

## **WATER AND SEWER SERVICES AGREEMENT**

**WATER AND SEWER SERVICES AGREEMENT**

Between

**CITY OF DETROIT**

And

**GREAT LAKES WATER AUTHORITY**

**Dated June 12, 2015**

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## **AGREEMENT**

This Water and Sewer Services Agreement (“Agreement”) is entered into as of June 12, 2015 by and between the City of Detroit, a home rule city organized and existing under the laws of the State of Michigan (the “City”) and the Great Lakes Water Authority, a public corporation organized under Act 233, Michigan Public Acts of 1955, as amended (“Act 233”) (the “Authority”).

## **RECITALS**

WHEREAS, a Memorandum of Understanding (the “MOU”) was entered into on September 9, 2014 by the Mayor of the City, the county executives of Macomb, Oakland, and Wayne Counties, and the Governor of the State of Michigan (the “State”), for the purpose of establishing a regional water authority pursuant to Act 233 to operate, control and improve the portions of the City’s Water Supply System and Sewage Disposal System presently operated by the Detroit Water and Sewerage Department (“DWSD”) which are necessary for the wholesale delivery and sale of water and sewage disposal to customers in southeastern Michigan and to facilitate the improvement of the Detroit Local Systems (as herein defined) which will continue to be operated by the City; and

WHEREAS, pursuant to the MOU and resolutions approving the Authority’s Articles of Incorporation by the City Council of the City, the Boards of Commissioners of Oakland and Macomb Counties, and the County Commission of Wayne County, and an order executed by the emergency manager for the City, the Authority has been incorporated for the purpose of, among other things, acquiring, owning, leasing, improving, enlarging, extending, financing, refinancing and operating a water supply system (the “Regional Water System”) and sewage disposal system, including a storm water collection and treatment system (the “Regional Sewer System,” and together with the Regional Water System, the “Regional Systems”), or a combination of such systems; and

WHEREAS, pursuant to the MOU, the City and each wholesale customer of the Systems, through their respective ratepayers, shall retain complete responsibility (in the case of the City, in accordance with the terms of this Agreement) for all obligations associated with their individual revenue requirements; and

WHEREAS, the City will operate those assets of the water supply system and sewage disposal system necessary to provide water services (the “Detroit Local Water Facilities”) and sewer services (the “Detroit Local Sewer Facilities,” and together with the Detroit Local Water Facilities, the “Detroit Local Facilities”) only to the individual retail customers served directly by the Detroit Local Systems (as herein defined)(the “Retail Customers”);

WHEREAS, on September 9, 2014, the emergency manager for the City authorized the Mayor to negotiate the terms of and execute and deliver a lease of the Regional Water System and the Regional Sewer System, an agreement between the City and the Authority relating to the operation, management and improvement of the Detroit Local Systems, a transition agreement consistent with the parameters established by the MOU, and take such other actions as may be

necessary or desirable to complete the transfer of the Regional Systems to the Authority as described in the MOU; and

WHEREAS, the transaction was approved by the State Treasurer on November 13, 2014, by the Governor on November 14, 2014 and the Detroit Financial Review Commission on May 18, 2015; and

WHEREAS, on November 12, 2014, an Order Confirming Eighth Amended Plan for the Adjustment of Debts of the City of Detroit (“Confirmation Order”) was entered (Docket No. 8272) confirming the Plan of Adjustment; and

WHEREAS, paragraph 38 of the Confirmation Order approved the MOU in all respects, and authorized the City to enter into, and take any action necessary to perform under or implement, the terms of the MOU and any final agreement resulting from the MOU creating the Authority subject to additional terms and conditions described therein; and

WHEREAS, Section 4 of Act 233 grants the Authority all powers necessary to carry out the purposes of its incorporation and those incident thereto; and

WHEREAS, the continued operation of the Detroit Local Systems will require Water Services and Sewer Services (each as herein defined) from the Authority; and

WHEREAS, it is necessary to establish and define the scope of the agency relationship between the City and the Authority with respect to the development of rates and the billing, collection and enforcement of payment of charges for the provision of Water Services and Sewer Services to Retail Customers.

**NOW, THEREFORE**, in consideration of the mutual promises and agreements herein contains, the parties hereto agree as follows:

**ARTICLE 1  
DEFINITIONS**

**1.1 Definitions.** As used in this Agreement:

“Act 94” means the revenue bond act of 1933, Act 94, Public Acts of Michigan, 1933, as amended.

“Act 233” has the meaning assigned it in the preamble to this Agreement.

“Agreement” means this Water and Sewer Services Agreement between the City and the Authority and all Exhibits attached hereto.

“Applicable Laws” means all laws, rules, regulations, ordinances, permit and license requirements, and orders of courts, governmental officials and agencies of competent jurisdiction with respect to the Leased Facilities or which generally relate to the Leased Facilities.

“Authority Bonds” means bonds or other evidences of indebtedness assumed by the Authority under the Leases and related Master Bond Ordinance or issued by the Authority under the related Master Bond Ordinance pursuant to Act 94 and secured by a pledge of and statutory lien upon the Net Revenues (as that term is defined in the related Master Bond Ordinance) of the related System.

“Authority CIP” means the ongoing program of capital improvements for the Leased Facilities as the same may be modified from time to time by the Authority.

“AWWA” means the American Water Works Association.

“B Notes” means the City of Detroit Financial Recovery Bonds, Series 2014 B(1) and Series 2014B(2) dated December 10, 2014, issued in part for the purposes of satisfying the City’s pension obligation certificate and post-retirement health benefits claims.

“Board” means the Board of Directors of the Authority.

“Budget Stabilization Fund” means the restricted account by that name established under the Master Bond Ordinance for each System to be funded from Retail Revenues and applied by the Authority in its discretion as provided in each Master Bond Ordinance in the event of shortfalls in Retail Revenues.

“Budget Stabilization Requirement” means, for each of the Local Water System and Local Sewer System, an amount calculated each Fiscal Year equal to (A) two times a number equal to twenty percent of the average bad debt expense of Retail Customers as a class for the two preceding Fiscal Years based on audited financial statements (or unaudited statements if audited statements are not available), which amount shall be funded from Retail Revenues initially in thirds over three Fiscal Years beginning in Fiscal Year 2016, or (B) such other amount specified by the Board by supermajority vote. For purposes of the required deposit for Fiscal Year 2016 the amount shall aggregate \$7,919,026, and shall be \$2,327,026 for the Local Water System and \$5,591,469 for the Local Sewer System.

“C Notes” means the City of Detroit Financial Recovery Bonds, Series 2014C dated December 10, 2014, issued for the purpose of satisfying the City’s pension obligation certificate claims.

“common-to-all” means the method or methods for allocating to Retail Customers and wholesale customers of the Regional Water System and Regional Sewer System the cost of Water Services and Sewer Services provided by the Regional Systems that benefits both wholesale customers and Retail Customers, which allocation is determined on a case-by-case analysis of the benefits derived by each customer class from such service.

“Detroit CIP” means the ongoing program of capital improvements for the Detroit Local Facilities as the same may be modified from time to time by the City or DWSD.

“Detroit Local Facilities” means, collectively, the Detroit Local Sewer Facilities and the Detroit Local Water Facilities.

“Detroit Local Sewer Facilities” means those sewage disposal facilities of the Sewer System, other than the Leased Sewer Facilities, that are used to provide sewer service directly to the Retail Customers on the Effective Date.

“Detroit Local Water Facilities” means those water supply system facilities, including all fire hydrants, of the Water System, other than the Leased Facilities that are used to provide water service directly to the Retail Customers on the Effective Date.

“Detroit Local Systems” means, collectively, the Local Water System and the Local Sewer System.

“DWSD” has the meaning assigned to it in the Recitals to this Agreement.

“DWSD-R” means the Detroit Water and Sewerage Department as in existence on and after the Effective Date.

“Effective Date” has the meaning assigned it in Section 10.1.

“Fiscal Year” means the period beginning on July 1 of each year and ending on June 30 of the following year.

“Green Infrastructure” means an array of products, technologies and practices that use natural systems or engineering systems that mimic natural process by using soils and vegetation to remove storm water from the Sewer System as components of a storm water management system, which systems may include by are not limited to green roofs, porous pavement, rain gardens and vegetated swales.

“Green Infrastructure Program” means implementation of Green Infrastructure to remove storm water from the Sewer System and expenditure of the average annual requirement per Part I. Section A.15.d.5.a and b. of the Wastewater Treatment NPDES Permit.

“Lease Payment” means the payments required to be made each year by the Authority for the benefit of the City to be used for water and sewer improvements or debt service on Authority Bonds pursuant to the Leases in consideration for the lease of the Leased Facilities and the absolute and irrevocable sale, assignment and transfer to the Authority of the Revenues derived from the operation of the Systems prior to the end of the Term.

“Leases” means the Regional Sewer System Lease and the Regional Water System Lease.

“Leased Facilities” means those facilities and infrastructure subject to the Leases.

“Local Sewer System” means that portion of the Sewer System that provides Sewer Services directly to the Retail Customers, which on the Effective Date consists of the Detroit Local Sewer Facilities.

“Local Water System” means that portion of the Water System that provides Water Supply Service directly to Retail Customers, which on the Effective Date consists of the Detroit Local Water Facilities.

“Master Bond Ordinance” means, individually or collectively, as the context requires, the ordinance to be adopted by the Authority on or before the Effective Date for each System, setting forth the terms and provisions under which Authority Bonds may be assumed or issued.

“Mayor” means the Mayor of the City.

“MOU” has the meaning assigned to it in the recitals to this Agreement.

“Non-revenue Water” means the sum of unbilled authorized consumption (water for firefighting, flushing, etc.), plus apparent losses (customer meter inaccuracies, unauthorized consumption and systematic data handling errors) plus real losses (system leakage and storage tank overflows).

“Parties” means the City and the Authority.

“Performance Standards” means the level of performance necessary to provide Water Services or Sewer Services, as applicable, in accordance with Applicable Laws and Prudent Utility Practices, all in a manner so as to provide such Water Services or Sewer Services to customers in the same or an improved manner as was provided by DWSD immediately prior to the Effective Date.

“Plan of Adjustment” means the City’s eighth amended plan for the adjustment of debts of the City as confirmed by order of the United States Bankruptcy Court for the Eastern District of Michigan entered on November 12, 2014 (In re City of Detroit, Michigan, Debtor, Case No. 13-53846).

“Prudent Utility Practices” means those practices, methods, techniques, standards and acts engaged in or approved by a significant portion of the regulated water and sewer utility industry in the United States or any of the practices, methods, techniques, standards and acts which, in the exercise of reasonable judgment in light of the facts known (or which a qualified and prudent operator could reasonably be expected to have known) at the time a decision is made, would have been expected to accomplish a desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition, in each case related to the operation, maintenance and improvement of similar systems at utility franchises of the same or similar size and type as the Systems.

“Reconciliation Committee” means a committee consisting of a member of the Authority Board not appointed by the Mayor of the City, or his or her designee, and a member of the Board of Water Commissioners of the City, or his or her designee, who shall exercise the duties and perform the functions described in Section 5.3.

“Regional Sewer System” means that portion of the Sewer System that provides sewer service to the wholesale customers thereof and to the Local Sewer System, which on the

Effective Date consists of the Leased Sewer Facilities (as defined under the Regional Sewer System Lease).

“Regional Systems” means that portion of each System that provides Water Services and Sewer Services to the wholesale customers thereof and to Retail Customers up to the point of connection with the Detroit Local Systems.

“Regional Water System” means that portion of the Water System that provides water service to wholesale customers thereof and to the Local Water System, which on the Effective Date consists of the Leased Water Facilities (as defined under the Regional Water System Lease).

“Receiving Funds” means, collectively, the fund established under the Water System Master Bond Ordinance and the fund established under the Sewer System Master Bond Ordinance.

“Retail Customers” has the meaning assigned to it in the Recitals to this Agreement, and includes those individual customers served directly by the Detroit Local Systems that are located within and outside the boundaries of the City.

“Retail Revenues” means Revenues collected from Retail Customers.

“Revenue Receipts Fund” means that fund established under Section 502(b) of each Master Bond Ordinance and held in trust by the trustee or Revenue Receipts Trustee appointed thereunder to receive Revenues of both Systems.

“Revenue Receipts Trustee” means U.S. Bank National Association and its successor, as the trustee for the Revenue Receipts Fund established under the Master Bond Ordinances.

“Revenues” means the revenues of the Authority from the Water System and the Sewer System, which revenues shall be construed as defined in Act 94, and shall include all moneys deposited by the City in a Revenue Receipts Fund under Section 4.1.

“Services” means, collectively, Water Services and Sewer Disposal Services.

“Sewer Improvement and Extension Fund” means the Improvement and Extension Fund established under the Master Bond Ordinance for the Sewer System to be used for improvements, enlargements, extensions or the betterment of the Regional Sewer System and Detroit Local Sewer System.

“Sewer Services” means the activities of the Authority of collection, carrying, separation, treatment, and disposal of both sewage and water runoff from the Detroit Local Sewer Facilities to the Regional System pursuant to Section 3.2.

“Sewer System” means the City’s sewage disposal system as existing immediately prior to the Effective Date, which consists on the Effective Date of the Regional Sewer System and the Local Sewer System.

“Systems” means, collectively, the Detroit Local Systems and the Regional Systems.

“TAC” means the Technical Advisory Committee consisting of representatives of the Authority, the City, and wholesale water customers of the Authority and their respective representatives, and shall include its successor or replacement if altered or discontinued. The TAC shall remain in existence until December 31, 2038 unless the committee determines otherwise.

“Trustee” means U.S. Bank National Association, or a successor as trustee under the Master Bond Ordinances.

“Wastewater Treatment NPDES Permit” means that certain National Pollutant Discharge Elimination System Permit MI 0022802 issued by the Department of Environmental Quality of the State of Michigan to the City of Detroit Water and Sewerage Department which regulates the discharge of waste or wastewater into surface waters of the State.

“Water Improvement and Extension Fund” means the Improvement and Extension Fund established under the Master Bond Ordinance for the Water System to be used for improvements, enlargements, extensions or the betterment of the Regional Water System and Detroit Local Water System.

“Water Services” means the provision by the Authority of water to the Detroit Local Water Facilities pursuant to Section 3.1.

“Water System” means the City’s water supply system as existing immediately prior to the Effective Date, which consists on the Effective Date of the Regional Water System and the Local Water System.

“WRAP Fund” means the Water Residential Assistance Program Fund to be established pursuant to the MOU, which shall be a fund independently-administered on behalf of the Authority to provide assistance to indigent residential customers throughout the Water System and the Sewer System.

**1.2 Captions and Headings.** The captions, headings, and titles in this Agreement are intended as a convenience and not intended to have any substantive meaning or be interpreted as part of this Agreement.

**1.3 Plural Terms.** A term or phrase in this Agreement importing the singular number only may extend to and embrace the plural number and every term or phrase importing the plural number may be applied and limited to the singular number.

## **ARTICLE 2 AGENCY**

**2.1 Appointment and Termination of Agency.** (a) The Authority hereby appoints the City as its agent, and the City hereby accepts such appointment as agent, to perform the services and undertake the duties, obligations and administrative functions described in the third sentence of Section 3.1(a), the third sentence of Section 3.2(a), and the second paragraph of



Section 4.1 on behalf and for the benefit of the Authority, in accordance with the terms of this Agreement and Applicable Law. This appointment and the City's acceptance thereof may not be revoked or terminated except in accordance with the express terms of Section 2.2. Unless and until this agency relationship between the Authority and the City is revoked or terminated in whole or in part pursuant to Section 2.2, the City shall be, and hereby is, authorized and empowered by the Authority to execute and deliver, in the name and on behalf of the Authority, any and all instruments, documents or notices necessary or appropriate in performing its role as agent of the Authority under this Agreement. The Authority shall execute and deliver to the City such documents as have been prepared by the City for execution by the Authority and shall furnish the City with such other documents as may be in the Authority's possession, in each case, as the City may determine to be necessary or appropriate to enable it to carry out and perform its duties, obligations and administrative functions under this Agreement and Applicable Law. Upon the City's written request, the Authority shall furnish the City with any powers of attorney or other documents necessary or appropriate to enable the City to carry out and perform its duties, obligations and administrative functions hereunder. The City may perform its agency duties directly or through one or more third parties, provided that the City shall remain primarily responsible for the performance of such duties.

(b) The City shall act in its capacity as agent for the Authority (and not in its own capacity as principal or otherwise) for the purposes described in Sections 3.1(a), 3.2(a), and 4.1. The Authority may revoke or terminate, in accordance with the procedures described in Section 2.2, its appointment of the City as agent for the Authority, if the City fails to perform its duties, obligations or administrative functions described in Sections 3.1(a), 3.2(a), and 4.1 in accordance with those Sections and, to the extent applicable, the Performance Standards and Applicable Law; and in particular by failing to:

(i) Establish a two-year budget which includes the costs of performing the City's agency responsibilities for the Detroit Local Systems under this Agreement no later than April 23 of each year starting with Fiscal Year 2017;

(ii) Establish rates reasonably intended to meet the revenue requirements for the Water Services and Sewer Services for each Fiscal Year that will become effective no later than June 30 of the prior Fiscal Year;

(iii) Send bills to Retail Customers at least every other month;

(iv) Collect and enforce payment of bills consistent with the Performance Standards; and

(v) Deposit Revenues in accordance with Section 4.1.

**2.2 Termination of Agency.** In the event the City fails to satisfy any of the requirements of Section 2.1(b) at any time after attempting to resolve concerns as provided in Section 5.2, the Authority may, but is not obligated or required to, revoke or terminate the agency of the City with respect to those requirements that the City has failed to carry out and perform (but the agency shall continue with respect to all other requirements), subject to prior compliance by the Authority with the exclusive procedures and remedies provided in Articles 7

and 8. If, pursuant to a decision of the Arbitration Panel in accordance with Articles 7 and 8, the Arbitration Panel determines that the City has failed to satisfy any of the requirements of subsection (b) above, the Authority may perform each of those requirements that was not satisfied by the City in accordance with this Agreement directly or through another appointed agent. The City may not resign or assign any of its responsibilities under this Article 2 without the prior written consent of the Authority.

### **ARTICLE 3 WATER AND SEWER SERVICE; RATES**

**3.1 Water Services.** (a) The Authority shall provide Water Services in amounts sufficient to meet the requirements of Section 3.1(b) and in compliance with the technical and other requirements as provided in Exhibit A. The City agrees to remit payment for all Water Services provided by the Authority at such rates as the Authority may establish, but only from amounts billed to and collected from Retail Customers. The City shall act as agent for the Authority pursuant to Article 2 with respect to the development of rates, and billing and collecting and enforcing the collection of fees and charges from Retail Customers for Water Services. The City shall establish rates consistent with Applicable Laws that are reasonably projected to meet the revenue requirement the Authority establishes for Retail Customers as well as other costs of the Local Water System; provided that:

(i) rates established by the Authority shall be reasonable in relation to the costs incurred by the Authority for the supply of water; and

(ii) the Authority shall not establish a revenue requirement for Retail Customers for the 2015-2016 Fiscal Year in an amount exceeding the revenue requirement established by DWSD for that period; and

(iii) each year, the Authority shall reflect in the revenue requirement a credit for the Retail Customers located in the City in the amount of \$20,700,000 against the portion of the Authority's revenue requirements allocated to the City, representing the return on equity to the City for the Water System in recognition of the City's ownership of the Water System and support of the rate structure for the Water System; and

(b) Usage and Records.

