup operational flexibility within Pressure Zones 7, 9 and 10. The station will transfer water from Zone 7 to Zones 9 and 10 and back again through a PRV. This operation will provide the ability to share water supply resources between zones and fully use existing facilities in providing operational flexibility. The project will also provide supply redundancy to the far west side.		Public Engagement						65,000	
153				Engineering Services							
154				Dual Zone Pump Station Construction							
155				PRV station							
156			Booster Station Piping Upgrade								
157			<b>Project Total</b>		-	-	-	-	-	-	<b>65,000</b>
158											
188	<b>Near West Side Water Supply Project (Glenway)</b>		<b>2023</b>								
189		The Water Master Plan has identified this well project to mitigate a supply deficiency in Pressure Zones 6 and 7. The <u>Near West Side Water Supply Project</u> project will provide additional water supply capacity to both Zones 6 & 7. The final location of the proposed well will be determined following a significant public participation process and evaluation period.		Public Engagement					63,000		
190				Site Selection and Property Purchase							322,000
191				Drill Test Well							160,000
192				Drill production Well							
193				Engineering Services							
194				Construction of Unit Well, Filter, Reservoir and Pump Station							
195			Water Main Hydraulic Improvements								
196			<b>Project Total</b>		-	-	-	-	-	<b>63,000</b>	<b>482,000</b>
197											

Exhibit 5 - support for Attachment 11

		<b>Madison Water Utility - 2015 Capital Budget</b> <b>2015-2030 Capital Improvement Budget</b>										
		<b>DRAFT</b>		Updated: <b>May 21, 2014</b>								
				<b>Annual Totals</b>		<b>\$ 20,009,000</b>	<b>\$ 24,586,000</b>	<b>\$ 28,416,500</b>	<b>\$ 27,786,000</b>	<b>\$ 20,684,000</b>	<b>\$ 17,982,000</b>	<b>\$ 28,778,000</b>
Line	Project	Date/Description/Purpose	Primary Construction Year	Tasks	2014 Carry Over	2015	2016	2017	2018	2019	2020	
207			Pipe Replacement	Reinvestment Budget Goal		11,090,000					14,020,000	
208	<b>Pipeline Replacement/Rehab/Improvements</b>		<b>Ongoing</b>	<b>Total Pipe Rehab Budget</b>		<b>8,973,000</b>	<b>9,637,000</b>	<b>9,930,000</b>	<b>10,667,000</b>	<b>11,467,000</b>	<b>12,336,000</b>	
209	Madison Water Utility has a planned system replacement and upgrade program that provides for annual main replacement and rehabilitation. Assessment of an aging infrastructure indicates the Utility needs to replace or rehabilitate over 400 miles of pipe in the next 40 years to renew and maintain the system. A planned annual increase in spending to accomplish this goal by 2050 will be continued. The Utility's Water Master Plan also recommends hydraulic improvements to the system. It is proposed to significantly increase pipeline investment for hydraulic needs in 2015 and then increase this budget over the next 15 years to meet Master Plan recommendations.			Reconstruction Pipe Projects	900,000	3,950,000	4,108,000	4,272,000	4,443,000	4,621,000	4,806,000	
210				Resurfacing Pipe Projects	600,000	3,850,000	4,000,000	4,400,000	4,840,000	5,324,000	5,856,000	
211				Pipe Lining Projects	300,000	1,040,000	1,144,000	1,258,000	1,384,000	1,522,000	1,674,000	
212				Verona Road Pipeline	425,000	133,000	385,000					
213				East Johnson	780,000							
214				New Pipeline Projects	290,000	966,000	1,038,000	1,116,000	1,200,000	1,290,000	1,387,000	
215				Master Plan Hydraulic Improvement Pipe Projects			799,000	895,000	1,002,000	1,122,000	1,257,000	
216				<b>Project Total</b>		<b>3,295,000</b>	<b>9,939,000</b>	<b>11,474,000</b>	<b>11,941,000</b>	<b>12,869,000</b>	<b>13,879,000</b>	<b>14,980,000</b>
217					Pipe Hydraulic Upgrade Investment Budget Goal		2,020,000					3,890,000
218					Pipe Hydraulic Upgrade Investment Actual		966,000					3,061,000
219	<b>Misc. Pump Station/PRV/Facility Projects</b>		<b>Ongoing</b>									
220	The Water Master Plan identified various minor improvement projects that are necessary to sustain the established level of service. For budgeting purposes, these projects are itemized under a single heading. Pressure Reducing stations will be constructed throughout the system as needed to reduce areas of excessive pressure.			PRV Station Gammon Rd								
221				Chemical Feed Room Mods		300,000	315,000	331,000	348,000	365,000		
222				PRV Projects 2 per year		52,000	54,000	56,000	58,000	60,000	62,000	
223				Misc. Projects		440,000	515,000	541,000	568,000	596,000	626,000	
224				Consultant Services		-	95,000	106,000	111,000	117,000	123,000	83,000
225				<b>Project Total</b>		<b>-</b>	<b>887,000</b>	<b>990,000</b>	<b>1,039,000</b>	<b>1,091,000</b>	<b>1,144,000</b>	<b>771,000</b>
226												
227	<b>System Wide Misc Projects</b>		<b>Ongoing</b>									
228	Several system wide tasks are included in the Capital Budget that cover a variety of repair, rehabilitation, and upgrade projects. The Utility's Infrastructure Management Plan recommends a reinvestment of \$2.5 (2005 dollars) in system facilities to sustain their viability for the long term. This would include Unit Well, pump station, and reservoir improvements and renewal. This budget proposes that an allotment for this purpose be started in 2014 and then increased annually to raise it to the recommended level. For budgeting purposes, these projects are itemized under a single heading.			West Side Water Master Plan	175,000				365,000			
229				Asset Management Plan	105,000					243,000		
230				SCADA Maintenance and 6 Year Upgrade		108,000	250,000	263,000	40,000	40,000	42,000	
231				Video System Upgrades		42,000	43,000	44,000	45,000	46,000	47,000	
232				Flow Meter and VFD Retrofit		211,000	217,000	224,000	231,000	238,000	245,000	
233				Meter Program		200,000	208,000	216,000	225,000	234,000	243,000	
234				Private Well Connection Program	40,000	50,000						
235				Safety Additions to the Plant		67,000	72,000	76,000	80,000	84,000	88,000	
236				Olin Admin Office Maintenance		70,000	51,000	55,000	59,000	63,000	143,000	
237				Unit Well/PS/Reservoir Rehab/Maintenance		1,045,000	1,150,000	1,265,000	1,392,000	1,531,000	1,684,000	
238				Paterson Vehicle Storage Bldg Maintenance		54,000	58,000	62,000	67,000	72,000	77,000	
239				Paterson Office and Shop Maintenance		50,000	25,000	26,000	27,000	28,000	29,000	
240				<b>Project Total</b>		<b>320,000</b>	<b>1,897,000</b>	<b>2,074,000</b>	<b>2,231,000</b>	<b>2,774,000</b>	<b>2,336,000</b>	<b>2,598,000</b>
241												
242					<b>Total Estimated Annual Costs</b>		<b>20,009,000</b>	<b>24,586,000</b>	<b>28,416,500</b>	<b>27,786,000</b>	<b>20,684,000</b>	<b>17,982,000</b>
243				Facility Reinvestment and Renewal Goal		3.360					3.89	
244				Facility Reinvestment and Renewal Actual		1.29					2.02	
245												

# Exhibit 6 - support for Attachment 11

Madison Water Utility

*12/31/2013*

WORK IN PROGRESS  
WORK ORDERS IN 10700

Job No.	Description	Amount
1-0460-08	The Meadowlands Phase 3 - Mains - PC	872.81
1-0460-09	The Meadowlands Phase 3 - Services - PC	0.00
1-0460-18	Grandview Commons Phase 11 - Mains - PC	13,165.87
1-0460-73	Village @ Autumn Lake - Phase I - Mains - PC	2,895.71
1-0460-74	Village @ Autumn Lake - Phase I - Svcs - PC	0.00
1-0460-75	Village @ Autumn Lake - Phase II - Mains - PC	2,434.05
1-0460-76	Village @ Autumn Lake - Phase II - Svcs - PC	0.00
1-0730-39	Lower 20" Main for UW (near Warf Bldg)	16,379.39
1-0750-82	Wellhead Protection Wells 7, 11, 16, 17	106,935.03
1-0850-82	Booster Station 118 - Arbor Hills Project	1,259,353.39
1-0860-13	Fifth Addition to Cherokee Park - Mains - PC	2,102.78
1-0860-14	Fifth Addition to Cherokee Park - Services - PC	0.00
1-0950-81	UW 25 Wellhead Protection Plan	24,887.54
1-0960-09	Brown Business Park - Mains - PC	859.96
1-0960-10	Brown Business Park - Services - PC	0.00
1-0960-17	Northport Commons Addendum - Mains - PC	1,499.54
1-0960-18	Northport Commons Addendum - Services - PC	0.00
1-1030-39	Eastside Water Supply Study <i>30 ft water stud to issue report</i>	595,553.88
1-1030-40	South Pt Rd Relocate Hydts & Install new Laterals	52,454.60
* 1-1040-61	AMI Project Phase 1 RFP	298,279.20
1-1050-81	UW 17 FSN Enhancements	16,400.40
1-1050-84	Replace 120 Water Tower <i>warrant paid</i>	1,351,341.58
1-1060-11	6901 McKee Road - Mains - PC	52.74
1-1060-12	6901 McKee Road - Services - PC	0.00
1-1130-33	Koster St - Reconnect Svcs & Abandon Main	26,597.45
1-1130-35	Distribution System Monitoring <i>ds or general?</i>	29,233.96
1-1130-40	Warner Park Meter Pit	9,085.99
1-1130-52	UW 15 VOC Air Stripper	2,629,718.09
1-1150-75	Installation of Fiber Optic Equipment	15,063.81
1-1150-79	Pressure Zone 4 (Tradewinds Test Well #31)	588,835.08
1-1160-12	University Research Park Pioneer Phase 1 - Mains - PC	0.00
1-1160-13	University Research Park Pioneer Phase 1 - Services - PC	0.00
1-1170-11	Koster - Mains MWU - USE 1-1130-33	0.00
1-1170-12	Koster - Services MWU - USE 1-1130-33	0.00
1-1180-25	7173 Manufacturers Dr 10" Svc (Cut-In)	0.00
1-1220-22	Manitou Way - Replace backyard services - MWU	19,895.87
* 1-1230-36	Project H2O Implementation (AMI Ph 2)	8,037,237.32
1-1230-39	MWU 130th Anniversary <i>on 8/26/2015</i>	4,278.56
1-1230-43	5555 High Crossing Blvd - Relocate Hydrant	1,257.01
1-1230-44	Industrial Drive/Nob Hill Connection	871.72
1-1250-73	UW 3 Replacement - East Isthmus Well	21,045.26
1-1250-74	Repaint Cross Hill Drive Elevated Tank 315 <i>warrant</i>	19,195.50
1-1250-75	Pressure Zone 4 (Dairy Drive Test Well)	140,664.89
1-1250-79	UW 7 Iron and Manganese Filter	725,888.87
1-1250-82	Booster Station 106 Reconstruction	1,169,941.66

