


**COUNTY OF MILWAUKEE**  
**Inter-Office Communication**

DATE: April 22, 2013

TO: Marina Dimitrijevic, Chairwoman  
Milwaukee County Board of Supervisors

FROM: Julie Esch, Director of Operations  
Department of Administrative Services 

**SUBJECT: Public Policy Forum Report on Milwaukee County's Water Utility  
(Informational)**

**History**

Currently the water system on the County Grounds services the County facilities of Wil-O-Way, Research Park, Hoyt Pool, Children's Adolescent Treatment Center, Fleet Management, Facilities West, Vel Phillip's Juvenile Justice Center, Highway Building, Mental Health Complex. The water system also provides water to various non-County customers including the WE Energies Power Plant, Froedtert Hospital, Children's Hospital & Ronald McDonald House, Medical College of Wisconsin, the Blood Center, Curative, Parks Administration, Lutheran College Sports Complex, the Day Care Building, and roughly 150 Wauwatosa residents.

The water system was built in 1907 and is comprised of approximately 50 miles of piping and other equipment including three elevated storage towers and two underground storage tanks. Peak water usage in the summer months can exceed two million gallons per day.

The Milwaukee County Grounds was at one time a City unto itself, self-sufficient with its own water and electric utility services. As the Grounds transitioned over a hundred years to the Milwaukee Regional Medical Complex and surrounding entities of today, the County's institutions have all but disappeared. In 1995, Milwaukee County sold the power plant it operated to what is now WE Energies. As a result, the County has slowly supplied less water and electricity to county entities and more to its private customers. Water consumption by Milwaukee County entities on the County Grounds accounts for only 6% of the water distributed by the water system.

**Background**

The State of Wisconsin's reconstruction of the Zoo Interchange has created a situation where Milwaukee County has to react to planning and construction decisions in a very

short period of time. The recent sale of the development portion of the northeast quadrant of the County Grounds to the UWM Real Estate Foundation has made a portion of the oldest part of the water system obsolete. The City of Wauwatosa as part of this development has constructed a new water main in Watertown Plank Road parallel to a major portion of the County's water main.

Given the County's decreased use of the water utility and the Zoo Interchange project that is requiring relocation of existing water utility infrastructure, the Public Policy Forum was contracted jointly by Milwaukee County and the City of Wauwatosa to examine the financial feasibility of transferring the operation of the water system in part or whole to Wauwatosa.

**Conclusion**

Attached is the final Public Policy Forum Report entitled, "Preliminary Report on the Milwaukee County Water Utility: *Transfer of water services for seven customers.*" Based on the findings of the report, Milwaukee County and the City of Wauwatosa have begun discussions on the report's conclusions.

Rob Henken, President of the Public Policy Forum, has offered to present the report at the May cycle of the Transportation, Public Works and Transit Committee, for informational purposes.

**PRELIMINARY REPORT ON THE  
MILWAUKEE COUNTY WATER UTILITY:**  
*Transfer of water services for seven customers*

April 2013

**Research by:**

**David Amenta, Researcher**  
**Rob Henken, President**



**Public Policy Forum**

Impartial research. Informed debate.

# TABLE OF CONTENTS

BACKGROUND.....	3
PHASE I TRANSFER .....	6
Effect on user water charges.....	7
Sewer, stormwater and fire service charges.....	7
Phase I transfer agreement .....	8
PHASE II TRANSFER.....	9
Effect on user water charges and comparison of cost structure.....	11
Impact on City and County water system charges .....	13
Operating Cost Impacts.....	14
Infrastructure Issues.....	14
West Water Tower .....	14
SUMMARY OF COSTS AND BENEFITS .....	16
CONCLUSION .....	18
APPENDIX.....	19



## BACKGROUND

Milwaukee County owns and operates a water utility on the Milwaukee County Grounds, an area of County-owned property located entirely within the borders of the City of Wauwatosa. The water utility also maintains the sanitary sewer and stormwater infrastructure on the County Grounds. The water utility was originally developed when the County Grounds was occupied solely by County institutions such as the County Hospital, a poor farm, an orphanage, and a tuberculosis asylum. An electric utility also was developed to serve County functions at the County Grounds, but that utility was sold to We Energies in 1995.

Over the past 100 years, several of the County functions at the site have been privatized, phased out, or moved to other locations. They have been replaced by major regional hospitals such as Froedtert and Children's, related medical facilities such as the Medical College of Wisconsin, and the 175-acre Milwaukee County Research Park, which serves as an incubator for high technology businesses. Significant parcels of the County Grounds also have been sold over time to private sector occupants such as GE Healthcare and, more recently, the University of Wisconsin-Milwaukee Real Estate Foundation for the development of Innovation Park Campus. A substantial portion of the northeast quadrant of the Grounds also remains undeveloped and serves as parkland and natural area, as well as meeting floodwater retention needs.