(i) Measurement of City Usage; Records.

A. Annual volume and demands (used interchangeably as Units of Service) of the Local Water System on the Regional Water System will be estimated based on a combination of retail automated meter sales data and estimated sales data for non-automated meter customers, other Prudent Utility Practices measurement techniques, as well as all sources of non-revenue water. To the extent that all or a portion of water sales to the Local Water System becomes measured by master meters, the general approach may be modified. Updates to usage and records data will be governed by the following analyses:

(y) Independent Financial and Engineering Analysis for Units of Service: Commencing upon the Effective Date, the Authority shall conduct an independent financial and engineering analysis, which shall review historical data for the development and documentation of the Fiscal Year 2017 unit of service factors (including annual volumes, maximum daily demand, peak hour demand, and non-revenue water) for the non-master metered customers including the City. The TAC work groups will assist in the review of the information developed and will provide a recommendation to the Board. These units of service factors shall be updated as provided in Exhibit A-II and used in the 2017 water revenue requirement allocations for the Regional Water System. Due to the timing necessary to complete a detailed water audit, best available data will be used to estimate the non-revenue water to meet the rate season deadlines included herein.

(z) Water Audit: Commencing upon the Effective Date, the Authority shall complete a water audit based upon the AWWA methodology. The results of the water audit shall be used to develop the Fiscal Year 2018 revenue requirement allocations. The Parties shall adjust the values located within Exhibit A-II based upon the results of the water audit, best available data and Prudent Utility Practices. Fiscal Year 2018 shall be considered year one of the re-opener cycle as provided in Exhibit A.

B. Future Annual Volumes and Maximum Flow Rates: Until such time as the Local Retail System is completely master metered, the Parties shall use the best available data and Prudent Utility Practices to develop Local Retail System annual volumes and maximum flow rates. It is agreed to by the Parties that beginning in 2018 rate year, exceedances in the Maximum Flow Rates identified within Exhibit A-II (updated in both 2017 and 2018 per (a)(y) and (a)(z) above) shall be subject to the terms of this Agreement.

C. Non-revenue Water: All sources of Non-revenue Water in the Local Water System shall be evaluated and quantified annually using best available data and Prudent Utility Practices for inclusion in the annual volume calculation for the City.

D. Data Review and Recommendation: Upon the effective date of this Agreement, a subcommittee of the TAC will be developed or incorporated in an existing work group, to affirm, validate and estimate the unit of service factors for the City and other non-metered customers. This subcommittee may require the assistance of engineering, financial, accounting, and/or metering consultants to assist with data analytics and review. The subcommittee will be responsible for review of the previous year's data and recommending updates to the values as needed to provide consistency with the development of rates and charges for metered wholesale customers. Once recommendations are developed, the

subcommittee shall report out their conclusions to the Rates Work Groups of the TAC who will evaluate and approve the recommendations or cause them to be refined until they are approved. The Rates Work Groups will review and carry forward their recommendations to the TAC, for review and approval as appropriate. If the staff of the Authority agrees with the values recommended by the TAC, staff will utilize these analytical values in the rate model as are used for wholesale customers. If the Authority staff disagrees with the values recommended for use by the TAC, both sets of values will be utilized in the rate model and presented to the Board for its consideration. In the event a presentation of both sets of values is necessary, the TAC co-chairs shall be allowed to present information as deemed appropriate to the Board to support their recommendations. The City shall be a member of any subcommittees established, the Rates Work Groups, and the TAC.

E. Independent Wholesale Meter Audit: The Authority shall be required to conduct an independent audit of all wholesale meters commencing with the 2017 fiscal year. At a minimum, this audit shall review calibration and testing procedures as well as records for data accuracy, validate the number of days in service, and volume/sales data. This audit shall be conducted on an annual basis with technical review by the Analytical Work Group of the TAC. Results of this audit shall be provided to the Rates Work Group for consideration in development of the revenue requirements for the Regional System.

(ii) Authority Usage. Until such time as the Leased Facilities are completely master metered, the Parties shall use the best available data and Prudent Utility Practices to develop Leased Facility annual volumes and maximum flow rates. Water usage by the Authority in the Leased Facilities connected to and receiving water service from the Local Water System shall be accounted for by applying applicable Prudent Utility Practices, including metering where feasible, and where not metered subject to the quarterly review and concurrence by the City and the Authority. Such usage may be excluded from any calculations used to determine the annual purchase volumes, maximum day demands or peak hour demands for Water Services to Retail Customers from the Authority.

(iii) Water Treatment Production Metering. The Authority shall complete the metering improvements specified in the FY 2016 Water Supply System Capital Improvement Program, Fiscal Years 2016-2020, approved on March 1, 2015 by the Board of Water Commissioners, for the Northeast, Springwells, and Waterworks Park water treatment facilities no later than June 30, 2020. The Authority shall include in a future Authority CIP adequate means of measuring Authority consumption of water at other Regional Water Facilities.

(c) Rate Methodology. The Authority shall adopt, and may amend from time to time, a methodology for ratemaking for the sale of water detailed in this Agreement that complies with Michigan law. The Authority shall provide the City a description of such methodology and any amendment thereto in a form that complies with the provisions of this Agreement and accounts for differences attributable to this Agreement and the Leases. The Authority shall provide the

City any update to its methodology within twenty (20) business days of its adoption by the Board.

(d) The Authority shall apply any portion of the Lease Payments directed by the City to debt service on Authority Bonds to the water revenue requirement established for the City and incorporate in its budget any portion of the Lease Payments directed by the City to the Detroit Local Account in the Water Improvement and Extension Fund.

(e) The City shall repair, maintain, improve and operate the Local Water System in compliance with all Applicable Laws and the requirements of governmental and quasi-governmental permits issued with respect to the Local Water System or that are generally applicable to the Local Water System. Except to the extent caused by an act or omission of the Authority, the City shall be solely responsible for any noncompliance by the Local Water System with any of the foregoing, including the correction of the noncompliance and the payment of the costs thereof, and for the payment of any related fines, penalties, costs, losses or damages related thereto.

**3.2 Sewer Services.** (a) The Authority shall provide Sewer Services to the Retail Customers in amounts sufficient and in compliance with other technical requirements as described in Exhibit B. The City agrees to remit payment for all Sewer Services provided by the Authority at such rates as the Authority may establish, but only from amounts billed to and collected from Retail Customers. The City shall act and is hereby appointed as agent for the Authority with respect to the development of rates for, and billing and collecting and enforcing the collection of fees and charges from the Retail Customers for Sewer Services. The City shall establish rates consistent with Applicable Laws that are reasonably projected to meet the revenue requirement the Authority establishes for Retail Customers, as well as other costs of the Local Sewer System; provided that:

(i) rates established by the Authority consistent with Exhibit B-V shall be reasonable in relation to the costs incurred by the Authority for the supply of Sewer Services; and

(ii) the Authority shall not establish a revenue requirement for the 2015-2016 Fiscal Year in an amount exceeding the amount currently in effect as established by DWSD for that period; and

(iii) each year, the Authority shall reflect in its rate structure for Sewer Services a credit for Retail Customers in the City in the amount of \$5,516,000 against the portion of the Authority's revenue requirements allocated to the City, representing the return on equity to the City for the Sewer System in recognition of the City's ownership of the Sewer System.

(b) **Rate Methodology.** The Authority shall adopt, and may amend from time to time, the methodology for ratemaking for the sale of Sewer Services that complies with Applicable Laws. The current methodology utilized by DWSD prior to the Effective Date is identified in Exhibit B-V to this Agreement. The Authority shall provide the City any update to its methodology within twenty (20) business days of its adoption by the Board.

(c) The Authority shall apply any portion of the Lease Payments directed by the City to debt service on Authority Bonds to the sewer revenue requirement established for the City and incorporate in its budget any portion of the Lease Payments directed by the City to the Detroit Account in the Sewer Improvement and Extension Fund.

(d) Authority Usage. Sewer Services used by the Authority in the operation of the Leased Facilities connected to and receiving sewer service from the Local Sewer System shall be accounted for by applying applicable Prudent Utility Practices, including metering where applicable, and where not metered subject to the quarterly review and concurrence by the City and the Authority. Such usage shall be excluded from any calculations used to determine the City's cost for Sewer Services to Retail Customers from the Authority.

(e) The City shall repair, maintain, improve and operate the Local Sewer System in compliance with all Applicable Laws and the requirements of governmental and quasi-governmental permits issued with respect to the Local Sewer System or that are generally applicable to the Local Sewer System, including without limitation the provisions of Wastewater Treatment NPDES Permit applicable to the Local Sewer System. Responsibilities for compliance with the Wastewater Treatment NPDES Permit shall be generally allocated as shown on Exhibit B-VI. Except to the extent caused by an act or omission of the Authority, the City shall be solely responsible for any noncompliance by the Local Sewer System with any of the foregoing, including the correction of the noncompliance and the payment of the costs thereof, and for the payment of any related fines, penalties, costs, losses or damages related thereto.

(f) Detroit Local System Usage. Until such time as the Detroit Local System is master metered, sewer usage by all Retail Customers connected to and receiving sewer service from the Detroit Local System shall be accounted for by Prudent Utility Practices including metering where applicable, and where not metered subject to the quarterly review and concurrence by the City and the Authority.

**3.3 Notification of Rates and Charges.** As soon as possible in the ratemaking process, the Authority shall provide information on proposed rates and charges and the draft data and information used in the calculation of the proposed rates in a format that will enable the City to assist in the ratemaking process. Not less than one hundred twenty (120) days prior to the effectiveness of any new rates, the Authority shall provide the City with written notice of the proposed rates and the underlying data used to calculate the rates. The Authority shall meet with the City to review the rates and the data.

**3.4 License.** Although the City has retained the right and responsibility to operate the Detroit Local Systems, it hereby grants the Authority the right to use the Detroit Local Systems for the Term (as defined in Section 10.2) of this Agreement, in order to provide Water Services and Sewer Services to customers of the Regional Systems including Retail Customers.

**ARTICLE 4  
FLOW OF FUNDS**

**4.1 Deposit of Revenues.** Consistent with the assignment of Revenues contained in the Leases, the Authority and the City shall deposit or cause to be deposited all Revenues each receives or collects from the operation of the Systems into the Revenue Receipts Fund of the Authority or, where feasible, directly into the Receiving Fund for the related System. From the Revenue Receipts Fund, the Revenue Receipts Trustee, at the direction of the Authority, shall allocate and cause these funds to be deposited into the appropriate Receiving Fund.

Consistent with Article 2 of this Agreement, the City shall act as an agent of the Authority when collecting the portion of the Revenues derived from the provision of Water Services and Sewer Services to the Retail Customers, and the City shall hold such Revenues in trust for the exclusive benefit of the Authority until such funds are deposited into the Revenue Receipts Fund.

**4.2 Application of Revenues.** The Revenues deposited into the Revenue Receipts Fund pursuant to Section 4.1 shall be applied in the order provided in and consistent with the flow of funds in the related Master Bond Ordinance. Such transfers shall include:

(a) Disbursements to the City for deposit in a Local Water System operation and maintenance fund and a Local Sewer System operation and maintenance fund of the amounts contained in the Detroit Local System Budget on the first day of each month, in increments equal to that month's budgeted reasonable expenses of administration and operation and the expenses for maintenance of the Detroit Local Systems as may be necessary to preserve the Detroit Local Systems in good repair and working order.

(b) Application of Revenues to pay (i) the City portion of the principal of and interest on that portion of the Authority Bonds issued to finance the cost of improvements to the Detroit Local Facilities; and (ii) the City portion of the principal of and interest on Authority Bonds issued to finance the cost of common-to-all improvements to the Leased Facilities.

(c) Disbursements to the City, in accordance with the flow of funds in each Master Bond Ordinance, of budgeted amounts for the Detroit Local System Account of the Improvement and Extension Fund.

**4.3 Application of the Lease Payments.** For Fiscal Year 2016, the City directs that \$2,327,026 of the Lease Payment for the Regional Water System and \$19,991,469 of the Lease Payment for the Regional Sewer System shall be applied to common-to-all debt service for the related Authority Bonds. The balance of the Lease Payments for Fiscal Year 2016 shall be deposited to the Detroit Local System Account in the related Improvement and Extension Fund. For subsequent Fiscal Years, no later than May 1 each year the City shall provide to the Authority a written direction concerning the application of the Lease Payments to be paid by the Authority to the City for the next Fiscal Year (each a "Direction to Apply Lease Payment"). A Direction to Apply Lease Payment shall include direction as to the allocation of the full amount of the Lease Payment for that year, and may also reflect commitment of Lease Payments for future years to the payment of debt service on Authority Bonds, consistent with the Leases. The

Direction to Apply Lease Payment shall direct the Authority to allocate and credit to the City identified portions of the Lease Payment for: (i) the payment of principal of and interest on that portion of the Authority Bonds issued to finance the cost of improvements to the Detroit Local Facilities; (ii) the payment of the City's share of the principal of and interest on Authority Bonds issued to finance the cost of common-to-all improvements to the Leased Facilities; and (iii) the payment of the cost of improvements to and repairs of the Detroit Local Facilities. Upon receipt of the Direction to Apply Lease Payment from the City, the Authority shall ensure that the Lease Payments are allocated to Authority funds and accounts consistent with that direction, and shall honor any direction from the City to release to the City portions of the Lease Payment which are required to be deposited in the Detroit Local System Account in the Authority's Improvement and Extension Fund to the City to be applied to Detroit Local System improvements. The Authority shall transfer such amounts to the designated Bond Funds and the Detroit Local System Account in the related Improvement and Extension Fund at the times specified in the Master Bond Ordinance.

To the extent any portion of the Lease Payments have not previously been encumbered, the City may amend a Direction to Apply Lease Payment at any time during each Fiscal Year, to pay debt service or to pay the cost of an executed contract for improvements to the Detroit Local Facilities. The City may not amend a Direction to Apply Lease Payment to redirect any portion of a Lease Payment previously committed by the City to pay debt service on outstanding Authority Bonds or an executed contract for improvements to the Detroit Local Facilities.

**4.4 No Set-off.** Neither Party may utilize funds it holds on behalf or for the benefit of the other Party to set off or otherwise satisfy any debt owed by the other Party to the Party holding such funds.

## **ARTICLE 5 STANDARDS OF PERFORMANCE; COOPERATION**

**5.1 Standard of Performance.** The Authority shall endeavor to perform, or cause to be performed, all Services required under this Agreement in compliance with Prudent Utility Practices, but shall in no event perform the Services at a level of service below the Performance Standards.

### **5.2 Cooperation of Parties.**

(a) The Parties shall cooperate reasonably with each other in connection with any steps required to be taken as part of their respective obligations under this Agreement, and shall (i) furnish upon request to each other such information and data, including maps, which are reasonably accessible and would not cause the Party providing such information and data to violate the terms of any agreement to which it is subject at the time of the request; (ii) execute and deliver to each other such other documents; and (iii) do such other acts and things, all as the other Party may reasonably request that is necessary or convenient to effectuate the purposes of this Agreement and the transactions contemplated hereby.

(b) The Director of DWSD-R and the Chief Executive Officer of the Authority or their designees shall initially meet weekly or at such other interval as they shall reasonably agree



to review data, information and processes relevant to the operation and management of the Systems, including capital improvements, the Authority CIP and the Detroit CIP, maintenance and repairs, and any other issues arising out of the Leases or this Agreement. Such meetings shall include a review of Service delivery and any other issues relevant to this Agreement. The City and the Authority agree to develop plans and protocols for operational coordination, GIS coordination, hydraulic water and sewer modeling, fire hydrant removal coordination and asset identification.

(c) The Parties agree and covenant to coordinate all efforts and undertakings under this Agreement, including the implementation of the Detroit CIP and the Authority CIP, with the goal of maximizing any economies of scale and achieving any other available financial and operational efficiencies from such coordination. The Parties shall develop a long-term plan for the installation of master meters and backflow prevention devices between the Detroit Local Water System and the Regional Water System to be implemented in connection with the implementation of the Detroit CIP, recognizing that the installation of such meters may be implemented over a long period of time. Such plan shall provide for modifications to the Systems as part of replacement projects to facilitate metering implementation.

(d) The City and the Authority shall confer at least annually to develop, coordinate and prioritize a schedule for financing components of the Authority CIP and the City CIP, including grant applications and prioritization of applications for financing through the Michigan Clean Water Revolving Loan Fund or the Drinking Water Revolving Loan Fund.

(e) With respect to each permit issued in the names of both the Authority and the City, the Parties shall identify which Party state regulatory officials should contact regarding questions or enforcement matters and the Parties shall provide such contact information to the issuer of the permit. The Parties shall jointly or separately perform such functions under the Wastewater Treatment NPDES Permit as identified on Exhibit B-VI.

(f) The Parties shall maintain a combined sewer overflow control plan which shall include protocols for the management of City and Authority facilities during wet weather events. The Parties recognize that (i) the City is served by a combined sewer overflow (“CSO”) system and that the rate of flow will vary greatly depending upon the rainfall magnitude and other climatological factors, and (ii) under certain conditions the Regional Sewer System will have insufficient capacity to handle all flow generated by the City. The Authority will continue to operate the Regional Sewer System in accordance with the current Michigan Department of Environmental Quality (“MDEQ”)-approved Wet Weather Operational Plan (the “Operational Plan”) to provide service to the City. In situations where the Operational Plan does not address a particular instance or issue, the Parties agree that the mutual goal of the Parties is to maximize the treatment and disinfection of Flows (as defined in Exhibit B to this Agreement). Review and modification of the Operational Plan may occur periodically as mutually agreed between the Parties, and approved by MDEQ. Such review and/or modification may occur as Sewer System improvements are implemented or adaptive management strategies are found to be effective and formalized. If changes to the Operational Plan are significant and result in increased capacity limits for Authority wholesale customers, an adjustment to the CSO cost allocation or other appropriate cost allocation may be considered.

(g) To the extent the Wastewater Treatment NPDES Permit allows for and requires Green Infrastructure, the City shall be primarily responsible for performing the Green Infrastructure Program required by Part I. Section A.15.d.5.a. of the Wastewater Treatment NPDES Permit, including achieving the wet weather flow removal goal and annual average expenditure requirement. The City also shall be primarily responsible for performing the elective Green Infrastructure elements of Part I. Section A.15.d.5.b. of the Wastewater Treatment NPDES Permit. The City's responsibility shall be limited to projects in the City. Subject to the City's reasonable approval, the Authority may propose additional Green Infrastructure Projects on properties located in but not owned by the City to the extent the projects are demonstrated to provide cost effective reduction of wet weather flow into sewers. Subject to the Authority's reasonable approval, the City may apply any wet weather flow removed, and expenditure made, by any additional Green Infrastructure Projects performed by the Authority to meet the flow removal and annual expenditure requirements of the Wastewater Treatment NPDES Permit. In the event the City fails to implement any Green Infrastructure required under the Wastewater Treatment NPDES permit in the timeline provided in such permit, the Authority may implement Green Infrastructure Programs in the City in order to meet the permit requirements. In such event, the Authority shall give the City notice of its intent to implement Green Infrastructure in the City in the following Fiscal Year no later than the end of the each December after the Authority's review of the report provided to MDEQ in August of each year.