# Exhibit 6 - support for Attachment 11

Madison Water Utility

*MB/B*

1-1250-83	UW 20 Pump Upgrade	469,578.65
1-1250-84	UW 26 Generator Addition	73,060.74
1-1250-85	UW 24 Pump removal, repair & bore hole rehab	60,340.90
1-1260-13	Cardinal Glen Phase 6 - Mains - PC	5,424.48
1-1260-15	Linden Park Phase 10 - Mains - PC	5,640.56
1-1260-16	Linden Park Phase 10 - Services - PC	1,185.04
1-1260-17	Oak Park Place-Shorewood Hills - Mains - PC	0.00
1-1260-18	Oak Park Place-Shorewood Hills - Services - PC	0.00
1-1260-25	First Addn to Hawks Creek Phase 1A - Mains - PC	4,110.97
1-1260-29	Elderberry Rd & Samuel Dr - Mains - CC	148,910.19
1-1260-30	Elderberry Rd & Samuel Dr - Services - CC	0.00
1-1270-21	Park Way - Mains - MWU	566.40
1-1270-22	Park Way - Services - MWU	0.00
1-1270-23	1766 Fordem - Mains - MWU	1,421.19
1-1270-28	Ice Age Trail - Lower Main - Mains - MWU	652.19
1-1270-29	Ice Age Trail - Lower Main - Services - MWU	0.00
1-1270-30	Verona Road WI-DOT Ph 1 - Mains - CC	155,199.53
1-1270-31	Verona Road WI-DOT Ph 1 - Services - CC	0.00
1-1270-38	East Johnson: Butler to Baldwin - Mains - CC	38,186.96
1-1270-39	East Johnson: Butler to Baldwin - Services - CC	7,538.20
1-1270-40	Livingston St: E Johnson to E Wash - Mains - CC	169,382.94
1-1270-41	Livingston St: E Johnson to E Wash - Svcs - CC	2,098.91
1-1270-42	E Washington & Livingston Intersection - Mains - CC	65,684.27
1-1270-44	E Dayton & N Brearly - Mains - CC	438,498.74
1-1270-45	E Dayton & N Brearly - Services - CC	7,902.84
1-1270-46	N. Fairchild & W Mifflin - Mains - CC	77,653.68
1-1270-47	N. Fairchild & W Mifflin - Services - CC	605.11
1-1270-48	Webster St: E Washington to Doty - Mains - CC	244,945.33
1-1270-49	Webster St: E Washington to Doty - Services - CC	1,007.70
1-1270-50	N Henry St & Iota Ct - Mains - CC	244,798.17
1-1270-51	N Henry St & Iota Ct - Services - CC	4,248.88
1-1270-52	Monona Dr: Pflaum to Winnequah-Relocate hydrants & curb stops-MWU	158,248.74
1-1280-16	5555 High Crossing Blvd 8" Svc - CI (Car Wash) Nelson Rd	0.00
1-1330-34	Which Well Serves My Home Update <i>(Block &amp; vault work updated)</i>	25,257.72
1-1330-36	Langdon St Lower Water Main	2,991.05
1-1330-38	Sphere 315 Lightning Strike 4/9/13	3,633.77
1-1330-40	UW Engineering Grad Student Project-Motor Efficiency Study <i>(as requested)</i>	2,557.89
1-1330-42	Larkin Tower Antenna Storm Damage	918.50
1-1330-44	1300 Block of W Dayton (Cut-In Valve)	316.82
1-1330-45	Dane County SREF Bldg - Lower Water Main	0.00
1-1330-47	5927 Schroeder Rd Well Abandonment	5,471.59
1-1330-48	3102 Progress Rd MMSD NE Interceptor	1,835.51
1-1330-50	Johnson @ Livingston Water Main Abandonment	11,225.83
1-1340-52	Purchase Ford E-350 <del>W-16A</del> W-64A	40,126.77
1-1340-53	Purchase Ford E-450 <del>W-8A</del> <del>W-22A</del> W-8A	51,863.27
1-1340-57	Purchase Ford F450 W-59A	0.00
1-1340-58	Purchase John Deere Backhoe W-84A	113,127.07
1-1340-59	Purchase Ford F-350 W-52B (2013 budget)	0.00
1-1340-60	Purchase Ford F-350 W-19B (2014 budget)	0.00

Exhibit 6 - support for Attachment 11

Madison Water Utility

12/31/13

1-1350-72	UW 31 - Drill Well	725,495.97
1-1350-76	UW 17 Rebuild Booster Pump #2	28,455.12
1-1350-77	Op Center Rebuild	36,864.37
1-1350-79	UW 26 Reservoir Repairs	132,288.88
1-1350-80	UW 10 - Abandon Well	83,215.99
1-1350-81	UW 13 Deep Well Pump	50,810.55
1-1350-82	UW 20 Cell Compound Fence Construction	36,571.22
1-1350-83	UW 24 Reservoir Roof Repair	15,157.18
1-1350-85	UW 6 Reservoir Roof	23,296.00
1-1350-86	Lake View Reservoir 113 Reconstruction	33,359.56
1-1350-87	UW 6 Booster Pump VFD Addition	49,035.55
1-1350-88	UW 29 Deep Well Removal, Treatment & Reinstallation	55,187.18
1-1350-90	UW 28 Deep Well Removal, Treatment & Reinstallation	9,502.74
1-1350-91	Booster Station 115 Upgrade	1,089.86
1-1350-92	UW 24 Booster Frequency Drives	62,746.55
1-1350-93	UW 20 Generator Emissions Upgrade	1,671.89
1-1350-94	UW 30 Generator Emissions Upgrade	1,671.89
1-1350-95	UW 24 Reservoir Electric Service Addition	0.00
1-1360-01	1815 University Ave - Services - MWU	271.29
1-1360-02	6002 Cottage Grove Road - Copps Market - Mains - PC	4,607.95
1-1360-03	6002 Cottage Grove Road - Copps Market - Svcs - PC	0.00
1-1360-04	Town Center Addition to Grandview Commons - Utilities - Mains - PC	3,714.22
1-1360-05	Town Center Addition to Grandview Commons - Utilities - Svcs - PC	431.34
1-1360-06	Cardinal Glenn - Phase 7 - Mains - PC	6,234.21
1-1360-07	Cardinal Glenn - Phase 7 - Svcs - PC	596.40
1-1360-08	5302 Tancho Dr - Mains - PC	5,669.32
1-1360-09	5302 Tancho Dr - Services - PC	372.81
1-1360-10	Woodstone Replat #2 - Mains - PC	11,247.97
1-1360-11	Woodstone Replat #2 - Services - PC	2,256.81
1-1360-12	Blackhawk Eighth Addition Phase 7 - Mains - PC	5,660.83
1-1360-13	Blackhawk Eighth Addition Phase 7 - Services - PC	339.01
1-1360-14	Grandview Commons Phase 18 - Mains - PC	1,034.63
1-1360-15	Grandview Commons Phase 18 - Services - PC	0.00
1-1360-16	Linden Park Phase 11 - Mains - PC	69.59
1-1360-17	Linden Park Phase 11 - Services - PC	0.00
1-1360-18	Meadowlands Phase 6 - Mains - PC	5,323.20
1-1360-19	Meadowlands Phase 6 - Services - PC	223.69
1-1360-20	Secret Places Phase 9 - Mains - PC	6,820.15
1-1360-21	Secret Places Phase 9 - Services - PC	208.36
1-1360-22	Grandview Commons Phase 19 - Mains - PC	5,831.73
1-1360-23	Grandview Commons Phase 19 - Services - PC	818.01
1-1360-24	Secret Places Phase 10 - Mains - PC	3,895.80
1-1360-25	Secret Places Phase 10 - Services - PC	108.99
1-1360-26	Jeffy Tr Water Main Extension-Mains-CC	39,494.03
1-1360-27	Jeffy Tr Water Main Extension-Services-CC	0.00
1-1360-28	Trevor Way Water Main Extension-Mains-CC	67,945.51
1-1360-29	Trevor Way Water Main Extension-Services-CC	608.88
1-1360-30	Cardinal Glenn Phase 8 - Mains - PC	3,406.41
1-1360-31	Cardinal Glenn Phase 8 - Services - PC	866.25

