Report of the Utility Advisory Board Rate Review Sub-Committee

1 INTRODUCTION

The region's first significant effort to put smart growth principles into play included a new water and sewer partnership developed in 1998 to manage growth and improve livability through an innovative approach to water and sewer service agreements. These agreements address sprawl in several key ways:

- by assigning a cost to the use of land,
- by requiring growth to pay for growth,
- by setting rational criteria for the expansion of utility service areas, and
- by using smart growth principles and good utility practice to ensure that utilities and growth patterns match up.

While the new agreements set a benchmark that is clearly a significant step forward, the Utility Advisory Board ("UAB") recognizes the need to continually review and improve on these tenets and to add more tools to the region's toolbox.

Previous subcommittees of the UAB have worked on various aspects of rates and charges. This work resulted in the partnership agreements being amended four times as follows:

- First amendment: calculation of integrated connection fees
- Second amendment: calculation of integrated connection fees and integrated system revenue requirement
- Third amendment: borderline street agreements; individual circuit breaker; City and customer community circuit breaker; and extending boundaries into adjoining municipalities when there are good engineering reasons to do so
- Fourth amendment: average billed flow; prepayment of capital reserve requirements; modification of the rate setting methodology; and modification of the rate of return percentage

In addition, several policies have been put in place to handle certain circumstances:

- Policy #06-01 Downward Adjustment of Area Calculation for the Determination of Water and Sewer Connection Fees for Residential Development (2/16/06; revised 5/18/06)
- Policy #08-01 Urban Mixed Use Development Connection Fees (2/21/08)
- Policy #08-02 Water Use Restriction Policy (2/21/08)
- Policy #10-01 Utility Service District (USD) Reduction Policy Standards (4/15/10)
- Policy #11-01 Prepay of Capital Reserve Requirements (10/20/11)

2 BACKGROUND

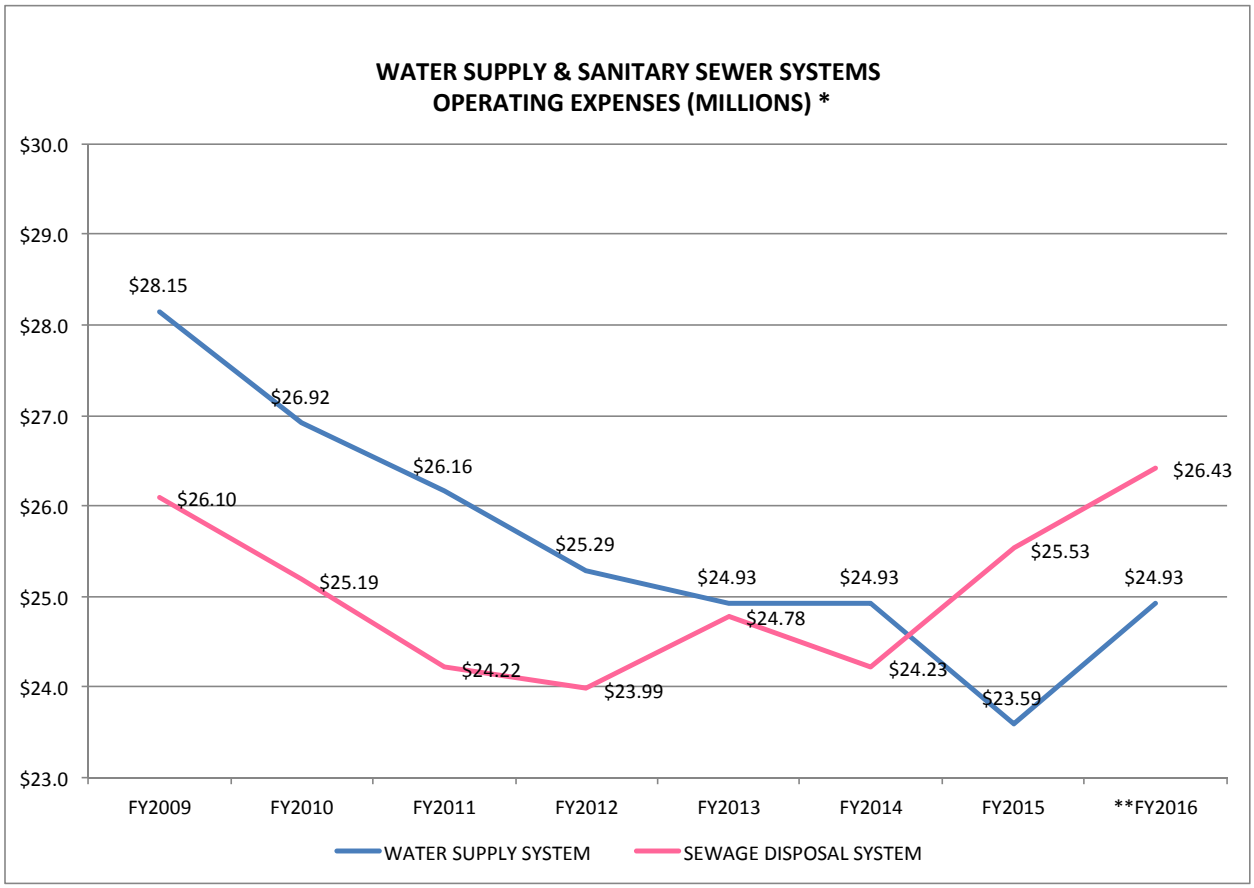
One of the hallmarks of the UAB partnership is its flexibility and ability of its partners to adapt together to both internal and external influences. Among the newest of the external influences are emerging concerns about connection fees, housing availability and affordability in the UAB service area and the publication of the "Report of the 21st Century Infrastructure Commission". Governor Snyder appointed the Commission and its recommendations include implementing a statewide asset management plan, promoting connections to public water and sewer systems and investing $4 billion per year in infrastructure asset management. Infrastructure classes include water, sewer, stormwater, transportation and communications systems.

In January 2014, the UAB formed a Rate Review Sub-Committee (the "Sub-Committee") consisting of representatives from Walker, Grand Rapids Charter Township, Kentwood, Cascade Charter Township, and Grand Rapids as well as legal counsel. The Sub-Committee was charged with reviewing and making recommendations as deemed appropriate on land use and metrics, the effectiveness of connection fees, the impacts of varying the readiness-to-serve charge and commodity charge by community, and strategies for increasing the number of users on the water and sanitary systems with a focus on infill development in some areas and larger, commercial users in others.

3 WORK OF THE SUB-COMMITTEE

The Sub-Committee began by reviewing the original concepts that were the foundation in the development of the Water and Sanitary Sewer Service Agreements with partner communities ("Agreements"). The Sub-Committee reviewed the adjustments that have been made to the Utility Service District ("USD") boundaries (see Attachment A) and determined that the Urban Utility Boundaries ("UUB") and the methods for expansion and reduction of the USD boundaries were working well. The group determined that no changes were needed to the overall, core components of the Agreements.

The UAB has been updated regularly on the many changes and improvements made in operations and maintenance costs over the past few years. Leadership in both water and sanitary sewer have demonstrated a strong commitment to control costs that have achieved an estimated $25 Million in operational savings since FY2009.



* Total operating expenses reported in Comprehensive Annual Report (CAFR) less depreciation plus transfer out; does not include interest expense on debt.

**Total operating expenses for FY2016 exclude loss on fixed assets

The results of this commitment are also shown in the above chart by the reduction in operating costs of both water and sanitary sewer between FY2009 and FY2016. Costs in sanitary sewer have fluctuated more due to the need to meet regulatory standards.

