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SUBJECT: Assessment of the DWSD Financial Projections Included in Revised Disclosure Statement – Exhibits K and L

DATE: April 18, 2014

On March 31, 2014, the City of Detroit Emergency Manager's office filed a revised Disclosure Statement and Plan of Adjustment (e.g. Disclosure Statement) with the Federal Bankruptcy Court. The revised Disclosure Statement amends the earlier bankruptcy filing of February 21, 2014, a filing that omitted over 30 exhibits, including exhibits addressing historical and projected financial information relating to the Detroit Water and Sewer Department (DWSD) operations, capital program and projected budgets.

This memorandum and attachment covers the more significant business issues observed in connection with two exhibits attached in the revised Disclosure Statement:

- **Exhibit K** – this exhibit includes the historical balance sheets and income statements for the Water and Sewer Funds for the years FY-2008 through FY-2012 periods as audited. The draft balance sheet and income statement for FY-2013, which are expected to be included in the City's comprehensive annual financial report (CAFR), are included as well. The statement of cash flows and footnotes normally accompanying audited financial statements are not presented in Exhibit K of the revised Disclosure Statement.

  The draft FY-2013, unaudited financial statements carry a lack of assurance as the Emergency Manager has yet to sign the auditor's required letter of representations accepting the responsibility for the financial statements' preparation and without



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the required letter of representations, audited financial statements may not be able to be issued at all.

- **Exhibit L** – this exhibit includes operating budgets for FY-2014 through FY-2023 for the combined water and sewer operations and sets forth related assumptions and other financial details in support of those operating budgets. In addition, certain capital program and related financing and other information are presented in this exhibit. Only the pages of Exhibit L specifically referenced in this memorandum have been provided as an attachment to this document.

The disclaimer of responsibility by the preparers of the financial and programmatic information contained in the October 2, 2013 DWSD proposal (upon which the Disclosure Statement was based) placed a clear burden to perform comprehensive, independent due diligence on those who would use the information in making any decision to either form a new authority, to lease or acquire the DWSD as may be the case by a private entity, or even to evaluate its future as a City department. Exhibits K and L have both historical information subjected to audit and projected financial information inherently subject to risks that the underlying assumptions in its creation will not come true. Any failure to detect preparer errors (whether intentional or not), to discover omissions and / or challenge the reasonableness of the assumptions used in the financial projections rests solely with the users, not with the preparers of the information.

The users of the information have a duty to conduct independent due diligence inquires so they have complete confidence before entering any transaction that all business issues have been identified, are understood and addressed before determining the amount of any consideration to be provided in connection with a transaction. The term "caveat emptor" applies and is a warning to all – 'let the buyer beware.'

Adding to the concerns is the fact that the contract being offered by City representatives is a 40-plus year, no cut contract, a contract that cannot be terminated even if a party breaches r defaults on the terms of the contract. The contract is intended to be permanent as long as any long-term debt is outstanding by the DWSD or successor entity and long term capital debt is virtually always outstanding in any on-going water and sewer utility.

Upon the signing of any contract, complete responsibility for the business issues, known or unknown, shifts from those who prepared the information to the new authority or private entity acquiring the DWSD lease. It is a far-reaching responsibility that requires those undertaking the responsibility to understand its scope and to be prepared to address and remedy the myriad of severe financial and programmatic issues facing the DWSD today and into the future.

Any successful undertaking will require both parties (the City representatives and Counties) to be forthright and honest in disclosing the business issues and requires the parties, in a cooperative manner, to account for the reality of the situation when evaluating any compensation to be paid for the 'control' offered to the Counties or private entities. To do otherwise, leaves the lessees' and their water and sewer ratepayers exposed to harsh fiscal consequences for any failure to adequately investigate the business issues prior to determining the compensation to be paid for accepting the responsibility for the resolution of those issues.

The financial information and comments within this memorandum arise from meetings held and material gathered in Oakland County's attempt to perform its due diligence as part of the evaluation of the plans presented in the Emergency Manager's Disclosure Statement. Requests for certain financial, programmatic and other information made months ago remain unfulfilled. Finally, we note that had the Counties been given voluntary and timely access to the requested information and had they been provided open access to DWSD financial personnel, we are certain that additional business issues might have been identified and remedies proposed.

**SUMMARY OF MAJOR FINDINGS – EXHIBIT K AND L**

The balance sheets and income statements reflected in Exhibit K clearly demonstrate that DWSD has been a financially troubled operation with a downward financial trend throughout the period from FY-2008 to FY-2013. At the end of FY-2008, the combined Water and Sewer Fund net equity was ***$1.05 billion***. By the end of FY-2013, the combined net equity had fallen to a meager ***$20 million.***

In six years, the DWSD had operating losses of just over $1.0 billion (going further back two more years, the operating losses exceed $1.5 billion). The downward spiral at the pace cited is a critical concern not addressed in Exhibit L, which covers the projected operating budgets for FY-2014 and beyond.

Given the severe financial decline through FY-2013, it seems evident that the combined two Funds are or will be insolvent sometime in FY-2014. This situation further jeopardizes DWSD operations, capital programs and the sustainability over the next several years. Without significant, immediate and aggressive actions to correct the downward spiral, either through rate hikes above the 4% suggested and / or the restructuring of operations, the DWSD is headed for financial and programmatic disaster.

Even if the assumptions used in the preparation of the projected income statements for FY-2015 through FY-2023 (Exhibit L-4) were to be believed, the schedule indicates that the net equity position will not improve through the remainder of the decade. Absent actions to correct the many business issues facing DWSD or, if formed, an authority, the system will struggle to meet its payrolls, cover its operations and fund debt service over the next 10 years. Extracting cash payments of any sort from the DWSD or new authority will do nothing more than exacerbate the fiscally-troubled situation facing DWSD today.

Realistically, this resolution of this financial disaster can take only two forms: either increase revenues and/or reduce expenses. Because two of the largest expenses, debt service and depreciation are largely fixed, (albeit depreciation is non-cash, but is used to create cash flow necessary to cover principal payments) as are many of the other costs over the near term, the only real option is to raise water and sewer rates well beyond the 4% annually as is contemplated for the next 10 years.

Many other issues will place increasing pressures on the financial condition faced by DWSD, including: the decline in volumes (e.g. water and sewer flows) upon which rates and revenues are based, aging infrastructure, funding needed to address unforeseen and unplanned events, and other matters that might have been discovered and planned for had an open dialogue occurred over the past 10 months with the City representatives.

Presently, the capital program has not been and currently is not being developed on the basis of what is ***needed*** to improve the water and sewer system, but instead, is being developed round what is perceived to be ***affordable*** by city retail customers. The result is that normal, preventative maintenance is not occurring. Instead crisis maintenance is the standard operating practice and crisis maintenance is almost always performed at a seriously higher cost. Essentially, the amount of debt service paid (e.g. principal and interest expense) during any given year drives the projected ability to then issue new debt of an equal dollar amount that results in little or no change in the needed rates to fund the debt service.

As a practical matter, given the income levels of many communities, far too many of the rate-payers are already delinquent and cannot afford further rate increases. This creates a growing "bad debt" problem and the need to develop a mechanism to help fund the delinquent accounts. Over the past several months, the Counties have referred this issue as the 'back-stopping' issue, that is, the issue of who will guarantee the ultimate payment for the essential water and sewer service.

While bad debts occur in any business, the magnitude of the write-offs and the untimely payment of amounts billed in the DWSD are so severe, they jeopardize the operating and capital needs of the water and sewer operation. An acceptable resolution for this matter remains unidentified despite multiple attempts by the Counties to engage City and State representatives in a thoughtful and measured program to mitigate the DWSD losses and impacts on cash flow.

Another issue is presented by the interest rate assumptions used in the Disclosure Statement. The interest rate used in the projected financing of the capital program is 4.63%; a rate that undoubtedly contemplates the 'A' bond rating being achieved without bond insurance for the new authority. With the exception of State Revolving Fund debt that carries a subsidized interest rate, the interest rate used in the projected operations is unrealistically optimistic because it is below that carried under most of the other, current outstanding debt of DWSD, debt originally issued with an 'A' rating.

At present, Standard & Poors has reviewed the proposed Disclosure Statement and other terms of the deal and has downgraded the DWSD debt a 'CCC' rating with a negative outlook, i.e. a notice that the already non-investment grade rate will likely be reduced in the near future absent positive actions to correct the cause of the downgrade, which causes include the projected impairment of DWSD debt as described in the Disclosure Statement.

Similarly, Fitch has recently downgraded the DWSD debt to a BB+ with a negative outlook. Clearly then, achieving the interest rate benefits of an 'A' bond rating any time soon is likely out of the question.

Given the use of the 4.63% interest rate assumption and the reaction of the bond rating agencies, it seems evident the assumption used for the capital program is unrealistic. In the likely event that the DWSD attempts to live within the 4% projected rate increases, and a higher interest rate for future capital programs is imposed, a lesser debt amount can be issued. Deferred maintenance, already at a critical stage due to the aging infrastructure, will be further adversely impacted thereby resulting in higher costs being imposed on the system in a crisis mode. (E.g. Sinkholes are a prime example of crisis maintenance needs resulting from aging infrastructure).

Another action of note that could have assisted in the reduction of the interest rate in future financing of needed capital would have been a more intense the use of the State Revolving Fund (SRF). The Counties requested that the State assist in providing the DWSD or new authority additional SRF debt at preferential rates. Exhibit L indicates that the total SRF debt contemplated to be received from the State is $7.5 million. Unfortunately, the water and sewer system capital needs are well into the billions and are immediate and the $7.5 million figure will be inadequate.

The projected operations and related assumptions used in Exhibit L have serious flaws and are unrealistic given the need to solve the weak financial position reflected in the balance sheets and operations revealed in Exhibit K. Simply put, given past operating performance and known business issues facing the DWSD today the projections and related assumptions cannot be expected to materialize.

Additional significant business issues are noted below:

- The total equity for the combined Water and Sewer Funds is a meager $20 million (Sewer - $57.4 million surplus; Water - $36.8 million deficit). Within the components of the equity, the unreserved *deficit* (e.g. equity) as of June 30, 2013 was $543 million. The Disclosure Statement has not discussed how the DWSD or a new authority would resolve this serious financial issue. The unreserved deficits occurred in FY-2010 for both Funds. Deficit elimination plans to resolve these problems have not been filed with the State Department of Treasury or incorporated in the Disclosure Statement.

  Finally, since the net equity projected in the Disclosure Statement contains within it the unreserved deficit, there is clearly no intention to resolve this matter as part of the bankruptcy. Instead, the weak balance sheet and related deficits would become the responsibility of the new authority board to resolve. Given the lack of a plan, it is hard to believe that appropriate actions are underway to correct a problem if there is no identified business plan to do so.

- In preparing operating projections, it is normal to provide a credible base year that is adjusted using credible assumptions for years beyond the base year. Typically, the credible base year starts with ***actual*** operating results identified in audited financial statements. In the case of DWSD FY-2013 audited statements have not been issued. So instead of using audited actual numbers as a base, and even with very weak budgeting and accounting practices being used today, the Disclosure Statement uses the FY-2014 ***budget*** figures as the base year. That is not a credible base upon which to build given the absence of timely and accurate accounting information for FY 2014.