(h) The Authority shall have the right to review and approve the City's construction plans for meter facilities at new water distribution points to be connected to the Leased Water Facilities, water mains sized twenty-four inches and larger, pump stations, reservoirs, water towers, and any other construction that will cross, or be within close proximity to, or have influence upon the Leased Water Facilities. The Authority's approval of construction plans shall be timely and shall not be unreasonably withheld.

**5.3 City Budget; Detroit CIP; Application of Lease Payments.** Each year the City shall provide the Authority with: (i) the budget forecast for the Detroit Local Systems pursuant to Section 5.3(a); (ii) the budgets for the operation and maintenance and other funding requirements of the Detroit Local Systems (the "**Detroit Local System Budgets**") pursuant to Section 5.3(b); (iii) the Detroit CIP pursuant to Section 5.3(d); and (iv) the Direction to Apply Lease Payment (as defined in Section 4.3) pursuant to Section 4.3. The Detroit Local System Budgets for Fiscal Year 2015-2016 shall be the portions of the DWSD Fiscal Year 2015-2016 budget adopted on March 11, 2015 by the Board of Water Commissioners allocated to the Local Water System and the Local Sewer System. The allocation of responsibilities and charges listed in the Service Delivery Schedules attached to the Shared Services Agreement between the Parties shall not alter the Detroit Local System Budgets for Fiscal Year 2015-2016. On the Effective Date, the Authority shall deposit into each of the WRAP Fund, the Budget Stabilization Fund for each System and the funds designated by the City for application of the Lease Payments for Fiscal Year 2016 an amount equal to the annual deposit required for such fund or Lease Payment for Fiscal Year 2016 divided by twelve, which shall be multiplied by the number of months already elapsed during such Fiscal Year.

(a) Preliminary Budget Forecast. The City agrees to provide the Authority with a preliminary budget forecast for the Detroit Local Systems. Commencing with the Fiscal Year beginning July 1, 2016, the City shall prepare and submit to the Authority on or before January 1

of each year, a preliminary two-year budget forecast for the Detroit Local Systems for the following two Fiscal Years that sets forth projected revenues and expenses for each such Fiscal Year. The preliminary budget forecast shall set forth the City's assumptions for at least that two-year period with respect to demand for Water Services and Sewer Services and the expected delinquency level for amounts billed to Retail Customers in the City. The preliminary forecast for each such Fiscal Years shall project revenues necessary to generate the sum of the projected expenses and revenue requirements for the Detroit Local Systems for such Fiscal Years (collectively, the "Local Revenue Requirement") and the City share of the Authority's revenue requirement, including without limitation the following:

- (i) the amounts reasonably necessary to fund all expenses of administration and operation and the expenses for maintenance as may be necessary to preserve the Detroit Local Systems in good repair and working order;
- (ii) the Detroit Local Systems' share of the common-to-all amounts required to fund the Lease Payments;
- (iii) the Detroit Local Systems' share of debt service on the portion of the Authority Bonds issued to finance capital improvements to the Regional Systems and the Detroit Local Systems not covered by Lease Payments;
- (iv) the amounts necessary to fund the Detroit CIP or make deposits to the Detroit Local Improvement and Extension Account of the Improvement and Extension Funds in the applicable Master Bond Ordinance from Retail Revenues, a portion of the Lease Payments or bond proceeds;
- (v) the Detroit Local Systems' share of the (x) common-to-all portion of liability assumed by the Authority on behalf of DWSD as a result of the City's Plan of Adjustment, including costs of (A) debt service on the B Notes, (B) debt service on the C Notes, and (C) funding for the City's frozen General Retirement System pension plan, and (y) the portion of such liabilities associated with Detroit Local System employees;
- (vi) the amount necessary to be deposited to the WRAP Fund, which shall be equal to 0.5% of the base budgeted operating revenues for the Detroit Local Systems for such Fiscal Year;
- (vii) (y) for each of Fiscal Years 2016, 2017 and 2018, an amount equal to one-third of the Budget Stabilization Requirement; and (z) for subsequent Fiscal Years one-third of the amount necessary to assure that the Budget Stabilization Requirement will be on deposit in the Budget Stabilization Fund within three full Fiscal Years [for purposes of the required deposit for Fiscal Year 2016 the amount shall aggregate \$7,919,026, and shall be \$2,327,026 for the Local Water System and \$5,591,469 for the Local Sewer System]; and
- (viii) any other amount that the City may be required to pay to the Authority in order to satisfy its revenue requirement from the Authority for such Fiscal

Years. If the Authority issues bonds or other debt to satisfy its portion of liability associated with the City's frozen General Retirement System pension plan, the City shall include its portion of the debt service thereon in the Detroit Local System Budgets.

The City shall prepare an impact statement with respect to any new, modifications for or other changes in program or activity levels and revenue requirements for the forecast period. The impact statement shall include an explanation of the rationale for the change and the financial impact of the change on current and future budgets. The City and the Authority agree to act in good faith and to meet to review the budget forecast and the assumptions therefore relating to demand for Water Service and Sewer Service and delinquencies and any other significant assumptions. If City and Authority administrators are unable to resolve differences of opinion regarding the assumptions, then the Reconciliation Committee shall meet promptly for the purpose of reaching consensus.

(b) Adopted Budget. No later than March 23 of each year, commencing March 23, 2016, the City shall develop, adopt and provide the Authority with a copy of the Detroit Local System Budgets for the following two Fiscal Years. The Detroit Local System Budgets shall identify the Local Revenue Requirement for each Local System and shall include for each such Fiscal Year, at a minimum:

- (i) the amounts reasonably necessary to fund all expenses of administration and operation and the expenses for maintenance as may be necessary to preserve the Detroit Local Systems in good repair and working order;
- (ii) the Detroit Local Systems' share of the common-to-all amounts required to fund the Lease Payments;
- (iii) the Detroit Local Systems' share of debt service on the portion of the Authority Bonds issued to finance capital improvements to the Regional Systems and the Detroit Local Systems not covered by Lease Payments;
- (iv) the amounts necessary to fund the Detroit CIP or make deposits to the Detroit Local Improvement and Extension Account of the Improvement and Extension Funds in the applicable Master Bond Ordinance from Retail Revenues, a portion of the Lease Payments or bond proceeds;
- (v) the Detroit Local Systems' share of the (x) common-to-all portion of liability assumed by the Authority on behalf of DWSD as a result of the City's Plan of Adjustment, including costs of (A) debt service on the B Notes, (B) debt service on the C Notes, and (C) funding for the City's frozen General Retirement System pension plan, and (y) the portion of such liabilities associated with Detroit Local System employees;
- (vi) the amount necessary to be deposited to the WRAP Fund, which shall be equal to 0.5% of the base budgeted operating revenues for the Detroit Local Systems for such Fiscal Year;

- (vii) (y) for each of Fiscal Years 2016, 2017 and 2018, an amount equal to one-third of the Budget Stabilization Requirement; and (z) for subsequent Fiscal Years one-third of the amount necessary to assure that the Budget Stabilization Requirement will be on deposit in the Budget Stabilization Fund within three full Fiscal Years [for purposes of the required deposit for Fiscal Year 2016 the amount shall aggregate \$7,919,026, and shall be \$2,327,026 for the Local Water System and \$5,591,469 for the Local Sewer System]; and
- (viii) any other amount that the City may be required to pay to the Authority in order to satisfy its revenue requirement from the Authority for such Fiscal Years. If the Authority issues bonds or other debt to satisfy its portion of liability associated with the City's frozen General Retirement System pension plan, the City shall include its portion of the debt service thereon in the Detroit Local System Budgets.

(c) Tracking. The City shall, within 45 days following the end of each fiscal quarter of each Fiscal Year, furnish to the Authority a comparison of actual revenues and expenses for such fiscal quarter against the budgeted amounts in each Detroit Local System Budget. If the Authority determines that for such fiscal quarter there is a significant unfavorable variance which is reasonably expected to have a negative effect on the Authority's budget with respect to revenues or any of the following expense categories: (i) compensation (including wages, salaries and fringe benefits), (ii) operation and maintenance expenses and (iii) debt service, then the Reconciliation Committee shall meet promptly for the purpose of reviewing actions the City proposes to take to address such significant unfavorable variance. Following the meeting of the Reconciliation Committee, the City agrees to take actions to address any such significant unfavorable variance and to make appropriate adjustments to the related Detroit Local System Budget in the current and succeeding Fiscal Year. Favorable variances may be incorporated into the budget by following the same process. An impact statement shall be prepared for each such action, and the impact of any budget amendments shall be carried through, as appropriate, in budget forecasts for subsequent Fiscal Years. The Authority may draw on the Budget Stabilization Fund an amount equal to the amount by which actual bad debt expense of the Retail Customer class exceeds the budgeted bad debt expense for that class. At least quarterly, and in connection with the preparation of the annual audit for the Local Water System and the Local Sewer System, the chief financial officers of the Authority and DWSD-R shall determine whether a draw on the Budget Stabilization Fund is necessary. In the event the chief financial officers cannot reach agreement on whether a draw is necessary, the Reconciliation Committee shall promptly meet for the purpose of resolving such disagreement. Amounts on deposit in the Budget Stabilization Fund in excess of the Budget Stabilization Requirement for the following Fiscal Year based on audited financial statements shall be transferred to the Detroit Local Improvement and Extension Account of the Improvement and Extension Fund in the applicable Master Bond Ordinance.

(d) Detroit CIP.

(i) No later than February 1 of each year, the City shall develop and provide the Authority with a copy of its current Detroit CIP for the Detroit Local Facilities. The

Detroit CIP shall include the capital improvements and estimate of the costs therefor which the City plans to undertake in the next Fiscal Year, and projected capital improvement projects and estimates for the five years following. At least three months prior to finalizing each Detroit CIP and any modifications thereto, the City shall provide a copy of the proposed CIP to the Authority solely for the purpose of: (A) coordinating the Detroit CIP and the Authority CIP to maximize economies of scale, minimize service disruptions and to achieve other efficiencies from a coordinated implementation effort, and (B) providing notice to the Authority of any financing requirements of the City for the Detroit Local Facilities to be satisfied from Lease Payments and/or the issuance of Authority Bonds or requests for collaboration on grant applications or other funding opportunities. Upon receipt of the adopted Detroit CIP from the City, consistent with Section 5.2(d), the Authority shall ensure that its financial planning and budgeting reflect the foregoing requirements.

(ii) The City agrees that, in conjunction with the implementation of the Detroit CIP and consistent with the plan developed pursuant to Section 5.2(c), it will install master water meters to measure consumption by the Detroit Local Water System and cross connection controls between the Detroit Local Water System and the Regional Water System.

**5.4 Third Party Disputes.** Each Party hereby agrees to reasonably assist the other Party in the event any disputes arise between any Party and any third party arising out of the operation and maintenance of the Systems. In the event of a dispute between the Authority or the City and any third party, the City and the Authority shall cooperate with each other to resolve and defend such dispute. Any disputes between the City and the Authority arising under this Section 5.4 shall be resolved pursuant to Section 7.3.

**5.5 Systems Operation Costs.** Each year, each Party shall provide to the other Party information and data regarding its actual costs associated with providing Water Services and Sewer Services to its respective wholesale and Retail Customers for the following Fiscal Year to allow the other Party to establish the revenue requirements for the Systems.

**5.6 First Response; Findings.** The City shall be the first responder for unscheduled and/or emergency situations (e.g. main breaks, sinkholes, etc.) which may arise in those portions of the Systems' water transmission and distribution system and wastewater collection system within the City. The City shall promptly respond when necessary and work diligently to stabilize (e.g. notify miss-dig, throttle valves, install traffic control), using Prudent Utility Practices, the affected portion of the Systems, to protect public health and safety and minimize property damage, regardless of responsibility for that portion of the Systems. The City will notify the Authority, in accordance with established protocols, prior to taking actions beyond those necessary to stabilize the affected portion of the Systems. Each Party reserves the right to take over response actions to the extent that the action is related to an asset for which it has operating responsibility.

The Parties shall establish mutually agreeable and coordinated response protocols for unscheduled and/or emergency response situations and include the protocol in the Shared Services Agreement. In all cases where investigation and/or work is to be or has been performed

by a Party, the responding staff of that Party is to respond promptly, take necessary actions in accordance with Prudent Utility Practices, standards, exercise due care, document the results of any investigation, and notify the other Party of all findings. Any disputes arising from such unscheduled and/or emergency repairs shall be resolved pursuant to Section 7.3.

## **ARTICLE 6 DEFAULTS; REMEDIES**

**6.1 Defaults.** Either Party shall be in default under this Agreement if it fails to fully perform and comply with any of the terms, conditions or provisions of this Agreement after it has received thirty (30) days' notice of such default, provided that if such failure cannot be remedied within such thirty (30) day cure period, the defaulting Party shall not be in default if it commits to remedy within the thirty (30) day cure period and diligently pursues the remedy to its completion.

**6.2 Remedies.** (a) Upon default of the Authority, the City may, at its sole option and as its exclusive remedy, pursue any rights and remedies available to such Party at law or in equity under this Agreement as determined in accordance with the Dispute Resolution procedures described in Article 7, including specific performance; provided, that the City may not terminate this Agreement.

(b) Upon default of the City, the Authority may but is not required to: (i) terminate the agency created under Article 2 and exercise all rights granted to the City thereunder, which includes the power of the Authority to establish rates to be paid by the Retail Customers for the Services and to charge, bill and collect from the Retail Customers amounts due for the Services; and (ii) pursue all rights and remedies available to the Authority under Article 7 of this Agreement; provided, that the Authority may not terminate this Agreement and shall continue to provide those Services as required by, and in accordance with the terms of, Article 3. The foregoing remedies are the exclusive remedies available upon a default for non-payment by the City.

**6.3 Waiver.** The failure of any Party to insist in any one instance upon strict performance by the other Party of its obligations under this Agreement shall not constitute a waiver or relinquishment of any such obligations as to any other instances. No covenant or condition of this Agreement may be waived by either Party except in a writing signed by that Party, and the forbearance or indulgence of that Party in any regard whatsoever and regardless of the duration of such forbearance or indulgence shall not constitute a waiver of the covenant, condition or obligation until performed or waived in writing, and that Party shall be entitled to invoke any remedy available to that Party under this Agreement despite the forbearance or indulgence.

## **ARTICLE 7 DISPUTE RESOLUTION**

**7.1 Disputes; Resolution.** (a) The Authority and the City shall each designate in writing to the other from time to time a representative who shall be authorized to resolve any dispute relating to the subject matter of this Agreement in an equitable manner and, unless

otherwise expressly provided herein, to exercise the authority of such party to make decisions by mutual agreement.

(b) The City and the Authority each agree (i) to attempt to resolve all disputes arising hereunder promptly, equitably and in a good faith manner and (ii) to provide each other with reasonable access during normal business hours to any and all non-privileged written records, information and data pertaining to any such dispute.

(c) If any dispute relating to the subject matter of this Agreement is not resolved between the City and the Authority pursuant to this Section 7.1 within 30 days from the date on which a party provides written notice to the other party of such dispute and of the notifying party's position on the disputed matter, then upon written notification by either party to the other party, such dispute shall be settled exclusively and finally by binding arbitration in accordance with Section 7.2.

(d) During the pendency of any dispute and until such dispute is resolved the Parties shall continue to operate under the terms of this Agreement.

**7.2 Arbitration.** (a) It is specifically understood and agreed that any dispute or claim arising under or relating to this Agreement that cannot be resolved between the City and the Authority, other than disputes arising under Section 7.3, including any matter relating to the interpretation or performance of this Agreement, shall be submitted to binding arbitration irrespective of either the magnitude thereof or the amount in dispute.

(b) Each arbitration between the City and the Authority shall be conducted pursuant to the Uniform Arbitration Act, Act No. 371, Public Acts of Michigan, 2012 (“Act 371”).

(c) The arbitration shall be conducted before a panel composed of three arbitrators (the “Arbitration Panel”). Each party shall appoint an arbitrator, obtain its appointee's acceptance of such appointment and deliver written notification of such appointment and acceptance to the other party within 15 days after delivery of a notice of arbitration. The two arbitrators appointed by the City and the Authority shall jointly appoint the third (who shall be the chairperson), obtain the acceptance of such appointment and deliver written notification of such appointment within 15 days after their appointment and acceptance.

(d) Any arbitration commenced hereunder shall be completed within 120 days after the appointment of the Arbitration Panel absent agreement of the City and the Authority to the contrary. Further, absent agreement of the City and the Authority or, upon request of one of the Parties, an order from the Arbitration Panel to the contrary: (i) all discovery shall be completed within 60 days after the appointment of the Arbitration Panel; (ii) each Party shall be limited to a maximum of 5 depositions; (iii) each deposition shall be completed within a maximum period of two consecutive 8-hour days; (iv) each Party shall be limited to 2 expert witnesses; and (v) interrogatories shall be limited to a maximum of 50 single issues without sub-parts. The City and the Authority waive any claim to any damages in the nature of punitive, exemplary or statutory damages in excess of compensatory damages or otherwise expressly provided for herein, and the Arbitration Panel is specifically divested of any power to award such damages. The Arbitration Panel shall have the power to award injunctive or other equitable relief. All



decisions of the Arbitration Panel shall be pursuant to a majority vote. Any interim or final award shall be rendered by written decision.

(e) If either the City or the Authority fails to appoint its arbitrator within 15 days after delivery of a notice of arbitration, or if the two arbitrators appointed cannot agree upon the third arbitrator within 15 days after appointment of the second arbitrator, then the required arbitrator(s) shall be appointed by the American Arbitration Association or as otherwise agreed by the City and the Authority.

(f) No arbitrator shall be a past or present employee or agent of, or consultant or counsel to, either the City or the Authority or any affiliate of either the City or the Authority.

(g) The Authority and the City shall each bear the out-of-pocket costs and expenses of their respective arbitrator, attorneys and witnesses, and they shall each bear one-half of the out-of-pocket costs and expenses of the chairperson of the Arbitration Panel and all administrative support for the arbitration.