Operating costs in both water and sanitary sewer are expected to remain stable with no large, cost savings in the foreseeable future. That said, increased costs could be driven by external factors or significant capital investment.

Both internal and external factors influenced the 2016 Water/Sanitary Sewer Rate Study. The City Comptroller's Office made a determination on the treatment of fixed assets that caused certain elements of capital projects to be expensed in the current year rather than depreciated over time. This factor contributed to an increase in water and sanitary sewer rates in 2016 and has implications that bear watching.

Rating agency, S&P Global Ratings, made a determination that both systems bond coverage ratio should be 1.4 for all debt (both junior and senior). This more stringent test required additional revenue in 2016

and was a factor that contributed to an increase in water and sanitary sewer rates. A test has been added to the annual rate study to insure the new coverage ratio is maintained.

The Sub-Committee believes that attention will need to be placed on increasing usage in order to continue to moderate the ever-rising cost of service. In line with the core belief that urban sprawl is undesirable and should be restrained, it was agreed that the UUB should not be increased to achieve an increase in customers. The Sub-Committee also agreed that any recommendations for changes should not encourage the wasteful use of water in order to increase the amount of billed flow charged to water and/or sanitary sewer customers.

The Sub-Committee began a review of possible barriers to connection that customers may encounter. It found that system capacity is not a barrier and allows for the addition of new customers with available capacity of 15 MGD and 19 MGD in the water and sanitary sewer systems, respectively (see insert).

WATER SYSTEM CAPACITY
PSI Pressure: Ranges from 35-85 PSI, with the majority of the service area at 55-75 PSI
Total System Capacity: 135 MGD (million gallons per day)
Available Capacity: 15 MGD with additional 30 MGD of intake and treatment capacity without system modifications.

WASTEWATER SYSTEM CAPACITY
Average Daily Flow: 42 MGD (million gallons per day)
Total System Capacity: 61.1 MGD
Available Capacity: 19 MGD
BOD Capacity: 60,000 lbs. per day in BOD capacity immediately available.

Some Sub-Committee members believed that the cost of connection was a deterrent to water and sanitary sewer connections. In order to determine the gap between the cost of public water and sanitary sewer connections and the cost of connecting to private well and/or septic services, discussions took place with representatives from the Kent County Health Department (the "Health Department").

Health Department officials indicated that new businesses or residences are required to connect to public water and sanitary sewer systems if infrastructure is available within 200 feet of the closest point of the property line. Well and septic permits will not be issued if a facility is closer than 200 feet to the public system. It was also learned that the State of Michigan requires connection to the public sewer system if infrastructure is available.

Pertinent citations in the Michigan Public Health Code are as follows:

> 333.12752: Public sanitary sewer systems are essential to the health, safety, and welfare of the people of the state. Septic tank disposal systems are subject to failure due to soil conditions or other reasons. Failure or potential failure of septic tank disposal systems poses a threat to the public health, safety, and welfare; presents a potential for ill health, transmission of disease, mortality, and economic blight; and constitutes a threat to the quality of surface and subsurface waters of this state. **The connection to available public sanitary sewer systems** at the earliest, reasonable date is a matter for the protection of the public health, safety, and welfare and necessary in the public interest which is declared as a matter of legislative determination.

333.12751(c): "**Available public sanitary sewer system**" means a public sanitary sewer system located in a right of way, easement, highway, street or public way which crosses, adjoins or abuts upon the property and passing not more than 200 feet at the nearest point from a structure in which sanitary sewage originates.

333.12757(2): The department, after consultation with the state plumbing board, shall adopt guidelines to assist local health departments in determining what are acceptable alternative greywater systems and what are **acceptable innovative or alternative waste treatment systems**. The department shall advise local health departments regarding the appropriate installation and use of acceptable innovative or alternative waste treatment systems and acceptable innovative or alternative waste treatment systems in combination with acceptable alternative greywater systems.

333.12751(b): "**Acceptable innovative or alternative waste treatment system**" …does not include a septic tank drain field system or any other system which is determined by the department to pose a similar threat to the public health, safety and welfare, and quality of surface and subsurface waters of this state.

Section P2602.1 and P2602.2 of the 2015 Michigan Plumbing Code state as follows:

P2602.1 General. The water-distribution and drainage system of any building or premises where plumbing fixtures are installed **shall be connected to a public water supply or sewer system, respectively, if available**. Where either a public water supply or sewer system, or both, are not available, or connection to them is not feasible, an individual water supply or individual (private) sewage-disposal system, or both, shall be provided.

P2602.2 Flood-resistant installation. In flood hazard areas as established by Table R301.2 (1):
Water supply systems shall be designed and constructed to prevent infiltration of floodwaters.
Pipes for sewage disposal systems shall be designed and constructed to prevent infiltration of floodwaters into the systems and discharges from the systems into floodwaters.

The Section 2.23.1 of the Grand Rapids Code of Ordinances states as follows:

The owner of each house, building or other structure equipped with plumbing fixtures and used for human occupancy, employment, recreation or other potable use, e.g., domestic use, situated within or outside the City and abutting any street, alley, right-of-way or public utility easement in which there is located, or may in the future be located, a public watermain served by the City Water System, shall, at her, his or its expense, install suitable plumbing facilities therein and to ***connect*** **such facilities directly to the public watermain, provided said public watermain is within a two hundred (200) foot radius** of the house, building or other structure where connection will occur and, provided further, such connection shall not be required to a house, building or other structure where on the effective date of this Section it was served by a private *water* well until such time as such private *water* well fails and the local health agency governing private *water*

> wells has determined that such failure exists and that it is unable to issue a permit for repair or replacement of such failed well within the parcel of property where the failed well is located. Well failure shall be as determined and defined by the local health agency governing private *water* wells within the areas served by the Water System. Except as provided in the immediately preceding sentences, all domestic *water* usage at such connected house, building or structure shall be through the Water System; private wells shall not be permitted to provide domestic *water* service to such house, building or structure; and once connected to the public Water System disconnection shall be prohibited. It shall be the owner's responsibility to plug or cap the abandoned domestic *water* well and contact the local health agency that governs private *water* wells for proper procedures for plugging and capping such abandoned domestic *water* wells. Notwithstanding any current or future agreement between the City and another municipality being served by the City Water System, said municipality shall have the option of adopting the provisions of this section.

Further, the Governor's 21st Century Infrastructure Commission has made several recommendations requiring connection to public water and sanitary sewer service at the time of a system failure, to update the public health code requirements regarding connections, to institute regular inspection and maintenance cycles for well and septic systems and to provide that some form of circuit breaker relief be provided where affordability is an issue.

Health Department officials were asked about the possibility of adding ordinances, rules or regulations requiring connection to public utilities for new construction, upon sale, or upon well or septic failure. Said officials indicated that they do encourage compliance with all local ordinances and may be able to deny a permit depending on how an ordinance is written. Said officials then indicated that how far they can go to enforce a local ordinance is limited by lack of State or County policy guidance.

Said officials also indicated, when an option is available, property owners believe the cost to connect to public utilities will be too expensive. Property owners also understand that they will have monthly utility bills if they connect to the public water and sanitary sewer systems. Property owners are also concerned, with respect to public water service, that (a) they won't be able to use as much water as they want because of the cost or (b) unacceptable chemicals will be added to the water. Property owners may also believe they have a right to use the water running below their property because they own it. Further, property owners look at the well/septic system solution as a one-time cost and don't take into account ongoing maintenance even when provided information on the proper maintenance for the private systems.