Today, the major County functions remaining on the County Grounds are its Mental Health Complex (which itself has been reduced by more than 600 beds since the 1990s); the Children's Court/Juvenile Detention Center complex; the administration building for the Department of Parks, Recreation and Culture; a Department of Public Works fleet facility; a Sheriff's substation and a Facilities Maintenance shop. Together, the County-owned facilities only consume about 7% of the water supplied by the County water utility.

The City of Wauwatosa has had a long-standing interest in the County Grounds. With the development of major medical facilities at the site, the County Grounds is a source of jobs and a major driver of economic development in the City. The County Grounds also is important to the City as open space which supplies both environmental and recreational benefits. A City fire station is located on the County Grounds and a portion of the operating cost of that station is charged to the County annually.

Given the mutual interest of the City and the County in the County Grounds – and the low water usage by County entities – on more than one occasion representatives from both entities have studied the transfer of the County water utility to the City. The reconstruction of the Zoo Interchange has given new urgency to this issue. In order to continue to serve all of the customers of the County water utility, the County would need to spend nearly \$1.6 million to fund water main crossings of the new highway at three points. The total cost of these three crossings under this option – including costs assumed by the state – is estimated to exceed \$2 million. The County, or local, cost if these properties were instead served by the City Water Utility would be approximately \$238,000, with a total cost of \$362,000.



The potential for continued erosion of the County's presence on the County Grounds also adds logic to the consideration of transferring the County water utility. A recent report by CB Richard Ellis, commissioned by the County, recommended a consolidation of some of the remaining County functions, such as Children's Court, to the Courthouse in downtown Milwaukee. In addition, the County has been planning for several years to further downsize inpatient and long-term care capacity at its Mental Health Complex as it moves to a community-based model.

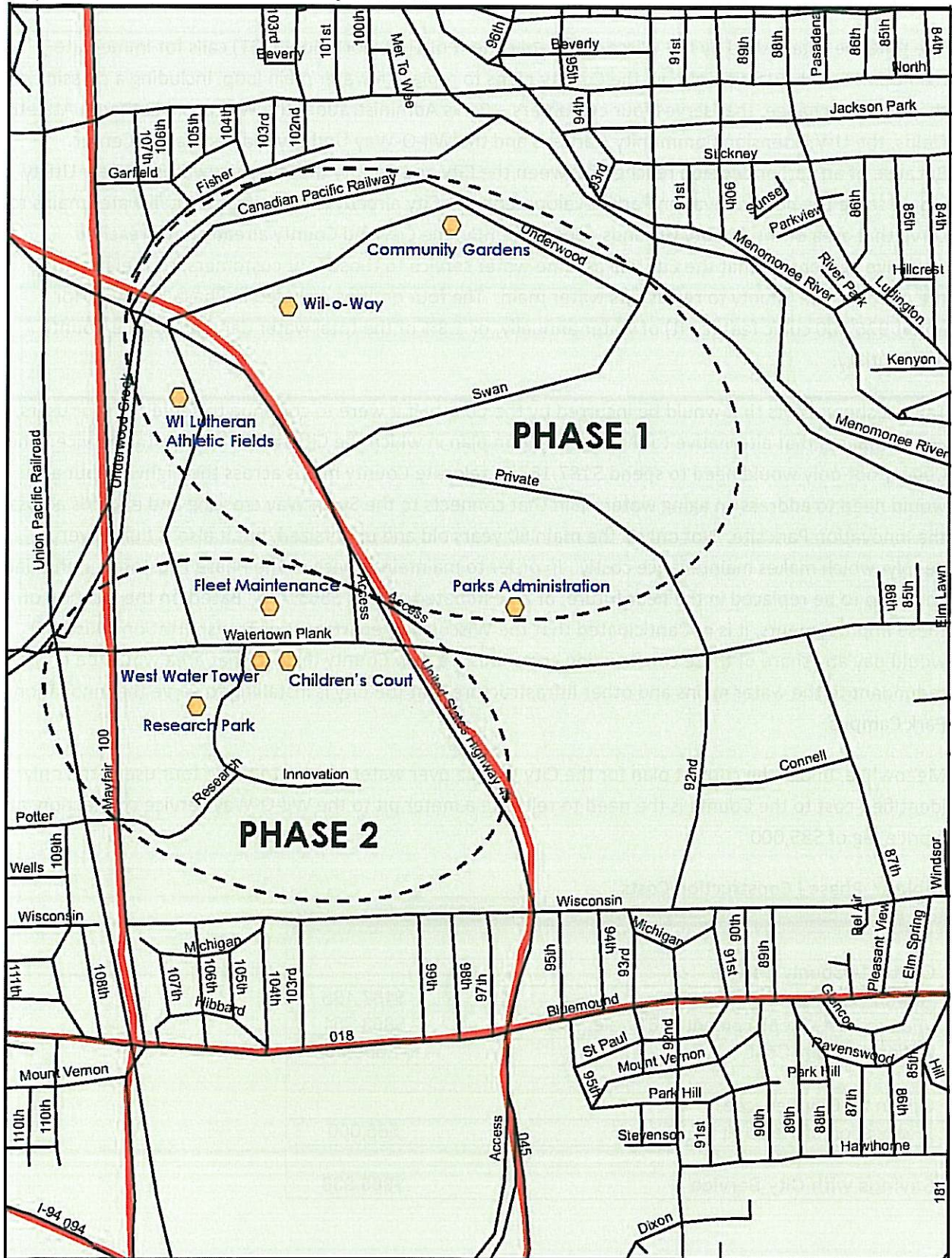
The Public Policy Forum has been commissioned by the Milwaukee County Department of Administrative Services (DAS) and the City of Wauwatosa to conduct a research project to explore the advantages and disadvantages of Milwaukee County's continued ownership of the County Grounds water utility, and to consider a possible shift in ownership to the City of Wauwatosa. Working with County and City officials, our intent is to explore the financial and technical considerations that would surround such a shift, and explore options for constructing a "deal" that would be deemed equitable by both parties.