Exhibit 6 - support for Attachment 11

Madison Water Utility

12/31/13

1-1360-32	Hawks Woods Estates - Mains - PC	1,777.36
1-1360-33	Hawks Woods Estates - Services - PC	0.00
1-1360-34	Novation Campus II Ph 2 (Town of Madison) - Mains - CC	0.00
1-1360-35	Hayes-Independence-Declaration - Mains - CC	12,715.13
1-1360-36	Hayes-Independence-Declaration - Services - CC	62.29
1-1360-37	Cannonball Ph 4-Ridgewood Way - Mains - CC	2,682.09
1-1360-38	Cannonball Ph 4-Ridgewood Way - Services - CC	0.00
1-1360-39	Cannonball Ph 5-UW Arboretum - Mains - CC	1,155.43
1-1360-40	Cannonball Ph 5-UW Arboretum - Services - CC	0.00
1-1360-41	Woodstone Phase 3 - Mains - PC	1,061.47
1-1360-42	Woodstone Phase 3 - Services - PC	0.00
1-1360-43	McAllen 120 Business Park - Mains - PC	9,975.12
1-1360-44	McAllen 120 Business Park - Services - PC	234.31
1-1360-45	3901 Hanson Rd - Mains - PC	28.68
1-1360-46	3901 Hanson Rd - Services - PC	0.00
1-1360-47	1802 Maplecrest Ph 3 - Mains - PC	3,632.60
1-1360-48	1802 Maplecrest Ph 3 - Svcs - PC	595.09
1-1360-49	Lancaster Dr - Mains - CC	1,005.30
1-1360-50	Lancaster Dr - Svcs - CC	0.00
1-1360-51	Hwy 151/Lancaster Dr Watermain Crossing - CC	893.30
1-1370-01	Mound St - Randall to Brooks - Mains - CC	228,427.74
1-1370-02	Mound St - Randall to Brooks - Svcs - CC	2,933.92
1-1370-03	N Stoughton Rd Service Rd - N Stoughton to Orin - Mains - CC	178,944.11
1-1370-04	N Stoughton Rd Service Rd - N Stoughton to Orin - Svcs - CC	703.98
1-1370-05	N Whitney Way - Old Middleton to University - Mains - CC	177,516.52
1-1370-06	N Whitney Way - Old Middleton to University - Svcs - CC	469.27
1-1370-07	Pinecrest Dr - E Washington to Burke - Mains - CC	847.27
1-1370-08	Pinecrest Dr - E Washington to Burke - Svcs - CC	77.84
1-1370-09	Storm w/Resurfacing - Kinsman Blvd - Mains - CC	170,954.11
1-1370-10	Storm w/Resurfacing - Kinsman Blvd - Services - CC	65.84
1-1370-11	Highland Ave - University to north end - Mains - CC	94,789.11
1-1370-12	Highland Ave - University to north end - Services - CC	574.16
1-1370-13	Wheeler, Delaware, Northland - Mains - CC	344,666.55
1-1370-14	Wheeler, Delaware, Northland - Services - CC	2,627.84
1-1370-15	Baltzell St, Cross St - Mains - CC	145,399.40
1-1370-16	Baltzell St, Cross St - Services - CC	1,761.38
1-1370-17	Storm w/Resurfacing - Agate Ln - Mains - CC	164,544.17
1-1370-18	Storm w/Resurfacing - Agate Ln - Services - CC	1,408.74
1-1370-19	Storm w/Resurfacing - Whitcomb & Loruth - Mains - CC	308,052.57
1-1370-20	Storm w/Resurfacing - Whitcomb & Loruth - Services - CC	735.29
1-1370-21	N Brooks St, Clymer Pl & Bernard Ct: Dayton to Univ/Park to Mills - Mains - CC	48,838.79
1-1370-22	N Brooks St, Clymer Pl & Bernard Ct: Dayton to Univ/Park to Mills - Svcs - CC	1,137.04
1-1370-23	Dow Ct: Wilson to end - Mains - CC	42,057.91
1-1370-24	Dow Ct: Wilson to end - Services - CC	0.00
1-1370-25	Langdon St: Wisconsin to Carroll - Mains - CC	169,806.89
1-1370-26	Langdon St: Wisconsin to Carroll - Services - CC	415.98
1-1370-27	Cherokee Dr: Midvale to Nakoma - Mains - CC	265,559.40
1-1370-28	Cherokee Dr: Midvale to Nakoma - Services - CC	31,160.75
1-1370-29	Merrill Crest Dr: Langlois to Old Middleton - Mains - CC	163,491.31



Exhibit 6 - support for Attachment 11

Madison Water Utility

12/31/13

1-1370-30	Merrill Crest Dr: Langlois to Old Middleton - Services - CC	995.09
1-1370-31	Keyes Ave: Commonwealth to Edgewood - Mains - CC	127,525.64
1-1370-32	Keyes Ave: Commonwealth to Edgewood - Services - CC	3,623.54
1-1370-33	Johns St: Walter to Dennett - Mains - CC	212,651.03
1-1370-34	Johns St: Walter to Dennett - Services - CC	2,064.35
1-1370-35	Gammon Rd: Gammon Ln - Mains - MWU (no services)	30,069.87
1-1370-36	University Relief Storm Sewer - Mains - CC	48,521.07
1-1370-37	University Relief Storm Sewer - Services - CC	0.00
1-1370-38	World Dairy Drive Replat - Mains - CC	3,386.49
1-1370-39	World Dairy Drive Replat - Services - CC	0.00
1-1370-40	State St 700-800 Blocks - Mains - CC	3,769.29
1-1370-41	State St 700-800 Blocks - Services - CC	0.00
1-1370-42	2013 CIPP Water Main Rehabilitation - Mains - CC	657,712.59
1-1370-43	2013 CIPP Water Main Rehabilitation - Svcs - CC	0.00
1-1370-44	Larkin St-Hillcrest Dr-Glenway St - Mains - CC	186.91
1-1370-45	Larkin St-Hillcrest Dr-Glenway St - Services - CC	0.00
1-1370-46	Edgewater - Mains - CC	1,879.05
1-1370-47	Edgewater - Services - CC	0.00
1-1370-48	Charter & Spring St - Mains - CC	716.24
1-1370-49	Charter & Spring St - Svcs - CC	0.00
1-1370-50	King & E. Main - Mains - CC	1,841.67
1-1370-51	King & E. Main - Svcs - CC	0.00
1-1370-52	W Badger Rd: Fish Hatch to west end - Mains -CC	10,301.39
1-1370-53	W Badger Rd: Fish Hatch to west end - Svcs - CC	1,347.82
1-1370-54	Gilbert Rd: Whitney to Hammersley - Mains - CC	124.57
1-1370-55	Gilbert Rd: Whitney to Hammersley - Svcs - CC	0.00
1-1370-56	Oakridge Ave - Mains - CC	237.87
1-1370-57	Oakridge Ave - Services - CC	0.00
1-1370-58	Highland Ave: Phase 2 - Mains - CC	0.00
1-1370-59	Highland Ave: Phase 2 - Services - CC	0.00
1-1380-33	304 W Washington Ave 6" Svc	0.00
1-1380-48	3302 Packers Ave 6" Fire Svc Cut-In	0.00
1-1410-07	Change Meters 5/8", 3/4", 1"	0.00
1-1410-10	Purchase Meters AMI	(1,866.70)
1-1440-52	Purchase 2014 JD 410K Backhoe W-24B	15.42
1-1450-63	Purchase and Install Chlorinators/Fluoridators	10,287.36
1-1450-66	Unit Well Improvements - move via journal entry to 2013 w/o number	0.00
1-1470-01	Commonwealth-Fox-Gregory-Mns-CC	261.03
1-1470-23	Utilities w/Resurfacing - Larkin St -Mains - CC	600.00
		<u>25,055,012.14</u>

Retainages booked J1201T, 4/18/14

322,702.12

Final Balance Work Orders in 10700

25,377,714.26

General Ledger Balance 10700 12/31/13

25,377,714.26

1-1040-61 Amt. Credit Close I RFB  
Difference  
1-1230-36 Amt. Credit Close II

5-1201X 4/25/14  
7 7

(298,719.20)  
10.00  
(837,237.32)  
13,042,197.74

Exhibit 7 - support for Attachment 11

Madison Water Utility

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WORK IN PROGRESS

WORK ORDERS IN 10600

Job No.	Description	Amount
1-0460-19	Grandview Commons Phase 11 - Services - PC	214.01
1-0560-73	Kennedy Point Condominiums PUD - Mains - PC	3,506.79
1-0560-74	Kennedy Point Condominiums PUD - Services -PC	47.45
1-0760-04	First Addn to Hawks Creek Phase 1 - Services - PC - Close w/1-1260-26	2,474.47
1-0760-17	Airport Ramp Expansion - PC	17,051.57
1-0760-25	8th Addition to Blackhawk Phase 3 - Mains - PC	6,353.16
1-0760-26	8th Addition to Blackhawk Phase 3 - Services - PC	104.18
1-0860-03	Tradesman Commerce Park - Mains - PC	5,429.79
1-0860-04	Tradesman Commerce Park - Services - PC	486.24
1-0860-15	Woodstone Phase 1 - Mains - PC	14,588.53
1-0860-16	Woodstone Phase 1 - Services - PC	399.27
1-0870-09	Merry - Mains - CC	93,591.66
1-0870-10	Merry - Services - CC	1,457.85
1-0870-49	East Campus Utilities Main Replacement - Mains - CC	21,266.10
1-0870-50	East Campus Utilities Main Replacement - Svcs - CC	0.00
1-0960-01	Union South Redevelopment - Mains - PC	11,306.97
1-0960-02	Union South Redevelopment - Services - PC	0.00
1-0960-05	Novation Campus II - Mains - (Town of Madison)	123,863.32
1-0960-06	Novation Campus II - Services - (Town of Madison)	32.66
1-0960-20	Regas Road - New Main - CC	119,282.19
1-0960-23	Cardinal Glenn Phs 2B - Services - PC	1,732.03
1-0970-17	University Ave Main Replacement- University @ Breese - Mns	532,373.63
1-0970-18	University Ave Main Replacement- University @ Breese - Svcs	75.23
1-0970-27	Hargrove St: Margaret to Dennett-Mains	990.42
1-0970-28	Hargrove St: Margaret to Dennett-Services	0.00
1-0970-33	University Bay Dr-Replace 16" Main - CC	7,341.56
1-0970-40	University Ave: Shorewood to Segoe-Mns-CC	1,195,769.72
1-0970-41	University Ave: Shorewood to Segoe-Svs-CC	577.65
1-1060-04	Linden Park Phase 9 - Svs - PC	1,246.13
1-1060-07	1802 Maplecrest Dr PUD Phase 2 - Mns - PC	6,103.49
1-1060-08	1802 Maplecrest Dr PUD Phase 2 - Svcs - PC	104.79
1-1060-14	Grandview Commons - Phase 16 - Svcs PC	1,059.22
1-1060-15	Anderson St Water Main - CC	751,395.19
1-1070-13	STH 113: <b>Packers</b> Replace Water Main - Mns - CC	1,109,154.17
1-1070-14	STH 113: <b>Packers</b> Replace Water Main - Svcs - CC	3,044.29
1-1070-19	Camden Rd: Pflaum to Hob - Mns - CC	237,986.36
1-1070-20	Camden Rd: Pflaum to Hob - Svcs - CC	2,726.34
1-1070-23	Buckeye Rd: Spaanem to Shaffer - Mns&Svc-MWU	74,949.09
1-1070-41	300 Block N Park - Mains	23,526.62
1-1070-42	1100 Block Milton Street - Mains (WU)	35,487.96
1-1070-43	400 Block N Park Relocate Main	13,929.50
1-1070-44	Droster Rd - Buckeye to north - Mains	241,688.98
1-1070-45	Droster Rd - Buckeye to north - Services	0.00
1-1070-54	University - Breese Terr to Allen Street Mains	649,370.38