The life span of private wells and septic systems is estimated at between 25 to 30 years. The approximate costs for new installations are $8,000 to $9,000 for septic systems and $4,000 to $6,000 for water wells, or a total of $12,000 to $15,000 for both. The Sub-Committee believes that in order to encourage connection to the public water and sanitary sewer systems the cost to connect to the public system would need to be equal to or less than this.

The Sub-Committee reviewed the total cost to connect to public water supply and sanitary sewer systems (see insert) and determined it was substantially higher than connecting to a private water well and septic system. The total estimated cost for connection to the water supply system is approximately $16,500 and to the sanitary sewer system, is approximately $17,000, for a total cost of approximately $33,000 to connect to both.

With this information, the Sub-Committee reviewed each cost component of connection to the public water and sanitary sewer systems.

Readiness-to-Serve Charge

Modeling was used to determine (a) what would happen if a balanced/uniform readiness-to-serve charge was used across all communities and (b) the impact of reducing the readiness-to-serve charge by 5%, 10% and 15% (see Attachment B). Changes in the readiness-to-serve charge were shown to have minimal impact. Therefore, the Sub-Committee recommends that no change be made to the readiness-to-serve charge.

Water/Sewer Connection Estimate (20,000 sf base lot)	**Total Estimated Costs**		
	Water	Sewer	
Front Footage Fee (100')	$8,100	$9,000	
Connection Fee	$2,959	$2,959	
Stub Fee	$2,850	$2,900	
Meter Setting Fee	$45	$0	
Inspection Fee	$70	$70	*
Lateral (50' setback)	$2,000	$2,000	
Street Opening Permit	$50	$50	**
Local Fees	$1,000	$1,000	
Proposed MCC*	$0	$0	
Proposed PRC*	$0	$0	
TOTAL	$17,074	$17,979	
Water/Sewer Total	**$35,053**		

*Inside City Limits $15

**$30 Water and $30 Sewer inside City Limits

Front Footage Charge

Front footage charges contain many elements. There are three basic forms of obligations: deferred front footage charges, developer payback agreements and deferred special assessments. The Agreements established a new method of calculating front footage charges that moved the basis from historical cost at time of construction to current cost at time of connection. Developer payback agreements in partner communities vary, but are self-contained.

Many partner communities have undeveloped areas where utilities have not yet been extended. The front footage charge is used by such partner communities to recoup the cost of providing infrastructure built to incent development in certain areas within their USD. If front footage fees were eliminated, there would need to be another way for communities to recoup this cost. The number and amount of payback agreements identified on Attachment D, currently in existence were reviewed. Partner communities have agreements where they are still owed front footage charges from these agreements.

It was determined that the use of these agreements should not be discontinued. It should be up to the partner community to determine if it wants to use them. The Sub-Committee determined that system-wide, the elimination of these fees did not have a significant impact on rates and charges, but that the impact on specific communities could be significant. Attachment C includes a history of front footage fees. As a result of the Sub-Committee's research, it recommends that no change be made to the current policy on front footage charges. The Sub-Committee further recommends that each partner community retain the current discretion to manage front footage charges, payback agreements and deferred special assessments.

Stub Fee

The Sub-Committee's review showed that the stub fee has no impact on rates. The stub fee is hardly ever charged as a portion of the connection fee at the time of connection because the developer usually pays the stub fees as the property is developed. There is a benefit to the developer adding the stubs so the

roadway doesn't need to be disturbed when the property is connecting. The Sub-Committee discussed the option of charging a stub fee to a developer when it requests infrastructure be provided for the development and of not charging a stub fee upon connection when the community itself has chosen to build out an area to incent development. After completing its review, the Sub-Committee recommends that the water supply and sanitary sewer system rules and regulations be amended to provide this flexibility.

Integrated Connection Fees

The integrated connection fee is one of the measures used to achieve the concept of sustainable growth, i.e. growth pays for growth. Property owners using more land pay a higher fee than those using less land. The integrated connection fees were established to recognize capital improvements and debt related to the existing water supply and sanitary sewer systems.

The Sub-Committee examined whether a desire to incent current well/septic users and new customers to connect to the public systems is consistent with sustainable growth practices.

The USDs in partner communities and their interaction with the UUBs has helped concentrate utility users effectively. However, land is being used differently today than it has been in the past. There are other factors that have likely had more impact on sustainable growth practices than the integrated connection fee.

The one-time impact on water and sanitary sewer rates of the elimination of the integrated connection fee is estimated to be 1.34% on water rates and 1.25% on sanitary sewer rates. This was an area of interest of the Sub-Committee. It first discussed a phased approach to reduction of the integrated connection fee as the most practical and most affordable option.

Subsequently, it 00 connection fee:

1. plan review and connection component ("PRC") that would recover the costs associated with the account set-up and plan review; and

2. meter capacity component ("MCC") that would be based on the meter acquisition cost.

Moving in this direction updates the integrated connection fee to recognize fulfillment of its original cost recovery purpose, to recognize the current cost of connection to the system and to remove a barrier to connections. The PRC and MCC would be treated under the water and sanitary sewer rate studies as a credit against the integrated system revenue requirement.

A full description of both the calculation of the PRC and MCC for residential and commercial customers is found in Attachment F.

Other Fees

The remainder of the costs of connection include a meter setting fee, inspection fee, street opening permit, lateral fee, and various local fees. Together, these fees were estimated to make up less than $5,000 of the total cost of connection. Taken individually, none was thought to have a substantial enough impact on the total cost of connection to make changes to them.

4 ANALYSIS

The Sub-Committee found that there were varying impacts achieved by eliminating the front footage fee, integrated connection fee, and stub fee in different combinations. The modeling was done using a 20,000 square foot base lot (see insert).

Water/Sewer Connection Estimate	Total Estimated Costs			W/O Front Footage Fee (FFF)		W/O Connection Fee (CF)		W/O CF & FFF		W/O CF, FFF & Stub Fees		W/O CF but with PRC and MCC	
(20,000 sf base lot)	Water	Sewer		Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer
Front Footage Fee (100')	$8,100	$9,000		$0	$0	$8,100	$9,000	$0	$0	$0	$0	$8,100	$9,000
Connection Fee	$2,959	$2,959		$2,959	$2,959	$0	$0	$0	$0	$0	$0	$0	$0
Stub Fee	$2,850	$2,900		$2,850	$2,900	$2,850	$2,900	$2,850	$2,900	$0	$0	$2,850	$2,900
Meter Setting Fee	$45	$0		$45	$0	$45	$0	$45	$0	$45	$0	$45	$0
Inspection Fee	$70	$70	*	$70	$70	$70	$70	$70	$70	$70	$70	$70	$70
Lateral (50' setback)	$2,000	$2,000		$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
Street Opening Permit	$50	$50	**	$50	$50	$50	$50	$50	$50	$50	$50	$50	$50
Local Fees	$1,000	$1,000		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Proposed MCC	$0	$0		$0	$0	$0	$0	$0	$0	$0	$0	$175	$175
Proposed PRC	$0	$0		$0	$0	$0	$0	$0	$0	$0	$0	$670	$670
TOTAL	$17,074	$17,979		$8,974	$8,979	$14,115	$15,020	$6,015	$6,020	$3,165	$3,120	$14,960	$15,865
Water/Sewer Total	**$35,053**			**$17,953**		**$29,135**		**$12,035**		**$6,285**		**$30,825**	

*Inside City Limits $15
**$30 Water and $30 Sewer inside City Limits
MCC = Meter Connection Component
PRC = Plan review and connection component

The front footage fee is the highest fee and, therefore, has the greatest impact if eliminated. Its elimination also causes the most complexity with the untangling of payback agreements and ensuring that communities can still recoup investments in infrastructure made to incent development.