This report is a preliminary analysis that considers the possible transfer of water service solely for two initial areas of the County Grounds (shown as Phases 1 and 2 on the map on the following page). A lengthier report will be produced within the next three months that will consider the possible transfer of the entire service area to the City of Wauwatosa.

The need for a preliminary analysis addressing only two portions of the total service area is dictated by the timing of the Zoo Interchange project. A decision regarding service to the seven customers in those two areas must be made in the near future in order to accommodate a construction schedule that is likely to begin in January 2014. As noted above, both the County and the State could realize significant savings in construction costs if the City were to take over water service. Because the initial two areas are (or will be) served both by City and County water mains, they present an attractive opportunity for the two governments to work jointly to eliminate redundant infrastructure and improve water service to the County Grounds, while reducing its cost.



Map of Phase I and Phase II – County Grounds



# PHASE I TRANSFER

The timeline established by the Wisconsin Department of Transportation (DOT) calls for immediate resolution to the question of how the County plans to replace a water main loop, including a crossing of the Zoo Interchange, that serves four customers – Parks Administration, the Wisconsin Lutheran Athletic Fields, the UW Extension Community Gardens and the Wil-O-Way Underwood Recreation Center. Because of an earlier decision reached between the City and County that the Wauwatosa Water Utility would serve the new Innovation Park development, the City already is planning to install water mains to serve that area of the County Grounds. Consequently, the City and County already have reached tentative agreement that the City will assume water service to those four customers, thus eliminating the need for the County to replace its water main. The four entities included in Phase I account for about 926,000 cubic feet (cu ft) of water annually, or 1.8% of the total water demand for the County water utility.

Table 1 shows costs that would be incurred by the County if it were to continue to serve the four users, and compares that alternative to the agreed-upon plan in which the City would assume the service. The County not only would need to spend \$187,188 to relocate County mains across the highway, but also would need to address an aging water main that connects to the Swan Way crossing and extends across the Innovation Park site. Not only is the main 60 years old and undersized, but it also is buried very deeply, which makes maintenance costly. In order to maintain service to the Phase I customers, this line will need to be replaced in the near future, at an estimated cost of \$863,751. Based on the location of these improvements, it is not anticipated that the Wisconsin Department of Transportation (WisDOT) would pay any share of these construction costs. Also, a new County main in that area would be entirely redundant to the water mains and other infrastructure that the City is installing to serve the Innovation Park Campus.

Meanwhile, under the current plan for the City to take over water service to these four users, the only identified cost to the County is the need to relocate a meter pit to the Wil-O-Way service connection, at a price tag of \$85,000.

**Table 1: Phase I Construction Costs**

	County Cost
<b>Option 1- County Service</b>	
Swan Way Highway Crossing	\$187,188
Future cost - Replacement of 6" water main	\$863,751
<b>Option 1 - Total Cost</b>	<b>\$1,050,938</b>
<b>Option 2 - City Services</b>	
Relocation of Meter pit	\$85,000
<b>Savings with City Service</b>	<b>\$965,938</b>





These construction costs, like all water utility expenses, are included in the rate that is charged to customers and are not a General Fund expense to the County. However, if the County were to fund over \$1 million in construction costs, it is estimated that water charges would increase by 2.6% (assuming an interest rate of 4.16% on the debt incurred to finance the construction). To the extent that County departments are served by the County water utility, this increase also would impact the General Fund.

## Effect on user water charges

**Table 2** compares water charges to these four users under the County and City rate structures. This table shows that three of the four users would experience a substantial reduction in charges with a City takeover of service, although City water rates are currently under review by the PSC and are expected to increase. A more detailed comparison of the cost structure of both utilities is included in the next section of this report.

**Table 2: Change in Water Rates to Phase I Customers**

	Est. City Charge	County Charge	Difference
Parks Admin **	721	394	327
Wil-O-Way **	5,959	9,165	(3,206)
WI Lutheran	14,807	17,414	(2,607)
UW Extension	3,123	4,953	(1,830)
<b>Total County Savings **</b>			<b>(2,879)</b>

Notes: The County water charge is based on the 2011 break-even analysis and does not include any adjustment for the additional \$85,000 in construction costs shown in Table 1. The estimate for the City water charge is based on 2012 rates and includes the public fire protection charge.