  In using FY-2014 as the base year and despite a 4% increase in rates for FY-2014, revenues have somehow been increased by $100 million over the draft actual FY-2013 revenue levels, reflecting a 12.6% overall increase. How can a 12.6% revenue increase occur when the rate increases were 4.0% for FY-2014 and volumes have historically been dropping? Similarly, the operating expenses are somehow reduced by $48 million and there are adjustments to other non-operating items comprising approximately $12 million in benefits.

  The reasons for projecting the significant operation improvements of *$160.3 million in one year* between FY-2013 actual and FY-2014 budget have not been explained in the Disclosure Statement. The meager operating income of $13.7 million presented for the FY-2014 base year and beyond is highly dependent upon the resolution of the unexplained operating issues that have plagued DWSD for years. The ability of DWSD to achieve such a spectacular turn-around in the current year after having incurred operating losses of $1.5 billion over a 7-year period is remarkable, or more likely, not realistic.

  By the City representatives using the FY-2014 budget as a base year, it gives the *appearance* that the DWSD can properly operate with a small operating income from FY-2014 through FY-2023 even as the DWSD Finance Committee reports have already indicated actual operating results for FY-2014 reflect significant unfavorable variances. It is unrealistic to believe that this level of improvement with or even can occur in FY-2014 or that the operating projections indicated in Exhibit L-4 can be achieved.

In short, the proposed 4% rate increase will not provide a regional water and sewer system that is properly funded, efficiently operated and that maintains appropriate levels of capital program dollars such that the system is sustainable in the near term, mid or long term regardless of whether the DWSD is operated as a department, as a new authority, or is privatized. Every dollar in "savings" generated by the actions taken with the approval of the bankruptcy court must be driven back into the water and sewer system in order to insure that the system can provide essential operations and services well beyond the conclusion of the bankruptcy. To do otherwise would be financially and programmatically irresponsible.

**FINANCIAL STATEMENTS – EXHIBIT K**

Going forward, DWSD can choose to either manage in a crisis mode or in a more cost effective and thoughtfully planned manner. Without a healthy balance sheet and a properly-funded operation the DWSD will face continued pressures in deciding between covering operations and funding capital needs. Based on DWSD's operating history as it has been explained to us, *planned* capital needs are routinely postponed to a future date to offset operating shortfalls and fund crisis repairs, only to now find the infrastructure system is failing. Yet, the operation continues to place itself in a reactive mode rather than a thoughtful planning mode because of the weak financial condition DWSD finds itself in. The proposed plans outlined in Exhibits K and L does nothing to rectify this critical situation.

Contributing to the above is the lack of timely and accurate financial information of the type needed for DWSD management to make informed decisions *during* the fiscal year. Closing the accounting records many months after year end (the incomplete FY-2013 draft financial statements were provided in mid-February 2014, almost 8 months after year end) indicates that the interim financial information is so flawed that DWSD management can place little or no reliance on it.

Until this critical situation is rectified, the meager net equity positions cited in Exhibit L over the next half dozen years must be held up to serious question. Only a well-defined and well-operated accounting system rooted in strong financial procedures could realistically project the meager equity positions cited in Exhibit L with the hopes that they will materialize.

Finally, the Disclosure Statement cites no financial goals the achievement of which would allow the DWSD operations to return to a financially and programmatically viable state. Without defined goals (such as a projected adequate equity position or sufficient cash flow to cover capital needs over the next several years not simply through crisis capital management), there can be no realistic belief that the projections cited in the Disclosure Statement can restore DWSD to a financially sustainable water and sewer system through FY-2023 or beyond.

The next matters cited in this memorandum are not meant to represent all of the observed business and financial issues facing DWSD. Rather, only the more significant issues and concerns involving the Exhibits K through K-3 are discussed below and the attachments pertaining thereto have been highlighted.

<u>Water Fund- Exhibits K and K-2</u>

Concerns involving in the Water Fund Income Statement - Exhibit K:

- The operating income (operating revenues less operating expenses) of $90.2 million failed to cover the FY-2013 interest expense of $127.9 million, being short by $37.7 million. Similar concerns of the operating revenues providing an insufficiency to cover the interest expense are also noted for the periods from FY-2008 through FY-2012. If the operating income cannot cover the interest expense how can it reasonably be expected to cover principal payments without cash flow pressures on vendors over the next 10 years?

- In each of the six fiscal years presented, a decrease in net assets occurred (e.g. the Fund had a net operating loss) resulting in an erosion of the net equity (e.g. net worth) of the Water Fund and the weakening of the balance sheet. In the fiscal years provided, the equity declined from a surplus of $374.3 million as of June 30, 2008, to an accumulated deficit of $(36.7 million), a six-year cumulative operating loss of $411.0 million. The revenues have consistently failed to cover the operating needs of the Water Fund.

- In using the FY-2013 draft Water Fund revenues for Detroit retail and suburban wholesale customers (combined total - $350.8 million) and applying a 4% economic factor onto the actual FY-2013 water charges, it generates $14.0 million in 'new revenues' arising solely from rate increases. However, because the decrease in net assets (operating loss) was $46.6 million for FY-2013 (and *already* included the rate increase for FY-2013), this proposed economic increase, had it been applied in FY-2013, would not have covered the operating loss in that year. The Water Fund's financial condition would have continued to deteriorate even with a 4% rate increase.

  In order to eliminate the $46 million in operating losses, the Water Fund would have had to have increased rates by an additional 13.3%, and that assumes no incremental losses arising from the affordability issue ($46 million / combined Detroit retail and suburban wholesale charges of $350 million). Unfortunately, increasing the water rates will result in exacerbating the affordability (back-stopping) issue and undoubtedly will result in further bad debts.

- Exhibit K has a footnote reference that the draft audited financial statements are available but have yet to be shared with the Counties.

Concerns involving the Water Fund Balance Sheet - Exhibit K-2:

- The unrestricted cash position is weak for an organization having the operating needs of the DWSD, including the need to provide sufficient cash for unplanned maintenance repairs resulting from failures as frequently seen this past winter. While the Counties have not been provided a cash flow schedule for the receipts and disbursements during the year for the water or sewer operations, the weak cash position has to create periods within the year in which vendors and other creditors are not paid on a timely basis. With continued operating losses likely, the issue of timely payment of vendors, payrolls and potentially even debt service comes into question.

- The accumulated deficit of the net book value of all of the Water Fund assets owned of $(22.5 million), offset by related debt, is highly unusual. Essentially, the entire net book value of infrastructure from the first day of operation to the end of FY-2013 has less value than the debt outstanding related to those assets. In analyses separate from this memorandum, Oakland County has been informed by DWSD personnel of $514 million in infrastructure cost write-offs for both the water and sewer operations (e.g. capital investments made, likely funded by long-term debt and then abandoned through asset write-offs). These write-offs likely are contributing causes of the net deficit. The cost of the debt remains and must be funded out of future rates charged to water users even as the assets are worthless.

- The unreserved deficit as of June 30, 2013 is $(156.8 million). Since FY-2010, the Water Fund has had continued accumulated deficits ranging in amounts from a low of $(118.6 million) to a high of $(429.3 million). Despite the significant unreserved deficit, a deficit elimination plan to rectify this financial condition has not been presented to the Counties, is not included in the Disclosure Statement and apparently has not been supplied to the State Department of Treasury.

  The Sewer Fund had an unreserved deficit of $(386.1 million) at June 30, 2013. A deficit elimination plan was likely not created for the Sewer Fund nor supplied to the State Department of Treasury. Additionally, there is no published plan to resolve this deficiency in the Disclosure Statement.

  The State Department of Treasury standards generally require the resolution of unreserved deficits to be achieved over five years. If the unreserved deficit as of June 30, 2013 in the Water Fund were to be resolved over five years, then the calculation of the required rate increase, without considering the affordability issue on the rates, would be 9.0% effective July 1, 2013 ($156.8 million / 5 years / $350 million in combined revenues). A similar calculation for the resolution of the Sewer Fund's unreserved deficit of $386.1 million at June 30, 2013 would be 17.9% on July 1, 2013 ($386.1 million / 5 years / $431 million in combined revenues). Despite the need, no actions were undertaken to resolve the unrestricted deficits of the Water and Sewer Funds.

<u>Sewer Fund- Exhibits K-1 and K-3</u>

Concerns involving in the Sewer Fund Income Statement - Exhibit K-1:

- The operating income (operating revenues less operating expenses) of $64.1 million failed to cover the interest expense for FY-2013 of $142.1 million by $78.0 million. Similar failures of the operating income to provide a sufficiency of revenues to cover the interest expense occurred in each of the six years prior to that are evidenced as well. The sewer rates were consistently insufficient to cover the operating costs.

  In order to eliminate the $100 million in operating losses in FY-2013 (and recognizing the sewer rates had already been adjusted by 4%), an additional rate increase of no less than 23.2% ($100 million / combined Detroit retail and suburban wholesale charges of $431 million) would have been required. Obviously such sizable rate increase would have an adverse impact on the affordability (back-stopping) issue as a rate increase of that magnitude would likely have resulted in significant incremental bad debts and thereby cause future rate increases to be even greater.

- In using the FY-2013 draft Sewer Fund revenues for Detroit retail and suburban wholesale customers (combined total - $431.4 million) and applying a 4% economic factor onto the revenues, it generates $17.3 million in 'new revenues.' However, because the decrease in net assets (operating loss) was $100.0 million for FY-2013, this proposed economic increase, had it been applied in FY-2013 (in addition to the 4% already included in the rates), would not have covered the operating loss in that year. The Sewer Fund's financial condition would have, and continues to deteriorate.

- The net equity declined from a surplus of $675.8 million as of June 30, 2008 to $57.4 million as of June 30, 2013. The cumulative net operating loss for these periods of $618.4 million remains a dramatic problem.

Concerns involving the Sewer Fund Balance Sheet - Exhibit K-3:

- The unrestricted cash position is exceedingly weak. The unreserved cash balance as of June 30, 2013 is a meager $11.1 million. Simply comparing this cash balance to the vendor payables of $50.5 million owed at June 30, 2013, clearly demonstrates the distressed fiscal condition of this Fund. The cash weakness is unaddressed in the Disclosure Statement plan.

- While the Fund had a net equity surplus of $57.4 million as of June 30, 2013, the operating losses in *any* of the six years presented in Exhibit K-3 were greater than the surplus at June 30, 2013. Given the recent financial and operating history of the Sewer Fund presented, it is probable that the FY-2014 operations have now created a net accumulated deficit some time in FY-2014.

<u>Combined Water and Sewer Financial Information</u>

In two separate reports dated October 2, 2013, Conway MacKenzie and Miller Buckfire provided financial analyses that gave rise to a proposed lease payment of over $9 billion for a 40-year term starting in FY-2015. A 10-year projection was provided as well. Discussions between the Counties and City representatives from October until mid-December 2013 occurred wherein the City representatives held firm in the feasibility of the $9 billion lease payment, indicating that it was "rate neutral" even in the face of their assumption that future rates would raise by no more than 4% annually.

They asserted that the 4% figure was adequate to fund both the ever increasing annual lease payments and would provide adequate funds for appropriate capital improvements and sufficient cash flow to enable an 'A' bond rating. The Counties rejected that position.