**7.3 Disputes Arising from Physical, Technical and Mechanical Issues.** (a) If any disputes arise between the City and the Authority regarding physical, technical or mechanical issues arising under this Agreement (but specifically excluding any claims that may arise under Act 222, Public Acts of Michigan, 2001, as amended), including but not limited to the assignment of responsibility for breaks or failures of water and sewer pipes or other mechanical failures based on the operating control of the respective portion of the facilities, and the Parties do not resolve such dispute within fourteen days, or such other time mutually agreeable to the Parties, after the City or the Authority expresses its disagreement with the position of the other Party to such matters, a committee consisting of one officer (as well as such other employees with expertise in the particular area of dispute) of the Authority and one officer (as well as such other employees with expertise in the particular area of dispute) of the City shall meet and attempt in good faith to resolve such dispute. If such committee is unable to resolve such dispute within fourteen days, or such other time mutually agreeable to the Parties, following their initial meeting, then the Parties shall select a panel of three engineers with experience in the design, construction, or operation and maintenance of a water and sewer utility system in the same manner as the Arbitration Panel is selected pursuant to Section 7.2(c)(the "Engineer Panel"), and the Engineer Panel shall be designated to consider and decide the issues raised by such dispute unless both Parties determine that further discussions by the committee are merited. The Engineer Panel shall be designated not later than the third day following the expiration of the second fourteen-day or other period described above, such designation to become effective on the third day following such designation. Within ten days after the designation of the Engineer Panel, the Authority and the City shall each submit to the Engineer Panel a notice (a "Technical Position Notice") setting forth in detail such Party's position in respect of the issues in dispute. Such notice shall include supporting documentation, if appropriate.

(b) The Engineer Panel shall complete all proceedings and issue its decision with regard to the issues under dispute as promptly as reasonably possible, but in any event not later than ten days after the date on which both Technical Position Notices are submitted, unless the Engineer Panel reasonably determines that additional time is required in order to give adequate consideration to the issues raised. In such case, the Engineer Panel shall state in writing its

reasons for believing that additional time is needed and shall specify the additional period required, which period shall not exceed ten days without the City's and the Authority's agreement.

(c) In resolving a dispute under this section, the Engineer Panel shall consider all facts and circumstances the panel deems reasonable given the nature of the dispute.

(d) The Engineer Panel shall choose either the City's position or the Authority's position as set forth in their respective Technical Position Notices or shall choose from each Party's Technical Position Notices the portions that are technically correct. If the Engineer Panel determines that the position set forth in the City's Technical Position Notice is correct, the panel shall so state and shall state the appropriate actions to be taken by the Authority. In such case, the Authority shall promptly take such actions. If the Engineer Panel determines that the position set forth in the Authority's Technical Position Notice is correct, the panel shall so state and shall state the appropriate actions to be taken by the City. In such case, the City shall promptly take such actions. If the Engineer Panel determines that a portion of the City's Technical Position Notice is correct and a portion of the Authority's Technical Position Notice is correct, the panel shall so state and shall state the appropriate actions to be taken by each respective Party. In such case, the respective Party shall promptly take such actions. The Engineer Panel may assign responsibility of the costs of repairs undertaken by a Party to the Party that is responsible for such water and sewer pipes. The decision of the Engineer Panel shall be final and non-appealable; provided that, any such decision may be treated as an arbitration award for purposes of enforcement.

(e) The Authority and the City shall each bear the out-of-pocket costs and expenses of their respective engineer, attorneys and witnesses, and they shall each bear one-half of the out-of-pocket costs and expenses of the chairperson of the Engineer Panel and all administrative support for the arbitration.

**7.4 Appeals of Arbitration Awards and Decisions.** The City or the Authority may appeal an award or decision issued by the Arbitration Panel for the reasons set forth in Section 23 of Act 371 (MCL 691.1703).

**7.5 Enforcement of Arbitration Awards and Decisions.** The City or the Authority may enforce any awards or decisions of the Arbitration Panel issued under Section 7.2 or the Engineer Panel under Section 7.3 pursuant to Section 22 of Act 371 (MCL 691.1702). The provisions of this Article 7 shall be the sole and exclusive remedy of the parties with respect to any claim or dispute, other than disputes arising under Section 7.3 of this Agreement. The City and the Authority agree not to bring, or cause to be brought, in a court of law any action, proceeding or cause of action whatsoever with respect to any such claim or dispute, other than as necessary to enforce the award or decision of the Arbitration Panel or the Engineer Panel as provided in this Section 7.5.

## **ARTICLE 8 REPRESENTATIONS, WARRANTIES AND COVENANTS**

**8.1 The City.** The City hereby represents, warrants and covenants that:

(a) All necessary permissions, approvals, reviews, or any other forms of acquiescence necessary to authorize the City to enter into this Agreement have been obtained and conducted.

(b) The City shall use commercially reasonable efforts to provide all information within its control requested by the Authority to the Authority necessary to effectuate the purposes of this Agreement.

(c) The City shall use its best efforts to take commercially reasonable actions to minimize the cost of services to be provided pursuant to this Agreement by the City as the agent of the Authority.

(d) The City shall take all actions within its control necessary to maintain the exclusion of the interest on Authority Bonds from adjusted gross income for federal income purposes under the Internal Revenue Code of 1986, as amended (the "Code") including, but not limited to, actions relating to the rebate of arbitrage earnings, if applicable, and the expenditure and investment of Authority Bond proceeds and moneys deemed to be Authority Bond proceeds.

(e) The City shall not provide free service to any customer of the Detroit Local System, including Authority operated and City-owned property and facilities.

(f) The City shall cooperate with the Authority with respect to the development and submission of applications for all local, state, and federal permits necessary for the operation of the Regional Systems, including submitting permit applications in its name on behalf of the Authority, and shall take all action necessary to maintain compliance with the terms of any permits issued in its name.

(g) The City shall provide efficient management and operation of the Detroit Local System on the basis of sound business principles and it will not incur expense for the operation, maintenance and administration of the Detroit Local System in excess of the amounts reasonably and necessarily required therefor.

(h) Unless the City's agency relationship under Article 2 is terminated pursuant to Section 2.2 with respect to such matters, the City shall establish such rates as necessary, and ensure collection and enforcement of collection of such charges, in amounts, together with other Revenues available to the City therefor, necessary to satisfy the Local Revenue Requirement and the Retail Customers' share of the Authority Revenue Requirement (as defined in the Leases) for each System and ensure the provision of reliable Water Services and Sewer Services to Retail Customers.

(j) The City shall manage and operate the Detroit Local System Facilities in accordance with the Performance Standards.

(k) While any Authority Bonds remain outstanding, the City shall maintain or cause to be maintained insurance (which may include self-insurance) on the Detroit Local Facilities with commercially reasonable and available coverage.

(l) Unless some other disposition or application is required by law or by contract, the City shall retain proceeds of the disposition of any portion of the Detroit Local Facilities within the Detroit Local Systems.

(m) The City will keep proper books of record and account in which shall be made full and correct entries of all transactions relating to the Detroit Local Systems. The City shall have an annual audit of the books of record and account of the Detroit Local Systems for the preceding Fiscal Year made each year.

(n) The City will not operate, and unless otherwise required by law, will not grant rights to any person, firm or corporation to operate, a water supply system or a sewage disposal system that will compete with the Regional Systems or the Detroit Local Systems; provided that nothing in this subsection shall prohibit the implementation of Green Infrastructure Programs.

(o) Subject to reasonable security and safety regulations and reasonable requirements as to notice, the Trustee for the holders of the Authority Bonds, designated consultants of the Authority and their duly authorized agents shall have the right at all reasonable times to enter and inspect the Detroit Local Facilities in the performance of their respective duties. Such parties shall also have the right to inspect the books and records of the City pertaining to the Detroit Local Systems, subject to reasonable requirements as to notice and during regular business hours.

**8.2 The Authority.** The Authority hereby represents, warrants and covenants that:

(a) All necessary permissions, approvals, reviews, and any other forms of acquiescence necessary to authorize the Authority to enter into this Agreement and perform the Authority Services have been obtained and conducted.

(b) To the extent permitted by law, the Authority shall use commercially reasonable efforts to provide all information within its control requested by the City to the City necessary to effectuate the purposes of this Agreement.

(c) The Authority shall use its best efforts to take commercially reasonable actions to minimize the cost of Services to be provided by the Authority hereunder.

(d) The Authority shall cooperate with the City with respect to the development and submission of applications for all local, state, and federal permits necessary for the operation of the Systems, including preparing the permit applications to be submitted in the City's name on behalf of the Authority, and shall take all action necessary to assist the City in maintaining compliance with the terms of any permits issued in the City's name.

(e) The Authority shall, to the extent permitted by law, take all actions within its control necessary to maintain the exclusion of the interest on any bonds issued or assumed by the Authority or the City from adjusted gross income for federal income purposes under the Code including, but not limited to, actions relating to the rebate of arbitrage earnings, if applicable, and the expenditure and investment of Authority Bond proceeds and moneys deemed to be Authority Bond proceeds.

(f) The Authority shall establish such rates as necessary, and ensure collection of such rates, in an amount necessary to ensure the reliable and efficient sale of Water Supply and Sewer Services to its customers consistent with state law and to ensure the payment to or for the benefit of the City of all amounts required under this Agreement and the Leases.

## **ARTICLE 9 AMENDMENTS AND PRIORITY OF DOCUMENTS**

**9.1 Amendments.** This Agreement can be amended only by written agreement executed and approved by both Parties, as applicable. Approval by the Board shall be by supermajority vote.

**9.2 Conflicting Provisions.** In the event of a conflict between any of the provisions contained in the body of this Agreement and the provisions contained in any of the exhibits thereto, as the same may be amended from time-to-time, the provisions contained in the body of this Agreement shall control and take precedence.

## **ARTICLE 10 EFFECTIVE DATE; TERM**

**10.1 Effective Date.** This Agreement shall become effective on the later of the date that each of the following events have occurred: (i) the approval and execution of this Agreement by the Mayor; (ii) the approval by the affirmative vote of 5 of 6 members of the Board and execution by the Authority; (iii) the Water Lease becomes effective, and (iv) the Sewer Lease becomes effective.

**10.2 Term.** This term of this Agreement (“Term”) shall run concurrently with the terms of the Leases as such may be extended, with no right of termination prior to expiration.

## **ARTICLE 11 MISCELLANEOUS**

**11.1 Assignment, Successors and No Third Party Rights.** No Party may assign any of its rights or delegate any of its obligations under this Agreement without the prior written consent of the other Parties. This Agreement will apply to, be binding in all respects upon and inure to the benefit of the successors and permitted assigns of the Parties. Nothing expressed or referred to in this Agreement will be construed to give any Person other than the Parties to this Agreement any legal or equitable right, remedy or claim under or with respect to this Agreement or any provision of this Agreement.

**11.2 Severability.** If any provision of this Agreement is held invalid or unenforceable by any court of competent jurisdiction, the other provisions of this Agreement will remain in full force and effect. Any provision of this Agreement held invalid or unenforceable only in part or degree will remain in full force and effect to the extent not held invalid or unenforceable.

**11.3 Governing Law.** This Agreement shall be governed by the laws of the State of Michigan.

**11.4 Entire Agreement.** This Agreement sets forth the entire agreement between the Parties and supersedes any and all prior agreements or understandings between them in any related to the subject matter of this Agreement. It is further understood and agreed that the terms and conditions of this Agreement are contractual and are not a mere recital and that there are no other agreements, understandings, contracts, or representations between the Parties in any way related to the subject matter of this Agreement, except as expressly stated in this Agreement.

**11.5 Notices.** Any and all correspondence or notices required, permitted, or provided for under this Agreement to be delivered to any Party shall be sent to that Party by first class mail at the address provided below, or to such other address as directed in writing provided to a Party by the Party to whom the notice is to be directed. All such written notices shall be addressed to each other Party's signatory to this Agreement. All correspondence shall be considered delivered to a Party as of the date that the notice is deposited with sufficient postage with the United State Postal Service. A notice of termination shall be sent via certified mail to the address included with each Party's signature to this Agreement. Unless otherwise directed, notices shall be mailed to the following addresses:

If to the Authority: Great Lakes Water Authority  
735 Randolph Street  
Detroit, MI 48226  
Attention: Chief Executive Officer

If to City: City of Detroit Water and Sewerage Department  
735 Randolph Street  
Detroit, MI 48226  
Attention: Director

With a copy to: City of Detroit  
Office of the Mayor  
Coleman A. Young Municipal Center  
2 Woodward Ave.  
11th Floor  
Detroit, MI 48226

**11.6 Force Majeure.** Any delay or failure in the performance by either Party hereunder shall be excused if and to the extent caused by the occurrence of a Force Majeure. For purposes of this Agreement, Force Majeure shall mean a cause or event that is not reasonably foreseeable or otherwise caused by or under the control of the Party claiming Force Majeure, including acts of God, fires, floods, explosions, riots, wars, tornado, sabotage, terrorism, vandalism, accident, restraint of government, governmental acts, and injunctions that prevent the claiming Party from furnishing the Services, materials or equipment, and other like events that are beyond the reasonable anticipation and control of the Party affected thereby, despite such Party's reasonable efforts to prevent, avoid, delay, or mitigate the effect of such acts, events or occurrences, and which events or the effects thereof are not attributable to a Party's failure to perform its obligations under this Agreement.

**11.7 Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original and all of which together shall constitute one and

the same instrument. The exchange of copies of this Amendment and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this Amendment as to the parties hereto and may be used in lieu of the original Amendment for all purposes. Signatures of the Parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

**11.8 Binding Effect.** This Agreement shall be binding upon and inure to the benefit of the Parties hereto. No Party to this Agreement may assign its rights, nor delegate its duties under this Agreement to any other person without obtaining the written agreement of the other Party in advance.

**11.9 Rules of Construction.** The Parties hereto agree that they have been represented by counsel during the negotiation and execution of this Agreement and, therefore, waive the application of any law, regulation, holding or rule of construction providing that ambiguities in an agreement or other document will be construed against the party drafting such agreement or document.

**11.10 Headings.** The section titles contained in this Agreement are and shall be without substantive meaning or content of any kind whatsoever and are not a part of the agreement between the Parties hereto, except when used to reference a section. Any reference to the number of a clause, sub-clause or subsection hereof immediately followed by a reference in parenthesis to the title of the Section containing such clause, sub-clause or subsection is a reference to such clause, sub-clause or subsection and not to the entire Section; provided, that in case of direct conflict between the reference to the title and the reference to the number of such Section, the reference to the title shall govern absent manifest error. If any reference to the number of a Section (but not to any clause, sub-clause or subsection thereof) is followed immediately by a reference in parenthesis to the title of a Section, the title reference shall govern in case of direct conflict absent manifest error.

**(Signature page follows)**

IN WITNESS WHEREOF, the City and Authority, by and through their duly authorized officers and representatives, have executed this Agreement as of the date first written above, pursuant to and in accordance with the Act.

**GREAT LAKES WATER AUTHORITY**

By: Robert J. Daddow  
Name: Robert J. Daddow  
Title: Chairperson

By: Isaiah McKinnon  
Name: Isaiah McKinnon  
Title: Secretary

**CITY OF DETROIT**

By: Michael E. Duggan  
Name: Michael E. Duggan  
Title: Mayor

Approved by Financial Review Commission

Date: May 18, 2015



# **WATER AND SEWER SERVICES AGREEMENT**

## **EXHIBIT A**

### **WATER SERVICE SPECIFICATIONS**

#### **ARTICLE 1 DEFINITIONS**

1.01 Capitalized words or expression not defined in this Exhibit A shall have the meaning assigned thereto in the body of the Agreement. The following words and expressions, or pronouns used in their stead, shall be construed as follows in this Exhibit A:

“Allocation Flow Rate” shall mean the value that is established as a result of a breach of Section 5.03 herein and which value shall replace the contractual Maximum Flow Rate in the rate calculation process in the event that Section 5.04(c) herein is applied by the Authority.

“Annual Volume” shall mean the volume of water used by the Local Water System for the period of July 1<sup>st</sup> to June 30<sup>th</sup>, measured as provided in the Agreement and based on Prudent Utility Practices and best available data.

“Authority Maximum Day” shall mean the maximum reported water production day for the Regional Water System during any twenty-four hour period as measured from 12:00 a.m. Eastern Standard Time in any given calendar year, as determined by Authority in reviewing water production and storage reports.

“Authority Peak Hour” shall mean the hour during the Authority Maximum Day in which the most water is delivered to the Regional Water System, measured from top-of-the-hour to top-of-the-hour (e.g. 7:00 a.m. to 8:00 a.m.), and as determined by Authority in reviewing water production and pumping reports. In calculating the Authority Peak Hour, the time period from 11:00 PM to 5:00 AM Eastern Standard Time (EST) shall not be considered provided, however, that if the City has an approved Filling Schedule, the time period specified in the Filling Schedule shall supersede the time period of 11:00 PM to 5:00 AM EST.

“City Maximum Day Demand” shall mean the Local Water System’s recorded water usage determined based on Prudent Utility Practices and best available data on the Authority Maximum Day. The City Maximum Day Demand shall, in conjunction with the City Peak Hour Demand, be a component of its Maximum Flow Rate.

“City Peak Hour Demand” shall mean the Local Water System’s recorded water usage determined based on Prudent Utility Practices and best available data during the Authority Peak Hour. The City Peak Hour Demand, in conjunction with the City Maximum Day Demand, shall be a component of its Maximum Flow Rate.

“City Retail Customer Class” means the Retail Customers.

“Filling Schedule” shall have the meaning ascribed in Article 22 herein.

“Maximum Flow Rate” shall mean the aggregate amount of water usage that the Local Water System commits not to exceed, as determined by the City Maximum Day Demand and the City Peak Hour Demand, collectively.

“Meter Facilities” shall mean a location in which a water meter is housed including, without limitation, meter pits and meter vaults.

“Minimum Annual Volume” shall mean fifty percent of the Local Water System’s Projected Annual Volume.

“Pressure Problem” shall have the meaning ascribed in Article 5 herein.

“Pressure Range” shall have the meaning ascribed in Article 5 herein.

“Projected Annual Volume” shall mean the projected volume of water used by the Local Water System for the period of July 1<sup>st</sup> to June 30<sup>th</sup> measured as provided in the Agreement and based on Prudent Utility Practices and best available data as set forth in Exhibit A-II.

“Service Area” shall mean the mutually agreed upon area where the City is permitted to distribute water received from the Authority under the terms of the Agreement which (a) may be entirely within the corporate limits of the City or may exceed the corporate limits of the City and (b) which may or may not include the entire geographical area within the City’s corporate limits.

“Technical Advisory Committee” shall mean the committee consisting of representatives of the Authority, the City, and wholesale water customers of the Authority and their respective representatives, and shall include its successor or replacement if altered or discontinued. The Technical Advisory Committee or its successor shall remain in existence for a minimum term of January 1, 2008 until December 31, 2038 unless the committee determines otherwise.

“Water Distribution Points” shall mean those points where water is delivered from the Regional Water System to the Local Water System, as may be determined from time-to-time by mutual agreement of the Parties. Exhibit A-I contains a partial listing of Water Distribution Points.