\*\* Only those customers that are Milwaukee County departments are included in the estimate of County savings.

Source: Milwaukee County Comptroller's Office and City of Wauwatosa Water Utility.

## Sewer, stormwater and fire service charges

The agreement reached by the City and County regarding the Phase I transfers did not address sewer or stormwater lines that are currently owned and maintained by the County. Later in this report, we note that from an operational perspective, a transfer of water service for all customers of the County water utility logically would dictate consideration of transferring sewer and stormwater services as well. For a Phase I transfer, which involves only four customers, that issue is not as compelling. The transfer of water service for the Phase I customers would create an issue from a billing perspective, however, as the County allocates sewer and stormwater charges based on water usage and uses the water bill as the mechanism for collecting those charges.

A similar issue arises with regard to fire protection charges. In the 2012 budget, the County established a new policy under which tenants on the County Grounds are charged for a share of the fire protection charge paid by the County to the City of Wauwatosa (the total fire protection charge issued by the City was \$1.35 million in 2012). The County allocates the fire protection charge based on water usage and



includes the charge in its billing for water, sewer, and stormwater services. Consequently, the County's transfer of water service for specific customers would require it to develop a new mechanism to charge those customers for fire protection services. This issue would be most relevant to Wisconsin Lutheran, which paid a fire service charge of about \$19,000 in 2012.<sup>1</sup> It also would be an important issue for the County to consider as part of a transfer of the entire utility, as the County could forsake its ability to easily and effectively charge tenants for more than \$1 million of fire protection services.

### **Phase I transfer agreement**

It is commendable that County and City staff recognized the logic of discussing a transfer of water service for the four Phase I customers from the County to the City in light of the City's planned service to the same area of the County Grounds and the costs that otherwise would be incurred by the County to rebuild its infrastructure. In light of the marginal impacts on City and County users and the relatively small one-time capital costs to be incurred by the County to assume the service, it does not appear that compensation should be required from either party. It may be appropriate for the two parties to consider developing a formal intergovernmental agreement to effectuate the transaction.

---

<sup>1</sup> The Milwaukee County Research Park also was allocated a fire service charge in 2012 (about \$1,700), but it did not pay the charge because it is not part of the Research Park's current lease agreement with the County.



## PHASE II TRANSFER

WisDOT also is demanding prompt consideration by the County regarding the replacement of water mains that serve three additional water users west of Highway 45 (Children’s Court, the County Transportation Department’s vehicle maintenance facility, and the Milwaukee County Research Park). Continuing service to those users would require the County to replace water mains to cross Highway 45 at two locations: Watertown Plank Road and south of Watertown Plank Road.

The potential Phase II transfer would need to include the West Water Tower, one of three water towers that serve the County utility. Inclusion of the West Tower would be necessary because if the City were to take over service for these three users, then there would be no lines connecting the West Water Tower to the remaining County system east of the highway.

The three County users in Phase II represent an even smaller proportion of the overall County water system than the services transferred to the City in Phase 1. **Table 3** summarizes water usage of these seven customers. In total, Phase I and Phase II customers represent 3.1% of water usage at the County Grounds.

**Table 3: Water Usage of Phase I and Phase II Customers**

	2011 Water usage (cu ft)
<b>Phase I Water Usage</b>	
Wil-O-Way	265,708
Parks Administration	11,430
Wisconsin Lutheran	504,840
UW Extension Gardens	143,582
Subtotal	925,560
<b>Phase II Water Usage</b>	
County Vehicle Maintenance	242,529
Children’s Court	336,700
Research Park	70,170
Subtotal	649,399
<b>Phase I and II Usage</b>	<b>1,574,959</b>
<b>Total Water Usage</b>	<b>50,772,569</b>

**Table 4** shows construction costs relating to Phase II services under two scenarios: an option in which the County continues to serve the three Phase II customers (Option 1); and an option in which these services are transferred to the City water utility (Option 2). The assumed cost breakdown between WisDOT and the County are shown in the table, as well as total costs.



**Table 4: Construction costs relating to Phase II services**

	<b>WisDOT cost</b>	<b>County Cost</b>	<b>Total Cost</b>
Option 1 - County Service	\$465,000	\$560,000	\$1,025,000
<b>Option 2 - City Service</b>			
Abandonment of County mains	\$24,794	\$30,644	\$55,438
New Connection/Cut-in Costs	\$98,951	\$122,299	\$221,250
Option 2 - Total Costs	\$123,745	\$152,943	\$276,688
<b>Savings with City Service</b>	<b>\$341,255</b>	<b>\$407,057</b>	<b>\$748,312</b>

Source: County Department of Administrative Services, Facilities Management Division

In order to maintain County service to these customers, the County and WisDOT would need to make an initial investment of more than \$1 million to replace water mains. Conversely, if these services were transferred to the City, the total investment would be reduced by almost \$750,000, though the County (or the County and City) still would incur approximately \$153,000 in costs. These Option 2 costs relate both to abandonment of some County water mains and new connection costs. New connection costs include installation of a prefabricated building to house the City's telemetry equipment for the West Water Tower (\$25,000), new fire hydrants, and new water mains. These connection costs fall to the County because it is presumed that ownership will remain with the County at the time of WisDOT's final determination. However, because many of these improvements also would benefit the City, the County may be justified in including them in overall negotiations regarding the Phase II transfer.