The Sub-Committee considered that the integrated connection fee may no longer be needed. However, elimination of the integrated connection fee alone only reduces the total cost to connect to about $28,000, which is still much higher than the average cost for a private well/septic system.

Elimination or adjustment of both the front footage fee and the integrated connection fee would be needed to bring the cost to below the average cost for a private well/septic system. The elimination or adjustment of the integrated connection fee could be a feasible method of reducing the cost of connection, but elimination of front footage fees would not be in the best interest of many of the partner communities due to the complexities of payback agreements. The Sub-Committee recommends that the elimination or reduction of front footage fees is best left to individual partner communities. Each partner community understands the circumstances of each situation and is the most appropriate judge of the value of a waiver or reduction of the payback amount. A future option may be to limit use of payback agreements. Under the Agreements, communities have the option of applying the front footage fee or reducing or waiving it. Grand Rapids Charter Township currently offers financing options for the front footage fee.

After review of payback agreements currently in effect (see Attachment D) and on the amount received by each community for front footage fees (see Attachment C), the Sub-Committee concluded that a very

small percentage of potential properties that could be connected to the public water or sanitary sewer system are subject to front footage fees. Payback agreements are similar to special assessments in that they are direct arrangements between a partner community and a property owner or owners.

The Sub-Committee concluded that there is substantially more land area within partner community UABs where front footage fees are not used than where they are. Thus, the cost of connection for a significant area served by the public water and sanitary sewer systems is significantly reduced by not having to pay the front footage fees. Additionally, the Sub-Committee concluded that each partner community could address front footage fee relief separately by discounting or eliminating front footage fees to provide further inducement for connections.

With that in mind, the Sub-Committee began to focus on the elimination of the integrated connection fees. If the fee were eliminated it would be a one-time loss in revenue in the year the change is made. It was determined that approximately 2,000 new residential water customers and 1,500 new residential sanitary sewer customers would be needed in that same year to offset the increase caused by the elimination of the integrated connection fees. The addition of larger, commercial customers could reduce the number of customers needed. More modeling on the effects of phasing the elimination or phasing of the fees in the addition of new connections is recommended.

Equity was discussed for those that have paid connection fees in the past. Is it fair to discontinue this fee for future connections? Would these users now be expected to pay higher rates to cover the cost of the new, lower cost connections? It was determined that these types of changes have been made in the past with little to no impact as users of the systems understand the need to adjust policies and procedures due to changes that occur. The intent is that rates would actually be kept at a lower amount through the addition of new customers generated by this change.

The proposed PRC and MCC elements of the updated integrated connection fee will generate approximately $970,000 in annual revenue for the water supply and sanitary sewer systems combined based upon the average historic number of connections per year. This is approximately $1.1 Million less than under the current methodology. Every customer community is impacted the same proportionally because the methodology by which the integrated revenues are allocated as a credit against the revenue requirement will not change.

Integrated connection fee revenue is used as a credit against the revenue requirement in the Water and Sewer annual rate study. Since the rate study is based on revenues and expenses of the previous fiscal year ending on June 30th, with the new connection fee rate anticipated to be effective on April 1, 2018, the impact on rate payers will take place over the course of three rate years. For rates effective January 1, 2018, per the rate methodology, an adjustment has been made in the 2017 rate study because this is an anticipated change in the coming calendar year. This caused approximately a 0.25% rate increase for each utility for rates effective January 1, 2018. The fiscal year 2018 will experience three months of this new connection fee and fiscal year 2019 will experience a full year of the new rates. Therefore by January 1, 2020, the estimated full impact of this change (1.34% for water and 1.25% for sewer rate) will be realized. The overall estimated impact of this rate change is detailed in Attachment E.

Individually partner communities appear to have differing rate impacts, as showed in Attachment E, because rate impact is calculated as a percent of that individual partner community's revenue requirement. For example, Grand Rapids Township's 1.4% increase in water rates from this change is

calculated by taking the anticipated increase in revenue requirement $28,868 and dividing it by Grand Rapids Township revenue requirement, $2,057,132.

The Sub-Committee next focused in on potential areas and specific properties that are not now connected to public water and sanitary sewer. An estimated 2,344 water-only customers and 729 sewer-only customers were identified as potential customers for additional connections (See Insert).

DATA SUMMARY			
Community	Class	Water Only	Sewer Only
Cascade	Residential	1,222	68
	Commercial	16	4
Grand Rapids	Residential	152	65
	Commercial	69	10
Grand Rapids Township	Residential	410	128
	Commercial	12	5
Kentwood	Residential	50	59
	Commercial	12	3
Tallmadge	Residential	4	7
	Commercial	1	1
Walker	Residential	372	141
	Commercial	24	12
Wright	Residential	0	158
	Commercial	0	68
TOTALS		2,344	729

Specific property addresses where infrastructure is available and are not connected to either water and/or sanitary sewer and opportunities to add infrastructure within the USDs to incent growth have yet to be identified. The Sub-Committee determined that an investment in marketing should be made to generate the desired additional connections which will help reduce the rate impacts of the anticipated revenue decrease. A marketing plan is currently in development.

5 CONCLUSIONS

The Sub-Committee believes that updating of integrated connection fees as described in this report is a feasible method to achieve the outcome of reducing the total cost of connection and reducing cost as a barrier.

The Sub-Committee notes that the UAB must remain cognizant of the impact this will have on system revenues for both the water supply and sanitary sewer systems and the resulting impact on the bond coverage ratio. It is for this reason that the Sub-Committee recommends reduction of the integrated connection fee rather than its elimination. Proceeding in this manner will reduce the impact. The reduced integrated connection fee is anticipated to be implemented by April 1, 2018.

It bears repeating that there is substantially more land area throughout the USDs where front footage fees are not used than where they are being used. This means that the cost of connection for the vast majority of the USDs is already reduced by this amount and would amount to a significant additional reduction in the cost of connection if the recommendation was implemented regarding the integrated connection fees.

The Sub-Committee concluded that individual partner communities can address front footage fee relief separately by discounting or eliminating front footage fees to provide further inducement for connections.

The Sub-Committee acknowledges that this approach is a change in philosophy. The integrated connection fee was intended to help pay the cost of developing water and sewer infrastructure. The proposed updated integrated connection fee has been sized to pay for the cost of evaluation of a connection, establishing service account and providing a customer meter.

The philosophical basis for the proposed change is an understanding that an emphasis on densification within the USDs is a valuable outcome. It provides public health benefits by eliminating potential surface or sub-surface water contamination from failing septic tanks. It reduces costs for those wishing to

develop affordable housing. It provides an opportunity to attract new customers that will help existing customers pay annual operating and maintenance costs.