# Exhibit 7 - support for Attachment 11

Madison Water Utility

  
 WORK IN PROGRESS  
 WORK ORDERS IN 10600

Job No.	Description	Amount
1-1070-55	University - Breese Terr to Allen Street Svcs	3,755.05
1-1130-32	1741 Commercial Ave 6" Fire Service	363.02
1-1160-01	Secret Places - Phase 7 - Mains PC	7,083.85
1-1160-02	Secret Places - Phase 7 - Svcs PC	266.56
1-1160-03	Cherokee Condominiums Mains & Service - PC	1,815.78
1-1160-04	Manufacturers Dr Assessment Dist - Mains - CC	224,516.27
1-1160-05	Manufacturers Dr Assessment Dist - Svcs - CC	404.19
1-1160-06	Genesis Plat - Tradewinds Pkwy - Mains - CC	547,140.91
1-1160-07	Genesis Plat - Tradewinds Pkwy - Services - CC	1,652.45
1-1160-08	Grim St Relocation - Mains - PC	30,950.91
1-1160-09	Grim St Relocation - Services - PC	1,094.51
1-1160-14	University Crossing - Mains - PC	18,302.94
1-1160-15	University Crossing - Services - PC	902.00
1-1170-13	Fish Hatch-Beltline Interchange Mains CC	408,727.85
1-1170-14	Fish Hatch-Beltline Interchange Svcs CC	569.28
1-1170-15	Fish Hatch-Emil to RR Tracks Mains CC	443,880.40
1-1170-16	Fish Hatch-Emil to RR Tracks Svcs CC	0.00
1-1170-31	Norris Ct - Replace Services - MWU	52,869.70
1-1170-32	N Pinckney - Gorham to Gilman - Replace Mains MWU	46,522.51
1-1170-33	N Pinckney - Gorham to Gilman - Replace Svcs MWU	10,503.00
1-1170-34	STH 113 Northport Replace Mains CC	935,246.35
1-1170-35	STH 113 Northport Replace Services CC	6,378.79
1-1170-36	University-Segoe to Allen Blvd-Replace Mains CC	832,851.20
1-1170-37	University-Segoe to Allen Blvd-Replace Svcs CC	4,285.98
1-1170-40	W Lakelawn Pl - Langdon to End - Mains - CC	92,874.61
1-1170-41	W Lakelawn Pl - Langdon to End - Services - CC	654.44
1-1170-42	630 N Frances relocate hydrant - CC	20,619.42
1-1170-43	Monona Dr:Winnequah to Cottage Grove Rd-Relocate Hydrants & Curbstops-MWU	202,852.95
1-1170-44	Outer Loop - Fairchild & Carroll - Mains - CC	681,997.26
1-1170-45	Outer Loop - Fairchild & Carroll - Services - CC	1,510.87
1-1170-46	Camden - Hob to Allis - Mains - CC	209,519.20
1-1170-47	Camden - Hob to Allis - Services - CC	6,668.02
1-1170-48	Lawrence / O'Sheridan / Bresland - Mains - CC	259,474.10
1-1170-49	Lawrence / O'Sheridan / Bresland - Services - CC	4,161.73
1-1170-50	N Orchard / Spring - Mains - CC	275,942.78
1-1170-51	N Orchard / Spring - Services - CC	1,779.37
1-1230-35	Truax ANG Building Water Main Relocate	3,551.27
1-1230-46	Kraft Foods Main & Service Replacement	593.64
1-1230-47	Lower Water Main @ Madison College	396.09
1-1260-01	Blackhawk 8th Addition - Phase 6 - Mains - PC	2,047.66
1-1260-02	Blackhawk 8th Addition - Phase 6 - Svcs - PC	502.19
1-1260-05	Country Club Road - MWU	69,274.73
1-1260-06	Mineral Point / Junction Road - Mains - CC	555,086.65
1-1260-07	Mineral Point / Junction Road - Svcs - CC	0.00

Exhibit 7 - support for Attachment 11

Madison Water Utility

2/3/2003

WORK IN PROGRESS

WORK ORDERS IN 10600

Job No.	Description	Amount
1-1260-09	Grandview Commons Phase 17 - Mains - PC	7,339.41
1-1260-10	Grandview Commons Phase 17 - Services - PC	1,214.62
1-1260-12	Cardinal Glen Phase 5 - Services - PC	907.13
1-1260-14	Cardinal Glen Phase 6 - Services - PC	540.32
1-1260-19	Pankratz Street CSM - Mains - PC	11,793.60
1-1260-20	Pankratz Street CSM - Services - PC	57.23
1-1260-23	Secret Places Ph 8 - Mains - PC	6,663.24
1-1260-24	Secret Places Ph 8 - Services - PC	939.13
1-1260-26	First Addn to Hawks Creek Phase 1A - Services - PC	293.78
1-1260-27	Rodefild Landfill Water Main - Mains - PC	11,706.29
1-1260-28	Rodefild Landfill Water Main - Services - PC	449.19
1-1270-01	Rosa Road - Mains - CC	841,167.27
1-1270-02	Rosa Road - Services - CC	4,524.79
1-1270-03	Jenifer St: Rogers to Thornton - Mains - CC	195,309.98
1-1270-04	Jenifer St: Rogers to Thornton - Services - CC	1,438.72
1-1270-05	E Dayton St: Few to Baldwin - Mains - CC	11,124.94
1-1270-06	E Dayton St: Few to Baldwin - Services - CC	2,168.16
1-1270-09	Ingersoll / Rutledge - Mains - CC	233,913.52
1-1270-10	Ingersoll / Rutledge - Services - CC	2,775.82
1-1270-13	Frances / Gorham / Henry - Mains - CC	68,649.86
1-1270-14	Frances / Gorham / Henry - Services - CC	1,373.66
1-1270-15	Midland St: Fish Hatchery to Wingra - Mains - CC	89,524.98
1-1270-16	Midland St: Fish Hatchery to Wingra - Services - CC	2,368.31
1-1270-17	Madison St: Grant to Van Buren - Mains - CC	160,497.14
1-1270-18	Madison St: Grant to Van Buren - Services - CC	2,167.22
1-1270-19	1600 Block W Beltline Frontage Rd - Mains - MWU	42,968.59
1-1270-20	1600 Block W Beltline Frontage Rd - Svcs - MWU	2,110.53
1-1270-24	Segoe Road @ Odana Road - Mains - CC	92,733.36
1-1270-25	Segoe Road @ Odana Road - Services - CC	20.71
1-1270-26	Conklin Place - Mains - CC	131,979.34
1-1270-27	Conklin Place - Services - CC	1,193.51
1-1270-34	CIPP Water Main Rehab 2012 - Mains - CC	398,053.41
1-1270-35	CIPP Water Main Rehab 2012 - Services - CC	(445.44)
1-1270-36	Rutledge Street - West Dead End - Mains - MWU	40,552.84
1-1270-37	Rutledge Street - West Dead End - Services - MWU	13,397.42
1-1270-43	Arboretum Pond 3 - Lower Main - Mains - CC	3,723.05
		<u>13,666,875.07</u>