As currently planned, this transfer to the City also would include a section of water main in the southern loop of Research Park. This 16" County water main would supplement the City's 8" water main at that point.

As noted above, the County's construction costs would be incorporated into the rates charged to customers of the water utility and are not expenses of the County General Fund, except to the extent that increased water rates also will impact the remaining County users at the County Grounds.

Not included in the total County cost is \$157,813 for an interconnection between the two water systems on the east side of Highway 45, in front of the Parks Administration building. This interconnection will provide important backup options for both systems and was one of the recommendations of a 2008 review of the County water utility conducted by Graef Engineering, as well as a 2009 Department of Natural Resources (DNR) sanitary survey of the County utility. This interconnection is highly desirable for both the City and County, and the timing of the Zoo Interchange construction makes it an ideal time to install the connection. However, because the interconnection is not directly related to the water service of either the City or County west of Highway 45, it is not included in this analysis.

Finally, the Phase I analysis revealed that by transferring service to the City for the four Phase I customers, the County could avoid the future replacement of an old, deeply buried water main in the area of Innovation Park. Although future replacement cost avoidance is not so easily quantified in



analyzing Phase II, both the County and City may wish to consider this benefit in evaluating a potential Phase II transfer.

Table 5 summarizes the combined costs for Phase I and Phase II under both options.

**Table 5: Total Construction/Replacement Costs under Options 1 and 2**

	Phase I	Phase II	Total
<b>Option 1 – County Service</b>			
County cost	\$1,050,938	\$560,000	\$1,610,938
WisDOT cost	0	\$465,000	\$465,000
<b>Total Cost</b>	<b>\$1,050,938</b>	<b>\$1,025,000</b>	<b>\$2,075,938</b>
<b>Option 2 - City Service</b>			
County cost	\$85,000	\$152,943	\$237,943
WisDOT cost	0	\$123,745	\$123,745
<b>Total Cost</b>	<b>\$85,000</b>	<b>\$276,688</b>	<b>\$361,688</b>
<b>Savings - City Service Option</b>			
County	\$965,938	\$407,057	\$1,372,995
WisDOT	0	\$341,255	\$341,255
<b>Total Savings</b>	<b>\$965,938</b>	<b>\$748,312</b>	<b>\$1,714,250</b>

### Effect on user water charges and comparison of cost structure

The County’s water rate is based entirely on water usage. (Sewer, stormwater and fire charges also are based primarily on water usage.) At the end of the year, the County Comptroller’s Office calculates a break-even rate which allocates the actual cost to operate the water utility in the preceding year. It is important to note that the County’s break-even rate includes not only the direct cost of staff and contractual services to operate and maintain the water utility, but also overhead charges relating to the Department of Administrative Services, “central service charges” assigned for the utility’s share of costs related to central service departments like the Corporation Counsel and Human Resources, and “legacy costs” relating to retiree benefits which are allocated to the water utility’s budget.

In 2013, these overhead expenses included in the Water Utility budget totaled \$168,500. These, or similar, costs will remain in the water utility budget after the transfer of the seven properties and continue to be paid by users; however, if the entire utility is transferred to the City of Wauwatosa, these costs (to the extent they would remain) would need to be absorbed into the overall County budget.

The City’s rate structure is graduated, charging a higher amount for the initial 500 cu ft used, then a flat rate per 100 cu ft over that amount. The City water rate also includes quarterly service charges for



water use and fire protection. These charges are based on the size of the meter and increase substantially as meter size increases.

**Table 6** summarizes the change in water charges for the Phase II users and adds the savings shown in Table 2 to calculate the total savings to the County assuming a transfer to the City water utility. The basis for the County charges is the 2011 break-even rate, adjusted for reduced water usage. No adjustment was made for interest costs relating to the \$238,000 in capital expense shown in **Table 5**. As noted above, the City's water rates are now under review by the PSC and are expected to increase.

**Table 6: Change in Water Rates to Phase II Customers**

	Est. City Charge	County Charge	Difference
Fleet **	5,860	8,366	(2,505)
Research Park	2,310	2,420	(111)
Children's Court **	9,920	11,614	(1,695)
<b>Subtotal County Savings **</b>			<b>(4,200)</b>
<b>County Savings Phase I</b>			<b>(2,879)</b>
<b>Total County Savings</b>			<b>(7,079)</b>

Note: The County water charge is based on the 2011 break-even analysis, while the estimate for the City water charge is based on the 2012 rates and includes public fire protection charges.

\*\* Only those customers that are Milwaukee County departments are included in the estimate of County savings.