In mid-December 2013, after numerous meetings rejecting the City's October 2, 2013 proposal, a revised lease proposal was made by the City, this time with a proposed fixed lease payment of $44 million annually for 40-years. The $44 million proposal was 'refined' upwards three weeks later (with no explanation) to $47 million. This refined number was disclosed in a document dated January 2, 2014 that was provided to the Counties on January 15, 2014.

Some of the more interesting aspects of the October proposal as compared to the Disclosure Statement follow:

- During the 10-year period ending in FY-2023, the Miller Buckfire report indicated that a cumulative $1.53 billion in lease payments would be made by the new authority to the City.

- At the end of the 10-year term, Conway MacKenzie projected that the ending equity (surplus) for the Water Fund would be $96.1 million and the Sewer Fund would be $668.1 million for a combined total of $764.4 million.

- In comparing the original lease proposal in the above two reports and the one now included in the Disclosure Statement, the following unusual matters that challenge the accuracy of the projections are revealed:

    - The October 2013 proposed lease payment of $1.53 billion for a 10-year period is in excess of the January 2, 2014 proposed payment of $47 million (or $470 million) by $1.06 billion.

    - The combined ending equity as of FY-2013 in the October 2, 2013 proposal, even with over $1.06 billion being distributed to the City from the two Funds, was projected at $764.4 million at the end of FY-2023. The Disclosure Statement indicates a projected equity at the end of FY-2023 of $596.4 million, some $168 million less.

    - Essentially, with over a billion *less* in lease payments under the current proposal as compared to the original proposal, and with the revised equity position as of FY-2023 also being reduced by $168 million, the current proposal has a $1.2 billion change in operations and financial condition at the end of FY-2023. No explanation was provided for these $1.2 billion in projected changes.

The combined accounts and unbilled receivables and allowances for doubtful accounts continue to support the Counties concerns involving the 'back-stopping' issue and the sizable losses from retail and / or wholesale customers who cannot or will not pay must be addressed. The combined accounts and unbilled receivables for the Water and Sewer Funds are $301.3 million with an offsetting allowance for doubtful accounts of $95.7 million or 31.7% of accounts receivable. With the exception of the City of Highland Park, which had an outstanding receivable at that time of approximately $16 million, virtually the entire allowance for doubtful accounts relates to the Detroit retail customers.

In a DWSD Finance Committee meeting held April 16, 2014, it was disclosed that the City of Detroit, as a DWSD customer, had unpaid water and sewer bills in the amount of $28.3 million. As of April 3, 2014 $25.4 million of those unpaid City invoices were delinquent. The DWSD receivables for services rendered to the City are increasing at a pace of $2 million monthly. Remember, DWSD has recently taken the City of Highland Park to court over approximately $20 million in unpaid DWSD charges. Against that backdrop, one must evaluate the City representatives' assertions (reflected in their drat MOU) that the City is prepared to set aside funds relating to the *retail customers* unpaid bills. If the City itself cannot pay its own bills as a customer, how can the Counties accept the proposed "reserve account" structure as being meaningful means to resolve the back-stop issue over the next 40 years? They clearly cannot.

The City's new admission of current delinquent debt highlights another issue. During the course of authority discussions held between the Counties and City representatives in the fall of 2013, Oakland County, both orally and in writing, indicated that it would require the City to pay all amounts owed to DWSD as part of any conversion from a City department to a new authority. City representatives failed to include this requirement in the draft memorandum of understanding over the continued objections of the Counties. The Counties' concerns were that the bankruptcy court would eliminate the debt of the City to DWSD before the transfer. We were concerned that if the debt is eliminated, the Counties' ability to secure commissioner support for a new authority would be severely hampered. Now that the City has disclosed the size of the debt owed, it is apparent our concerns were justified.

At the end of February 2014, the DWSD Finance Committee package indicated an outstanding Detroit retail customer amount of $170 million, of which $140 million was at least 60 days past due. The accounts that are past due involve 162,000 households and businesses and could equate to as many as 300,000 residents. The untimely collection of these receivables creates further cash flow pressures for DWSD as the services have already been provided and presumably paid for by the other system customers. Permanently carrying as much as $100 million in delinquent receivables is financially costly and is a prescription for failure.

The combined net assets of the two Funds are a meager $20.7 million. When comparing this to the operating and non-operating expenses of the two Funds of $746.0 million (excluding non-cash depreciation), the net asset position represents just 10 days of equity, an equity position inadequate by any standard.

**PROJECTED OPERATIONS – EXHIBIT L**

Exhibit L of the revised Disclosure Statement for the combined and individual Water and Sewer Funds contains the assumptions, projected income statements and related details for the periods FY-2014 through FY-2023. The pertinent pages of Exhibit L cited in this memorandum have been included as referenced and highlighted in the attached Exhibit. Even as the unreserved deficits for both the water and sewer operations for FY-2014 noted in Exhibit K are unaddressed, this section of the memorandum covers operating and programmatic issues that serve to indicate that the projected operating budgets, as presented, are not achievable.

**Volumes (Exhibit L-1)**

The projected water and sewer revenues are based on volumes (flow) and rates used against those volumes. As reflected in a February 5, 2014, document prepared by The Foster Group, during the period 1999 through 2013, (), Detroit retail flows dropped from 125.8 million gallons per day (mgd) to 63.2 mgd, respectively, or by almost half over a 14-year period, or by 3.6% per year on average. The yearly volume declines were almost uniform from year to year throughout the 14-year period and did not seem to be affected during the economic decline from the 2008 and beyond.

Despite this consistent history, the Detroit retail volume decline projected in the Disclosure Statement for the 9-year period FY-2015 through FY-2023 totals just 6.3%, or .7% per year on average. No justification was presented in the Disclosure Statement for projecting such a significant improvement in volume declines starting with the FY-2014 base year operating projections.

The volume assumption was apparently based on SEMCOG's projected population decline over that period. Unfortunately, given the City's 238,000 in residential decline from 2000 to 2010, as reported in the 2010 U.S. Census (or, 23,800 per year on average), it seems likely that the movement of residents out of Detroit did not subside directly after the census was taken. Continued blight, high taxes, troubled City and public education services, and now the bankruptcy could not have resulted in any significant net inflow of individuals to the City.

In fact, that a decline continues is demonstrated by a Foster Group report indicating that the volume was 77.3 mgd in FY-2011 (the year directly after the census) and by FY-2013 it had dropped further to 63.2 mgd, an 18% decline over the two year period. Absent a showing of changed circumstances at the DWSD, the assumption far lower declines cannot be accepted as something that will likely occur in the near future.

Because the Exhibit K income statements provide details as the Detroit retail and suburban wholesale revenues while the Exhibit L combines these two classes of customer revenues, the separate effect of the declines on these two revenue components cannot be determined. However, if the volume assumptions as cited in the Disclosure Statement do not become reality, it is clear that the suburban wholesale customers will be covering more of the fixed costs of the DWSD operations in the coming years.

**Bad Debt Expense (Exhibit L-1)**

Based the 15% and 14% of retail revenues for the Detroit Sewer and Water Funds respectively, the combined bad debt expense in FY-2014 is projected to be roughly $40 million based the FY-2013 Income Statement (Exhibits K and K-1). (These amounts appear to be in accordance with discussions held with Oakland County representatives who have actively participated in rate discussions over the past several months.)

By FY-2018 and beyond, according to the Disclosure Statement, the expected bad debt expense for both Detroit retail operations is expected to decline to approximately $29 million. Recent actions by the DWSD to begin a program to actively shut-off the water and sewer operations to those customers having a bill over $150 and over 60 days past due may improve the collections for those *unwilling* to pay, however, it will likely do little for those customers *unable* to pay.

Given that 80% of the Detroit retail customers are delinquent (defined as 60 days past due) and could involve as many as 300,000 residents (162,000 customer accounts), shutting off services to these customers will have significant demographic, volume, public safety, and blight impacts on the City. While there is currently no way to critically assess whether the current shut-off program will be ultimately successful in reducing the annual bad debt expense of $40 million down to $29 million by FY-2018, it will could be accepted as presented in the Disclosure Statement. However, this particular area remains a critical component of the acceptance of the new authority (e.g. back-stopping issue) and merits close inspection in the coming months as to its success in improving collections.

**Salaries and Wages (Exhibit L-2)**

As noted in separate material produced by both the DWSD and Oakland County, the DWSD is intending on carrying approximately 1,700 full-time positions between FY-2014 through FY-2020, when the DWSD labor force is expected to level out at 1,000 employees. The 700 full-time positions are expected to be eliminated through FY-2020 largely through attrition. It has not gone, however, without notice that the 700 full-time positions and more have been carried within the water and sewer rates for decades.

The gross estimated carrying cost of retaining these individuals until they decide to retire or leave DWSD employment is approximately $170 million. DWSD has asserted that some of the current employees will be replaced with outside contractors (and increases in Exhibit L-5 are observed) no impact of the elimination of the 700 excess positions, net of added contractor cost, has been presented to assess the true impact of the costs of carrying these employees today deemed surplus and until they decide to leave DWSD employment.

Another concern is presented by the document that indicates that even though the operations and capital needs of the water and sewer system are dire, the DWSD is expecting to provide a 10% salary increase to staff because of 'job classification and management input on related compensation changes due to optimization.' Increases beyond FY-2015 are expected to be determined based on inflationary increases. It is hard to imagine how 10% salary increases can be justified given the financial condition of the DWSD system and within a constraint of a 4% increase in water and sewer rates.

**Debt (Exhibit L-3)**

The capital program is expected to be financed from any available remaining cash provided from operations, which given the troubled financial condition cited previously is likely minimal, and through the issuance of long-term debt. Combined with the oft-stated commitment to limit rate increases to no greater than 4% annually, the projections for new debt issuances are limited to the dollar amounts of debt retired each year, so that any new debt service does not disturb the principal and interest payment totals. By projecting the costs this way, on paper, the water and sewer rates remain relatively stable for the capital programs undertaken.

The estimated interest rate used in the projected income statements for new debt is 4.63%, fully 50 to 75 basis points below the long-term rates for the outstanding debt DWSD achieved before the bankruptcy and when it was rated at an 'A' rating with bond insurance.

Presently, DWSD debt has been rated by Standard & Poor's (S&P) at a 'CCC' rating with a negative outlook. The negative outlook has been included because absent actions to address the causes of the 'CCC' rating, which include the City's proposal to impair DWSD debt as set forth in the Disclosure Statement, the bond rating is likely to be further reduced. Fitch has rating the DWSD debt at BB+ with a negative watch for its senior lien debt. Both the S&P and Fitch ratings are considered to be well below investment grade.

Similarly, as the bond ratings fall the amount of reserves required to be set aside will likely increase as well. These reserves are funds set aside and not available for construction purposes. This further increases borrowing costs. Therefore, it seems likely that the 6.5% reserve factor, given the unrealistic interest rate given the bond rating currently provided, is low as well.

Over the past several months, the Emergency Manager's team has indicated its concerns involving the affordability of raising rates on those rate-payers who have an inability to pay. While Detroit may have the preponderance of low-income residents, other customer communities have individuals struggling to make ends meet as well. Absent a resolution to mitigate these matters, the failure to raise rates to cover operating costs will result in exacerbating the dire financial condition that prevents adequate infrastructure repair and maintenance from being undertaken today.