**ARTICLE 2  
[RESERVED]**

**ARTICLE 3  
[RESERVED]**

**ARTICLE 4  
SERVICE AREA**

- 4.01 Delivery Location. Water shall be delivered by the Authority to the City at the Water Distribution Points and at other locations as may be mutually agreed upon in writing by the Authority and the City.
- 4.02 Limit of Responsibility. The Authority shall have no responsibility for operating, repairing, replacing and maintaining any portions of the Detroit Local Water Facilities [downstream of the Water Distribution Points shown in Exhibit A-I], provided, however, that this Section 4.02 does not prevent the application of the provisions of Section 11.02 herein.
- 4.03 Authority Responsibility. The Authority leases and is responsible for operating and maintaining all parts of the Water System upstream from City’s Water Distribution Points. To the extent that water meters and/or Meter Facilities are installed, should the

Authority fail to maintain the Meter Facilities and/or any Authority leased and maintained equipment within the Meter Facilities, the City shall provide written notice to the Authority which describes the objectionable condition of the Meter Facility and/or the equipment within, and its intent to take reasonable steps to maintain the condition and charge the reasonable cost of doing so to the Authority. Upon receipt of the notice, the Authority shall have thirty calendar days to repair the condition specified in the notice, unless such condition cannot reasonably be completed within thirty days, in which case the Authority shall diligently pursue such repair until complete. If the Authority has not repaired the condition at the conclusion of the thirty-day period and has not provided a written explanation to the City explaining the reason for the delay (e.g. necessary parts are on order), then the City may take reasonable steps to maintain the specified condition and charge the reasonable cost of doing so to the Authority.

- 4.04 Extension of Service Area. The City's distribution of water supplied by the Authority shall be limited to the Service Area stated in Exhibit A-I. The Parties acknowledge that the Authority serves certain wholesale customers through the Local Water System which are not considered part of the Service Area. The Parties agree that situations may arise in which the City may propose to extend its Service Area, either temporarily or permanently, beyond its corporate limits. Should such a situation arise, the City shall provide written notice to the Authority explaining the nature, duration and extent of the requested Service Area extension. The Authority shall have the option, which it may exercise at any time, of requiring a written amendment to this Agreement to accommodate the change in Service Area. Should the Authority determine that an immediate amendment is required, the Parties shall, within thirty calendar days of the City's request, meet to negotiate mutually agreeable terms for the extension of the Service Area. The Authority shall not unreasonably deny a request to extend the Service Area.
- 4.05 Change or Addition of Water Distribution Points. Water Distribution Points may be added or changed by mutual written agreement of the Authority and the City.
- 4.06 Sole Supplier. Except as provided in Article 17 herein, the Authority shall be the sole supplier of public potable water to the City's Service Area.

## ARTICLE 5

### **PRESSURE; MAXIMUM FLOW RATE; MINIMUM ANNUAL VOLUME**

- 5.01 Pressure Range. The Authority shall use its best efforts to deliver water at a pressure range ("Pressure Range") adequate to meet the reasonable requirements of the Local Water System. For purposes of evaluating this effort, water pressure shall be determined by reviewing the average hourly pressure measured from top of the hour to top of the hour (e.g. 7:00 a.m. to 8:00 a.m.). The Pressure Range to be provided by the Authority to the City's Water Distribution Points is specified in Exhibit A-II. The location at which the water pressure will be measured shall be specified in Exhibit A-I and identified as a pressure monitoring point.
- 5.02 Remedy for Non-Compliance with Pressure Range. If the water pressure at City's Water Distribution Points is above or below the Pressure Range, at the City's request the Parties shall meet within thirty calendar days to discuss the reasons for the non-compliance and, if agreed necessary, develop and implement a mutually agreeable written corrective action plan within sixty calendar days of the meeting, or as otherwise agreed. The

corrective action plan shall include a timetable for resolution of the non-compliance issue(s).

If it is determined that a wholesale customer's exceedance of the rates of flow established by that customer's Maximum Flow Rate caused or contributed to the Authority's inability to meet its Pressure Range agreement with the City, then the corrective action plan shall provide for the resolution of the issue.

If Local Water System is, in the aggregate, exceeding the rates of flow established by its Maximum Flow Rate on a day other than the Authority Maximum Day at the time the City experiences a variation from the Pressure Range, then the Authority shall be relieved from its obligation to provide water to the Local Water System within the Pressure Range for that period of time during which the Local Water System are exceeding the rates of flow established by its Maximum Flow Rate.

5.03 Maximum Flow Rate. The City's Maximum Flow Rate is specified in Exhibit A-II. The Local Water System shall not exceed the Maximum Flow Rate specified in Exhibit A-II, as measured in million gallons on the Authority Maximum Day and during the Authority Peak Hour.

- (a) The Authority shall notify all customers in writing on or before October 1 of each calendar year if the Local Water System or any wholesale customer is alleged to have exceeded its Maximum Flow Rate in a given calendar year. The notice shall state the day and/or hour that the Local Water System or any wholesale water customer is alleged to have exceeded its Maximum Flow Rate.
- (b) If the City is alleged to be in breach of its obligations under this Section 5.03, the Authority and the City shall endeavor to meet before November 1 of the current calendar year, or as soon as practicable, for the purposes of validating the breach, reviewing and analyzing the causes, and to negotiate a possible remedy pursuant to Sections 5.04 and 5.05 herein.
- (c) The Technical Advisory Committee's Analytical Work Group, or its successor shall review any alleged breach of this Section 5.03.
  - (i) The Analytical Work Group shall meet once, at a minimum, on or before November 1 of each calendar year to review the alleged breaches, if any, and may thereafter schedule subsequent meetings as necessary to conclude its review.
  - (ii) The Authority will seek a recommendation from the Analytical Work Group on (1) an Allocation Flow Rate, if any, and/or (2) concurrence with the remedy tentatively negotiated between the City and the Authority, if any. The City and the Authority shall have the right to present any information related to the alleged breach a Party deems necessary to the deliberations.
  - (iii) Any recommendation submitted by the Analytical Work Group shall be received by the Authority on or before December 1 of each calendar year.

5.04 Remedy for Non-Compliance with Maximum Flow Rate. The Authority has no obligation to supply to the Local Water System more than the Maximum Flow Rate. If the City exceeds its Maximum Flow Rate on the Authority Maximum Day or during the Authority Peak Hour, the Authority and the City may, as needed, take one or more of the following actions set forth in this Section 5.04. The applicability of any particular action shall be evaluated by the Authority on a case-by-case basis.

- (a) The Authority may require that the City take all reasonable steps to reduce Retail Customers' consumption to the Maximum Flow Rate. Such steps may include water conservation measures, outdoor water use restrictions, water loss studies and remediation, and an internal system operation evaluation.
- (b) The Parties may meet to negotiate a new Maximum Flow Rate. If so negotiated, the Local Water System shall pay the rate associated with the new Maximum Flow Rate in the subsequent rate year.
- (c) For ratemaking and cost allocation purposes only, the Authority may recalculate the Local Water System and the Retail Customer rate for the current and/or subsequent fiscal years utilizing a revised cost allocation formula as follows:
  - (i) The Authority shall, as set forth below, establish an Allocation Flow Rate to replace the contractual Maximum Flow Rate in the rate calculation process.
  - (ii) The Allocation Flow Rate shall be applied from no earlier than the first exceedance date forward.
  - (iii) The Allocation Flow Rate will be at least equal to the flow rate demonstrated by the Local Water System on the Authority Maximum Day, and may be higher than the actual flow rate demonstrated by the Local Water System.
  - (iv) Pursuant to Section 5.03(c), if the Authority receives a recommendation on the Allocation Flow Rate to be applied from the Analytical Work Group and the recommendation is higher than twice the amount by which the demonstrated flow rate exceeded the original Maximum Flow Rate, then the Authority shall be limited to establishing an Allocation Flow Rate that is at least equal to the flow rate demonstrated by the Local Water System on the Authority Maximum Day and no higher than the recommendation provided by the Analytical Work Group.
  - (v) If no recommendation on the Allocation Flow Rate to be applied is received by the Authority, or if the Authority receives a recommendation and the recommendation is less than twice the amount by which the demonstrated flow rate exceeded the original Maximum Flow Rate, then the Authority shall be limited to establishing an Allocation Flow Rate that is at least equal to the flow rate demonstrated by the City on the Authority Maximum Day and no higher than twice the amount by which the demonstrated flow rate exceeded the original Maximum Flow Rate.

- (vi) The Allocation Flow Rate will continue to be applied to each subsequent year's flow rate calculation process until the Maximum Flow Rate is renegotiated.
- (vii) If a rate has been approved for the subsequent Fiscal Year (July 1<sup>st</sup> to June 30<sup>th</sup>) but the flow rate has not yet been applied, the Authority may modify the Local Water System rate for that subsequent fiscal year to account for an exceedance of its Maximum Flow Rate.
- (viii) If the Authority has built capital facilities based upon the Local Water System negotiated Maximum Flow Rate and the City consistently exceeds its Maximum Flow Rate, then the Authority may re-calculate the amount of the City's percentage of the capital cost of such facilities.

5.05 Procedure for Non-Compliance with Maximum Flow Rate. In addition to the remedies specified in Section 5.04, if the Local Water System has failed in its obligations under Section 5.03, the Parties shall meet to discuss the reasons for the non-compliance and if agreed necessary, develop a mutually agreeable written corrective action plan by December 31 of the year in which the non-compliance occurred, or as otherwise agreed. Any corrective action plan required under this Section 5.05 shall include a timetable for resolution of the non-compliance issue(s).

If the Parties determine that a corrective action plan is not required and an incident of non-compliance occurs in the subsequent calendar year, the Parties shall meet to develop a mutually agreeable written corrective action plan by December 31 of the year in which the non-compliance occurred, or as otherwise agreed.

In the event the reason for the Local Water System non-compliance under Section 5.03 is due to a Local Water System water main break, fire or meter calibration performed by the Authority, these events will be taken into consideration in determining (1) whether a corrective action plan is warranted and (2) the extent to which, if any, the steps specified in Section 5.04 should apply.

5.06 [RESERVED]

5.07 Periodic Review. Except as provided in Section 3.1 of the Agreement, for Regional Water System planning purposes, a Maximum Flow Rate, Pressure Range, Projected Annual Volume and Minimum Annual Volume shall be established by mutual agreement for the Term of the Agreement. Not later than the second year after the Effective Date, the Authority and the City shall establish by mutual agreement a contractually binding Maximum Flow Rate, Pressure Range and Projected Annual Volume for the succeeding three years. Not later than the beginning of the fifth year after the Effective Date, and every five years thereafter, the Authority and the City shall negotiate a contractually binding Maximum Flow Rate, Pressure Range and Projected Annual Volume of the Agreement for the succeeding five years of the Term. If the Parties do not negotiate new or revised Maximum Flow Rates, Pressure Ranges and Projected Annual Volumes according to the aforementioned schedule, then the figures established for planning purposes (as shown in italicized type in Exhibit A-II) shall become contractually binding for the then-current three or five year term.

5.08 Remedy for Excessive Rate(s) of Flow Causing Pressure Problem(s). The City acknowledges that the Local Water System rates of flow may cause and/or contribute to the Authority's inability to meet its Pressure Range agreements with the City and/or the Authority's other customers (hereinafter, "Pressure Problem"). The Authority may review or monitor the Local Water System daily rates of flow if a Pressure Problem occurs and the Authority's Pressure Range agreement with the Local Water System and/or another customer of the Authority is alleged to have been breached. The approximate rate of flow by individual meter location used to establish the Pressure Range and Maximum Flow Rate is specified in Exhibit A-II. If a Pressure Problem occurs, the Parties shall meet to discuss the reasons for the Pressure Problem and develop and implement a mutually agreeable written corrective action plan within sixty calendar days of the Pressure Problem, or as otherwise agreed. The corrective action plan may require one or both of the following steps:

- (a) The Authority may require that the Local Water System take all reasonable steps to reduce its consumption to the rate of flow established by the Maximum Flow Rate. Such steps may include water conservation measures, outdoor water use restrictions, water loss studies and remediation, and an internal system operation evaluation. In addition, the Authority may require that the Local Water System adjust its rate of flow at individual meters, including the establishment of a not-to-exceed flow rate for individual meters.
- (b) The Parties may meet to negotiate a new Maximum Flow Rate. If so negotiated, the Local Water System shall pay the rate associated with the new Maximum Flow Rate in the subsequent rate year.

If the Parties determine that a corrective action plan is not required and a subsequent Pressure Problem occurs, the Parties shall meet to develop and implement a mutually agreeable written corrective action plan within sixty calendar days of the subsequent Pressure Problem, or as otherwise agreed. Any corrective action plan required under this Section 5.08 shall include a timetable for resolution of the Pressure Problem. In the event the reason for the Pressure Problem is due to a Local Water System water main break, fire or meter calibration performed by the Authority, these events will be taken into consideration in determining (1) whether a corrective action plan is warranted and (2) the extent to which, if any, the steps specified above in this Section 5.08 should apply.

5.09 Authority Costs for Corrective Action Plan. If at any time the Authority is required under the terms of this Article 5 to develop and implement a corrective action plan and the plan involves incurring capital costs, the Authority will determine whether the costs will be charged as a common-to-all cost or whether the cost will be borne by a specific customer or customers. If the Authority determines that all or part of the costs should be borne by a specific customer or customers, the Authority will seek a recommendation from the Technical Advisory Committee on the assessment of the costs.

5.10 City Costs for Corrective Action Plan. If at any time the City is required under the terms of this Article 5 to develop and implement a corrective action plan, the City shall be so informed in writing and the City will pay all costs related to the corrective action plan.

- 5.11 Dispute Resolution. Any unresolved disputes between the Parties arising under this Article 5 shall be referred to the Engineer Panel under Section 7.3 of the Agreement.

## **ARTICLE 6 TECHNICAL ADVISORY COMMITTEE**

- 6.01 Establishment. The Technical Advisory Committee exists to facilitate a cooperative working partnership among the Authority, the City and the wholesale water customers of the Authority by facilitating the development of recommendations regarding Regional Water System planning and supply to Authority management and the Authority Board. The Technical Advisory Committee shall maintain bylaws that govern the way it conducts its business. In the event of a conflict between the terms of the bylaws adopted by the Technical Advisory Committee and the terms of this Agreement, the terms of this Agreement shall control.
- 6.02 General Responsibilities. The Technical Advisory Committee shall periodically review and evaluate the rates, rate methodology, and performance of the Regional Water System. The Technical Advisory Committee shall review and evaluate flow rates, pressures and Annual Volumes for the System at a minimum of every five years to assist the Authority in its Regional Water System planning effort. The Technical Advisory Committee shall have the opportunity each year to review the Capital Improvement Program as prepared by Authority, prior to its adoption by the Authority. The Technical Advisory Committee may consider City proposals for improving the operation of the Detroit Local Water System and/or the Regional Water System. The Authority will supply the Technical Advisory Committee with information the Authority deems reasonably necessary to accomplish the general responsibilities defined in this Section 6.02.
- 6.03 Annual Report by Authority. The Authority will present an annual report to the Technical Advisory Committee which shall consist of (1) all instances of non-compliance with the Parties' obligations contained in Article 5 herein, including the City and Authority responses thereto; and (2) a general report on Regional Water System operation and maintenance.
- 6.04 [RESERVED]
- 6.05 Disclosure of Rate Information by Authority. Each year, the Authority will disclose to the Technical Advisory Committee information related establishing the revenue requirements for wholesale customers and Retail Customers.
- 6.06 Disclosure of Rate Information by the City. Each year, the City will disclose to the Retail Customers information related to its retail rates and other charges, and information regarding what portion of those costs is related to the operation of the Regional Water System and/or other major service providers.
- 6.07 Work Groups. The Technical Advisory Committee may create work groups to address specific issues facing the Regional Water System. The work groups currently in existence are the Analytical Work Group, the Best Practices Work Group, and the Water Rates Work Group. Any reference to a particular work group in this Agreement shall include its successor or replacement if altered or discontinued.



**ARTICLE 7  
[RESERVED]**

**ARTICLE 8  
METERS AND METER FACILITIES**

- 8.01 Metering. Water furnished by the Authority to the Local Water System shall be measured by water meters installed pursuant to the plan agreed to under section 5.2(c) of the Agreement at the City's Water Distribution Points unless, as mutually agreed, it is not feasible to install water meters due to cost effectiveness, technical feasibility, or the configuration of the Local Water System and the Parties mutually agree that sufficient accounting is available. The plan shall provide acceptable measurement of the Local Water System usage within forty years of the Effective Date.
- 8.02 Existing Distribution Points. As meters are installed, the City shall own and the Authority shall lease, operate and maintain all water meters and Meter Facilities to be installed at existing Water Distribution Points, unless specifically indicated otherwise in Exhibit A-I.
- 8.03 City Maintenance Responsibilities. The City shall be responsible for maintaining at its Water Distribution Points any and all appurtenances as may be designated as the City's responsibility in Exhibit A-I. Should the City fail to maintain the appurtenances shown in Exhibit A, the Authority may take reasonable steps to maintain the appurtenances and charge the reasonable cost of doing so to the City. Prior to the Authority taking action to maintain the appurtenances, the Authority shall give the City thirty days written notice to complete the required maintenance. Notice to the City shall not be required if, in the Authority's determination, there exists an emergency condition affecting the operation of the Regional Water System or if the health, safety and welfare of the general public may be jeopardized.
- 8.04 New Distribution Points. For any new Water Distribution Points, other than those identified in the metering plan pursuant to Article 5.2.(c) of the Agreement, that may be constructed or installed after the Effective Date, the City shall furnish at the City's expense, a water meter and Meter Facility that meets the Authority's specifications. Thereafter, the Authority shall furnish any replacement water meters for new Water Distribution Points and the expense shall be recovered through the Authority's rates as a Regional Water System cost. The City shall own, and the Authority shall lease, operate and maintain all water meters and Meter Facilities after construction, installation or replacement, unless specifically indicated otherwise in Exhibit A-I.
- 8.05 Meter Repair and Replacement. If the Authority initiates a meter repair or meter replacement, the cost shall be recovered through the Authority's rates as a Regional Water System cost. If the City requests a meter replacement for reasons other than malfunction or disrepair, the City shall pay the cost of the replacement.
- 8.06 Pressure Regulating Facilities. After the effective date of this Agreement, all newly installed the City-owned pressure regulating facilities shall be installed in a facility that is separate from the Authority's Meter Facility.

**ARTICLE 9  
[RESERVED]**

**ARTICLE 10**

**[RESERVED]**

**ARTICLE 11  
FORCE MAJEURE AND OTHER EVENTS**

11.01 [RESERVED]

11.02 Authority Liability. Except to the extent that the Authority is the proximate cause, the Authority shall not be held liable or accountable for any bursting, leakage, breakage, damage or accident of any kind that may occur to the Local Water System, or any damages of any kind or nature, including, but not limited to, injury to persons or damage to property, resulting from such bursting, leakage, breakage, damage or accident that may occur to water mains or pipes located downstream of the Water Distribution Points specified herein, or located within the Local Water System.

11.03 Discontinuance of Service. In the event the public health, safety and welfare requires the Authority to discontinue temporarily all or part of the supply of water to the City, no claims for damages of any kind or nature for such discontinuance shall be made by the City against the Authority. The Authority will provide notice to the City of any temporary discontinuance of the water supply.