The recommendations of the Sub-Committee to the UAB are as follows:

1. Maintain the readiness-to-serve charge as this charge has minimal impact on the cost of connection.
2. Continuation of the current flexible policy on front footage fees, developer payback agreements and deferred assessments because of the limited impact of these fees on the revenues of the systems and the significant financial impact for some partner communities. Individual partner communities may consider discounting or eliminating these fees.
3. Amendment of the applicable Rules and Regulations to allow options for when a stub fee is charged or when it can be waived.
4. Introduction of a revised integrated connection fee that would be comprised of the Plan Review and Connection ("PRC") component and a Meter Capacity Charge ("MCC") component to replace the current integrated connection fee for implementation effective April 1, 2018.
5. Development of strategies for increasing the customer base or increasing billed flow to help offset the impact of the revisions to the integrated connection fee. The Sub-Committee has identified potential opportunities for increased connections, but understands active measures will be required to achieve the full potential of this plan. This will require a concerted marketing plan. Market segments could include:
    - a general audience
    - current customers that have sewer service but not water service
    - current customers that have water service but not sewer service
    - potential customers with water or sewer that is available in the street, but that have not yet connected
    - areas of environmental concern
    - areas in which payback agreements exist
    - investors and developers of market rate housing and commercial space
    - investors and developers of affordable housing

    The Sub-committee will work with UAB liaisons from City staff to develop a Statement of Work that identifies the proposed market segments, provides background data and seek letter proposals containing work programs, levels of effort and price proposals from the City's term contractors for marketing services. The Sub-committee will review proposals receive and present the preferred vendor and plan to the UAB for review and confirmation of the recommendation. The recommendation will then be presented to the City Commission for consideration. UAB liaison staff will follow up with and budget amendment to appropriate required investment for this process.
6. Evaluate development of ordinance amendments to strengthen provisions regarding situations where connection to the public water and/or sewer system is required in conjunction with any State effort based on implementation of the recommendations of the 21st Century Infrastructure Commission including the following:

- UAB Policy be developed with affected stakeholders to guide connections; and
- Work group should continue to work on the development of a potential model ordinance.

7. Amend the Agreements to implement the updated integrated connection fee model and related amendments.
8. Make the revisions to the integrated connection fee effective April 1, 2018. The estimated impact on 2018 rates will be 0.25% for each System. For estimating the impact for 2019 and 2020, the Rate Review Subcommittee will meet and advise on how to distribute the remaining anticipated rate impact. By 2020, the full rate impact of 1.34% for Water and 1.25% impact for Sewer will be experienced.
9. Track and evaluate the impact of the recommended changes. The Rate Review Sub-committee will meet by September 30, 2018 to review impact of the integrated connection fee methodology change during the 2018 construction season and assess the recommended rate implementation ideology for the 2018 rate study for rates effective in 2019.

ATTACHMENT A

CITY OF GRAND RAPIDS, MICHIGAN
WATER/SEWER UTILITY SERVICE DISTRICT AREAS FOR UAB PARTNERS

KEY:
Reductions
Additions

WATER - RATE STUDY YEAR

UAB Partners	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Grand Rapids	45.30	45.30	45.36	45.36	45.36	45.36	45.36	45.36	45.36	45.36
Walker	25.43	25.43	25.43	25.43	25.43	25.43	25.43	25.43	25.43	25.43
Kentwood	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Cascade	25.75	25.75	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53
Grand Rapids Township	13.56	13.56	14.08	14.08	14.42	14.42	14.42	14.42	14.42	14.42
Tallmadge Township	7.75	7.75	2.84	2.84	2.84	2.40	2.40	2.43	2.44	2.44
East Grand Rapids	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37
Ada	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15
Total	142.31	142.31	135.76	135.76	136.10	135.66	135.66	135.69	135.70	135.70

UAB Partners	2010	2011	2012	2013	2014	2015	2016	2017*
Grand Rapids	45.36	45.36	45.36	45.36	45.36	45.36	45.36	45.36
Walker	25.43	25.43	25.43	25.43	25.43	25.43	25.43	25.43
Kentwood	14.00	14.00	14.00	14.00	14.00	14.00	14.00	13.50
Cascade	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45
Grand Rapids Township	10.73	10.93	10.93	10.93	10.93	10.93	10.93	10.93
Tallmadge Township	2.44	2.44	2.44	2.44	2.44	2.66	2.66	2.66
East Grand Rapids	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37
Ada	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.21
Total	128.93	129.13	129.13	129.13	129.13	129.35	129.35	128.91

SEWER - RATE STUDY YEAR

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Grand Rapids	45.30	45.30	45.36	45.36	45.36	45.36	45.36	45.36	45.36	45.36
Walker	19.26	19.26	19.26	20.17	20.17	20.17	20.17	20.17	20.17	20.17
Kentwood	14.00	14.00	14.00	14.00	14.00	14.00	14.29	14.29	14.28	14.28
Cascade	25.75	25.75	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53
Grand Rapids Township	12.17	12.17	12.17	12.17	12.17	11.82	11.82	11.82	11.82	11.82
Tallmadge Township	7.75	7.75	2.84	2.84	2.84	2.40	2.40	2.43	2.44	2.44
Wright Township	-	-	-	0.89	0.89	0.89	0.89	0.89	0.89	0.89
East Grand Rapids	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37
Ada	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15	7.15
Meijer - Algoma	-	-	-	-	0.20	0.20	0.20	0.20	-	-
Total	134.75	134.75	127.68	129.48	129.68	128.89	129.18	129.21	129.01	129.01

	2010	2011	2012	2013	2014	2015	2016	2017*
Grand Rapids	45.36	45.36	45.36	45.36	45.36	45.36	45.36	45.36
Walker	20.17	20.17	20.17	20.17	20.17	20.17	20.17	20.17
Kentwood	14.28	14.28	14.28	14.28	14.28	14.28	14.28	14.37
Cascade	16.21	16.21	16.21	16.21	16.21	16.18	16.18	16.18
Grand Rapids Township	7.79	7.95	7.95	7.95	7.95	7.97	7.97	8.07
Tallmadge Township	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44
Wright Township	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
East Grand Rapids	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37
Ada	7.15	7.15	7.15	7.15	7.15	7.15	7.18	7.22
Meijer - Algoma	-	-	-	-	-	-	-	-
Caledonia Township*	-	-	-	-	-	1.88	2.22	2.50
Total	117.66	117.82	117.82	117.82	117.82	119.69	120.06	120.57

**Anticipated USD areas for 2017 Rate Study as of October 20, 2017*

ATTACHMENT B

CITY OF GRAND RAPIDS, MICHIGAN
2013 FINAL WATER/SEWER RATE STUDY
ANALYSIS OF COMMODITY CHARGES AS A PERCENT OF REVENUE REQUIREMENTS
WITH UNIFORM & BALANCED RTS CHARGES UNDER MULTIPLE RTS REDUCTION SCENARIOS
FOR RATES EFFECTIVE JANUARY 1, 2014