Sources: Milwaukee County Comptroller's Office, City of Wauwatosa Water Utility.

As shown in **Tables 2** and **6**, the City's water rates are lower than the rates currently charged by the County. In total, the County charges customers \$4.48 for each 1,000 gallons, versus \$3.52 for the City water utility (See Table A-2 in the Appendix). One reason that the County's cost structure is higher than the City's is that the County pays a higher rate to Milwaukee Water Works for its supply of water.

In addition, the County's salary and benefit costs per full-time-equivalent employee (FTE) are higher than the City's. In 2013, the cost per FTE for the County water utility was \$120,900, versus \$95,981 per FTE at the City. Because the County contracts out most of its repair and maintenance work, County water utility employees tend to be highly skilled tradespeople and high-level managers in the Department of Transportation and Public Works (only a portion of the costs of the DTPW manager are allocated to the water utility). In 2013, a portion of DAS administrative time also is being allocated to the water utility. Another factor is the County's comparatively high overall fringe benefit rate, which is 70-80% of salary expense, as compared to 48% at the City (based on 2013 budgets).

The City's water rate reflects many of the same types of costs as the County's, including salaries and benefits, commodities, and services. One difference is that the City water utility makes a payment in lieu of taxes to the City of Wauwatosa. That payment amounted to \$648,562, or 10% of total operating expense, in 2011. The County does not make any similar payment.

## Impact on City and County water system charges

Transferring these seven users to the City water utility would result in small increases in water charges to the remaining users of the County water system. While water usage would decrease, the proportionally small reduction in water demand and infrastructure likely would not allow the County to recognize savings in fixed costs. Those fixed costs, in turn, would need to be spread over a smaller base. In addition, because stormwater and sanitary sewer charges also are derived from water consumption, the reduction in water usage from the seven customers also would affect those charges. **Table 7** shows the estimated change in County charges to remaining County and non-County users that would occur after the Phase I and II transfers.

**Table 7: Change in County Water Rates Attributable to Phase I and II Transfers**

	2011 Combined Charges	Est. Charges after Phases I and II	Change
BHD	84,338	87,072	2,734
CATC	18,347	18,942	595
Parks	19,980	20,628	648
<b>Total County Users</b>	<b>122,666</b>	<b>126,642</b>	<b>3,977</b>
Curative Care Network	19,587	20,222	635
Medical College	544,255	561,899	17,644
Froedert Hospital	537,657	555,087	17,430
Children's Hospital	212,794	219,692	6,898
Ronald McDonald House	17,843	18,421	578
WE Energies	824,193	846,865	22,673
Wisconsin Athletic Club	43,067	44,464	1,396
MRMC	6,927	7,152	225
Blood Center of Wisconsin	14,114	14,571	458

It is important to note that rates charged by the County are based on actual costs each year and are affected by many other types of costs, including repair and maintenance expenses, salary and benefit changes, transfers to a reserve established by the County, etc. While the reduction in customer base would increase rates, other factors could cancel out or add to that increase. For example, if the City were to take over service for these seven properties, the County will need to fund all or part of the \$238,000 in construction costs under Option 2 (see **Table 5**). Assuming that this cost is bond-funded, it would increase interest costs to the water utility and ultimately add to the break-even rate, but that increment is likely to be minor.

On the City's side, adding these seven customers to its system should result in a slight decrease in water rates. However, the City's system is approximately 4.8 times the size of the County's in terms of water consumption, so the effect of adding these users should be minor. Like the County's rates, the City's rates also are determined by multiple factors which can easily overwhelm any changes related to



increased water demand. Furthermore, any rate changes adopted by the City water utility must be approved by the State Public Service Commission.

## **Operating Cost Impacts**

The transfer of three additional customers would not be expected to change the operating costs of either the County or City. The West Water Tower would add some maintenance and inspection expenses to the City utility, but those expenses would not be substantial.

## **Infrastructure Issues**

As noted above, the Phase I tentative agreement reached by the City and County did not address sewer or stormwater maintenance, and a Phase II agreement also may not address that issue. It would be logical, however, to discuss a potential transfer of sewer and stormwater service in conjunction with the possible transfer of all water service to the City.

## **West Water Tower**

The County's West Water Tower, a 500,000-gallon elevated storage tank, is located south of Watertown Plank Road on the west side of Highway 45. In the event that the Phase II services are transferred to the City, this asset logically also would be transferred to the City since no lines would remain to connect it to the County's remaining water system. The water tower has not been recently appraised, so its value is unknown.

The transfer of the West Water Tower from the County to the City would require deliberation over several legal, financial and capacity-related considerations, including the following:

**Ownership:** The two parties would need to consider whether only the tower, or also the land on which the tower is located, would be transferred to the City. A long-term lease arrangement for either the structure, the land, or both also could be considered. In addition, ownership of air rights associated with the tower would need to be considered.