## Exhibit 8 - support for Attachment 14

**2015 INCREASE AT 6.50% ROR**

**Debt Financing for All Capital Improvements**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Overall Rate Increase	0.0%	0.0%	0.0%	30.42%	0.0%	12.0%	0.0%	10.0%	0.0%	10.0%	0.0%	8.0%	0.0%	8.0%	0.0%	8.0%	0.0%
Unmetered Sales	\$110,945	\$72,497	\$70,000	\$80,646	\$91,291	\$102,246	\$102,246	\$112,471	\$112,471	\$123,718	\$123,718	\$133,616	\$133,616	\$144,305	\$144,305	\$155,849	\$155,849
Revenues from Residential	\$12,545,053	\$11,124,051	\$11,272,537	\$13,076,518	\$14,802,700	\$16,579,024	\$16,579,024	\$18,236,926	\$18,236,926	\$20,060,619	\$20,060,619	\$21,665,468	\$21,665,468	\$23,398,706	\$23,398,706	\$25,270,602	\$25,270,602
Revenues from Multi-Family		\$4,728,127	\$4,699,698	\$5,424,084	\$6,140,097	\$6,876,909	\$6,876,909	\$7,564,600	\$7,564,600	\$8,321,059	\$8,321,059	\$8,986,744	\$8,986,744	\$9,705,684	\$9,705,684	\$10,482,138	\$10,482,138
Revenues from Commercial	\$9,342,942	\$4,228,870	\$4,190,427	\$4,775,616	\$5,406,027	\$6,054,751	\$6,054,751	\$6,660,226	\$6,660,226	\$7,326,248	\$7,326,248	\$7,912,348	\$7,912,348	\$8,545,336	\$8,545,336	\$9,228,963	\$9,228,963
Revenues from Industrial	\$1,136,010	\$1,153,442	\$1,078,225	\$1,238,064	\$1,401,497	\$1,569,676	\$1,569,676	\$1,726,644	\$1,726,644	\$1,899,308	\$1,899,308	\$2,051,253	\$2,051,253	\$2,215,353	\$2,215,353	\$2,392,582	\$2,392,582
Revenues from Public Authority	\$2,814,579	\$2,834,934	\$2,676,592	\$3,168,264	\$3,586,495	\$4,016,874	\$4,016,874	\$4,418,562	\$4,418,562	\$4,860,412	\$4,860,412	\$5,249,251	\$5,249,251	\$5,669,191	\$5,669,191	\$6,122,726	\$6,122,726
Revenues from Wholesale	\$330,242	\$344,064	\$340,848	\$385,910	\$436,852	\$489,275	\$489,275	\$538,202	\$538,202	\$592,022	\$592,022	\$639,384	\$639,384	\$690,535	\$690,535	\$745,778	\$745,778
Revenues from Public Fire	\$2,873,140	\$2,925,698	\$3,047,526	\$3,515,147	\$3,979,169	\$4,456,669	\$4,456,669	\$4,902,336	\$4,902,336	\$5,392,570	\$5,392,570	\$5,823,975	\$5,823,975	\$6,289,893	\$6,289,893	\$6,793,085	\$6,793,085
Revenues from Private Fire	\$367,791	\$377,184	\$377,180	\$434,542	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905
Other Operating Revenues	\$797,441	\$1,205,912	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000
<b>Total Operating Revenues</b>	<b>\$30,318,143</b>	<b>\$28,994,779</b>	<b>\$28,963,033</b>	<b>\$33,308,792</b>	<b>\$37,546,033</b>	<b>\$41,847,328</b>	<b>\$41,847,328</b>	<b>\$45,861,871</b>	<b>\$45,861,871</b>	<b>\$50,277,867</b>	<b>\$50,277,867</b>	<b>\$54,163,944</b>	<b>\$54,163,944</b>	<b>\$58,360,908</b>	<b>\$58,360,908</b>	<b>\$62,893,628</b>	<b>\$62,893,628</b>
Non-Operating Revenues	\$380,532	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196
O&M - Source of Supply	\$70,902	\$63,875	\$72,249	\$148,296	\$151,262	\$154,287	\$157,373	\$160,520	\$163,731	\$167,005	\$170,345	\$173,752	\$177,227	\$180,772	\$184,387	\$188,075	\$191,837
O&M - Pumping	\$3,594,642	\$3,604,286	\$3,665,404	\$4,008,722	\$4,088,896	\$4,170,674	\$4,254,088	\$4,339,170	\$4,425,953	\$4,514,472	\$4,604,762	\$4,696,857	\$4,790,794	\$4,886,610	\$4,984,342	\$5,084,029	\$5,185,709
O&M - Water Treatment	\$748,477	\$775,044	\$745,343	\$789,252	\$805,037	\$821,138	\$837,561	\$854,312	\$871,398	\$888,826	\$906,602	\$924,735	\$943,229	\$962,094	\$981,336	\$1,000,962	\$1,020,982
O&M - Transmission & Distributio	\$5,148,520	\$5,601,638	\$5,611,434	\$5,764,660	\$5,879,953	\$5,997,552	\$6,117,503	\$6,239,853	\$6,364,650	\$6,491,943	\$6,621,782	\$6,754,218	\$6,889,302	\$7,027,088	\$7,167,630	\$7,310,983	\$7,457,202
O&M - Customer Accounts	\$618,491	\$718,659	\$664,615	\$677,908	\$691,466	\$705,295	\$719,401	\$733,789	\$748,465	\$763,435	\$778,703	\$794,277	\$810,163	\$826,366	\$842,893	\$859,751	\$876,946
O&M - Admin. & General	\$3,354,667	\$3,469,956	\$3,496,688	\$3,718,785	\$3,793,161	\$3,869,024	\$3,946,404	\$4,025,332	\$4,105,839	\$4,187,956	\$4,271,715	\$4,357,149	\$4,444,292	\$4,533,178	\$4,623,842	\$4,716,319	\$4,810,645
<b>Total O&amp;M Expenses</b>	<b>\$13,535,699</b>	<b>\$14,233,458</b>	<b>\$14,255,733</b>	<b>\$15,107,623</b>	<b>\$15,409,775</b>	<b>\$15,717,971</b>	<b>\$16,032,330</b>	<b>\$16,352,977</b>	<b>\$16,680,037</b>	<b>\$17,013,637</b>	<b>\$17,353,910</b>	<b>\$17,700,988</b>	<b>\$18,055,008</b>	<b>\$18,416,108</b>	<b>\$18,784,430</b>	<b>\$19,160,119</b>	<b>\$19,543,321</b>
PILOT	\$4,931,166	\$5,390,047	\$5,736,002	\$6,251,690	\$6,685,396	\$7,138,544	\$7,621,549	\$8,144,492	\$8,701,231	\$9,293,818	\$9,927,509	\$10,605,706	\$11,329,441	\$12,102,230	\$12,928,056	\$13,810,406	\$14,752,757
Other Tax Expenses	\$386,507	\$231,875	\$117,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000
<b>Debt</b>																	
Revenue Bonds																	
Interest Expense	\$2,008,764	\$2,782,739	\$3,399,942	\$3,775,142	\$3,647,856	\$3,500,880	\$3,335,193	\$3,156,237	\$2,962,035	\$2,753,500	\$2,539,566	\$2,332,545	\$2,122,477	\$1,908,296	\$1,696,419	\$1,508,930	\$1,173,944
Principal Retirement	\$2,465,000	\$3,365,000	\$4,325,000	\$4,535,000	\$4,635,000	\$4,775,000	\$4,915,000	\$5,075,000	\$5,245,000	\$5,285,000	\$5,145,000	\$5,320,000	\$5,505,000	\$5,710,000	\$6,440,000	\$6,685,000	\$7,175,000
Refunding Bonds																	
Interest Expense	\$1,632,944	\$1,584,456	\$1,540,131	\$1,470,306	\$1,412,806	\$1,348,806	\$1,251,406	\$1,174,238	\$1,079,569	\$975,819	\$860,319	\$723,694	\$577,319	\$446,819	\$329,419	\$228,319	\$190,209
Principal Retirement	\$1,510,000	\$1,570,000	\$1,610,000	\$1,585,000	\$2,010,000	\$2,070,000	\$2,055,000	\$2,040,000	\$2,110,000	\$2,510,000	\$2,955,000	\$2,900,000	\$2,900,000	\$2,970,000	\$2,085,000	\$2,175,000	\$2,280,000
Advance from Municipality																	
Interest Expense	\$92,181	\$85,746	\$77,763	\$71,169	\$64,162	\$56,620	\$48,687	\$40,056	\$30,871	\$26,790	\$22,110	\$16,763	\$10,611	\$3,891	\$3,923	\$3,955	\$3,988
Principal Retirement	\$822,717	\$827,357	\$833,158	\$839,249	\$846,499	\$854,040	\$862,451	\$872,022	\$117,464	\$129,065	\$141,536	\$154,588	\$168,799	\$0	\$0	\$0	\$0
New Debt Service	\$0	\$0	\$0	\$0	\$3,311,179	\$4,749,678	\$6,185,627	\$7,641,784	\$9,092,510	\$10,537,842	\$11,984,884	\$13,434,698	\$14,882,926	\$16,330,530	\$17,778,702	\$19,227,157	\$20,675,272
<b>Total Debt Service</b>	<b>\$8,531,605</b>	<b>\$10,215,298</b>	<b>\$11,785,994</b>	<b>\$12,275,866</b>	<b>\$15,927,502</b>	<b>\$17,355,025</b>	<b>\$18,653,364</b>	<b>\$19,999,337</b>	<b>\$20,637,448</b>	<b>\$22,218,016</b>	<b>\$23,648,415</b>	<b>\$24,882,287</b>	<b>\$26,167,133</b>	<b>\$27,369,536</b>	<b>\$28,333,463</b>	<b>\$29,828,361</b>	<b>\$31,498,413</b>
Capital Projects																	
Capital Expenditures	\$19,688,300	\$18,416,469	\$20,084,920	\$20,009,000	\$19,549,672	\$19,515,015	\$19,789,652	\$19,715,835	\$19,642,544	\$19,665,761	\$19,703,448	\$19,681,897	\$19,673,412	\$19,681,130	\$19,684,972	\$19,680,353	\$19,679,967
New Borrowing	\$21,095,000	\$24,335,000		\$45,000,000	\$19,549,672	\$19,515,015	\$19,789,652	\$19,715,835	\$19,642,544	\$19,665,761	\$19,703,448	\$19,681,897	\$19,673,412	\$19,681,130	\$19,684,972	\$19,680,353	\$19,679,967
<b>Net Cash Flow from Capital Financing</b>	<b>\$1,406,700</b>	<b>\$5,918,531</b>	<b>(\$20,084,920)</b>	<b>\$24,991,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Total Cash In	\$51,793,675	\$53,569,975	\$29,203,229	\$78,548,988	\$57,335,901	\$61,602,540	\$61,877,176	\$65,817,902	\$65,744,610	\$70,183,825	\$70,221,511	\$74,086,037	\$74,077,553	\$78,282,233	\$78,286,075	\$82,814,177	\$82,813,791
Total Cash Out	\$47,073,277	\$48,487,147	\$51,979,649	\$53,956,179	\$57,884,346	\$60,038,555	\$62,408,895	\$64,524,641	\$65,973,259	\$68,503,232	\$70,945,282	\$73,182,878	\$75,536,994	\$77,881,004	\$80,042,921	\$82,791,239	\$85,786,458
<b>Net Cash Flow</b>	<b>\$4,720,398</b>	<b>\$5,082,828</b>	<b>(\$22,776,420)</b>	<b>\$24,592,809</b>	<b>(\$548,444)</b>	<b>\$1,563,985</b>	<b>(\$531,718)</b>	<b>\$1,293,261</b>	<b>(\$228,649)</b>	<b>\$1,680,593</b>	<b>(\$723,771)</b>	<b>\$903,159</b>	<b>(\$1,459,441)</b>	<b>\$401,230</b>	<b>(\$1,758,846)</b>	<b>\$22,938</b>	<b>(\$2,972,667)</b>
Reserves																	
Restricted Reserves																	
Operating Reserve	\$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	\$150,000	\$150,000	\$150,000
Debt Service Fund	\$5,925,680	\$7,243,803	\$9,302,195	\$10,875,073	\$11,365,449	\$15,016,841	\$16,444,364	\$17,742,226	\$19,087,259	\$20,489,114	\$22,062,161	\$23,484,769	\$24,710,936	\$25,987,722	\$27,365,645	\$28,329,540	\$29,824,406
Special Redemption Reserve	\$9,853,127	\$11,703,873	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538
Depreciation Fund	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
Subtotal Restricted Reserves	\$16,678,807	\$19,847,676	\$21,969,733	\$23,542,611	\$24,032,987	\$27,684,379	\$29,111,902	\$30,409,764	\$31,754,797	\$33,156,652	\$34,729,699	\$36,152,307	\$37,378,474	\$38,655,260	\$40,033,183	\$40,997,078	\$42,491,944
Construction Fund	\$14,011,600	\$19,606,390															
Unrestricted Reserves	\$2,669,923	\$2,875,130															
Subtotal Available Reserves	\$16,681,523	\$22,481,520	<b>(\$294,900)</b>														