		Water					Sewer				
		Revenue Requirement			Residential Rates		Revenue Requirement			Residential Rates	
Community		Commodity	Total	Percentage	Comm per HCF	RTS per HCF	Commodity	Total	Percentage	Comm per HCF	RTS per HCF
Grand Rapids	**2013 Rate Study**	**$14,710,562**	**$22,974,830**	**64.029%**	**$1.70**	**$1.14**	**$21,757,168**	**$33,617,082**	**64.721%**	**$3.21**	**$2.70**
	Balanced/Uniform RTS	$14,703,891	$22,974,830	64.000%	$1.70	$1.14	$21,514,932	$33,617,082	64.000%	$3.17	$2.75
	5% RTS Reduction	$15,852,633	$22,974,830	69.000%	$1.83	$0.99	$23,195,787	$33,617,082	69.000%	$3.42	$2.38
	10% RTS Reduction	$17,001,374	$22,974,830	74.000%	$1.96	$0.83	$24,876,641	$33,617,082	74.000%	$3.67	$2.02
	15% RTS Reduction	$18,150,116	$22,974,830	79.000%	$2.10	$0.68	$26,557,495	$33,617,082	79.000%	$3.92	$1.65
Walker	**2013 Rate Study**	**$1,874,734**	**$3,087,410**	**60.722%**	**$1.57**	**$1.43**	**$2,211,105**	**$4,730,519**	**46.741%**	**$2.68**	**$5.58**
	Balanced/Uniform RTS	$1,975,942	$3,087,410	64.000%	$1.65	$1.31	$3,027,532	$4,730,519	64.000%	$3.67	$3.81
	5% RTS Reduction	$2,130,313	$3,087,410	69.000%	$1.78	$1.13	$3,264,058	$4,730,519	69.000%	$3.96	$3.30
	10% RTS Reduction	$2,284,683	$3,087,410	74.000%	$1.91	$0.94	$3,500,584	$4,730,519	74.000%	$4.24	$2.79
	15% RTS Reduction	$2,439,054	$3,087,410	79.000%	$2.04	$0.76	$3,737,110	$4,730,519	79.000%	$4.53	$2.27
Kentwood	**2013 Rate Study**	**$2,653,408**	**$4,065,885**	**65.260%**	**$1.52**	**$1.68**	**$3,184,313**	**$3,696,093**	**86.153%**	**$2.30**	**$1.26**
	Balanced/Uniform RTS	$2,602,166	$4,065,885	64.000%	$1.49	$1.74	$2,365,500	$3,696,093	64.000%	$1.71	$2.91
	5% RTS Reduction	$2,805,461	$4,065,885	69.000%	$1.61	$1.50	$2,550,304	$3,696,093	69.000%	$1.84	$2.54
	10% RTS Reduction	$3,008,755	$4,065,885	74.000%	$1.72	$1.25	$2,735,109	$3,696,093	74.000%	$1.98	$2.17
	15% RTS Reduction	$3,212,049	$4,065,885	79.000%	$1.84	$1.01	$2,919,913	$3,696,093	79.000%	$2.11	$1.79
Cascade Twp	**2013 Rate Study**	**$1,749,852**	**$2,945,147**	**59.415%**	**$2.08**	**$2.32**	**$1,018,936**	**$2,059,615**	**49.472%**	**$2.57**	**$5.82**
	Balanced/Uniform RTS	$1,884,894	$2,945,147	64.000%	$2.24	$2.05	$1,318,154	$2,059,615	64.000%	$3.32	$4.21
	5% RTS Reduction	$2,032,151	$2,945,147	69.000%	$2.42	$1.75	$1,421,134	$2,059,615	69.000%	$3.58	$3.65
	10% RTS Reduction	$2,179,409	$2,945,147	74.000%	$2.59	$1.44	$1,524,115	$2,059,615	74.000%	$3.84	$3.10
	15% RTS Reduction	$2,326,666	$2,945,147	79.000%	$2.77	$1.14	$1,627,096	$2,059,615	79.000%	$4.10	$2.54
Grand Rapids Twp	**2013 Rate Study**	**$1,180,394**	**$2,077,895**	**56.807%**	**$1.71**	**$1.77**	**$934,526**	**$2,369,285**	**39.443%**	**$2.34**	**$5.12**
	Balanced/Uniform RTS	$1,329,853	$2,077,895	64.000%	$1.93	$1.48	$1,516,342	$2,369,285	64.000%	$3.80	$3.08
	5% RTS Reduction	$1,433,748	$2,077,895	69.000%	$2.08	$1.28	$1,634,807	$2,369,285	69.000%	$4.09	$2.67
	10% RTS Reduction	$1,537,642	$2,077,895	74.000%	$2.23	$1.07	$1,753,271	$2,369,285	74.000%	$4.39	$2.25
	15% RTS Reduction	$1,641,537	$2,077,895	79.000%	$2.38	$0.87	$1,871,735	$2,369,285	79.000%	$4.69	$1.84
Tallmadge Twp	**2013 Rate Study**	**$87,276**	**$125,228**	**69.693%**	**$3.53**	**$0.81**	**$177,483**	**$266,625**	**66.567%**	**$10.53**	**$6.22**
	Balanced/Uniform RTS	$80,146	$125,228	64.000%	$3.24	$1.10	$170,640	$266,625	64.000%	$10.12	$6.69
	5% RTS Reduction	$86,407	$125,228	69.000%	$3.49	$0.85	$183,971	$266,625	69.000%	$10.91	$5.79
	10% RTS Reduction	$92,669	$125,228	74.000%	$3.75	$0.60	$197,303	$266,625	74.000%	$11.71	$4.89
	15% RTS Reduction	$98,930	$125,228	79.000%	$4.00	$0.34	$210,634	$266,625	79.000%	$12.50	$3.99

Note: Wright Twp is calculated using a monthly REU charge as opposed to a commodity charge.