**ARTICLE 12  
[RESERVED]**

**ARTICLE 13  
[RESERVED]**

**ARTICLE 14  
[RESERVED]**

**ARTICLE 15  
[RESERVED]**

**ARTICLE 16  
[RESERVED]**

**ARTICLE 17  
WATER QUALITY**

17.01 Contamination. For the protection of the health of all consumers supplied with water from the Regional Water System, the City agrees to guard carefully against all forms of contamination. Should contamination occur, the area or areas affected shall immediately be managed consistent with Prudent Utility Practices, and such practices shall continue until such conditions shall have been abated, and the water declared safe and fit for human consumption by the properly constituted governmental health agencies having jurisdiction of the area affected. The City shall immediately notify the Authority, and the Authority shall immediately notify the City, of any emergency or condition that may affect the quality of water in either Party's system. To the extent required by Section 5.2(c) of the Agreement, the City is required to maintain a MDEQ approved cross connection control program, at the sole cost of the City, and copy the Authority on all related documentation and reports provided to the MDEQ. The Authority shall have the

right to periodically audit, at the sole cost of the Authority, the City's cross connection control program.

- 17.02 Co-mingling of Water Sources. Except in cases of emergency, the City will not permit water from any other source of supply to be mixed or mingled with water from the System without prior written approval from the Authority. In cases of emergency, only such water from sources other than the Authority shall be used as shall meet the requirements of the MDEQ, and then only in such quantities as shall be necessary to relieve the emergency.
- 17.03 Emergency Connections. During emergencies, the Detroit Local Water Facilities may be used and connected, at the discretion of the Authority, to water facilities serving other communities for flow in either direction to provide an adequate water supply from the Regional Water System to the City and to other areas and other units of government. During emergencies, the Regional Water System may be used and connected, at the discretion of the City, to water facilities serving other communities for flow in either direction to provide an adequate water supply from the Local Water System to the Regional Water System and to other areas and other units of government. The Parties shall be permitted to immediately operate such emergency connection when the connection point to be used has been previously approved in Exhibit A-I, provided that the Parties shall, after operating the connection, promptly notify the other Party of such event. When the emergency has been abated, the emergency connection must be severed as soon as practicable. The Authority, or its designee, must approve, in writing, the continuation of any emergency connection that is required for longer than seven calendar days. If an approved emergency connection continues for more than seven calendar days, the City must provide the Authority with weekly updates on the emergency and a schedule for abatement of the emergency that must be approved by the Authority in writing.
- 17.04 Water Quality. The Authority shall endeavor to remain in compliance with Applicable Laws regarding drinking water quality.

**ARTICLE 18  
[RESERVED]**

**ARTICLE 19  
[RESERVED]**

**ARTICLE 20  
[RESERVED]**

**ARTICLE 21  
CONSTRUCTION STANDARDS**

- 21.01 The Authority shall have the right to review and approve the City's construction plans for Meter Facilities at new Water Distribution Points, water mains sized twenty-four inches and larger, pump stations, reservoirs, water towers, and any other construction that will cross, or be within close proximity to, or have influence upon the Regional System's

infrastructure. The Authority's approval of construction plans shall be timely and shall not be unreasonably withheld.

**ARTICLE 22**  
**OPERATION OF STORAGE**

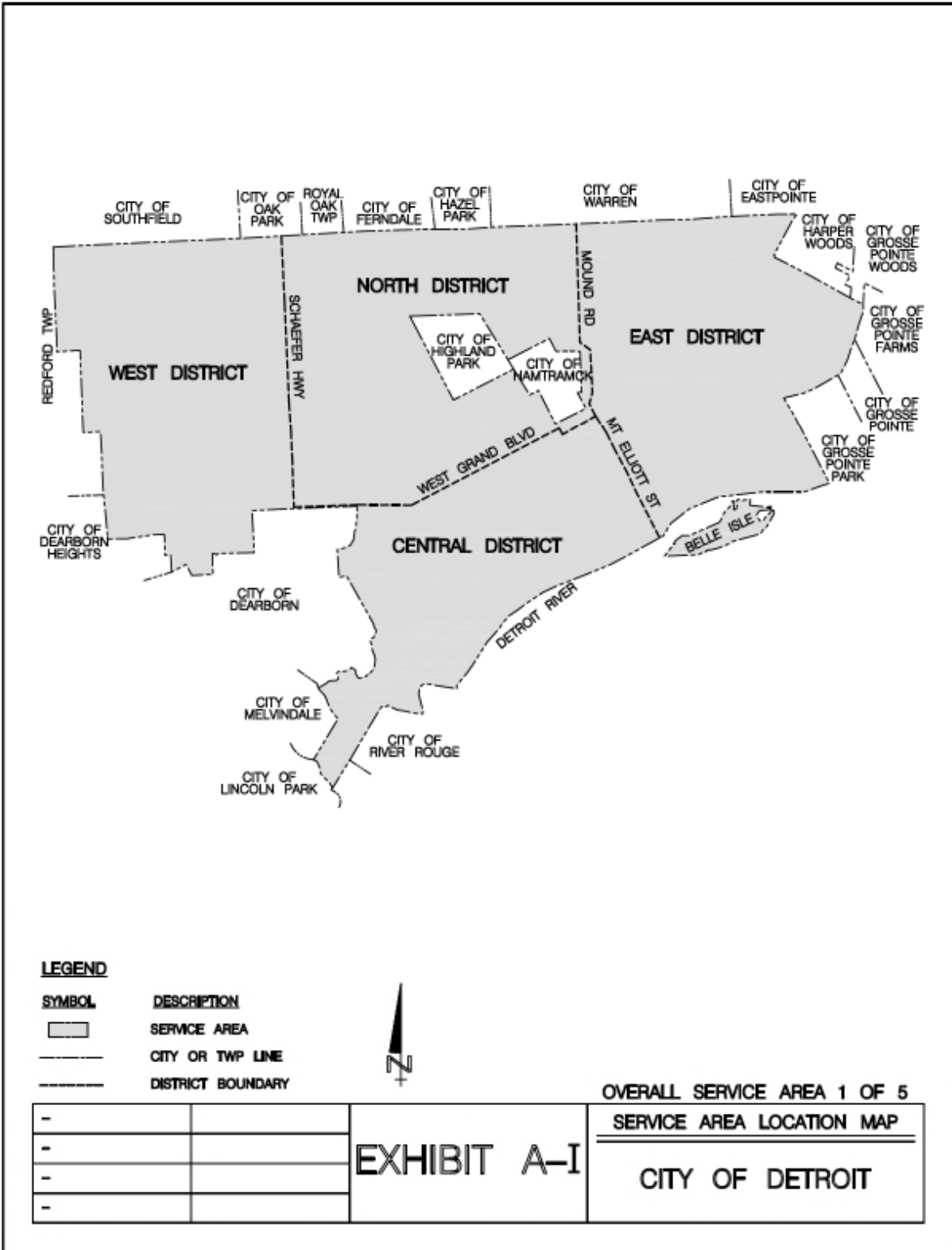
- 22.01 Prior to the City's operation of any new water storage facility, the City shall seek the Authority's written approval of the filling schedule ("Filling Schedule") of the storage facility. The Authority may periodically require the City to change or adjust a previously approved Filling Schedule. The Parties shall collaborate on devising a mutually beneficial Filling Schedule. If the Parties are unable to agree upon a Filling Schedule, the Authority's determination of a Filling Schedule shall be final. All Filling Schedules shall be for a period of six consecutive hours. The City shall at all times abide by the then-current Authority approved Filling Schedule. The Authority shall act promptly in approving Filling Schedule requests. Nothing in this Article 22 shall prevent the City from operating its storage facility at any time, provided that any storage operation that falls outside of the approved Filling Schedule shall not be exempt from the terms of Article 5 herein.

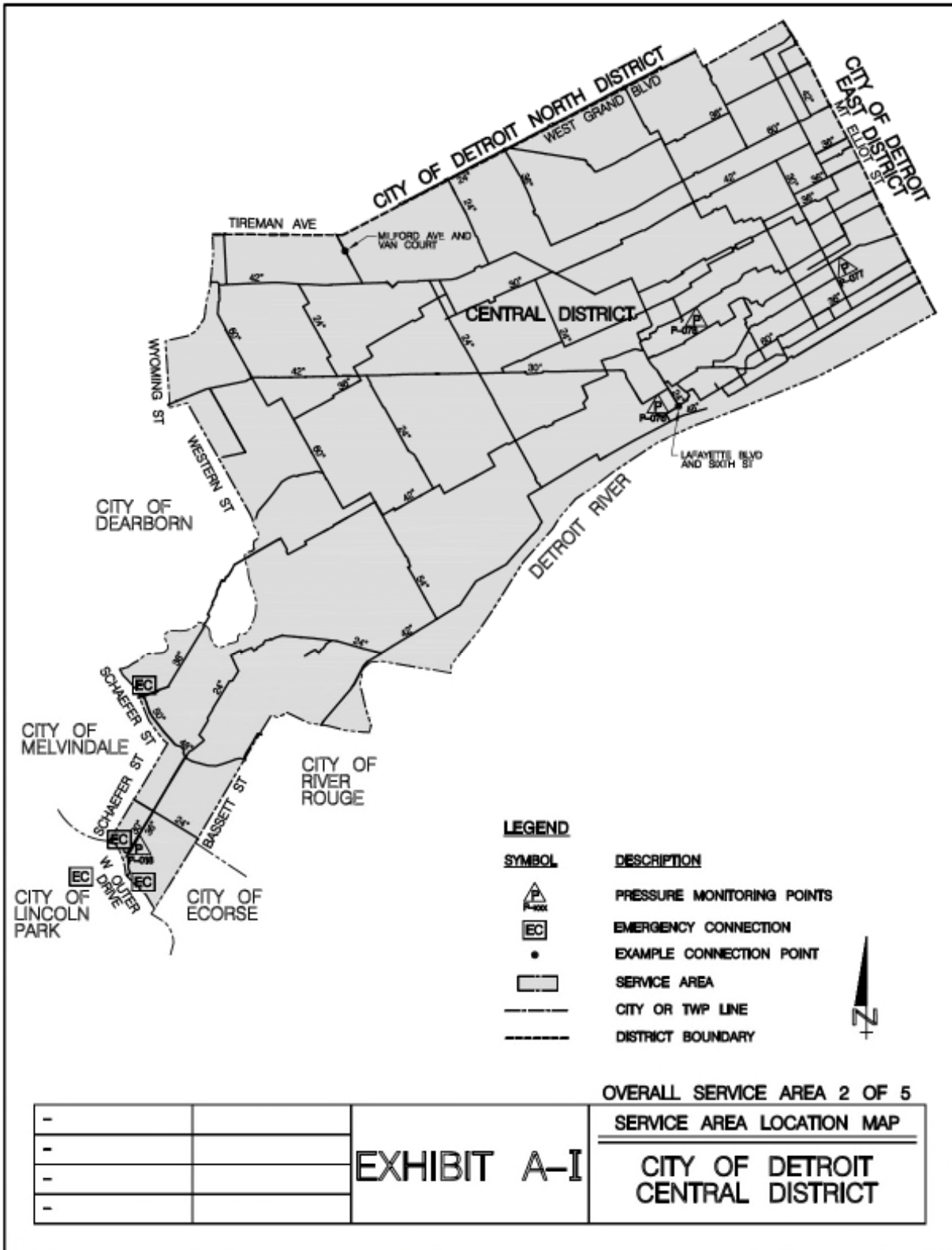
EXHIBIT A-I

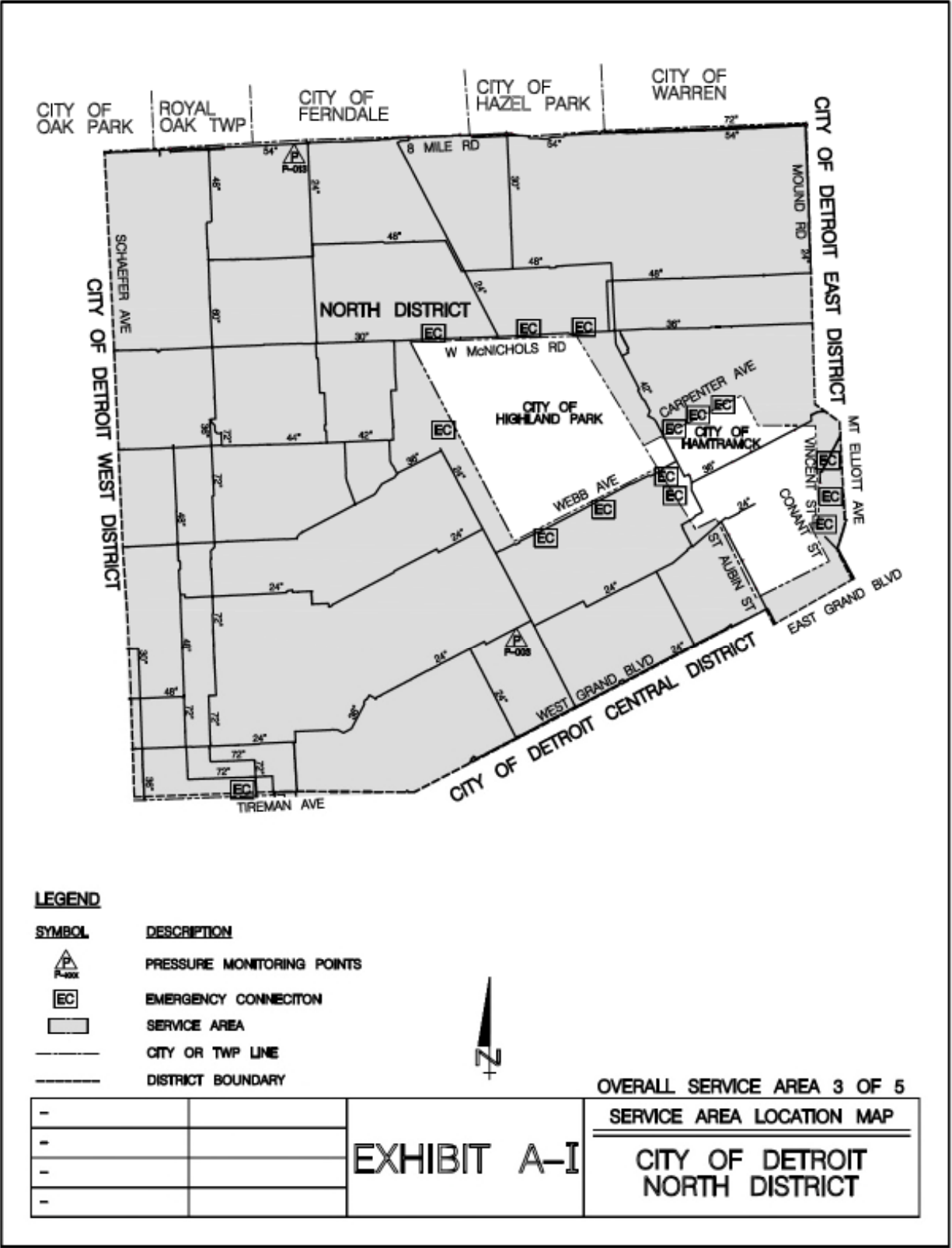
City's Water Distribution Points

This Exhibit contains the following information:

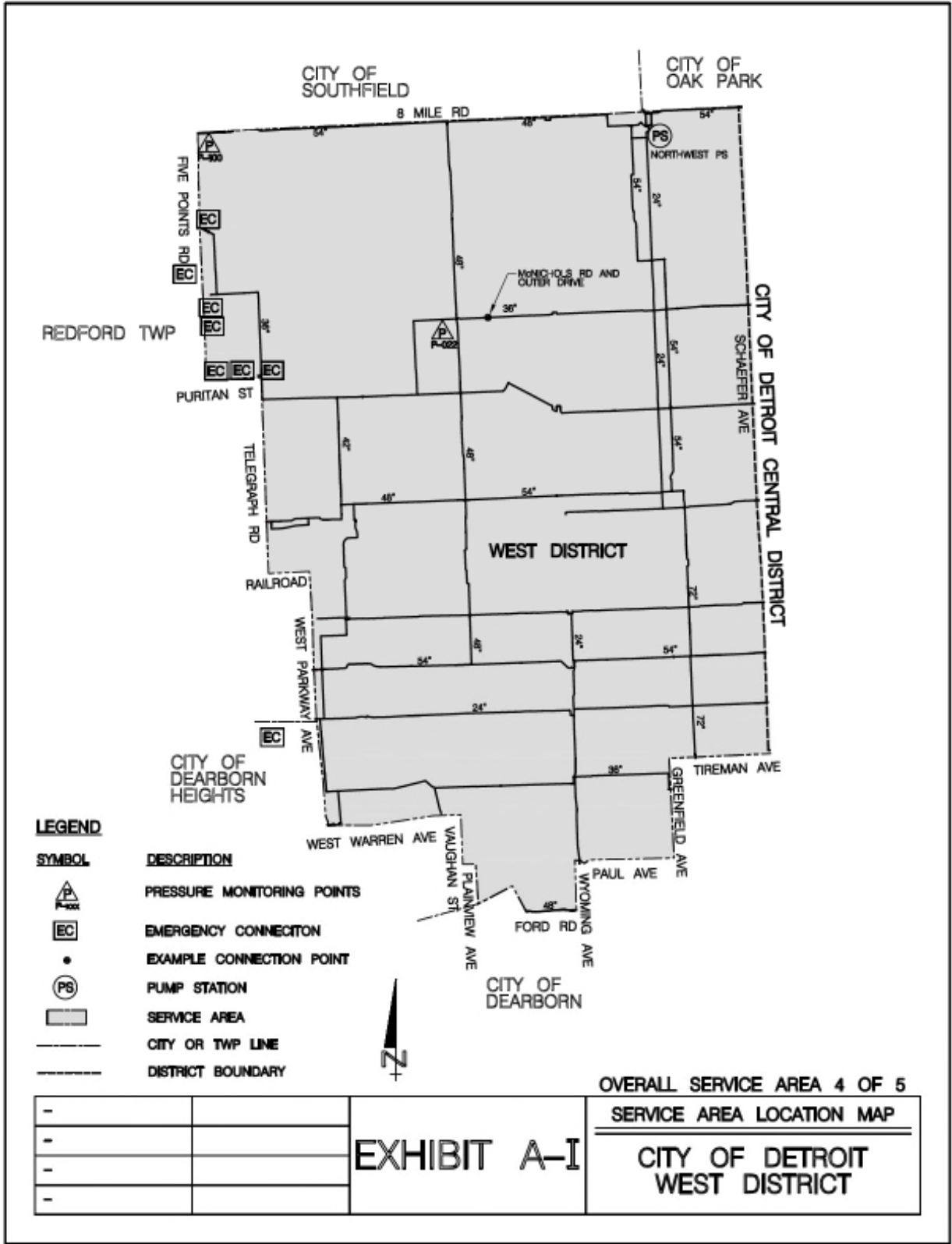
1. The corporate limits of the City;
2. The agreed upon water Service Area of the City which (a) may or may not be entirely within the corporate limits of the City and (b) which may or may not include the entire area within the City's corporate limits;
3. The specific location of the Water Distribution Points, including any Authority approved emergency connections;
4. The designation of appurtenances to be maintained by the City and those to be maintained by the Authority; and
5. The specific location of all pressure monitoring points.