Exhibit 8 - support for Attachment 14

	2020	2031	2032	2033	2034	2035	2036	2037	2038	
	8.0%	0.0%	3.0%	0.0%	6.0%	0.0%	3.0%	0.0%	6.0%	0.0%
\$168,317	\$168,317	\$173,367	\$173,367	\$183,769	\$183,769	\$189,282	\$189,282	\$200,639	\$200,639	
\$27,292,250	\$27,292,250	\$28,111,018	\$28,111,018	\$29,797,679	\$29,797,679	\$30,691,609	\$30,691,609	\$32,533,106	\$32,533,106	
\$11,320,710	\$11,320,710	\$11,660,331	\$11,660,331	\$12,359,951	\$12,359,951	\$12,730,749	\$12,730,749	\$13,494,594	\$13,494,594	
\$9,967,280	\$9,967,280	\$10,266,298	\$10,266,298	\$10,882,276	\$10,882,276	\$11,208,745	\$11,208,745	\$11,881,269	\$11,881,269	
\$2,583,988	\$2,583,988	\$2,661,508	\$2,661,508	\$2,821,198	\$2,821,198	\$2,905,834	\$2,905,834	\$3,080,184	\$3,080,184	
\$6,612,545	\$6,612,545	\$6,810,921	\$6,810,921	\$7,219,576	\$7,219,576	\$7,436,163	\$7,436,163	\$7,882,333	\$7,882,333	
\$805,440	\$805,440	\$829,603	\$829,603	\$879,379	\$879,379	\$905,761	\$905,761	\$960,106	\$960,106	
\$7,336,532	\$7,336,532	\$7,556,628	\$7,556,628	\$8,010,025	\$8,010,025	\$8,250,326	\$8,250,326	\$8,745,345	\$8,745,345	
\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	\$491,905	
\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	
\$67,788,966	\$67,788,966	\$69,771,578	\$69,771,578	\$73,855,758	\$73,855,758	\$76,020,374	\$76,020,374	\$80,479,482	\$80,479,482	
\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	
\$195,673	\$199,587	\$203,579	\$207,650	\$211,803	\$216,039	\$220,360	\$224,767	\$229,263	\$233,848	
\$5,289,424	\$5,395,212	\$5,503,116	\$5,613,179	\$5,725,442	\$5,839,951	\$5,956,750	\$6,075,885	\$6,197,403	\$6,321,351	
\$1,041,401	\$1,062,229	\$1,083,474	\$1,105,143	\$1,127,246	\$1,149,791	\$1,172,787	\$1,196,243	\$1,220,168	\$1,244,571	
\$7,606,346	\$7,758,473	\$7,913,643	\$8,071,916	\$8,233,354	\$8,398,021	\$8,565,982	\$8,737,301	\$8,912,047	\$9,090,288	
\$894,485	\$912,375	\$930,622	\$949,235	\$968,220	\$987,584	\$1,007,336	\$1,027,482	\$1,048,032	\$1,068,993	
\$4,906,858	\$5,004,995	\$5,105,095	\$5,207,197	\$5,311,341	\$5,417,568	\$5,525,919	\$5,636,437	\$5,749,166	\$5,864,149	
\$19,934,188	\$20,332,871	\$20,739,529	\$21,154,319	\$21,577,406	\$22,008,954	\$22,449,133	\$22,898,116	\$23,356,078	\$23,823,200	
\$15,759,388	\$16,834,795	\$17,983,594	\$19,210,736	\$20,521,624	\$21,921,981	\$23,417,892	\$25,015,871	\$26,722,896	\$28,546,409	
\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	
\$1,023,393	\$601,483	\$427,581	\$244,525	\$133,800	\$0	\$0	\$0	\$0	\$0	
\$8,135,000	\$4,905,000	\$4,200,000	\$2,980,000	\$1,690,000	\$0	\$0	\$0	\$0	\$0	
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
\$4,021	\$4,054	\$4,087	\$4,121	\$4,155	\$4,189	\$4,223	\$4,258	\$4,293	\$4,328	
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
\$22,123,358	\$23,571,565	\$25,019,781	\$26,467,937	\$27,916,103	\$29,364,289	\$30,812,470	\$28,949,464	\$28,959,141	\$28,971,371	
\$31,285,771	\$29,082,102	\$29,651,449	\$29,696,582	\$29,744,058	\$29,368,478	\$30,816,694	\$28,953,722	\$28,963,434	\$28,975,700	
\$19,681,605	\$19,681,724	\$19,680,912	\$19,681,052	\$19,681,323	\$19,681,253	\$19,681,135	\$19,681,191	\$19,681,226	\$19,681,201	
\$19,681,605	\$19,681,724	\$19,680,912	\$19,681,052	\$19,681,323	\$19,681,253	\$19,681,135	\$19,681,191	\$19,681,226	\$19,681,201	
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
\$87,710,767	\$87,710,886	\$89,692,686	\$89,692,826	\$93,777,277	\$93,777,207	\$95,941,705	\$95,941,760	#####	#####	
\$86,972,952	\$86,243,493	\$88,367,485	\$90,054,690	\$91,836,410	\$93,292,666	\$96,676,854	\$96,860,899	\$99,035,634	#####	
\$737,814	\$1,467,393	\$1,325,201	(\$361,865)	\$1,940,867	\$484,540	(\$735,149)	(\$919,139)	\$1,365,269	(\$937,630)	
\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	
\$31,494,425	\$31,281,751	\$29,078,048	\$29,647,362	\$29,692,462	\$29,739,903	\$29,364,289	\$30,812,470	\$28,949,464	\$28,959,141	
\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	
\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	
\$44,161,963	\$43,949,289	\$41,745,586	\$42,314,900	\$42,360,000	\$42,407,441	\$42,031,827	\$43,480,008	\$41,617,002	\$41,626,679	
\$22,679,352	\$24,146,745	\$25,471,946	\$25,110,082	\$27,050,949	\$27,535,489	\$26,800,340	\$25,881,201	\$27,246,470	\$26,308,840	
\$66,841,315	\$68,096,034	\$67,217,532	\$67,424,982	\$69,410,948	\$69,942,930	\$68,832,167	\$69,361,210	\$68,863,472	\$67,935,520	
\$67,788,966	\$67,788,966	\$69,771,578	\$69,771,578	\$73,855,758	\$73,855,758	\$76,020,374	\$76,020,374	\$80,479,482	\$80,479,482	
\$19,934,188	\$20,332,871	\$20,739,529	\$21,154,319	\$21,577,406	\$22,008,954	\$22,449,133	\$22,898,116	\$23,356,078	\$23,823,200	
\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	
\$31,281,751	\$29,078,048	\$29,647,362	\$29,692,462	\$29,739,903	\$29,364,289	\$30,812,470	\$28,949,464	\$28,959,141	\$28,971,371	
152%	162%	164%	163%	175%	176%	173%	182%	196%	194%	