ATTACHMENT C

City of Grand Rapids, Michigan

History of Front Footage & Connection Fees

	Water									Sewer								
RS Year	FF	Nonint-C	GR	Walker	Kentwood	Cascade	GRT	Tallmadge	Check-FF	FF	Nonint-C	GR	Walker	Kentwood	Cascade	GRT	Tallmadge	Check-FF
76-77	$ 34,118	$ 133,535	$ 151,922	$ 20,121	$ 27,719	$ 22,496	$ 7,466	$ -	$ (62,071)	$ 80,802	$ 138,204	$ 124,069	$ 23,219	$ 51,348	$ 20,280	$ 9,069	$ -	$ (8,899)
78	90,222	176,503	154,868	56,239	16,057	26,585	12,975	-	1	64,780	169,936	129,724	66,407	18,424	9,695	8,168	-	1,276
79	71,979	133,524	97,807	41,333	26,997	11,921	27,445	-	1	70,256	136,583	109,884	49,221	27,061	3,125	17,565	-	1
80	95,611	134,300							229,911	77,027	133,940	232,247	50,283	21,810	10,495	15,359	-	(119,227)
81	93,458	125,681	135,837	50,027	12,300	7,542	11,307	-	2,126	94,889	122,073	139,078	63,788	8,320	2,850	9,027	-	(6,101)
82	88,758	64,409	111,414	16,939	10,445	8,125	5,945	-	299	66,651	60,962	86,679	21,065	13,094	4,595	2,200	-	(0)
83	49,327	66,247	59,094	23,821	7,902	8,353	16,404	-	(0)	55,480	68,953	88,225	26,024	5,810	2,655	1,700	-	(0)
84	49,782	89,310	86,607	22,934	9,095	9,098	10,757	-	0	53,366	94,572	95,425	29,798	11,905	5,815	6,255	-	(1,260)
85	59,718	109,084	85,579	38,098	24,556	14,187	6,381	-	0	68,443	106,541	96,686	40,457	23,778	6,300	7,763	-	0
86	101,018	113,778	134,658	27,119	22,491	20,217	10,311	-	(0)	50,410	100,857	84,630	29,983	18,824	10,125	7,705	-	1
87	99,086	121,309	126,007	28,193	21,680	24,556	19,959	-	0	138,133	118,992	131,890	47,503	65,144	8,715	3,873	-	0
88	148,362	159,103	179,395	49,645	30,331	19,201	28,873	-	(0)	109,120	170,661	139,494	78,523	32,993	7,170	27,130		(5,329)
89	106,328	114,958	-	125,577	45,242	14,190	17,649	18,626	(0)	160,437	145,375	164,475	67,255	47,300	10,524	16,258	-	0
90	95,414	-	55,066	2,126	6,453	935	30,834	-	(0)	109,945	122,175	115,066	61,250	26,053	8,490	21,262	-	(1)
91	125,415	-	117,932	-	5,016	3,111	356	-	0	104,546	106,424	106,959	49,821	35,601	6,928	11,660	-	0
92	43,730	-	26,165	7,128	4,972	2,663	2,802	-	0	99,320	84,339	113,900	42,673	16,770	3,940	5,400	-	976
93	64,599	-	7,317	-	18,021	23,897	15,364	-	(0)	99,320	88,003	103,416	48,866	64,068	10,470	17,934	-	(57,401)
94	66,188	-	33,122	14,190	11,102	-	7,774	-	0	78,966	102,089	60,721	53,722	33,782	4,830	27,995	-	5
95	60,226	-	16,231	7,048	6,142	467	30,338	-	(0)	106,647	110,141	68,451	48,243	52,199	13,430	34,465	-	(0)
96	48,642	-	20,962	2,951	15,558	1,046	8,125	-	0	53,737	114,843	63,019	53,707	24,456	9,876	16,427	1,095	(0)
97	123,760	-	28,062	29,036	63,249	5,021	(1,608)	-	(0)	182,309	115,455	52,233	60,387	180,531	9,914	14,699	-	(0)
98	97,038	-	20,989	-	56,816	7,012	12,221	-	(0)	122,542	140,019	87,712	68,997	72,930	8,849	23,708	365	0
99	412,994	-	91,018	32,117	20,681	234,187	34,991	-	(0)	257,735	130,717	225,176	57,719	83,957	11,730	6,480	3,390	0
00	230,931	-	38,202	6,688	47,910	104,749	33,382	-	(0)	124,172	84,493	95,484	27,946	73,202	9,655	2,196	180	(0)
01	223,913	-	155,624	12,935	12,481	18,601	22,272	-	0	100,683	-	29,236	16,395	47,807	7,245	-	-	0
02	319,806	-	94,874	99,341	57,771	21,690	46,130	-	(0)	330,736	-	142,295	99,426	74,983	14,032	-	-	0
03	201,259	-	183,235	2,908	(2,980)	18,096	-	-	(0)	126,180	-	84,420	7,707	31,902	10,083	(7,932)	-	0
04	207,058	-	43,233	34,106	51,063	41,803	36,855	-	0	165,190	-	57,028	22,751	57,187	16,765	11,459	-	(0)
05	369,531	-	140,947	16,790	112,542	15,357	63,895	-	0	222,091	-	104,078	22,157	48,961	-	48,895	-	(0)
06	309,698	-	114,797	51,789	96,451	43,061	3,600	-	(0)	140,673	-	21,065	56,169	44,486	-	18,953	-	-
07	234,589	-	114,945	18,292	27,558	21,315	52,479	-	0	218,376	-	128,758	19,883	34,927	7,000	27,808	-	(0)
08	148,006	-	32,385	-	78,172	37,449	-	-	0	119,442	-	61,456	6,908	29,117	11,265	10,696	-	(0)
09	126,645	-	86,388	(4,200)	8,629	13,150	22,678	-	0	104,112	-	106,476	(4,900)	2,536	-	-	-	(0)
10	48,939	-	333	23,206	-	25,400	-	-	0	26,394	-	(12,556)	15,550	16,912	-	6,490	-	(0)
11	23,059	-	4,950	-	7,659	10,450	-	-	(1)	(18,037)	-	(42,415)	9,000	-	-	15,378	-	(0)
12	57,162	-	7,501	24,417	3,905	11,894	9,455	-	(0)	22,672	-	7,381	7,513	4,878	-	2,900	-	-
13	147,276	-	19,648	15,250	-	32,713	79,665	-	-	43,909	-	19,316	-	-	-	24,593	-	-
14	93,012	-	9,450	18,099	55,458	11,949	(1,944)	-	-	107,450	-	20,510	17,850	59,280	2,800	7,010	-	-
Totals:	$ 4,964,655	$ 1,541,738	$ 2,786,564	$ 914,281	$ 1,019,444	$ 912,077	$ 685,136	$ 18,626	$ 170,265	$ 4,139,163	$ 2,766,368	$ 3,441,689	$ 1,463,266	$ 1,441,336	$ 269,646	$ 480,550	$ 5,030	$ (195,990)

NOTE1: LMFP & WWTP existed in 1976-77 RS.

NOTE2: Retail & Wholesale Water & Sanitary Sewer Service Agreements
- Executed 01/01/99
- Effective for 1999 RS and rates/charges on 01/01/00

NOTE3: First Amendment
- Executed Fall 2000
- Effective Fall 2000 (for 2000 RS and rates/charges on 01/01/01)
- Established integrated connection fees.

NOTE4: Second Amendment
- Executed 07/01/02
- Effective 07/01/02 (for 2002 RS and rates/charges on 01/01/03)
- Amended application of integrated connection fees and calculation of square footage.
- Amended determination and application of integrated system cost (SDS).

NOTE5: [ ] = Unreconciled difference in "Check-FF" column.
Otherwise, reconciled difference in "Check-FF" column (not attributable to front footage and/or connection fees).

ATTACHMENT D

City of Grand Rapids, Michigan
Active Payback Agreements Summary
As of 09/10/14

Agreement No	Type	Customer Community	Account Name	Project Name	Agreement Date	Expiration Date	Agreement Amount	Payback(s) Amount	Agreement Balance
1	Sewer	Grand Rapids	Alberts	East Leonard Trunk Sanitary Sewer	09/16/60	n/a	$ 4,782.84	$ -	$ 4,782.84
8	Water	Grand Rapids	David Gezon	Maryland Avenue Water Extension	09/16/60	n/a	$ 2,049.99	$ 1,366.66	$ 683.33
13	Sewer	Grand Rapids	Lear, Incorporated	Eastern Avenue	06/01/61	n/a	$ 39,360.00	$ 30,039.62	$ 9,320.38
16	Water	Grand Rapids	Arthur Romence	Romence Street Water Main	09/16/60	n/a	$ 1,138.44	$ 480.00	$ 658.44
26	Sewer	Ada	Ada Township	30" Trunk Sewer-Argo, Aylesworth, Patterson	11/25/74	n/a		$ 6,246.15	$ (6,246.15)
27	Sewer	-	Plainfield Township	Laterals in Arnold's Subdivision	05/08/79	n/a		$ 17,422.00	$ (17,422.00)
29	Water	Kentwood	Kentwood	Wingate Apartments	08/31/76	n/a		$ -	$ -
33	Sewer	EGR	East Grand Rapids	Borderline Streets	02/07/78	n/a		$ -	$ -
33	Water	EGR	East Grand Rapids	Borderline Streets	02/07/78	n/a		$ 7,469.82	$ (7,469.82)
34	Sewer	Cascade	Cascade Charter Township	Transmission Charge (NOT Front Footage)	04/04/78	n/a		$ 123,240.00	$ (123,240.00)
34	Water	Cascade	Cascade Charter Township	Transmission Charge (NOT Front Footage)	04/04/78	n/a		$ 248,136.92	$ (248,136.92)
51	Water	GRT	Kent Intermediate School	Lincoln School	08/03/82	n/a	$ 222,177.62	$ 70,650.73	$ 151,526.89
117	Sewer	Kentwood	Paris Meadows Condo	East Paris Avenue	06/21/05	06/21/15	$ 11,630.00	$ -	$ 11,630.00
118	Sewer	Walker	Dreamscape LLC	Dreamscape Phase 1	09/20/05	09/20/15	$ 40,961.00	$ -	$ 40,961.00
119	Sewer	Tallmadge	Land Acquisition LLC	Lake Michigan Estates Phase 1	06/05/07	06/05/17	$ 10,075.80	$ -	$ 10,075.80
120	Sewer	Cascade	MAAS Johnson Properties	Turnburry Development	01/26/10	01/26/20	$ 1,179,000.00	$ -	$ 1,179,000.00
121	Water	GRT	A&C Land Development	Rainbow Child Development	09/13/11	09/13/21	$ 36,322.50	$ 9,455.00	$ 26,867.50
122	Sewer	GRT	GR Charter Township	Dunnigan Avenue	08/14/12	08/14/22	$ 18,452.00	$ -	$ 18,452.00
122	Water	GRT	GR Charter Township	Dunnigan Avenue	08/14/12	08/14/22	$ 48,470.00	$ -	$ 48,470.00
123	Sewer	Cascade	Cascade Charter Township	Stoneshire Site Condo Phase 2	05/13/14	05/13/24	$ 56,785.00	$ -	$ 56,785.00
123	Water	Cascade	Cascade Charter Township	Stoneshire Site Condo Phase 2	05/13/14	05/13/24	$ 45,340.00	$ -	$ 45,340.00
124	Sewer	Kentwood	Steelcase	Steelcase Fisk Drain Interceptor (NOT Front Footage)	12/21/82	n/a	$ 459,000.00	$ -	$ 459,000.00
125	Sewer	Walker	City of Walker	Cambridge Grove Development	09/09/14	09/09/24	$ 45,000.00	$ -	$ 45,000.00
TOTALS							**$ 2,220,545.19**	**$ 514,506.90**	**$ 1,706,038.29**