Raising the rates to address the financial needs of the system will adversely affect fiscally distressed individuals ability to pay and will result in increasing bad debt expenses. Customers who pay cannot alone, be made to pay to provide the back-stop payments for the continually increasing number of customers that do not pay.

Yet, if the water and sewer rate increases remain at 4% as projected and the interest rate for new debt estimated in the plan remains understated, the result could not be clearer: the amount of new debt issued in future years will be restricted to below that necessary to save the system's infrastructure. Continuing the underfunding will insure that the critical needs for infrastructure repairs and maintenance, efforts required for environmental compliance, will suffer. Delaying routine, lower-cost maintenance, which is already occurring, will only serve to increase the much more expensive crisis maintenance costs in the coming years.

No provision for the crisis repair and maintenance needs required for this past winter is made in the assumptions in Exhibit L for FY-2014. A contingency provision of some amount within the base of the operating expenses for unusual and unplanned situations (such as the impact on infrastructure of this past winter) should have been included. This is yet another reason that expenses in the Disclosure Statement are understated.

**Income Statement Projections (Exhibit L-4)**

Exhibit L-4 is the summary schedule for the projected operations from FY-2014 through FY-2023. Comments concerning the elements of this schedule have previously been cited but include:

- The unexplained swing from an operating loss in FY-2013 of $(148 million) to positive operating income of $13.7 million in FY-2014. Since FY-2014 becomes the base year as adjusted for periods FY-2015 and beyond based on the assumptions cited (many of which are troubling), a reconciliation between actual results and budgeted projections, particularly given concerns expressed by many on the accuracy of the DWSD budgets to predict its operations, should have been provided. Without a clear and credible explanation as to how the system operations have reversed, in a single year, by roughly $162 million, the FY-2014 base year must be considered to be unrealistically optimistic. Future years in the projected operations, which are based on the unrealistically optimistic FY-2014 operations, must then be brought into serious question.

- The schedule reflects a combined net equity position that is unsatisfactory in terms of providing sufficient cash for operations, capital needs and unforeseen operating and infrastructure repairs (both known and unforeseen). Even worse, when the components of equity are considered as reflected in Exhibits K-2 and K-3 (Water deficit of $156.8 million as of June 30, 2013 and Sewer deficit of $386.1 million), the size of unreserved deficits and lack of plan to resolve those deficits is also an unacceptable deficiency in the Statement.

In fact, assuming the accuracy of the projected income statements, it would not be until FY-2023 when the unreserved combined deficits would be brought into a marginal surplus position (e.g. net assets would then be approximately zero). The equity position demonstrates the inadequacy of the Disclosure Statement proposal.

- Virtually all of the combined equity as of June 30, 2023 arises from the operations in the three years prior to that date. Given the general uncertainties of any projection, the farther out that projections are provided, then the less certain and or accurate the projections can be. It is clear from the projected operations that if the Disclosure Statement proposal is accepted, regardless of whether DWSD operates as a department of the City, a new authority or as a private entity, that operating entity will struggle to meet its operations, capital needs and environmental regulation responsibilities over the next 10 years and likely beyond.

**<u>Operating & Maintenance Expenses Projections (Exhibits L-5 and L-6)</u>**

Exhibits L-5 and L-6 provide certain operating details in support of the Income Statement Projections schedule (Exhibit L-4). Comments concerning the Exhibits:

- A comparison of the FY-2013 actual salaries with the related fringe benefits indicates a fringe benefit rate of 71.7% ($60.5M fringe benefits / $84.4M salaries). Because of the pension contribution prepayment proposed to be imposed on the DWSD to fund City general fund operating needs, the fringe benefit rate in FY-2023 grows to 174.4% ($121.4M / $69.8M). That is unacceptable.

- Because of the questionable benefit policies relating to the City's general retirement system (DWSD employees are members of the General Retirement System pension plan), the unfunded actuarial accrued liability now required to be prepaid in the amount of $675 million over 10 years by the City representatives drives up the fringe benefit rate to 174.4% of salaries by FY-2023.

- In addition to a defined benefit program, the General Retirement System employees (including the DWSD employees) received a defined contribution benefit program. That program guaranteed a rate of investment return at no less than 7.9%, regardless of actual fund performance. The actuarially projected liabilities caused by the guaranteed interest benefit are $1.9 billion and form a principal component of the troubled pension plan the DWSD is now expected to advance fund.

  The $675 million pension contribution acceleration will be used by the City's general fund to avoid the City's payment to the General Retirement System. Doing so, the Disclosure Statement indicates, allows the funds freed up by the City general fund by avoiding its share of a pension contribution in order to fund its capital needs (vehicles, technology, etc.) Essentially, the forced accelerated pension payment of DWSD will help solve City capital needs, while punishing DWSD ratepayers all while the DWSD maintains significant, unmet operating and capital needs.

- An unusual and unexplained anomaly also exists in the salaries. In FY-2013, 1,706 employees generated a salary of $70.3 million for an individual salary average of $41,200. Yet, in FY-2021, after the DWSD is expected to reduce its workforce down to 1,000 employees, the salaries are $55.7 million, or $55,700 per employee. During the period from FY-2013 through FY-2021, the projections indicate a 35% increase in rates per individual in a system that has dire operating and capital needs.

**THE FOSTER GROUP MEMORANDUM**

While this assessment memorandum was in draft form, The Foster Group issued a memorandum to the DWSD chief financial officer citing several rate concerns for FY-2015. The Foster Group analysis includes the increasing Detroit retail customer bad debts and the volume declines for flow that serve to create upward rate pressures for water and sewer services.

The Foster memorandum cites a revised level of needed revenues for water and sewer services for FY-2015 from the Detroit retail customers of $96.8 million and $237.4 million, respectively. The Foster memorandum suggests that, rather than the 4% rate hike already in the original proposed FY-2015 budget, rate increases of 10.4% are now required. Yet even that amount is substantially understated.

Using the base year *actual results* of FY-2013, an action cited previously in this memorandum as a concern, the water and sewer revenues in Exhibit K indicate Detroit retail amounts of $75.7 million and $193.1 million, respectively, are required. However, using a proper base, the revenue increase over a two year time frame actually required calls for increases of 27.8% and 22.9% for water and sewer operations, respectively, and this is before considering uncollectible amounts. In considering the amounts not collectible and using the assumptions in Exhibit L for uncollectible amounts, the needed rate increases grow to 32.7% and 26.6%, respectively before considering volume increase (the effect of which are not determinable without further information).

**RECAP OF COST OF THE PROPOSED NEW AUTHORITY**

While the Emergency Management's team and media are focused solely on the $47 million lease payment as the cost of transferring the DWSD operations to a new authority, the actual cost is far greater given the financial condition of the two Funds. The financial, programmatic and capitals needs of the system (rather than the limitations placed on the system by virtue of a capped rate structure), are reflected in the true cost of accepting the authority and are as shown below. (One will note that most of these matters are not being publicly discussed.) These costs include:

- A lease payment of *no less than* $47 million annually for 40-plus years in a contract that cannot be terminated even for a breach or default by any party.

- The Counties' must accept the unrestricted accumulated deficits of the Water and Sewer Funds as of June 30, 2013:

    - Unreserved accumulated deficit in the Water Fund - $156.8 million.
    - Unreserved accumulated deficit in the Water Fund: net book value less related debt - $22.5 million.
    - Unreserved accumulated deficit in the Sewer Fund - $386.1 million.

  Given the prior 7-years of consistent operating losses, the above accumulated deficits have likely increased in FY-2014 by an amount undetermined.

  To restore the DWSD financial condition to solvency in the coming years, the likely resolution will be through rate increases. If the system had used rate increases to bring the above accumulated deficits to a *zero balance* over 5 years, the rates would have had to have been increased effective July 1, 2013 by 9.0% for the Water Fund (in addition to the rate increase imposed at that time) and 17.9% for the Sewer Fund, this before consideration of the additional losses certain to flow from such increases , losses that would serve to require yet another increase the rates because of the inability to collect from certain customers. Having zero equity in the Water and Sewer Funds with operations as complex and expansive as that of the DWSD is not prudent; yet establishing and maintaining a larger balance (perhaps several hundreds of millions) would require further rate increases.

- The Water and Sewer Funds have incurred consistent operating losses for the past 7 years. Given the consistent operating losses and without having the ability to discuss this matter with DWSD personnel, it has to be assumed that these losses are structural in nature. As such, to bring the FY-2013 operating losses of the Water Fund ($46.6 million) and the Sewer Fund ($100.0 million) to a truly balanced state, a rate increase would have had to have been charged as of July 1, 2013 of 13.3% and 23.2%, respectively (without factoring the inability to collect; such amount would serve to increase the rates).

- The Emergency Manager's proposal calls for the new authority to accept the responsibility for nearly $1.0 billion in unfunded actuarial accrued liabilities relating to the pension system, liabilities caused in large part by the excessive benefits provided in a supplemental annuity savings program in a defined contribution program guaranteeing no less than a 7.9% return on the employees' investments. The Emergency Manager's proposal calls for funding $675 million of the amount over a 10-year term in order to provide funding for the City's general fund capital needs.

- While the Emergency Manager's proposal indicates that a substantial amount of the unfunded actuarial accrued liability relating to the DWSD retirees' healthcare program will be eliminated by the bankruptcy court, portions of the program thought to be eliminated apparently remain. In the recent past, the DWSD was paying $21 million annually relating to the retirees healthcare program. Now, the DWSD will be expected to cover approximately $4 million annually.

The requirement of continuing financial responsibility had not been discussed previously nor included in any recent actuarial material provided to the Counties. The first notice of these continuing financial responsibility was presented in the details of Exhibit L attached to the March 31, 2014 revised Disclosure Statement.

- The suburban wholesale customers are expected to provide the Detroit retail customers a rate benefit of $29 million annually in the form of a rate of return for the ownership of the system and the rights and responsibilities for operating DWSD. This cost to the suburban wholesale customers would be in addition to the $47 million lease payment. Despite the numerous instances of management failure in the past solely responsible by the Detroit operators and the risks of operation assumed by the authority as proposed, the rate of return payment is expected to be continued by the Emergency Manager's proposal.

  Potentially, sometime in the future, the rate of return payment is proposed to be phased out. While Counties called for an accelerated phase out of the rate of return payment (particularly in light of the expected lease payment), the Emergency Manager's team rejected this proposal.

- While the above is known to the Counties, given information requests not being honored, unknown additional costs being assumed could occur in the area of claims, litigation and assessments, risk management (insurance and workers' compensation claims for example), labor issues, the depth of the capital needs (not the amount affordable for certain rate-payers), and other matters.