**Cell tower revenue:** The West Water Tower currently houses a cell phone antenna for the T-Mobile phone company that produces approximately \$44,000 in annual revenue for the County. According to a representative from SBA Communications Corporation – which negotiated and administers the cell phone antenna contract with the County – there may be potential to add antennae for additional cell phone carriers on the tower. The two parties would need to consider whether the existing cell phone contract and revenue stream would transfer to the City, and/or whether the County would need to be compensated for any lost revenue or revenue opportunities.

**County's overhead storage capacity:** While the Phase I and II transfers would decrease water demand on the County utility by only 3.1%, the West Water Tower represents 20% of the County's elevated storage. According to a 2008 report produced by GRAEF, standard engineering practice is to have at least an average day's supply of elevated water storage under normal conditions. The





current overhead supply of two million gallons for the remaining two towers is approximately double the existing average daily demand on the entire County utility. However, the County and MRMC would need to review projections of water demand to 2020 and beyond to determine if the East and Central water towers are sufficient to support anticipated growth in water demand.

**Outstanding debt on the West Water Tower:** In 2008, the West Water Tower was reconditioned, the lead paint on the exterior of the tank was removed, and the tank was repainted at a total expense of \$875,789. These improvements were funded primarily with General Obligation bonds issued by the County. The outstanding principal on the West Water Tower is estimated at \$757,000. (Table 8 shows scheduled principal payments on the West Water Tower project – scheduled interest payments were not readily available from the county<sup>2</sup>). The two parties would need to determine whether the bonds associated with the tower would be paid off (and by whom) if the tower were to be transferred to the City, or which entity would have responsibility for remaining debt service payments.

**Table 8: Scheduled Principal Payments on West Water Tower**

Year	Principal Payment
2013	\$44,098
2014	\$60,578
2015	\$76,382
2016	\$76,382
2017	\$76,382
2018	\$76,382
2019	\$76,382
2020	\$76,382
2021	\$76,382
2022	\$76,382
2023	\$40,953
<b>Total</b>	<b>\$756,683</b>

Source: Milwaukee County Comptroller’s Office

**Addition to City’s physical plant:** The addition of the water tower would add to the value of the City Water Utility’s physical plant and its depreciation expense. It is likely that the depreciation schedule adopted by the PSC differs from the depreciation already taken on the tower by the County. In addition, the City water utility makes a payment in lieu of taxes to the City based on the value of its physical plant, and the addition of the West water tower would add to that payment. The treatment of both of these issues would require further discussion with PSC staff.

<sup>2</sup> We obtained a total debt service amount from the County Comptroller’s office encompassing all outstanding debt on the water utility. Table 8 represents an estimate of outstanding principal payments for debt associated with the West Water Tower only. We were unable to derive a similar estimate for outstanding interest payments on the West Water Tower bonds, but the Comptroller’s office should be able to easily provide those figures.



## SUMMARY OF COSTS AND BENEFITS

Table 9 summarizes the primary costs and benefits of a Phase I and Phase II service transfer that have been identified in this analysis.

**Table 9: Summary of Costs/Benefits**

	Benefits	Costs
<b>City</b>	<ul style="list-style-type: none"> <li>Additional customer base</li> <li>Addition of West Water Tower storage</li> <li>Possible gain of cell tower revenue of at least \$44,00 per year</li> <li>Supplemental water mains in Research Park</li> </ul>	<ul style="list-style-type: none"> <li>Increased depreciation</li> <li>Possible assumption of \$757,000 of debt on West Water Tower</li> <li>Increased PILOT (benefit to City General Fund)</li> </ul>
<b>County</b>	<ul style="list-style-type: none"> <li>Immediate cost avoidance of \$1.4 million (total cost of maintaining County service)</li> <li>Future cost avoidance related to infrastructure replacement</li> <li>Minor net savings on water costs</li> <li>Possible reduction of \$757,000 of debt on West Water Tower</li> </ul>	<ul style="list-style-type: none"> <li>\$238,000 in expense to transfer service to City</li> <li>Possible loss of at least \$44,000 per year in cell tower revenue</li> <li>Challenges in collecting fire charge</li> <li>Loss of overhead water storage</li> </ul>
<b>Water Customers</b>	<ul style="list-style-type: none"> <li>Reduced water charges</li> <li>Improved service/reliability due to newer water mains</li> </ul>	

Several additional considerations surrounding the transfer of the services described above cannot be easily quantified but also should be contemplated. Those include:

**Water quality and supply:** City water service, provided by new infrastructure, is likely to improve water quality and reliability. That would provide a benefit to both County and private users and a possible economic development benefit to the City, as an improved water supply also could enhance the development or re-development potential of these parcels.

**Retirement of antiquated infrastructure:** Part of the County's existing infrastructure that could be retired is old, deeply buried and hard to maintain or poorly located. As discussed above, the County's future replacement costs have not been quantified, but are nevertheless real considerations.



**Responsibility for stormwater and sanitary sewer:** From the County's perspective, and to some extent the perspective of water users, it would be illogical for the County to retain responsibility for sanitary sewer and stormwater infrastructure if water service is provided by the City, as infrastructure maintenance requirements for the respective services are similar and charges to users typically are blended. This is less of an issue in Phases I and II as it would be for a transfer of the entire water utility, as the County would continue to operate a utility on the County Grounds, albeit in a reduced footprint.