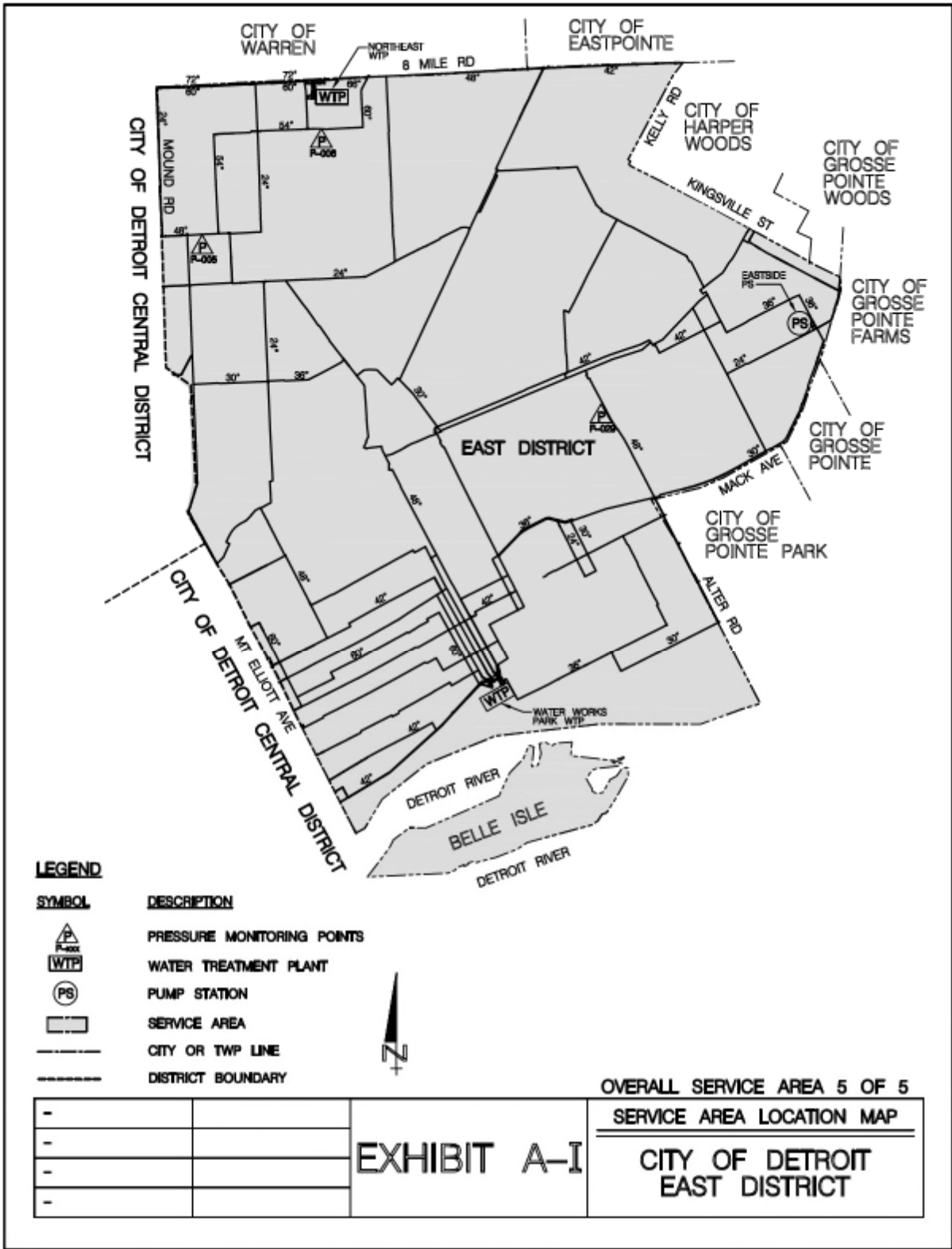












## EXHIBIT A-I

### City of Detroit Emergency Connections:

#### Connection to Dearborn

Tireman & Wyoming

#### Connection to Hamtramck

St. Aubin & Driveway

St. Aubin & Holbrook #1

St. Aubin & Holbrook #2

Carpenter & Arlington

Carpenter & Fleming

Carpenter & McKay

Chrysler Fwy & City Line

Conant & Miller

Vincent & Georgia

Vincent & Marcus (Meter Connection at HK-04, Normally Closed)

Carpenter & Gallagher

#### Connection to Highland Park

Hamilton & McNichols

Pilgrim & Woodrow Wilson

Hamilton & Webb

Woodward & Woodland

McNichols & John R.

McNichols & Oakland

#### Connection to Lincoln Park

Fort & Outer Drive #1 (Meter Connection at LP-02, Normally Closed)

Fort & Outer Drive #2 (Meter Connection at LP-03, Normally Closed)

Electric & Southfield

#### Connection to Melvindale

Oakwood & Schaefer (Meter Connection at ME-01, Normally Closed)

#### Connection to Redford

Puritan & Fenton

Puritan & Five Points

Puritan & Winston

Puritan & Woodbine

Curtis & Five Points

Grand River & Five Points

McNichols & Five Points #1 (Meter Connection at RD-05, Normally Closed)

McNichols & Five Points #2

Joy & Telegraph

**City of Detroit Pressure Monitoring Points:**

P-003 14th St. & Blaine, 8700 14th Street  
P-013 8 Mile & Wyoming, 10029 W. 8 Mile  
P-018 West Outer Drive & Fort, 25869 W. Outer Drive, Lincoln Park  
P-022 Grand River & Trinity, 16825 Trinity  
P-076 6th & Porter, 1050 6th St.  
P-077 Chene & Maple, 1935 Chene Ct.  
P-078 Park & Elizabeth, 2313 Park St.  
P-006 State Fair, 8751 State Fair  
P-005 Carrie & Nevada, 7051 Nevada  
P-029 Manistique & Warren, 5029 Manistique  
P-100 Five Points Road & Eight Mile Road, 20602 Five Points Road

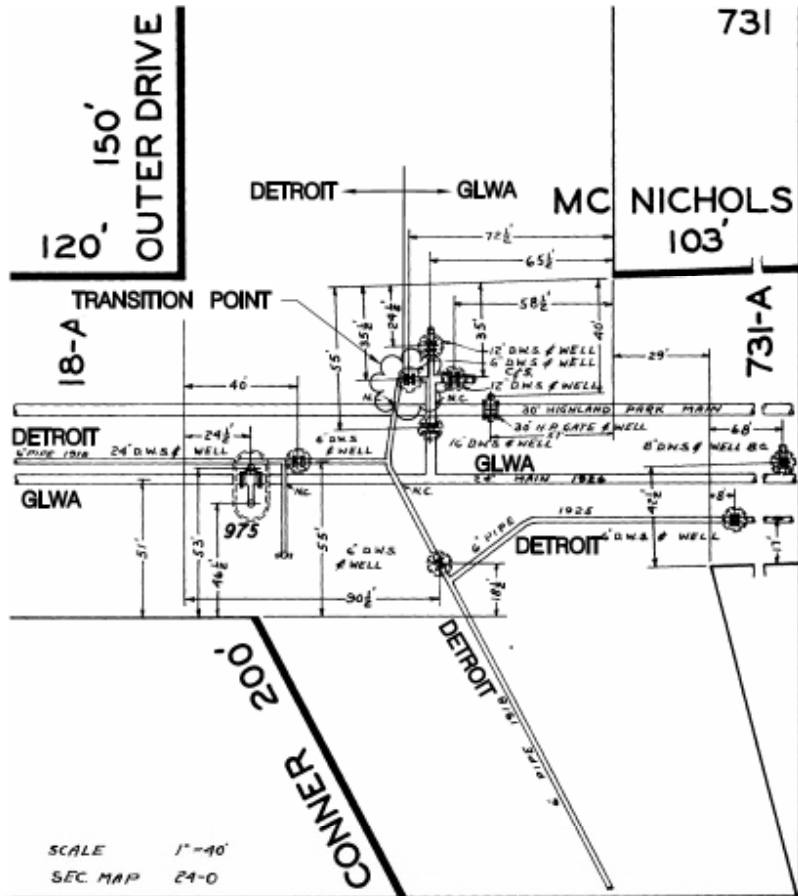
**City of Detroit Water Customers Outside Municipal Limits:**

1600 W Eight Mile Rd, Dearborn Heights  
2400 S Dumfries St, Dearborn Heights  
6307 Heyden, Dearborn Heights  
6311 Heyden, Dearborn Heights  
6335 Heyden, Dearborn Heights  
6343 Heyden, Dearborn Heights  
6349 Heyden, Dearborn Heights  
6355 Heyden, Dearborn Heights  
6367 Heyden, Dearborn Heights  
6373 Heyden, Dearborn Heights  
6383 Heyden, Dearborn Heights  
6393 Heyden, Dearborn Heights  
6401 Heyden, Dearborn Heights  
6415 Heyden, Dearborn Heights  
6429 Heyden, Dearborn Heights  
6433 Heyden, Dearborn Heights  
6439 Heyden, Dearborn Heights  
6445 Heyden, Dearborn Heights  
6457 Heyden, Dearborn Heights  
6311 Heyden, Dearborn Heights  
7518 Hazelton, Dearborn Heights  
870-0011.300 13400, W Outer Dr, Dearborn Heights  
870-0012.300 13400, W Outer Dr, Dearborn Heights  
870-0013.300 13400, W Outer Dr, Dearborn Heights  
870-0014.300 13400, W Outer Dr, Dearborn Heights  
870-0015.300 13400, W Outer Dr, Dearborn Heights  
870-0016.300 13400, W Outer Dr, Dearborn Heights  
13500 Visger St, Dearborn Heights  
21655 W Warren, Dearborn Heights  
21675 W Warren, Dearborn Heights

21695 W Warren, Dearborn Heights  
23290 Ann Arbor Trail, Dearborn Heights

**City of Detroit Master Meters Not In Service:**  
Not applicable.

**EXHIBIT A-I**  
**CONNECTION POINT TYPICAL DETAIL**  
**EXAMPLE: McNICHOLS AND OUTER DRIVE**  
**CITY OF DETROIT**



SCALE 1"=40'  
 SEC. MAP 24-0

DETROIT- CITY OF DETROIT RETAIL SYSTEM  
 GLWA- GREAT LAKES WATER AUTHORITY  
 N.C.- NOT CONNECTED

**SITE PLAN**  
 NOT TO SCALE

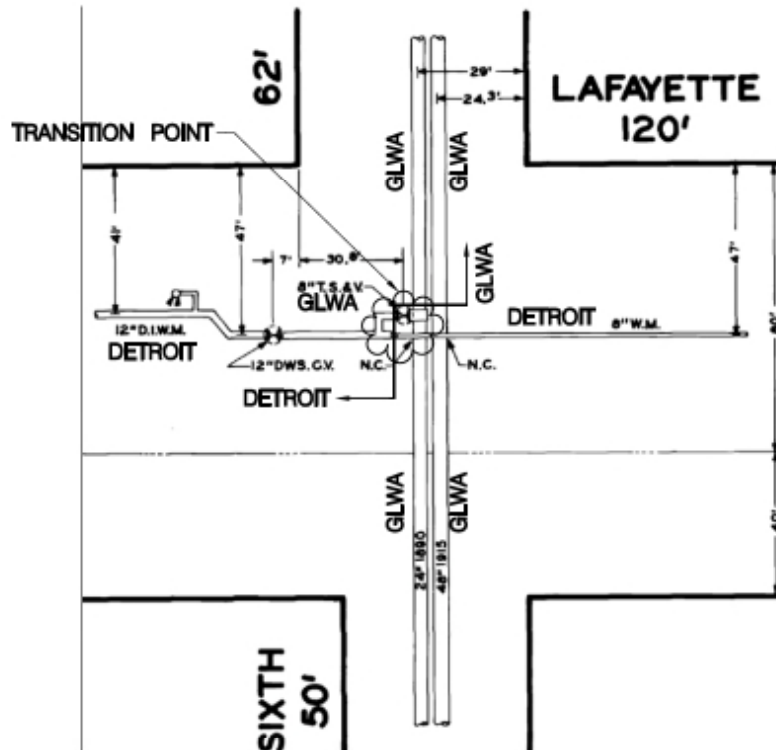


**NOTE: THE TRANSITION POINT BETWEEN THE WHOLESALE AND RETAIL SYSTEM WILL BE CONSIDERED THE FIRST VALVE ON THE CONNECTION LINE FROM THE TRANSMISSION TO THE RETAIL SYSTEM. THE VALVE WILL BE THE RESPONSIBILITY OF GLWA.**

**LOCATIONS SUBJECT TO VERIFICATION IN THE FIELD.**



**EXHIBIT A-I  
CONNECTION POINT TYPICAL DETAIL  
EXAMPLE: LAFAYETTE AND SIXTH  
CITY OF DETROIT**



DETROIT- CITY OF DETROIT RETAIL SYSTEM  
GLWA- GREAT LAKES WATER AUTHORITY  
N.C.- NOT CONNECTED

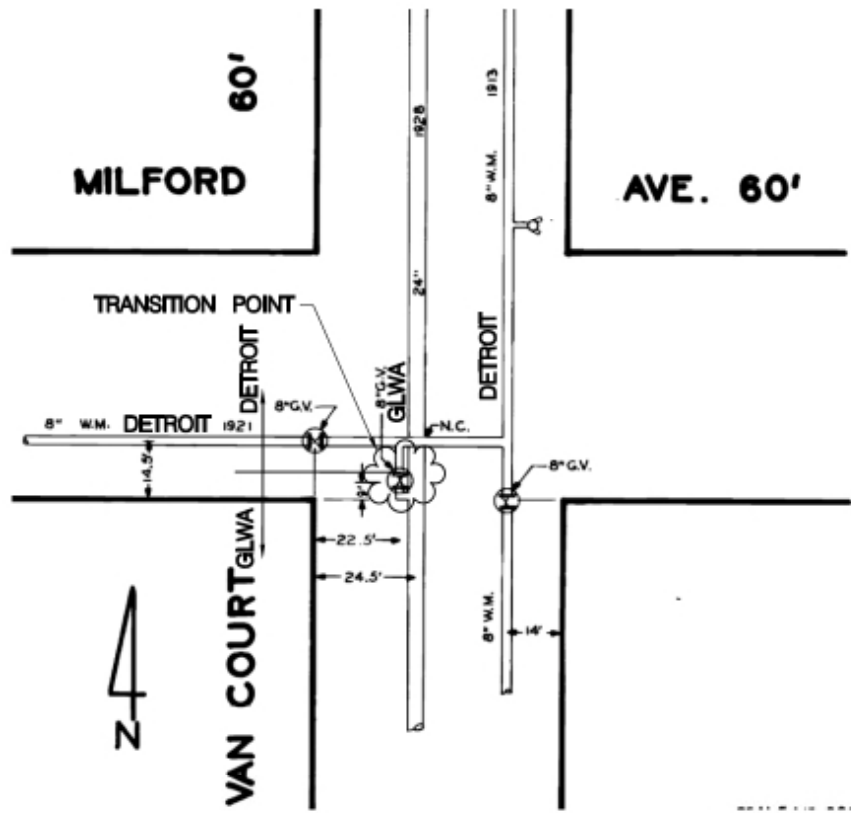
**SITE PLAN**  
NOT TO SCALE



NOTE: THE TRANSITION POINT BETWEEN THE WHOLESALE AND RETAIL SYSTEM WILL BE CONSIDERED THE FIRST VALVE ON THE CONNECTION LINE FROM THE TRANSMISSION TO THE RETAIL SYSTEM. THE VALVE WILL BE THE RESPONSIBILITY OF GLWA.

LOCATIONS SUBJECT TO  
VERIFICATION IN THE FIELD.

**EXHIBIT A-I**  
**CONNECTION POINT TYPICAL DETAIL**  
**EXAMPLE: VAN COURT AND MILFORD**  
**CITY OF DETROIT**



DETROIT- CITY OF DETROIT RETAIL  
 GLWA- GREAT LAKES WATER AUTHORITY  
 N.C.- NOT CONNECTED

**SITE PLAN**  
 NOT TO SCALE



NOTE: THE TRANSITION POINT BETWEEN THE WHOLESALE AND RETAIL SYSTEM WILL BE CONSIDERED THE FIRST VALVE ON THE CONNECTION LINE FROM THE TRANSMISSION TO THE RETAIL SYSTEM. THE VALVE WILL BE THE RESPONSIBILITY OF GLWA.

LOCATIONS SUBJECT TO VERIFICATION IN THE FIELD.



EXHIBIT A-II

Projected Annual Volume and Minimum Annual Volume (Table 1)

Pressure Range and Maximum Flow Rate (Table 2)

[RESERVED] (Table 3)

[RESERVED] (Table 4)

Table 1 and Table 2 set forth the agreed upon Projected Annual Volumes, Minimum Annual Volumes, Pressure Ranges and Maximum Flow Rates for the term of this Agreement provided that figures in bold type face are immediately enforceable pursuant to the terms of Section 5.07 and italicized figures are contained for planning purposes only but will become effective absent the negotiated replacements anticipated in Section 5.07.