City of Detroit
Detroit Water and Sewer Department
Water Fund
Historical Water Fund Income Statement

**EXHIBIT K**

| | For the Fiscal Year Ended | | | | | |
|---|---|---|---|---|---|---|
| | 6/30/2008 | 6/30/2009 | 6/30/2010 | 6/30/2011 | 6/30/2012 | |
| Water Sales - Detroit | $ 74,442,186 | $ 65,360,449 | $ 65,580,546 | $ 74,810,362 | $ 71,540,060 | $ 75,653,761 |
| Water Sales - Suburban | 216,867,005 | 206,282,285 | 210,662,057 | 237,099,865 | 258,587,439 | 275,185,243 |
| Miscellaneous | 1,674,029 | 2,452,729 | 9,227,823 | 4,091,974 | 6,002,446 | 4,688,757 |
| Total Revenues | 292,983,220 | 274,095,463 | 285,470,426 | 316,002,201 | 336,129,945 | 355,527,761 |
| | | | | | | |
| Source of Supply | 1,991,566 | 1,435,307 | 1,600,836 | 5,683,036 | 9,680,853 | 3,787,570 |
| Low-lift Pumping | 5,070,132 | 6,136,788 | 4,897,562 | 8,269,998 | 8,145,801 | 7,152,542 |
| High-lift Pumping | 21,329,905 | 22,052,260 | 17,971,502 | 19,581,883 | 22,998,901 | 21,686,100 |
| Purification | 17,077,316 | 19,062,007 | 15,464,412 | 17,681,131 | 19,335,784 | 15,998,705 |
| Water Quality Operations | 1,244,597 | 1,111,392 | 792,590 | 787,600 | 815,616 | 782,672 |
| Pumping Stations | 0 | 0 | 0 | 16,741,756 | 24,908,886 | 19,328,514 |
| Transmission and Distributions | 26,448,973 | 43,536,055 | 34,158,895 | 28,596,533 | 23,503,906 | 28,420,176 |
| Services and Meters | 5,977,508 | 5,812,986 | 8,096,307 | 13,235,615 | 11,678,595 | 16,750,695 |
| Hydrant Division | 128,697 | 3,489 | 314,729 | 697,442 | 417,833 | 508,762 |
| Commercial | 6,112,874 | 7,046,284 | 7,632,044 | 6,129,979 | 7,572,727 | 6,919,951 |
| Operations and Maintenance | 30,371,887 | 33,709,777 | 45,426,798 | 0 | 0 | 0 |
| Centeral City Staff Services | 7,994,520 | 5,664,954 | 6,225,681 | 0 | 0 | 0 |
| Administrative and General | 17,621,924 | 20,172,634 | 15,351,608 | 29,475,444 | 36,021,547 | 24,996,371 |
| Nonrecurring Capital Asset Adjustments | 28,283,497 | 0 | 0 | 0 | 0 | 18,735,709 |
| Net OPEB Obligation | | | | | | 17,248,909 |
| Other Items | 0 | 0 | 0 | 14,638,350 | 15,124,239 | |
| Depreciation | 67,504,841 | 71,084,673 | 81,660,122 | 71,995,060 | 81,602,960 | 83,031,094 |
| Total Operating Expenses | 237,158,237 | 236,828,606 | 239,593,086 | 233,513,827 | 261,807,648 | 265,347,771 |
| | | | | | | |
| Operating Income | 55,824,983 | 37,266,857 | 45,877,340 | 82,488,374 | 74,322,297 | 90,179,990 |
| | | | | | | |
| Investment Earnings (Losses) | 29,312,849 | 13,749,381 | (23,979,799) | 14,479,871 | (72,582,266) | (6,941,979) |
| Loss on Disposal of Capital Assets | 0 | 0 | 0 | 0 | 0 | |
| Interest Expense, Net of Capitalized Interest | (123,619,840) | (112,905,999) | (107,044,663) | (111,666,753) | (108,750,464) | (127,866,520) |
| Amortization of Bond Issuance Costs | 0 | 0 | 0 | 0 | (7,059,640) | (8,533,883) |
| Miscellaneous Revenue (Expense) | 1,679,909 | (7,920,379) | 664,100 | 1,588,987 | 453,615 | 6,404,158 |
| Total Other Income (Expenses) | (92,627,082) | (107,076,997) | (130,360,362) | (95,597,895) | (187,938,755) | (136,938,224) |
| | | | | | | |
| Decrease in Net Assets before Capital Contributions, Transfers, and Special Items | (36,802,099) | (69,810,140) | (84,483,022) | (13,109,521) | (113,616,458) | (46,758,234) |
| | | | | | | |
| Capital Contributions | 605,746 | 340,076 | 111,777 | 211,745 | 20,500 | 165,403 |
| Transfers In | 9,575,331 | 0 | 0 | 0 | 0 | |
| Transfers Out | 0 | 0 | 0 | 0 | 0 | |
| Special Items | 0 | 0 | 0 | 0 | 0 | |
| Capital Contributions, Transfers In, Transfers Out, and Special Items | 10,181,077 | 340,076 | 111,777 | 211,745 | 20,500 | 165,403 |
| | | | | | | |
| Increase (Decrease) in Net Assets | (26,621,022) | (69,470,064) | (84,371,245) | (12,897,776) | (113,595,958) | (46,592,831) |
| | | | | | | |
| Net Assets, Beginning | 400,952,650 | 374,331,628 | 304,861,564 | 136,375,840 | 123,478,064 | 9,882,106 |
| Adjustments to Net Assets | 0 | 0 | (84,114,479) | 0 | 0 | 0 |
| Net Assets, Beginning (Adjusted) | 400,952,650 | 374,331,628 | 220,747,085 | 136,375,840 | 123,478,064 | 9,882,106 |
| Increase (Decrease) in Net Assets | (26,621,022) | (69,470,064) | (84,371,245) | (12,897,776) | (113,595,958) | (46,592,831) |
| **Net Assets, Ending** | $ 374,331,628 | $ 304,861,564 | $ 136,375,840 | $ 123,478,064 | $ 9,882,106 | $ (36,710,725) |
| | $ 0 | $ 0 | $ 0 | $ 0 | $ 0 | $ 0 |

Source: FY 2013 information obtained from draft audited financial statements; Audited financial statements

City of Detroit
Detroit Water and Sewer Department
Sewage Disposal Fund
Historical Sewage Fund Income Statement

| | For the Fiscal Year Ended | | | | | |
|---|---|---|---|---|---|---|
| | 6/30/2008 | 6/30/2009 | 6/30/2010 | 6/30/2011 | 6/30/2012 | 6/30/2013 |
| General Customers | $ 135,966,630 | $ 162,813,091 | $ 167,986,001 | $ 188,929,588 | $ 186,551,894 | $ 193,098,413 |
| Suburban Customers | 201,722,312 | 219,638,029 | 187,874,924 | 213,888,870 | 242,759,761 | 238,301,009 |
| City Departments | 3,441,917 | 642,654 | 532,109 | 567,670 | 617,325 | 635,188 |
| Sewage Surcharge | 1,435,519 | 2,957,031 | 3,730,043 | 3,424,043 | 2,601,809 | 5,204,732 |
| Miscellaneous | 4,342,453 | 4,075,593 | 5,414,313 | 3,908,904 | 5,124,102 | 3,623,918 |
| Total Revenues | 346,908,831 | 390,126,398 | 365,537,390 | 410,719,075 | 437,654,891 | 440,863,260 |
| | | | | | | |
| Sewage Treatment Plant | 131,877,214 | 129,314,215 | 141,078,880 | 149,268,127 | 144,270,145 | 128,418,729 |
| Interceptors and Regulators | 3,419,697 | 6,363,301 | 2,175,886 | 9,867,867 | 14,030,425 | 8,456,026 |
| Sewer Pumping Stations | 3,220,434 | 7,362,432 | 2,684,307 | 13,671,159 | 8,458,261 | 8,444,193 |
| Sewer Maintenance and Engineering | 13,027,555 | 19,710,820 | 20,009,122 | 8,585,844 | 4,581,284 | 0 |
| Meters | 0 | 0 | 0 | 0 | 0 | 142,199 |
| Industrial Waste Control | 0 | 0 | 0 | 0 | 0 | 4,145,645 |
| Sewer | 0 | 0 | 0 | 0 | 0 | 8,201,988 |
| Combined Sewage Overflow Control Basins | 489,622 | 569,971 | 714,292 | 4,608,783 | 5,042,764 | 5,319,475 |
| Commercial | 7,610,884 | 8,107,329 | 6,655,589 | 9,290,038 | 5,970,441 | 6,519,748 |
| Operations and Maintenance | 16,152,236 | 16,626,233 | 13,624,330 | 9,517,917 | 5,240,561 | 0 |
| Central Services and General Fund Reimbursements | 5,688,320 | 7,778,365 | 4,046,518 | 0 | 0 | 0 |
| Administrative and General | 32,943,836 | 24,906,841 | 19,465,067 | 26,001,008 | 29,429,706 | 35,065,939 |
| Other Items | 0 | 0 | 0 | 16,439,026 | 15,332,241 | 50,579,250 |
| Depreciation | 94,145,601 | 96,509,481 | 97,713,277 | 150,660,578 | 115,604,049 | 121,464,302 |
| Total Operating Expenses | 308,575,399 | 317,248,988 | 308,167,268 | 397,910,347 | 347,959,877 | 376,757,496 |
| | | | | | | |
| Operating Income | 38,333,432 | 72,877,410 | 57,370,122 | 12,808,728 | 89,695,014 | 64,105,764 |
| | | | | | | |
| Investment Earnings (Losses) | 27,634,679 | 11,501,806 | (23,300,503) | (1,168,864) | (64,450,366) | (7,939,285) |
| Loss on Disposal of Capital Assets | 0 | 0 | 0 | (91,476,801) | 0 | (2,752) |
| Interest Expense, Net of Capitalized Interest | (120,537,137) | (133,029,160) | (118,561,130) | (119,734,891) | (108,153,176) | (142,081,167) |
| Amortization of Bond Issuance Costs | 0 | 0 | 0 | 0 | (8,796,332) | (14,978,455) |
| Miscellaneous Revenue | 1,548,292 | 9,331,912 | 124,285 | 2,209,701 | 1,846,318 | 861,759 |
| Total Other Income (Expenses) | (91,354,166) | (112,195,442) | (141,737,348) | (210,170,855) | (179,553,556) | (164,139,900) |
| | | | | | | |
| Decrease in Net Assets before Capital Contributions, Transfers, and Special Items | (53,020,734) | (39,318,032) | (84,367,226) | (197,362,127) | (89,858,542) | (100,034,136) |
| | | | | | | |
| Capital Contributions | 0 | 2,322,233 | 6,610,573 | 5,523,194 | 0 | 0 |
| Transfers In | 1,511,419 | 0 | 0 | 0 | 0 | 0 |
| Transfers Out | (8,063,912) | 0 | 0 | 0 | 0 | 0 |
| Special Items | (141,962,894) | (36,900,173) | 0 | 0 | 0 | 0 |
| Capital Contributions, Transfers In, Transfers Out, and Special Items | (148,515,387) | (34,577,940) | 6,610,573 | 5,523,194 | 0 | 0 |
| | | | | | | |
| Increase (Decrease) in Net Assets | (201,536,121) | (73,895,972) | (77,756,653) | (191,838,933) | (89,858,542) | (100,034,136) |
| | | | | | | |
| Net Assets, Beginning | 877,308,457 | 675,772,336 | 601,876,364 | 439,161,426 | 247,322,493 | 157,463,951 |
| Adjustments to Net Assets | 0 | 0 | (84,958,285) | 0 | 0 | 0 |
| Increase (Decrease) in Net Assets | (201,536,121) | (73,895,972) | (77,756,653) | (191,838,933) | (89,858,542) | (100,034,136) |
| **Net Assets, Ending** | **$ 675,772,336** | **$ 601,876,364** | **$ 439,161,426** | **$ 247,322,493** | **$ 157,463,951** | **$ 57,429,815** |