# Exhibit 8 - support for Attachment 14

**2015 INCREASE AT 6.50% ROR**

**Gradual Increase of Cash Financing Starting in 2017**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Overall Rate Increase	0.0%	0.0%	0.0%	30.42%	0.0%	18.0%	0.0%	15.0%	0.0%	12.0%	0.0%	6.0%	0.0%	6.0%	0.0%	6.0%	0.0%	3.0%
Unmetered Sales	\$110,945	\$72,497	\$70,000	\$80,646	\$91,292	\$107,725	\$107,725	\$123,884	\$123,884	\$138,750	\$138,750	\$147,075	\$147,075	\$155,899	\$155,899	\$165,253	\$165,253	\$170,211
Revenues from Residential	\$12,545,053	\$11,272,537	\$11,272,537	\$13,076,518	\$14,802,701	\$17,467,187	\$17,467,187	\$20,087,265	\$20,087,265	\$22,497,737	\$22,497,737	\$23,847,601	\$23,847,601	\$25,278,457	\$25,278,457	\$26,795,164	\$26,795,164	\$27,599,019
Revenues from Multi-Family		\$4,728,127	\$4,699,698	\$5,424,084	\$6,140,098	\$7,245,316	\$7,245,316	\$8,332,113	\$8,332,113	\$9,331,967	\$9,331,967	\$9,891,885	\$9,891,885	\$10,485,398	\$10,485,398	\$11,114,521	\$11,114,521	\$11,447,957
Revenues from Commercial	\$9,342,942	\$4,228,870	\$4,190,427	\$4,775,616	\$5,406,028	\$6,379,114	\$6,379,114	\$7,335,981	\$7,335,981	\$8,216,298	\$8,216,298	\$8,709,276	\$8,709,276	\$9,231,833	\$9,231,833	\$9,785,743	\$9,785,743	\$10,079,315
Revenues from Industrial	\$1,136,010	\$1,153,442	\$1,078,225	\$1,238,064	\$1,401,498	\$1,653,767	\$1,653,767	\$1,901,832	\$1,901,832	\$2,130,052	\$2,130,052	\$2,257,855	\$2,257,855	\$2,393,327	\$2,393,327	\$2,536,926	\$2,536,926	\$2,613,034
Revenues from Public Authority	\$2,814,579	\$2,834,934	\$2,676,592	\$3,168,264	\$3,586,496	\$4,232,065	\$4,232,065	\$4,866,875	\$4,866,875	\$5,450,900	\$5,450,900	\$5,777,954	\$5,777,954	\$6,124,631	\$6,124,631	\$6,492,109	\$6,492,109	\$6,686,872
Revenues from Wholesale	\$330,242	\$344,064	\$340,848	\$385,910	\$436,853	\$515,487	\$515,487	\$592,810	\$592,810	\$665,947	\$665,947	\$703,784	\$703,784	\$746,011	\$746,011	\$790,772	\$790,772	\$814,495
Revenues from Public Fire	\$2,873,140	\$2,925,698	\$3,047,526	\$3,515,147	\$3,979,170	\$4,695,421	\$4,695,421	\$5,399,734	\$5,399,734	\$6,047,702	\$6,047,702	\$6,410,564	\$6,410,564	\$6,795,198	\$6,795,198	\$7,202,909	\$7,202,909	\$7,418,997
Revenues from Private Fire	\$367,791	\$377,184	\$377,180	\$434,542	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906
Other Operating Revenues	\$797,441	\$1,205,912	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000
<b>Total Operating Revenues</b>	<b>\$30,318,143</b>	<b>\$28,994,779</b>	<b>\$28,963,033</b>	<b>\$33,308,792</b>	<b>\$37,546,042</b>	<b>\$43,997,987</b>	<b>\$43,997,987</b>	<b>\$50,342,399</b>	<b>\$50,342,399</b>	<b>\$56,179,258</b>	<b>\$56,179,258</b>	<b>\$59,447,899</b>	<b>\$59,447,899</b>	<b>\$62,912,659</b>	<b>\$62,912,659</b>	<b>\$66,585,304</b>	<b>\$66,585,304</b>	<b>\$68,531,806</b>
Non-Operating Revenues	\$380,532	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196
O&M - Source of Supply	\$70,902	\$63,875	\$72,249	\$148,296	\$151,262	\$154,287	\$157,373	\$160,520	\$163,731	\$167,005	\$170,345	\$173,752	\$177,227	\$180,772	\$184,387	\$188,075	\$191,837	\$195,673
O&M - Pumping	\$3,594,642	\$3,604,286	\$3,665,404	\$4,008,722	\$4,088,896	\$4,170,674	\$4,254,088	\$4,339,170	\$4,425,953	\$4,514,472	\$4,604,762	\$4,696,857	\$4,790,794	\$4,886,610	\$4,984,342	\$5,084,029	\$5,185,709	\$5,289,424
O&M - Water Treatment	\$748,477	\$775,044	\$745,343	\$789,252	\$805,037	\$821,138	\$837,561	\$854,312	\$871,398	\$888,826	\$906,602	\$924,735	\$943,229	\$962,094	\$981,336	\$1,000,962	\$1,020,982	\$1,041,401
O&M - Transmission & Distribution	\$5,148,520	\$5,601,638	\$5,611,434	\$5,764,646	\$5,879,953	\$5,997,552	\$6,117,530	\$6,239,853	\$6,364,650	\$6,491,943	\$6,621,782	\$6,754,218	\$6,889,302	\$7,027,088	\$7,167,630	\$7,310,983	\$7,457,202	\$7,606,346
O&M - Customer Accounts	\$618,491	\$718,659	\$664,615	\$677,908	\$691,466	\$705,295	\$719,401	\$733,789	\$748,465	\$763,435	\$778,703	\$794,277	\$810,163	\$826,366	\$842,893	\$859,751	\$876,946	\$894,485
O&M - Admin. & General	\$3,354,667	\$3,469,956	\$3,496,688	\$3,718,785	\$3,793,161	\$3,869,024	\$3,946,404	\$4,025,332	\$4,105,839	\$4,187,956	\$4,271,715	\$4,357,149	\$4,444,292	\$4,533,178	\$4,623,842	\$4,716,319	\$4,810,645	\$4,906,858
<b>Total O&amp;M Expenses</b>	<b>\$13,535,669</b>	<b>\$14,233,458</b>	<b>\$14,255,733</b>	<b>\$15,107,623</b>	<b>\$15,409,775</b>	<b>\$15,717,971</b>	<b>\$16,032,330</b>	<b>\$16,352,977</b>	<b>\$16,680,037</b>	<b>\$17,013,637</b>	<b>\$17,353,910</b>	<b>\$17,700,988</b>	<b>\$18,055,008</b>	<b>\$18,416,108</b>	<b>\$18,784,430</b>	<b>\$19,160,119</b>	<b>\$19,543,321</b>	<b>\$19,934,188</b>
PILOT	\$4,931,166	\$5,390,047	\$5,736,002	\$6,251,690	\$6,685,396	\$7,138,544	\$7,621,549	\$8,144,492	\$8,701,231	\$9,293,818	\$9,927,509	\$10,605,706	\$11,329,441	\$12,102,230	\$12,928,056	\$13,810,406	\$14,752,757	\$15,759,388
Other Tax Expenses	\$386,507	\$231,875	\$117,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000
<b>Debt</b>																		
Revenue Bonds																		
Interest Expense	\$2,008,764	\$2,782,739	\$3,399,942	\$3,775,142	\$3,647,856	\$3,500,880	\$3,335,193	\$3,156,237	\$2,962,035	\$2,753,500	\$2,539,566	\$2,332,545	\$2,122,477	\$1,908,296	\$1,696,419	\$1,508,930	\$1,173,944	\$1,023,393
Principal Retirement	\$2,465,000	\$3,365,000	\$4,325,000	\$4,535,000	\$4,635,000	\$4,775,000	\$4,915,000	\$5,075,000	\$5,245,000	\$5,425,000	\$5,615,000	\$5,820,000	\$6,040,000	\$6,275,000	\$6,525,000	\$6,790,000	\$7,070,000	\$7,365,000
Refunding Bonds																		
Interest Expense	\$1,632,944	\$1,584,456	\$1,540,131	\$1,470,306	\$1,412,806	\$1,348,806	\$1,251,406	\$1,174,238	\$1,079,569	\$975,819	\$860,319	\$723,694	\$577,319	\$446,819	\$329,419	\$228,319	\$190,209	\$0
Principal Retirement	\$1,510,000	\$1,570,000	\$1,610,000	\$1,585,000	\$2,010,000	\$2,070,000	\$2,055,000	\$2,040,000	\$2,110,000	\$2,190,000	\$2,285,000	\$2,390,000	\$2,505,000	\$2,630,000	\$2,765,000	\$2,910,000	\$3,065,000	\$0
Advance from Municipality																		
Interest Expense	\$92,181	\$85,746	\$77,763	\$71,169	\$64,162	\$56,620	\$48,687	\$40,056	\$30,871	\$26,790	\$22,110	\$16,763	\$10,611	\$3,891	\$3,923	\$3,955	\$3,988	\$4,021
Principal Retirement	\$822,717	\$827,357	\$833,158	\$839,249	\$846,499	\$854,040	\$862,451	\$872,022	\$881,764	\$892,665	\$903,717	\$914,928	\$927,299	\$939,830	\$952,531	\$965,402	\$978,433	\$991,624
New Debt Service	\$0	\$0	\$0	\$0	\$3,311,179	\$4,782,814	\$6,107,285	\$7,358,175	\$8,535,483	\$9,639,209	\$10,571,178	\$11,505,920	\$12,439,076	\$13,371,608	\$14,304,708	\$15,238,090	\$16,171,133	\$17,104,147
<b>Total Debt Service</b>	<b>\$8,531,605</b>	<b>\$10,215,298</b>	<b>\$11,785,994</b>	<b>\$12,275,866</b>	<b>\$15,927,502</b>	<b>\$17,388,161</b>	<b>\$18,575,022</b>	<b>\$19,715,728</b>	<b>\$20,080,421</b>	<b>\$21,319,383</b>	<b>\$22,234,710</b>	<b>\$22,953,510</b>	<b>\$23,723,283</b>	<b>\$24,410,614</b>	<b>\$24,859,469</b>	<b>\$25,839,294</b>	<b>\$26,994,274</b>	<b>\$28,266,560</b>
Cash Flow Before New Capital	\$3,313,698	(\$835,703)	(\$2,691,500)	(\$398,191)	(\$548,435)	\$3,681,507	\$1,697,281	\$6,057,398	\$4,808,906	\$8,480,616	\$6,591,325	\$8,115,892	\$6,268,364	\$7,911,903	\$6,268,900	\$7,703,680	\$5,223,148	\$6,499,866
<b>Capital Projects</b>																		
Capital Expenditures	\$19,688,300	\$18,416,469	\$20,084,920	\$20,009,000	\$19,549,672	\$19,515,015	\$19,789,652	\$19,715,835	\$19,642,544	\$19,665,761	\$19,703,448	\$19,681,897	\$19,673,412	\$19,681,130	\$19,684,972	\$19,680,353	\$19,679,967	\$19,681,605
New Borrowing	\$21,095,000	\$24,335,000		\$45,000,000	\$20,000,000	\$18,000,000	\$17,000,000	\$16,000,000	\$15,000,000	\$12,665,761	\$12,703,448	\$12,681,897	\$12,673,412	\$12,681,130	\$12,684,972	\$12,680,353	\$12,679,967	\$12,681,605
<b>Net Cash Flow from Capital Financing</b>	<b>\$1,406,700</b>	<b>\$5,918,531</b>	<b>(\$20,084,920)</b>	<b>\$24,991,000</b>	<b>\$450,328</b>	<b>(\$1,515,015)</b>	<b>(\$2,789,652)</b>	<b>(\$3,715,835)</b>	<b>(\$4,642,544)</b>	<b>(\$7,000,000)</b>	<b>(\$7,000,000)</b>	<b>(\$7,000,000)</b>	<b>(\$7,000,000)</b>	<b>(\$7,000,000)</b>	<b>(\$7,000,000)</b>	<b>(\$7,000,000)</b>	<b>(\$7,000,000)</b>	<b>(\$7,000,000)</b>
Total Cash In	\$51,793,675	\$53,569,975	\$29,203,229	\$78,548,988	\$57,786,238	\$62,238,183	\$61,238,183	\$66,582,595	\$65,582,595	\$69,085,215	\$69,122,902	\$72,369,992	\$72,361,507	\$75,833,984	\$75,837,826	\$79,505,852	\$79,505,466	\$81,453,607
Total Cash Out	\$47,073,277	\$48,487,147	\$51,979,649	\$53,956,179	\$57,884,346	\$60,071,691	\$62,330,553	\$64,241,032	\$65,416,233	\$67,604,599	\$69,531,577	\$71,254,100	\$73,093,144	\$74,922,082	\$76,568,927	\$78,802,172	\$81,282,319	\$81,953,741
<b>Net Cash Flow</b>	<b>\$4,720,398</b>	<b>\$5,082,828</b>	<b>(\$22,776,420)</b>	<b>\$24,592,809</b>	<b>(\$98,108)</b>	<b>\$2,166,492</b>	<b>(\$1,092,370)</b>	<b>\$2,341,563</b>	<b>\$1,666,362</b>	<b>\$1,480,616</b>	<b>(\$408,675)</b>	<b>\$1,115,892</b>	<b>(\$731,636)</b>	<b>\$911,903</b>	<b>(\$731,100)</b>	<b>\$703,680</b>	<b>(\$1,776,852)</b>	<b>(\$500,134)</b>
<b>Reserves</b>																		
Restricted Reserves																		
Operating Reserve	\$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	\$150,000	\$150,000	\$150,000	\$150,000
Debt Service Fund	\$5,925,680	\$7,243,803	\$9,302,195	\$10,875,073	\$11,365,449	\$15,016,841	\$16,477,500	\$17,663,884	\$18,803,650	\$19,932,087	\$21,163,528	\$22,071,063	\$22,782,159	\$23,543,872	\$24,406,723	\$24,855,546	\$25,835,339	\$26,990,286
Special Redemption Reserve	\$9,853,127	\$11,703,873	\$11,767,538	\$11,767,538	\$11													