NOTE1: City Engineering Office working with City Attorney's Office to expire and/or set expiration dates on open-ended payback agreements; formal action requirement through City Commision expected.
NOTE2: Negative agreement balances represent payback agreements with no absolute agreement amount.
NOTE3: Project names in red font are not Front Footage Agreements.
NOTE4: Payback agreements are on file in the City Engineer's Office and available upon request.

ATTACHMENT E

Rate Impact of New Methodology for Connection to the Water and Sewer Utility Systems

Water Utility:		
Total Res Water PRC		$ 97,220
Total Comm Water PRC		$ 450,781
	Total	$ 548,001
2016 Rate Study ICF		
Collected - Water		$ 1,081,378
	Diff.	$ (533,377)
	% Change	-49%

Rate Impact By Customer Community

	GR	GRT	KTW	WLK	CAS	TAL	EGR	ADA	WRI	CAL	OTT	Gaines	Total
Integrated Connection Fees	$ 590,104	$ 58,528	$ 130,637	$ 115,976	$ 86,220	$ 6,350	$ 43,015	$ 50,548	$ -	$ -	$ -	$ -	$ 1,081,378
New Water PRC Credit	299,042	29,660	66,202	58,772	43,693	3,218	21,798	25,616	-	-	-	-	548,001
Increase in Revenue Requirement	$ 291,062	$ 28,868	$ 64,435	$ 57,204	$ 42,527	$ 3,132	$ 21,217	$ 24,932	$ -	$ -	$ -	$ -	$ 533,377
Percentage Impact	1.24%	1.40%	1.54%	1.81%	1.35%	1.87%	2.65%	2.29%	0.00%	0.00%	0.00%	0.00%	1.34%

Sewer Utility:		
Total Res Sewer PRC		$ 61,670
Total Comm Sewer PRC		$ 357,430
	Total	$ 419,100
2016 Rate Study ICF		
Collected - Sewer		$ 1,046,326
	Diff.	$ (627,226)
	% Change	-60%

Rate Impact By Customer Community

	GR	GRT	KTW	WLK	CAS	TAL	EGR	ADA	WRI	CAL	OTT	Gaines	Total
Integrated Connection Fees	$ 611,786	$ 45,402	$ 137,491	$ 103,272	$ 63,774	$ 6,005	$ 30,981	$ 38,445	$ 3,326	$ 5,844	$ -	$ -	$ 1,046,326
New Sewer PRC Credit	245,048	18,186	55,071	41,365	25,544	2,405	12,409	15,399	1,332	2,341	-	-	419,100
Increase in Revenue Requirement	$ 366,738	$ 27,217	$ 82,420	$ 61,907	$ 38,230	$ 3,600	$ 18,572	$ 23,046	$ 1,994	$ 3,503	$ -	$ -	$ 627,226
Percentage Impact	1.08%	1.12%	2.09%	1.28%	1.65%	0.95%	3.35%	1.95%	0.81%	3.60%	0.00%	0.00%	1.25%

Note: Analysis uses assumption from the 2016 Rate Study for rate impact estimates. Currently Water and Sewer Connection Fees are applied as a credit against customer communities' revenue requirement. The proposed PRC Credit will replace the current connection fee credit.

ATTACHMENT F

Calculation of Integrated Connection Fees

Residential Customers:

Plan Review and Connection Component (PRC)							
Meter Size	Plan Reviewer time (hrs)	Plan Reviewer Rates	Plan Reviewer Cost	Customer Service	Business Office	Total	**PRC Fee**
3/4"	$5.25	$53.54	$281.09	$40.00	$20.00	$341.09	**$350.00**

Meter Capacity Component (MCC)	
Meter Size - 3/4"	$175.00

The total cost = $350 PRC water + $350 PRC sewer + $175 MCC = $875. This amount is also the base fee for establishing the cost of connection for a commercial customer.

Commercial Customers:

Plan Review and Connection Component (PRC)

Meter Size	Base Conn. Fee*	Plan reviewer time (hrs)	Plan Revwr. Rate	Plan Revwr. Cost	Hyd Eng. Time (hrs)	Hyd Eng. Rate	Hyd Eng. Cost	Utility Eng. Time (hrs)	Utility Eng. Rate	Utility Eng. Cost	Water Mgmt. Time (hrs)	Water Mgmt. Rate	Water Mgmt. Cost	Total	PRC FEE
3/4"	$ 350.00	2	$ 53.54	$ 107.08	1	$ 72.49	$ 72.49	1	$ 53.54	$ 53.54	1	$ 86.60	$ 86.60	$ 669.71	**$ 670.00**
1"	$ 350.00	3	$ 53.54	$ 160.62	2	$ 72.49	$ 144.98	2	$ 53.54	$ 107.08	1	$ 86.60	$ 86.60	$ 849.28	**$ 850.00**
1½"	$ 350.00	4	$ 53.54	$ 214.16	3	$ 72.49	$ 217.47	3	$ 53.54	$ 160.62	2	$ 86.60	$ 173.20	$ 1,115.45	**$ 1,120.00**
2"	$ 350.00	6	$ 53.54	$ 321.24	5	$ 72.49	$ 362.45	5	$ 53.54	$ 267.70	3	$ 86.60	$ 259.80	$ 1,561.19	**$ 1,570.00**
3"	$ 350.00	10	$ 53.54	$ 535.40	6	$ 72.49	$ 434.94	6	$ 53.54	$ 321.24	3	$ 86.60	$ 259.80	$ 1,901.38	**$ 1,910.00**
4"	$ 350.00	16	$ 53.54	$ 856.64	8	$ 72.49	$ 579.92	8	$ 53.54	$ 428.32	5	$ 86.60	$ 433.00	$ 2,647.88	**$ 2,650.00**
6"+	$ 350.00	24	$ 53.54	$ 1,284.96	12	$ 72.49	$ 869.88	12	$ 53.54	$ 642.48	8	$ 86.60	$ 692.80	$ 3,840.12	**$ 3,850.00**

*Note the Commercial Customers' Base Fee is established based on the cost of the residential customers PRC. See calculation in the residential table above.

Meter Capacity Component (MCC)	
Meter Size	2017 Cost
3/4" or smaller	$ 175.00
1"	$ 250.00
1 ½"	$ 800.00
2"	$ 900.00
3"	$1,100.00
4" or larger	At cost