Source: FY 2013 information obtained from draft audited financial statements; Audited financial statements

**EXHIBIT K-2**

City of Detroit
Detroit Water and Sewer Department
Water Fund
Historical Water Fund Balance Sheet

| | As of: | | | | | |
|---|---|---|---|---|---|---|
| | 6/30/2008 | 6/30/2009 | 6/30/2010 | 6/30/2011 | 6/30/2012 | 6/30/2013 |
| Cash and Cash Equivalents | $ 48,660,120 | $ 80,194 | $ 11,585,084 | $ 7,357,748 | $ 17,969,040 | $ 21,321,725 |
| Investments | 49,496,338 | 44,013,126 | 21,192,353 | 84,018,134 | 0 | 55,599,174 |
| Billed Accounts Receivable | 62,904,132 | 70,619,839 | 61,573,023 | 72,914,205 | 85,327,741 | 76,807,485 |
| Unbilled Accounts Receivable | 23,088,374 | 24,551,149 | 26,702,430 | 30,350,253 | 37,465,551 | 31,426,122 |
| Other Accounts Receivable | 1,740,581 | 0 | 2,284,629 | 3,757,139 | 4,410,841 | 2,827,025 |
| Less: Allowance for Doubtful Accounts | (35,952,199) | (41,327,531) | (25,061,864) | (25,387,639) | (28,259,741) | (27,158,423) |
| Total Accounts Receivable, Net | 51,780,888 | 53,843,457 | 65,498,218 | 81,633,958 | 98,944,392 | 83,902,209 |
| Due from Other Funds | 21,334,188 | 67,887,115 | 118,670,060 | 66,690,098 | 41,459,509 | 48,334,968 |
| Due from Fiduciary Funds | 0 | 0 | 0 | 0 | 0 | 1,680,314 |
| Inventories | 7,350,654 | 5,554,349 | 7,251,842 | 5,939,985 | 5,660,326 | 6,261,724 |
| Prepaid Expenses | 1,498,226 | 1,211,910 | 1,273,189 | 1,510,001 | 4,497,545 | 3,819,179 |
| Restricted Cash and Cash Equivalents | 23,731,177 | 27,303,429 | 5,554,329 | 8,870,389 | 40,565,853 | 0 |
| Restricted Investments | 106,114,606 | 84,743,357 | 106,879,144 | 134,715,746 | 139,056,728 | 0 |
| Restricted Other Accounts Receivable | 0 | 0 | 339,247 | 0 | 0 | 0 |
| Resticted Due from Other Funds | 13,824,852 | 6,610,671 | 9,393,793 | 4,045,774 | 0 | 0 |
| Total Current Assets | 323,791,049 | 291,247,608 | 347,637,259 | 394,781,833 | 348,153,393 | 220,919,293 |
| Restricted Cash and Cash Equivalents | 11,884,886 | 15,461,872 | 14,192,858 | 3,810,114 | 2,179,760 | 24,045,179 |
| Restricted Investments | 435,763,345 | 338,514,873 | 221,486,588 | 45,032,315 | 195,711,983 | 281,068,512 |
| Other Receivables | | | | | | 5,121,918 |
| Net Pension Asset | 77,642,310 | 81,680,247 | 85,525,858 | 88,474,553 | 90,677,096 | 101,134,107 |
| Deffered Charges | 0 | 42,545,292 | 40,268,106 | 37,990,918 | 38,321,804 | 36,280,286 |
| Fair Value of Derivatives | 0 | 0 | 26,984,477 | 27,693,455 | 0 | 0 |
| Bond and Pension Obligation Certificate Issueance Costs | 45,222,267 | 0 | 0 | 0 | 0 | 0 |
| Total Non-Current Assets | 570,512,808 | 478,202,284 | 388,457,887 | 203,001,355 | 326,890,643 | 447,650,002 |
| Net Capital Assets | 2,045,920,357 | 2,131,725,774 | 2,164,861,726 | 2,172,321,545 | 2,157,804,200 | 2,083,632,381 |
| Deferred Outfolows of Resources | 0 | 0 | 4,500,379 | 1,927,019 | 14,179,042 | 0 |
| **Total Assets** | **$ 2,940,224,214** | **$ 2,901,175,666** | **$ 2,905,457,251** | **$ 2,772,031,752** | **$ 2,847,027,278** | **$ 2,752,201,676** |
| Current Liabilities | | | | | | |
| Accounts and Contracts Payable | $ 36,663,387 | $ 32,601,306 | $ 33,222,785 | $ 28,951,855 | $ 36,736,029 | $ 23,947,477 |
| Accrued Salaries and Wages | 3,114,934 | 2,418,786 | 2,519,342 | 922,524 | 1,096,137 | $ 969,965 |
| Due to Other Funds | 15,392,726 | 58,809,093 | 115,215,099 | 36,204,233 | 14,972,320 | 8,272,748 |
| Due to Fiduciary Funds | 1,788,861 | 3,226,516 | 5,056,959 | 8,549,055 | 10,952,567 | 0 |
| Accrued Interest Payable | 49,689,756 | 57,500,394 | 58,466,586 | 57,839,797 | 66,907,594 | 66,454,704 |
| Other Accrued Liabilities | 5,226,448 | 5,612,337 | 12,532,988 | 18,295,619 | 10,092,925 | 13,592,704 |
| Revenue Bonds and State Revolving Loans Payable, Net | 32,890,000 | 35,170,000 | 36,760,000 | 45,090,000 | 33,195,000 | 41,380,000 |
| Pension Obligation Certificates of Participation | 0 | 257,831 | 593,104 | 913,613 | 1,250,905 | 2,855,885 |
| Capital Leases Payable within One Year | 863,422 | 894,020 | 663,649 | 30,534 | 0 | 0 |
| Accrued Compensated Absences | 7,288,290 | 7,091,446 | 7,078,769 | 6,427,622 | 6,806,399 | 9,340,642 |
| Accrued Workers' Compensation | 2,056,000 | 2,087,000 | 2,011,000 | 1,868,000 | 1,489,000 | 1,435,000 |
| Claims and Judgements | 528,700 | 6,000 | 80,000 | 3,531,000 | 68,000 | 17,236 |
| Pollution Remediation Obligations | 0 | 20,992 | 0 | 0 | 0 | 0 |
| Total Current Liabilities | 155,502,524 | 205,695,721 | 274,200,281 | 208,623,852 | 183,566,876 | 168,266,361 |
| Long-Term Liabilities | | | | | | |
| Revenue Bonds and State Revolving Loans Payable, Net | 2,295,236,022 | 2,263,338,649 | 2,153,379,619 | 2,114,741,662 | 2,485,717,942 | 2,447,241,502 |
| Pension Obligation Certificates of Participation Payable, Net | 81,333,125 | 81,072,429 | 80,477,124 | 79,560,644 | 78,306,872 | 76,699,025 |
| Capital Leases Payable | 1,503,991 | 657,430 | 22,423 | 0 | 0 | 0 |
| Net OPEB Obligation | 7,614,170 | 16,611,769 | 27,944,436 | 40,578,926 | 53,303,165 | 70,552,075 |
| Accrued Compensated Absences | 8,620,754 | 11,919,904 | 4,059,727 | 4,453,598 | 2,614,912 | 1,282,223 |
| Accrued Workers' Compensation | 9,072,000 | 8,608,000 | 8,942,000 | 8,469,000 | 8,850,000 | 8,155,000 |
| Claims and Judgements | 7,010,000 | 8,410,200 | 4,469,000 | 243,000 | 218,500 | 226,750 |
| Pollution Remediation Obligations | 0 | 0 | 80,000 | 0 | 0 | 0 |
| Derivative Instruments - Swap Liability | 0 | 0 | 215,506,801 | 191,883,006 | 24,566,905 | 16,489,465 |
| Total Long-Term Liabilities | 2,410,390,062 | 2,390,618,381 | 2,494,881,130 | 2,439,929,836 | 2,653,578,296 | 2,620,646,040 |
| **Total Liabilities** | **2,565,892,586** | **2,596,314,102** | **2,769,081,411** | **2,648,553,688** | **2,837,145,172** | **2,788,912,401** |
| Invested in Capital Assets, Net of Debt Related | 131,959,821 | 98,352,666 | 131,394,921 | 62,141,704 | 235,302,277 | (22,450,280) |
| Restricted for Capital Acquisitions | 57,338,174 | 87,293,229 | 25,818,115 | 22,648,822 | 0 | 0 |
| Restricted for Debt Service | 66,934,304 | 78,420,017 | 97,828,028 | 101,862,800 | 203,831,414 | 142,557,878 |
| Unrestricted | 118,099,329 | 40,795,652 | (118,665,224) | (63,175,262) | (429,251,585) | (156,818,323) |
| **Total Net Assets** | $ 374,331,628 | $ 304,861,564 | $ 136,375,840 | $ 123,478,064 | $ 9,882,106 | $ (36,710,725) |
| | - | - | - | - | - | - |

Footnotes:
Reporting classification of current liabilities differs from audited financial statements for comparison

Source: FY 2013 information obtained from draft audited financial statements; Audited financial statements

**EXHIBIT K-3**

City of Detroit
Detroit Water and Sewer Department
Sewage Disposal Fund
Historical Sewage Fund Balance Sheet