## CONCLUSION

An agreement to transfer water service for seven customers who would be imminently impacted by Zoo Interchange reconstruction appears sensible from the standpoint of reducing overall costs and eliminating the need for redundant infrastructure. Our analysis also demonstrates that both parties to the agreement would stand to realize additional individual benefits – the County from retiring antiquated infrastructure and the City from expanding its service base and obtaining an asset (the West Water Tower) that could expand the capacity and reliability of its water supply system. The Wisconsin Department of Transportation also would recognize a cost savings of more than \$340,000.

Structuring a deal to accomplish the Phase II transfer would be complicated by variables associated with the value of the West Water Tower, its existing debt service, and its cell phone antennae revenue-generating capacity. It would appear, however, that there is considerable potential to establish a framework for negotiating an equitable transfer of water service and ownership of the West Water Tower (including debt payments). We base that statement on the fact that the County possibly could relieve itself of more than \$750,000 in debt, nearly \$1.4 million in capital costs associated with the need to otherwise install and replace water infrastructure, and ongoing repair and maintenance, while the City could obtain a valued asset and the opportunity to earn at least \$44,000 in annual cell tower revenue that would help offset any debt payment or debt service it may have to assume. An independent valuation of the West Water Tower and further consideration of the benefits the tower would bring to the City in terms of added capacity, reliability and revenue-generating potential would be useful pieces in further determining the terms for such a transfer.



## APPENDIX

Table A-1: General Comparison of City and County Water Utilities

	County	City
LF of Water Distribution System	71,000	1,056,606
Overhead Storage Capacity	2,500,000	10,200,000
Fire Hydrants	145	2,119
Annual water supply (1,000s of gallons)	373,727	1,782,288
Average Day Demand (MGD)	1.02	4.88
Total Gallons Sold (in 1000s)	379,805	1,542,257
Percent Residential	4.5%	56.2%
Percent Commercial/Public facility	57.3%	37.2%
Percent Industrial	38.2%	6.5%

Notes: The Total Gallons sold by the County exceeds Annual Water Supply purchased from MWW. This discrepancy is explained by the timing of meter readings. MWW has electronic meters that are read remotely at the same time each quarter. The County's meters must be read manually, a process that can take as long as two and a half weeks, so the numbers actually reflect slightly different time periods.

Sources: 2011 City of Wauwatosa PSC Report and 2013 Water Utility Budget; County Comptroller's Office.



**Table A-2: Comparison of 2011 Financial Indicators**

	Milwaukee County	Wauwatosa Water Utility (1)
FTE	3.90	18.24
Total Operating Expense	2,339,151	6,503,214
Total Operating Revenue	2,491,293	7,221,632
Revenue/Expense Ratio	106.5%	111.0%
Source of Supply Expense (MWW only)	512,598	2,273,132
Source of Supply Expense per 1,000 gallons	1.37	1.28
Metered Water Sales	1,702,079	5,430,685
Source of Supply Exp as a % of Water sales	30.1%	41.9%
Metered Sales/1,000 Gallon sold	4.48	3.52
Personnel Expense	505,354	1,569,135
Personnel Expense/Total Op Expense	21.6%	24.1%
Contract Labor and Supplies	240,857	180,800
Contract Labor and Supplies/Op Expense	10.3%	2.8%

Notes: The City Water Utility personnel expense and FTE are adjusted to reflect the transfer from the Sanitary Sewer Fund. The Water Utility is allocated 45% of the FTE and expense of Customer Accounts and 90% of Transmission and Distribution costs.

Sources: 2011 City PSC Report and 2013 Water Utility Budget; 2013 County Adopted Budget



**Table A-3: Comparison of Personnel expenditures, 2013**

	2011	2013
<b>City of Wauwatosa</b>		
Salaries	1,090,301	1,235,784
OT/Other	81,215	83,785
FICA	81,532	92,700
Pension	107,603	103,000
Health Ins	278,732	390,000
Other	43,276	51,294
Total	1,682,659	1,956,563
FTE	20.89	20.39
Pers Expense/FTE	80,568	95,981
Salary Exp/FTE	52,205	60,622
Fringe Benefit Rate	43.6%	48.3%
<b>Milwaukee County</b>		
Salaries	247,093	339,773
Pension/Health	122,098	128,091
FICA	18,905	25,993
Legacy	85,740	103,327
Total	473,835	597,183
FTE	3.66	4.94
Pers Expense/FTE	129,402	120,900
Salary Exp/FTE	67,480	68,787
Fringe Benefit Rate	91.8%	75.8%

Notes: The City's personnel costs are not adjusted here for the transfer to the Sanitary Sewer budget. The County estimates are based on the 2013 calculation of rates for DAS – Facilities Maintenance.

Sources: Wauwatosa Water Utility Budget 2013; County Comptroller's Office.