Exhibit 8 - support for Attachment 14

2030	2031	2032	2033	2034	2035	2036	2037	2038
0.0%	3.0%	0.0%	3.0%	0.0%	3.0%	0.0%	3.0%	0.0%
\$170,211	\$175,317	\$175,317	\$180,577	\$180,577	\$185,994	\$185,994	\$191,574	\$191,574
\$27,599,019	\$28,426,990	\$28,426,990	\$29,279,800	\$29,279,800	\$30,158,194	\$30,158,194	\$31,062,939	\$31,062,939
\$11,447,957	\$11,791,396	\$11,791,396	\$12,145,138	\$12,145,138	\$12,509,492	\$12,509,492	\$12,884,777	\$12,884,777
\$10,079,315	\$10,381,694	\$10,381,694	\$10,693,145	\$10,693,145	\$11,013,940	\$11,013,940	\$11,344,358	\$11,344,358
\$2,613,034	\$2,691,425	\$2,691,425	\$2,772,168	\$2,772,168	\$2,855,333	\$2,855,333	\$2,940,993	\$2,940,993
\$6,686,872	\$6,887,478	\$6,887,478	\$7,094,102	\$7,094,102	\$7,306,926	\$7,306,926	\$7,526,133	\$7,526,133
\$814,495	\$838,930	\$838,930	\$864,098	\$864,098	\$890,021	\$890,021	\$916,721	\$916,721
\$7,418,997	\$7,641,567	\$7,641,567	\$7,870,814	\$7,870,814	\$8,106,938	\$8,106,938	\$8,350,146	\$8,350,146
\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906	\$491,906
\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000	\$1,210,000
\$68,531,806	\$70,536,703	\$70,536,703	\$72,601,747	\$72,601,747	\$74,728,742	\$74,728,742	\$76,919,547	\$76,919,547
\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196	\$240,196
\$199,587	\$203,579	\$207,650	\$211,803	\$216,039	\$220,360	\$224,767	\$229,263	\$233,848
\$5,395,212	\$5,503,116	\$5,613,179	\$5,725,442	\$5,839,951	\$5,956,750	\$6,075,885	\$6,197,403	\$6,321,351
\$1,062,229	\$1,083,474	\$1,105,143	\$1,127,246	\$1,149,791	\$1,172,787	\$1,196,243	\$1,220,168	\$1,244,571
\$7,758,473	\$7,913,643	\$8,071,916	\$8,233,354	\$8,398,021	\$8,565,982	\$8,737,301	\$8,912,047	\$9,090,288
\$912,375	\$930,622	\$949,235	\$968,220	\$987,584	\$1,007,336	\$1,027,482	\$1,048,032	\$1,068,993
\$5,004,995	\$5,105,095	\$5,207,197	\$5,311,341	\$5,417,568	\$5,525,919	\$5,636,437	\$5,749,166	\$5,864,149
\$20,332,871	\$20,739,529	\$21,154,319	\$21,577,406	\$22,008,954	\$22,449,133	\$22,898,116	\$23,356,078	\$23,823,200
\$16,834,795	\$17,983,594	\$19,210,736	\$20,521,624	\$21,921,981	\$23,417,892	\$25,015,871	\$26,722,896	\$28,546,409
\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000
\$601,483	\$427,581	\$244,525	\$133,800	\$0	\$0	\$0	\$0	\$0
\$4,905,000	\$4,200,000	\$2,980,000	\$1,690,000	\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$4,054	\$4,087	\$4,121	\$4,155	\$4,189	\$4,223	\$4,258	\$4,293	\$4,328
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$18,037,282	\$18,970,425	\$19,903,509	\$20,836,603	\$21,769,717	\$22,702,826	\$20,324,747	\$19,786,216	\$19,394,851
\$23,547,818	\$23,602,093	\$23,132,155	\$22,664,557	\$21,773,906	\$22,707,049	\$20,329,005	\$19,790,509	\$19,399,180
\$7,744,517	\$8,139,682	\$6,967,689	\$7,766,356	\$6,825,102	\$6,082,864	\$6,413,947	\$6,978,260	\$5,078,955
\$19,681,724	\$19,680,912	\$19,681,052	\$19,681,323	\$19,681,253	\$19,681,135	\$19,681,191	\$19,681,226	\$19,681,201
\$12,681,724	\$12,680,912	\$12,681,052	\$12,681,323	\$12,681,253	\$12,681,135	\$12,681,191	\$12,681,226	\$12,681,201
(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)
\$81,453,726	\$83,457,811	\$83,457,951	\$85,523,266	\$85,523,196	\$87,650,073	\$87,650,129	\$89,840,969	\$89,840,944
\$80,709,209	\$82,318,129	\$83,490,262	\$84,756,910	\$85,698,094	\$88,567,209	\$88,236,182	\$89,862,709	\$91,761,989
\$744,517	\$1,139,682	(\$32,311)	\$766,356	(\$174,898)	(\$917,136)	(\$586,053)	(\$21,740)	(\$1,921,045)
\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
\$26,262,540	\$23,543,764	\$23,598,006	\$23,128,034	\$22,660,403	\$21,769,717	\$22,702,826	\$20,324,747	\$19,786,216
\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538	\$11,767,538
\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
\$38,930,078	\$36,211,302	\$36,265,544	\$35,795,572	\$35,327,941	\$34,437,255	\$35,370,364	\$32,992,285	\$32,453,754
\$28,590,057	\$29,729,739	\$29,697,427	\$30,463,783	\$30,288,884	\$29,371,749	\$28,785,695	\$28,763,955	\$26,842,910
\$67,520,134	\$65,941,041	\$65,962,971	\$66,259,355	\$65,616,825	\$63,809,003	\$64,156,059	\$61,756,240	\$59,296,664
\$68,531,806	\$70,536,703	\$70,536,703	\$72,601,747	\$72,601,747	\$74,728,742	\$74,728,742	\$76,919,547	\$76,919,547
\$20,332,871	\$20,739,529	\$21,154,319	\$21,577,406	\$22,008,954	\$22,449,133	\$22,898,116	\$23,356,078	\$23,823,200
\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000	\$312,000
\$23,543,764	\$23,598,006	\$23,128,034	\$22,660,403	\$21,769,717	\$22,702,826	\$20,324,747	\$19,786,216	\$19,394,851
203%	210%	212%	224%	231%	229%	253%	269%	272%