| | As of: | | | | | |
|---|---|---|---|---|---|---|
| | 6/30/2008 | 6/30/2009 | 6/30/2010 | 6/30/2011 | 6/30/2012 | 6/30/2013 |
| Cash and Cash Equivalents | $ 42,472,216 | $ 6,913,527 | $ 4,088,652 | $ 5,292,173 | $ 25,643,695 | $ 11,071,610 |
| Investments | 29,222,612 | 36,722,118 | 32,055,864 | 125,640,610 | 0 | 0 |
| Billed Accounts Receivable | 129,857,010 | 130,776,339 | 111,384,353 | 123,620,671 | 131,636,100 | 126,545,085 |
| Unbilled Accounts Receivable | 46,995,974 | 55,982,465 | 54,205,923 | 63,807,974 | 55,915,921 | 67,490,396 |
| Grants Receivable | 0 | 0 | 1,083,458 | 0 | 0 | |
| Other Accounts Receivable | 2,271,581 | 168,267 | 10,850,578 | 25,485,867 | 25,910,127 | 10,800,510 |
| Less: Allowance for Doubtful Accounts | (90,605,647) | (81,078,369) | (54,927,143) | (57,467,793) | (70,130,129) | (68,548,573) |
| Total Accounts Receivable, Net | 88,518,918 | 105,848,702 | 122,597,169 | 155,446,719 | 143,332,019 | 136,287,418 |
| Due from Other Funds | 20,030,027 | 67,772,718 | 102,440,110 | 30,251,006 | 14,898,805 | 14,751,256 |
| Due from Fiduciary Funds | 0 | 0 | 0 | 0 | 0 | 1,409,855 |
| Inventories | 7,972,508 | 7,823,491 | 6,561,739 | 6,977,146 | 8,884,679 | 9,762,803 |
| Prepaid Expenses | 1,870,227 | 1,851,410 | 3,538,840 | 3,441,704 | 1,819,151 | 853,192 |
| Restricted Cash and Cash Equivalents | 19,993,654 | 35,118,436 | 8,136,025 | 3,015,785 | 215,249,247 | 0 |
| Restricted Investments | 71,438,000 | 109,529,976 | 125,839,450 | 143,315,183 | 146,371,609 | 0 |
| Resticted Due from Other Funds | 13,500,000 | 2,537,711 | 12,105,832 | 12,570,717 | 10,640,798 | 0 |
| Total Current Assets | 295,018,162 | 374,118,089 | 417,363,681 | 485,951,043 | 566,840,003 | 174,136,134 |
| Restricted Cash and Cash Equivalents | 0 | 5,491,507 | 6,334,576 | 2,556,843 | 0 | 100,037,594 |
| Restricted Investments | 475,640,082 | 290,953,454 | 210,268,220 | 84,171,807 | 129,227,781 | 355,482,764 |
| Other Receivables | 0 | 0 | 0 | 0 | 0 | 3,750,000 |
| Net Pension Asset | 84,465,857 | 87,286,336 | 88,455,199 | 86,874,832 | 86,245,896 | 91,319,602 |
| Deffered Charges | 0 | 47,480,761 | 44,772,379 | 42,063,997 | 45,428,167 | 43,193,749 |
| Fair Value of Derivatives | 0 | 0 | 14,947,297 | 14,408,688 | 0 | 0 |
| Bond and Pension Obligation Certificate Issuence Costs | 50,203,227 | 0 | 0 | 0 | 0 | 0 |
| Total Non-Current Assets | 610,309,166 | 431,212,058 | 364,777,671 | 230,076,167 | 260,901,844 | 593,783,709 |
| Net Capital Assets | 3,022,810,992 | 3,094,661,240 | 3,130,366,599 | 2,929,134,451 | 2,923,013,636 | 2,861,256,656 |
| Deferred Outfolows of Resources | 0 | 0 | 73,286,652 | 63,548,517 | 15,979,577 | 0 |
| **Total Assets** | **$ 3,928,138,320** | **$ 3,899,991,387** | **$ 3,985,794,603** | **$ 3,708,710,178** | **$ 3,766,735,060** | **$ 3,629,176,499** |
| Current Liabilities | | | | | | |
| Accounts and Contracts Payable | $ 36,518,723 | $ 33,436,847 | $ 29,902,794 | $ 49,085,299 | $ 53,141,033 | $ 50,488,376 |
| Accrued Salaries and Wages | 1,494,149 | 1,579,810 | 1,608,515 | 519,646 | 705,067 | 602,720 |
| Due to Other Funds | 22,823,654 | 72,444,082 | 131,927,362 | 70,900,052 | 40,083,914 | 52,036,220 |
| Due to Fiduciary Funds | 7,150,822 | 16,970,730 | 1,772,294 | 8,603,294 | 6,989,284 | 0 |
| Accrued Interest Payable | 48,788,672 | 52,830,943 | 62,455,024 | 61,396,780 | 54,945,024 | 70,858,984 |
| Revenue Bonds and State Revolving Loans Payable, Net | 58,645,000 | 60,630,000 | 70,345,000 | 72,944,000 | 76,575,000 | 78,385,000 |
| Pension Obligation Certificates of Participation Payable | 0 | 290,746 | 672,089 | 1,035,281 | 1,417,492 | 3,236,213 |
| Other Accrued Liabilities | 7,051,673 | 9,316,193 | 16,208,631 | 16,667,493 | 17,811,488 | 23,327,269 |
| Capital Leases Payable within One Year | 863,422 | 894,020 | 663,649 | 30,534 | 0 | 0 |
| Accrued Compensated Absences | 4,590,574 | 4,577,518 | 4,293,031 | 4,120,387 | 3,830,144 | 717,569 |
| Accrued Workers' Compensation | 797,000 | 784,000 | 741,000 | 667,000 | 565,000 | 551,000 |
| Claims and Judgements | 80,000 | 625,500 | 865,074 | 0 | 19,500 | 0 |
| Pollution Remediation Obligations | 0 | 890,000 | 956,878 | 973,113 | 340,613 | 0 |
| Total Current Liabilities | 188,803,689 | 255,270,389 | 322,411,341 | 286,942,879 | 256,423,559 | 280,203,351 |
| Long-Term Liabilities | | | | | | |
| Revenue Bonds and State Revolving Loans Payable, Net | 2,948,130,743 | 2,920,111,415 | 2,870,184,745 | 2,821,254,302 | 3,173,429,787 | 3,112,192,669 |
| Pension Obligation Certificates of Participation Payable, Net | 92,165,806 | 91,871,829 | 91,195,843 | 90,157,332 | 88,736,610 | 86,914,659 |
| Capital Leases Payable | 1,503,991 | 657,430 | 22,423 | 0 | 0 | 0 |
| Net OPEB Obligation | 8,868,194 | 17,924,439 | 30,452,039 | 43,203,839 | 56,836,081 | 70,445,095 |
| Accrued Compensated Absences | 6,301,561 | 8,277,527 | 3,266,334 | 3,803,238 | 1,672,337 | 477,410 |
| Accrued Workers' Compensation | 3,185,000 | 2,883,000 | 2,969,000 | 2,875,000 | 2,989,000 | 2,742,000 |
| Claims and Judgements | 3,407,000 | 261,494 | 43,392 | 1,500,000 | 1,500,000 | 190,000 |
| Pollution Remediation Obligations | 0 | 857,500 | 151,157 | 0 | 0 | 0 |
| Derivative Instruments - Swap Liability | 0 | 0 | 225,936,903 | 211,651,095 | 27,683,735 | 18,581,500 |
| Total Long-Term Liabilities | 3,063,562,295 | 3,042,844,634 | 3,224,221,836 | 3,174,444,806 | 3,352,847,550 | 3,291,543,333 |
| **Total Liabilities** | 3,252,365,984 | 3,298,115,023 | 3,546,633,177 | 3,461,387,685 | 3,609,271,109 | 3,571,746,684 |
| Invested in Capital Assets, Net of Debt Related | 427,406,590 | 397,705,998 | 423,561,717 | 122,747,952 | 553,873,948 | 216,368,007 |
| Restricted for Capital Acquisitions | 60,588,611 | 36,232,528 | 30,070,066 | 31,318,712 | 0 | 0 |
| Restricted for Debt Service | 112,949,550 | 142,214,512 | 127,990,977 | 145,174,047 | 255,972,332 | 227,211,405 |
| Unrestricted | 74,827,585 | 25,723,326 | (142,461,334) | (51,918,218) | (652,382,329) | (386,149,597) |
| **Total Net Assets** | $ 675,772,336 | $ 601,876,364 | $ 439,161,426 | $ 247,322,493 | $ 157,463,951 | $ 57,429,815 |
| | - | - | - | - | - | - |

Footnotes:
Reporting classification of current liabilities differs from audited financial statements for comparison

Source: FY 2013 information obtained from draft audited financial statements; Audited financial statements

EXHIBIT L

# City of Detroit
# Water and Sewage Disposal Fund

*10-Year Projections*

EXHIBIT L-1

# City of Detroit
## Water and Sewage Disposal Fund
Assumptions

| Assumptions | Description |
|---|---|
| **Revenue:** | |
| Volumes | |
| Detroit Retail - Water/Sewer | FY 2014 and FY 2015 based on DWSD budget estimates. Approximately 6.3% in total volume decline from FYs' 2015 - 2023 based upon SEMCOG population decline. |
| Wholesale - Sewer | FY 2014 and FY 2015 based on DWSD budget estimates by customer. FYs' 2016 - 2023 reflect no growth from FY 2015 estimates. |
| Wholesale - Water | FY 2014 based on DWSD budget estimate by customer less 2.0%. FY 2015 based on DWSD budget estimate by customer. FY's 2015 - 2023 reflect total volume decline of approximately 2.0%. |
| Flint - Water | Assumed to exit the Water System in FY 2017. |
| Bad debt | |
| Detroit Retail - Sewer | 15.0% of retail revenues in FY 2014 improving to 11.0% by FY 2018 and staying constant at 11.0% of retail revenues through the forecast period. |
| Wholesale - Sewer | 2.0% of suburban revenues throughout the forecast period. |
| Wholesale - Water | n/a |
| Detroit Retail - Water | 14.0% of retail revenues in FY 2014 improving to 10.0% by FY 2018 and staying constant at 10.0% of retail revenues through the forecast period. |
| Miscellaneous operating | |
| IWC Charges | FY 2014 represents DWSD budget estimates and increases 4.0% annually thereafter. |
| Industrial Surcharges | FY 2014 and FY 2015 represent DWSD budget estimates. FYs' 2016 - 2023 reflect no growth from FY 2015 budget estimates. |
| Other | Base amount represents normalized historical average, assumed to increase annually by inflation growth rate. |
| Nonoperating | Base amount represents normalized historical average, assumed to increase annually by inflation growth rate. |
| Earnings on investment | 1.5% of adjusted annual fund balances. Return based on adjusted average return in prior three years. |

# City of Detroit
## Water and Sewage Disposal Fund
### Assumptions (cont'd)

| Assumptions | Description |
|---|---|
| **Operating & maintenance expenditures:** | |
| Salaries & wages | |
| Headcount | Beginning FTE of 1,706 based on 6/30/13 level. Optimization of labor to 1,000 FTE by FY 2020 through natural attrition assumed to be 10.0% in FY 2014 and 5.0% in FYs' 2015 - 2018. FYs' 2019 and 2020 reflect attrition required to reach FTE goal of 1,000. Total headcount allocation assumed to be 63.0% Water and 37.0% Sewer per management estimates. Employees whose services are shared between Water and Sewer Systems are budgeted in the Water System. Shared labor costs are transferred from the Water System to the Sewer System. |
| Average wages | FY 2014 average wage rate of $43,600 based on current DWSD budget analysis. Assumed 10.0% increase in FY 2015 related to job classification and management input on related compensation changes due to optimization. FYs' 2016 - 2023 reflect FY 2015 base amount with annual inflationary increases. |
| Overtime | FYs' 2014 - 2020 base amount represents historical average dollar amount with slow decline; FYs' 2021 - 2023 based upon historical average percentage of salaries and wages. |
| Pension | Represents required reimbursements to general fund per Plan of Adjustment ("POA") forecast; additional amounts for defined contribution plan of 5.0% of salaries and wages. |
| Other fringes | OPEB - Represents required reimbursements to general fund per POA forecast, additional 2.0% of salaries and wages for future retiree healthcare; Active employee healthcare - assumed to be $8,250 per FTE in FY 2014 (active employee healthcare growth rates: FY 2015 7.5%; FY 2016 7.0%; FY 2017 6.5%; FY 2018 6.0%; FY 2019 5.5%; FYs' 2020 - 2023 5.0%); Other fringe benefits - includes fixed and variable expenses, variable portion based upon historical average of salaries and wages, fixed portion assumed to be inflationary. |
| Purchased services | Base amount represents FY 2014 DWSD budgeted amount reduced for various City of Detroit shared costs in FY 2015 and FY 2016; inflationary growth thereafter. |
| Telecommunications | Base amount represents FY 2014 budgeted amount; inflationary growth thereafter. |
| Contractual services | Based on normalized amounts with additional outsourcing costs; inflationary growth thereafter. |
| Repairs & maintenance | FY 2014 represents adjusted budgeted amount; inflationary growth thereafter. |
| Utilities | Based upon forecasted volumes with 80.0% variable and 20.0% fixed, cost per mcf increase of 3.2% annually. |
| Chemicals | Based upon forecasted volumes with 80.0% variable and 20.0% fixed, cost per mcf increase inflationary. |
| Other | Base amount represents normalized historical average; inflationary growth thereafter. |

**EXHIBIT L-3**

## City of Detroit
## Water and Sewage Disposal Fund
Assumptions (cont'd)

| Assumptions | Description |
|---|---|
| **Financing:** | |
| Debt | |
| Existing debt | Represents existing debt amortization on currently outstanding DWSD debt. |
| New money bonds | Issuance amounts necessary to fund CIP requirements; interest rate - 4.63% based upon Miller Buckfire analysis. |
| Issuance costs | Cost of issuance - 1.5% of the size of issuance. |
| Debt service reserve | Reserve funding - 6.5% of the size of issuance. |
| **Reserve funding:** | |
| O&M fund | Operating reserve fund increase from 45 days to 90 days of O&M expenses by FY 2023. |
| ER&R fund | Maintained at bond ordinance requirements. |
| **Other:** | |
| Transfer account | Represents transfer of expenses between Water and Sewer Systems. Based upon management allocation. |
| Biosolids savings | Projected operating expense savings related to biosolids program assumed to begin in FY 2017. *Source: PMA Consultants* |
| **Capital Improvement Program:** | |
| Annual estimates | Based upon 10-year study completed by OHM Advisors. Additional CIP added (unidentified capital projects) in FYs' 2020 - 2023. FY 2014 and FY 2015 reflect CIP amounts per DWSD's budget. |

EXHIBIT L-4

# City of Detroit
## Consolidated Systems
Proforma Income Statement Projections
*(in millions of dollars)*

| | Actual 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | For the Fiscal Year Ended | | | | | | | | | |
| Revenues: | | | | | | | | | | | |
| Operating revenues | $795 | $ 894.4 | $ 909.2 | $ 953.0 | $ 968.1 | $ 995.8 | $1,032.2 | $1,070.1 | $1,111.3 | $1,154.2 | $1,198.8 |
| Expenses: | | | | | | | | | | | |
| Operating & maintenance | | 388.8 | 415.4 | 429.0 | 439.2 | 454.0 | 461.5 | 465.1 | 472.8 | 487.3 | 496.9 |
| Depreciation | | 201.8 | 207.4 | 213.1 | 218.8 | 223.4 | 228.0 | 232.6 | 237.8 | 243.1 | 249.2 |
| Total operating expenses | 642 | 590.6 | 622.8 | 642.1 | 657.9 | 677.4 | 689.4 | 697.7 | 710.7 | 730.4 | 746.1 |
| Operating income | | 303.8 | 286.4 | 311.0 | 310.2 | 318.4 | 342.8 | 372.4 | 400.7 | 423.8 | 452.8 |
| Nonoperating revenues (expenses): | | | | | | | | | | | |
| Interest expense | | (278.0) | (278.7) | (281.9) | (284.5) | (285.8) | (286.7) | (286.3) | (285.4) | (283.0) | (280.6) |
| Amortization of bond issuance costs | | (23.3) | (23.4) | (23.5) | (23.4) | (23.5) | (23.6) | (23.6) | (23.7) | (23.8) | (22.7) |
| Earnings on investments | | 10.6 | 10.4 | 9.7 | 10.2 | 10.5 | 10.9 | 11.5 | 12.1 | 12.8 | 13.4 |
| Nonoperating revenue | | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| Total nonoperating income (expenses) | (301) | (290.1) | (291.0) | (295.0) | (296.9) | (298.2) | (298.7) | (297.8) | (296.3) | (293.3) | (289.2) |
| Increase (decrease) in net assets | (148) | 13.7 | (4.6) | 16.0 | 13.3 | 20.2 | 44.0 | 74.6 | 104.4 | 130.5 | 163.6 |
| Fund net assets - beginning[1] | | 20.7 | 34.4 | 29.8 | 45.8 | 59.1 | 79.3 | 123.3 | 198.0 | 302.4 | 432.9 |
| Fund net assets - ending | | $ 34.4 | $ 29.8 | $ 45.8 | $ 59.1 | $ 79.3 | $ 123.3 | $ 198.0 | $ 302.4 | $ 432.9 | $ 596.4 |

*Footnotes:*

[1] FY 2014 beginning fund net assets obtained from preliminary draft audited financial statements subject to audit opinion issuance.

**EXHIBIT L-5**

## City of Detroit
## Consolidated Systems
### Operating & Maintenance Expense Projections
*(in millions of dollars)*

| | Actual | For the Fiscal Year Ended | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| Personnel expenses: | | | | | | | | | | | |
| Salaries & wages | $ 70.3 | $ 70.7 | $ 71.9 | $ 70.0 | $ 68.1 | $ 66.3 | $ 62.9 | $ 57.7 | $ 55.7 | $ 57.1 | $ 58.5 |
| Overtime | 14.1 | 14.5 | 14.8 | 14.8 | 14.5 | 13.9 | 13.2 | 12.1 | 10.6 | 10.9 | 11.1 |
| Subtotal | 84.4 | 85.1 | 86.7 | 84.8 | 82.6 | 80.3 | 76.2 | 69.8 | 66.3 | 67.9 | 69.6 |
| Pension & fringes[1] | 60.5 | 71.7 | 85.2 | 92.6 | 100.4 | 108.8 | 111.2 | 113.2 | 116.4 | 121.5 | 121.4 |
| Total personnel expenses | 144.9 | 156.9 | 171.9 | 177.4 | 183.0 | 189.1 | 187.4 | 183.0 | 182.7 | 189.4 | 191.1 |
| Non-personnel expenses: | | | | | | | | | | | |
| Purchased services | 10.3 | 14.2 | 9.4 | 8.1 | 8.3 | 8.5 | 8.7 | 9.0 | 9.2 | 9.4 | 9.6 |
| Telecommunications | 7.6 | 6.8 | 6.9 | 7.1 | 7.3 | 7.5 | 7.7 | 7.9 | 8.0 | 8.2 | 8.5 |
| Contractual services | 122.7 | 85.9 | 99.2 | 104.7 | 109.8 | 114.2 | 118.8 | 121.7 | 124.8 | 127.9 | 131.1 |
| Repairs & maintenance | 15.6 | 16.2 | 16.6 | 17.0 | 17.5 | 17.9 | 18.4 | 18.8 | 19.3 | 19.8 | 20.3 |
| Utilities | 76.5 | 77.8 | 78.9 | 81.2 | 81.5 | 83.9 | 86.4 | 88.9 | 91.6 | 94.5 | 97.4 |
| Chemicals | 21.4 | 23.8 | 23.9 | 24.4 | 24.5 | 25.1 | 25.7 | 26.2 | 26.9 | 27.5 | 28.2 |
| Other | 15.8 | 12.5 | 13.6 | 14.0 | 14.3 | 14.7 | 15.0 | 15.4 | 15.8 | 16.2 | 16.6 |
| Clearing account | (8.2) | (5.1) | (5.2) | (4.9) | (4.6) | (4.3) | (3.8) | (3.2) | (2.7) | (2.7) | (2.8) |
| Biosolids savings | - | - | - | - | (2.5) | (2.5) | (2.6) | (2.7) | (2.8) | (2.8) | (2.9) |
| Total non-labor expenses | 261.7 | 232.0 | 243.4 | 251.6 | 256.1 | 264.9 | 274.1 | 282.1 | 290.1 | 297.9 | 305.8 |
| Total operating & maintenance expense | $ 406.6 | $ 388.8 | $ 415.4 | $ 429.0 | $ 439.2 | $ 454.0 | $ 461.5 | $ 465.1 | $ 472.8 | $ 487.3 | $ 496.9 |

*Footnotes:*

[1] FY 2013 actual reduced by net OPEB obligation to allow for comparison.

EXHIBIT L-6

# City of Detroit
## Consolidated Systems
### Pension & Fringes Projection Detail
*(in millions of dollars)*

| | For the Fiscal Year Ended | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| Pension & fringes: | | | | | | | | | | |
| GF pension reimbursements[1] | $ 24.3 | $ 50.5 | $ 58.3 | $ 66.3 | $ 74.9 | $ 78.2 | $ 82.0 | $ 85.9 | $ 90.0 | $ 88.9 |
| GF OPEB reimbursements[1] | 14.7 | 4.2 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.7 | 3.7 | 3.7 |
| New defined contribution plan[2] | 3.5 | 3.6 | 3.5 | 3.4 | 3.3 | 3.1 | 2.9 | 2.8 | 2.9 | 2.9 |
| New retiree healthcare[3] | - | 1.4 | 1.4 | 1.4 | 1.3 | 1.3 | 1.2 | 1.1 | 1.1 | 1.2 |
| Active employee healthcare[4] | 13.4 | 13.3 | 13.5 | 13.7 | 13.7 | 13.4 | 12.6 | 12.5 | 13.1 | 13.7 |
| Social security[5] | 6.5 | 6.6 | 6.5 | 6.3 | 6.1 | 5.8 | 5.3 | 5.1 | 5.2 | 5.3 |
| Other fringes[6] | 9.4 | 5.6 | 5.6 | 5.6 | 5.6 | 5.5 | 5.4 | 5.4 | 5.5 | 5.7 |
| Total pension & fringes | $ 71.7 | $ 85.2 | $ 92.6 | $ 100.4 | $ 108.8 | $ 111.2 | $ 113.2 | $ 116.4 | $ 121.5 | $ 121.4 |

= $675A

| | As of Fiscal Year End | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| FTE Schedule: | | | | | | | | | | |
| FTE count - beginning | 1,706 | 1,535 | 1,459 | 1,386 | 1,316 | 1,251 | 1,125 | 1,000 | 1,000 | 1,000 |
| Less: Attrition | (171) | (77) | (73) | (69) | (66) | - | - | - | - | - |
| Less: Layoffs | - | - | - | - | - | (125) | (125) | - | - | - |
| Ending FTE count | 1,535 | 1,459 | 1,386 | 1,316 | 1,251 | 1,125 | 1,000 | 1,000 | 1,000 | 1,000 |

*Assumptions:*

[1] Based upon amounts included in Plan of Adjustment (Disclosure Statement - Exhibit II.B.3.u.ii.A).

[2] 5.0% of salaries and wages.

[3] 2.0% of salaries and wages.

[4] $8,250 per FTE in FY 2014 (active employee healthcare growth rates: FY 2015 7.5%; FY 2016 7.0%; FY 2017 6.5%; FY 2018 6.0%; FY 2019 5.5%; FYs' 2020 - 2023 5.0%).

[5] 7.65% of salaries, wages, and overtime.

[6] Includes fixed and variable expenses, variable portion based upon historical average of salaries and wages, fixed portion assumed to be inflationary.