EXHIBIT A-II

Table 1

Projected Annual Volume

Fiscal Year Ending June 30	Projected Annual Volume (Mcf)
2016	3,300,000
2017	3,266,900
2018	3,234,000
2019	3,201,200
2020	3,168,600
2021	3,147,600
2022	3,126,800
2023	3,106,000
2024	3,085,300
2025	3,064,800
2026	3,053,800
2027	3,042,900
2028	3,032,000
2029	3,021,200
2030	3,010,400
2031	3,006,200
2032	3,002,000
2033	2,997,700
2034	2,993,500
2035	TBD
2036	TBD
2037	TBD
2038	TBD
2039	TBD
2040	TBD
2041	TBD
2042	TBD
2043	TBD
2044	TBD
2045	TBD

EXHIBIT A-II

Table 2

Pressure Range and Maximum Flow Rate

Calendar Year	Pressure Range (psi) 14 <sup>th</sup> St & Blaine P-003		Pressure Range (psi) 8 Mile & Wyoming P-013		Pressure Range (psi) W Outer Dr & Fort P-018		Pressure Range (psi) Grand River & Trinity P-022		Pressure Range (psi) 6 <sup>th</sup> & Porter P-076		Pressure Range (psi) Chene & Maple P-077	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
2015	<b>35</b>	<b>45</b>	<b>45</b>	<b>55</b>	55	<b>70</b>	<b>45</b>	<b>55</b>	<b>50</b>	<b>65</b>	<b>45</b>	<b>55</b>
2016	<b>35</b>	<b>45</b>	<b>45</b>	<b>55</b>	55	<b>70</b>	<b>45</b>	<b>55</b>	<b>50</b>	<b>65</b>	<b>45</b>	<b>55</b>
2017	35	45	45	55	55	70	45	55	50	65	45	55
2018	35	45	45	55	55	70	45	55	50	65	45	55
2019	35	45	45	55	55	70	45	55	50	65	45	55
2020	35	45	45	55	55	70	45	55	50	65	45	55
2021	35	45	45	55	55	70	45	55	50	65	45	55
2022	35	45	45	55	55	70	45	55	50	65	45	55
2023	35	45	45	55	55	70	45	55	50	65	45	55
2024	35	45	45	55	55	70	45	55	50	65	45	55
2025	35	45	45	55	55	70	45	55	50	65	45	55
2026	35	45	45	55	55	70	45	55	50	65	45	55
2027	35	45	45	55	55	70	45	55	50	65	45	55
2028	35	45	45	55	55	70	45	55	50	65	45	55
2029	35	45	45	55	55	70	45	55	50	65	45	55
2030	35	45	45	55	55	70	45	55	50	65	45	55
2031	35	45	45	55	55	70	45	55	50	65	45	55
2032	35	45	45	55	55	70	45	55	50	65	45	55
2033	35	45	45	55	55	70	45	55	50	65	45	55
2034	35	45	45	55	55	70	45	55	50	65	45	55
2035	35	45	45	55	55	70	45	55	50	65	45	55
2036	35	45	45	55	55	70	45	55	50	65	45	55
2037	35	45	45	55	55	70	45	55	50	65	45	55
2038	35	45	45	55	55	70	45	55	50	65	45	55
2039	35	45	45	55	55	70	45	55	50	65	45	55
2040	35	45	45	55	55	70	45	55	50	65	45	55
2041	35	45	45	55	55	70	45	55	50	65	45	55
2042	35	45	45	55	55	70	45	55	50	65	45	55
2043	35	45	45	55	55	70	45	55	50	65	45	55
2044	35	45	45	55	55	70	45	55	50	65	45	55

EXHIBIT A-II

Table 2 (continued)

Pressure Range and Maximum Flow Rate

Calendar Year	Pressure Range (psi) Park & Elizabeth P-078		Pressure Range (psi) State Fair P-006		Pressure Range (psi) Carrie & Nevada P-005		Pressure Range (psi) Manistique & Warren P-029		Pressure Range (psi) Five Pts & 8 Mile P-100	
	<u>Min</u>	<u>Max</u>	<u>Min</u>	<u>Max</u>	<u>Min</u>	<u>Max</u>	<u>Min</u>	<u>Max</u>	<u>Min</u>	<u>Max</u>
2015	<b>40</b>	<b>55</b>	<b>45</b>	<b>60</b>	<b>45</b>	<b>55</b>	<b>50</b>	<b>65</b>	<b>45</b>	<b>60</b>
2016	<b>40</b>	<b>55</b>	<b>45</b>	<b>60</b>	<b>45</b>	<b>55</b>	<b>50</b>	<b>65</b>	<b>45</b>	<b>60</b>
2017	40	55	45	60	45	55	50	65	45	60
2018	40	55	45	60	45	55	50	65	45	60
2019	40	55	45	60	45	55	50	65	45	60
2020	40	55	45	60	45	55	50	65	45	60
2021	40	55	45	60	45	55	50	65	45	60
2022	40	55	45	60	45	55	50	65	45	60
2023	40	55	45	60	45	55	50	65	45	60
2024	40	55	45	60	45	55	50	65	45	60
2025	40	55	45	60	45	55	50	65	45	60
2026	40	55	45	60	45	55	50	65	45	60
2027	40	55	45	60	45	55	50	65	45	60
2028	40	55	45	60	45	55	50	65	45	60
2029	40	55	45	60	45	55	50	65	45	60
2030	40	55	45	60	45	55	50	65	45	60
2031	40	55	45	60	45	55	50	65	45	60
2032	40	55	45	60	45	55	50	65	45	60
2033	40	55	45	60	45	55	50	65	45	60
2034	40	55	45	60	45	55	50	65	45	60
2035	40	55	45	60	45	55	50	65	45	60
2036	40	55	45	60	45	55	50	65	45	60
2037	40	55	45	60	45	55	50	65	45	60
2038	40	55	45	60	45	55	50	65	45	60
2039	40	55	45	60	45	55	50	65	45	60
2040	40	55	45	60	45	55	50	65	45	60
2041	40	55	45	60	45	55	50	65	45	60
2042	40	55	45	60	45	55	50	65	45	60
2043	40	55	45	60	45	55	50	65	45	60
2044	40	55	45	60	45	55	50	65	45	60

EXHIBIT A-II

Table 2 (continued)

Pressure Range and Maximum Flow Rate

Fiscal Year Ending June 30	Maximum Flow Rate (mgd)	
	<u>Max Day</u>	<u>Peak Hour</u>
2016	129,877	133,772
2017	TBD	TBD
2018	TBD	TBD
2019	TBD	TBD
2020	TBD	TBD
2021	TBD	TBD
2022	TBD	TBD
2023	TBD	TBD
2024	TBD	TBD
2025	TBD	TBD
2026	TBD	TBD
2027	TBD	TBD
2028	TBD	TBD
2029	TBD	TBD
2030	TBD	TBD
2031	TBD	TBD
2032	TBD	TBD
2033	TBD	TBD
2034	TBD	TBD
2035	TBD	TBD
2036	TBD	TBD
2037	TBD	TBD
2038	TBD	TBD
2039	TBD	TBD
2040	TBD	TBD
2041	TBD	TBD
2042	TBD	TBD
2043	TBD	TBD
2044	TBD	TBD
2045	TBD	TBD

EXHIBIT A-II

Table 3

RESERVED

**EXHIBIT B**

**SEWER SERVICE SPECIFICATIONS**

**ARTICLE 1**

**DEFINITIONS**

- 1.02 Capitalized words or expression not defined in this Exhibit B shall have the meaning assigned thereto in the body of the Water and Sewer Services Agreement. The following words and expressions, or pronouns used in their stead, shall be construed as follows as used in this Exhibit B:

“CFS” shall mean cubic feet per second.

“City Overflow Volume” shall mean that volume of wastewater generated in City’s Service Area during a wet weather event that exceeds the capacity of the Regional Sewer System.

“City Retail Customer Class” means the Retail Customers.

“First Tier Customer(s)” shall mean the City and those municipal customers contracting directly with Authority for Services.

“Flow” shall mean wastewater delivered by City from City’s Service Area to the Regional Sewer System. It shall include sanitary flow, dry weather infiltration and inflow, and a wet weather flow component. It shall also include wastewater from industrial and/or commercial facilities in compliance with the City of Detroit’s Wastewater Discharge Control Ordinance, Chapter 56, Article I and Article III of the Detroit City Code, Section 56-3-56.1 *et seq.*, as amended, and any similar rules or regulations adopted by the Authority.

“Maximum Allowable Flow Limit” means the maximum allowable Flow that the Local Sewer System may deliver to the Regional Sewer System.

“Meter(s)” shall mean a wastewater meter.

“MGD” shall mean million gallons per day.

“Notices” shall mean all notices, consents, approvals, requests and other communications required to be given under the terms of this Agreement.

“Point(s) of Connection” shall mean the location(s) where Flow shall be deemed to be delivered from the Detroit Local Sewer System into the Regional Sewer System and shall be the location at which the responsibility for operation and maintenance between the Regional Sewer System and the Detroit Local Sewer System shall be established.

“Service Area” shall mean the geographic areas from which flow may be delivered to the Regional Sewer System from the Detroit Local Sewer System, which may include

delivery of Flow from areas not located within the geographic limits of the City, as designated in Exhibit B-I to this Agreement.

“Services” shall mean the collection, transportation, treatment and discharge of wastewater by Authority.

“Steering Committee” shall mean the advisory committee consisting of representatives of Authority and its First Tier Customers, and any work groups and sub-committees established thereby, and shall include its successor or replacement if altered or discontinued. The committee may, in its discretion, agree to add additional members. City shall have the right to attend all meetings of the committee and any work groups and sub-committees established thereby.

“WWTP” shall mean the Wastewater Treatment Plant owned by the City and leased, operated and maintained by the Authority.

## **ARTICLE 2 DELIVERY OF FLOW**

2.01 Maximum Allowable Flow Limit. The Maximum Allowable Flow Limit for the Service Area may not be determined at this time due to the large number of unmetered connections. The Authority will operate the Regional Sewer System consistent with current planning documents, such as the MDEQ approved Wet Weather Operational Plan. In situations where the Operational Plan does not address a particular instance or issue, the Parties agree that in such situations the mutual goal of the parties is to maximize the treatment and disinfection of Flows. Review and modification to the Operational Plan may occur periodically as agreed by both the City and the Authority, and approved by the MDEQ. This may occur as system improvements are implemented or adaptive management strategies are found to be effective and formalized. If changes to the Operational Plan are significant and result in increased capacity limits for suburban wholesale customers, an adjustment to the CSO cost allocation or other appropriate cost allocation may be considered. If at some future time circumstances are such that a Maximum Allowable Flow Limit in total or in part for certain regions of the Service Area may reasonably be established, the Authority and the City will collaborate to develop such values. If the parties are unable to agree on a value after six months of negotiations, the dispute resolution procedure identified in Article 7 of the Agreement will apply.

2.02 Delivery of All Flow. The Authority agrees to accept and the City agrees to deliver all Flow originating within the City’s Service Area, excluding any City Overflow Volumes.

2.03 [RESERVED]

2.04 Enforcement of Maximum Allowable Flow Limit. The City and the Authority acknowledge that the Maximum Allowable Flow Limit for the Service Area cannot be reasonably estimated at the time of the execution of this Agreement. If at any time in the future the Maximum Allowable Flow Limit for a particular region of the City is able to be reasonably established, it is acknowledged that deviations of it may occur. If the Service Area has multiple incidents of Flow exceeding the Maximum Allowable Flow Limit which evidence a pattern of



exceedances, as determined in the reasonable discretion of the Authority, Authority shall give written notice of such exceedances to the City. Thereafter, the Authority and the City shall meet and attempt to develop a plan for reducing or eliminating the exceedances. If the City and the Authority are unable to agree on a plan, the matter shall be referred to the Engineer Panel under Section 7.3 of the Agreement for resolution and the Authority shall have the right to assert any remedies for default available under this Agreement.

2.05 Applicability to Overflow Volumes. Nothing in this Article 2 shall be construed to preclude the City from constructing or operating wastewater facilities, constructing or operating separated storm sewers, or Green Infrastructure for the purpose of reducing or eliminating City Service Area Overflow Volumes or improving the operation of Local Sewer System, or for any other lawful purpose.

2.06 Reopener. The Authority and the City reserve the right to adjust at any time the Maximum Allowable Flow Limit specified in Section 2.01 in the event that the Authority Wastewater Master Plan or other analysis acceptable to the Parties demonstrates modifications to the then-existing Maximum Allowable Flow Limit may be warranted. If a new Maximum Allowable Flow Limit is mutually agreed upon, the City and the Authority will amend this Agreement to reflect the new Maximum Allowable Flow Limit. Until such time, if any, that the Maximum Allowable Flow Limit is modified, the Maximum Allowable Flow Limit specified in Section 2.01 shall continue in full force and effect.

### **ARTICLE 3 OWNERSHIP, MAINTENANCE, AND ACCURACY OF EQUIPMENT AND FACILITIES**

To the extent Authority elects to install Meters, Meter vaults, and data acquisition equipment, the following provisions shall apply:

- 3.01 Ownership and Maintenance Responsibility. Subject to Section 5.2(c) of the Agreement, the City shall own and the Authority shall lease, operate and maintain all Meters, Meter vaults, and data acquisition equipment used for Authority's billing purposes, unless otherwise provided for in Exhibit B-I.
- 3.02 Maintenance Standards. Authority shall maintain the Meters and associated data acquisition equipment in accordance with the Greater Detroit Regional Sewer System Phase IV Technical Memoranda 4-8, or subsequent modifications thereto. Authority shall collect data from its Meters in accordance with the Good Metering Practice specified in the Greater Detroit Regional Sewer System Phase IV Technical Memoranda 4-8, or subsequent modifications thereto. Authority may contract with a third party for any such services.
- 3.03 Accuracy. Authority will ensure the accuracy of the Meters. City shall have the right to inspect the Meters and all records related thereto to ensure proper operation, including calibration and measurement. Authority and the Steering Committee shall review the accuracy of the Meters on a regular basis and compare the findings to the then-best available technology. In the event that the accuracy of a Meter is found to be

unsatisfactory, as determined by the Steering Committee and approved by Authority, Authority shall, as soon as practicable, repair, rehabilitate or replace the Meter.

**ARTICLE 4**  
**SERVICE AREA; ACCEPTANCE OF FLOW**

- 4.01 Service Area. The area for which Authority agrees to provide Services shall be as shown in Exhibit B-I. The City shall not deliver to the Regional Sewer System any Flow originating in any area outside of the specified Service Area other than that of wholesale customers of the Authority served through the Local Sewer System without the prior written consent of the Authority. The City and the Authority may temporarily authorize the delivery of Flow from outside the Service Area. A permanent change in the Service Area shall require amendment of the Agreement.
- 4.02 Acceptance of Flow. Due to the configuration of the Local Sewer System, the Authority will accept Flow, as limited by the terms of the Agreement, from within the Service Area shown on Exhibit B-I. The Parties agree that due to the large number of Points of Connection, the location of each Point of Connection shall be determined to be wherever the Detroit Local Sewer System connects to the Regional Sewer System as set forth in Exhibit B-I. The Authority shall have no responsibility for operating and maintaining any portions of the Local Sewer System upstream of the Points of Connection except as may be provided in the Shared Services Agreement. The City owns and the Authority is responsible for operating and maintaining all parts of the Regional Sewer System downstream from the Points of Connection.
- 4.03 Change in Service Area. The boundaries of the Service Area may be changed only by the express written agreement of the Authority and the City and shall be embodied in an amendment to the Agreement.

**ARTICLE 5**  
**FLOW MEASUREMENT**

- 5.01 Information Gathering. Authority shall, with guidance and input from the Steering Committee, make all reasonable efforts to use the best available information to establish City Service Area estimated sanitary flows and non-sanitary flows.
- 5.02 Process. As of the Effective Date, the Authority shall, with guidance and input from the Steering Committee, carry out analyses to estimate Flow from the City Service Area using the best available information. The City shall submit to Authority, periodically as requested by Authority, water sales data for its individual wastewater customers. The water sales data, in combination with other best available information, shall be utilized by Authority, in its sole and reasonable discretion but subject to the terms of the Agreement, in its cost allocation and rate design processes and shall form the basis of billings for Retail Customers.

The City and the Authority agree that at some future time data from sewage meters located on the Regional Sewer System pipes or sewage meters that may be installed at points within the Detroit Local Sewer Facilities may be used to estimate or quantify sewage delivered from the Detroit Local Sewer Facilities to the Regional Sewer System. In which case, the Authority shall, with guidance and input from the Steering Committee, decide on the type of analyses, and shall carry out analyses of Flow from City Service

Area using Meter information and other relevant data. The results of such analyses shall be utilized by the Authority, in its reasonable discretion but subject to B-V, in its cost allocation and rate design processes and shall form the basis of billings for City Retail Customers.

- 5.03 Responsibility for Review and Use of Information. The Steering Committee shall have the responsibility for reviewing the information it obtains pursuant to this Article 5 for the purpose of verifying that the information is acceptable from a technical basis. Authority shall have the authority, in its sole and reasonable discretion, for determining how best to utilize the information analyzed by the Steering Committee.

**ARTICLE 6  
FLOW RE-ALLOCATION**

- 6.01 Flow Re-Allocation. Should the City Retail Customer Class reduce its Flow into the Regional Sewer System, whether at the end of the Term, by mutual agreement, or by the implementation of Green Infrastructure or sewer separation by the City to the extent that additional capacity is available for other customers, that portion of its Maximum Allowable Flow Limit so reduced shall be re-allocated at the discretion of Authority for the benefit of the Regional Sewer System. Flow re-allocation between First Tier Customers may occur only with the prior written approval of Authority and shall be incorporated as an amendment to the Agreement. To the extent such reduction in Flow provides capacity in City’s combined sewer overflow control (“CSO”) facilities that is re-allocated to other customers of Authority, an adjustment to the CSO cost allocation or other appropriate cost allocation may be considered.
- 6.02 [RESERVED]

**ARTICLE 7  
[RESERVED]**

**ARTICLE 8  
DESIGN AND CONSTRUCTION STANDARDS**

- 8.01 City shall abide by Authority’s design specifications and construction standards. Authority shall form a Design Standards Committee, and the City shall serve as a member of the committee. The Design Standards Committee shall create a set of design standards and shall make a recommendation to Authority regarding adoption of the design standards. City shall submit plans and specifications for new wastewater collection or transport facilities for review and approval to Authority prior to the installation of such facilities. Authority will review the plans and specifications and provide City with a determination as to its approval or disapproval of the plans and specifications. If City does not agree with the outcome of the Authority review, City may request a review by the Design Standards Committee. The Design Standards Committee will be governed by the guidelines described in Exhibit B-II. If either of the Parties disagree with the determination of the Design Standards Committee, the dispute is to be resolved by the Engineer Panel under Section 7.3 of the Agreement.

**ARTICLE 9  
[RESERVED]**

**ARTICLE 10  
[RESERVED]**

**ARTICLE 11  
[RESERVED]**

**ARTICLE 12  
[RESERVED]**

**ARTICLE 13  
[RESERVED]**

**ARTICLE 14  
STEERING COMMITTEE**

- 14.01 Establishment. The Steering Committee is formed to facilitate a cooperative working partnership between Authority and First Tier Customers by facilitating discussion and development of recommendations to Authority regarding Regional Sewer System operation, maintenance, rates, and best practices, and is based on the free flow of information regarding financial and operational functions. The Steering Committee shall maintain bylaws that govern the way it conducts its business. In the event of a conflict between the terms of the bylaws adopted by the Steering Committee and the terms of the Agreement, the terms of this Agreement shall control.
- 14.02 General Responsibilities. The Steering Committee shall periodically review and evaluate the rates, rate methodology, operation, and maintenance of the Regional Sewer System. The Steering Committee shall have the opportunity each year to review the Authority CIP as prepared by Authority, prior to its adoption by the Board.
- 14.03 Annual Report by Authority. Authority will present an annual report on Regional Sewer System operation and maintenance to the Steering Committee.
- 14.04 Annual Meeting and Report by Steering Committee. The Steering Committee will meet annually with and report to the Board. The Steering Committee may otherwise meet and communicate with the Board as the Steering Committee deems necessary.
- 14.05 Work Groups. The Steering Committee may create work groups and sub-committees to address specific issues facing the Regional Sewer System.

**ARTICLE 15  
[RESERVED]**

**ARTICLE 16  
[RESERVED]**

**ARTICLE 17  
INDUSTRIAL WASTE CONTROL PROGRAM**

- 17.01 City agrees to abide by the requirements of the Industrial Waste Control Program as set forth in Exhibit B-V, paragraph F. To the extent that Exhibit B-V obligates the City in the future to adopt any new or modified ordinance, rule, or regulation based upon a future amendment to the Authority's Wastewater Discharge Control Ordinance or any successor or similar ordinance, such amendment shall be consistent with the then-current rules and

regulations of the United States Environmental Protection Agency (“USEPA”) and MDEQ, but may be more stringent than USEPA and MDEQ rules and regulations.

**ARTICLE 18**  
**[RESERVED]**

**ARTICLE 19**  
**[RESERVED]**

**ARTICLE 20**  
**RATES**

Mimic how this section is stated in Exhibit A Article 7

20.01 [RESERVED]

20.02 [RESERVED]

20.03 [RESERVED]

20.04 [RESERVED]

20.05 [RESERVED]

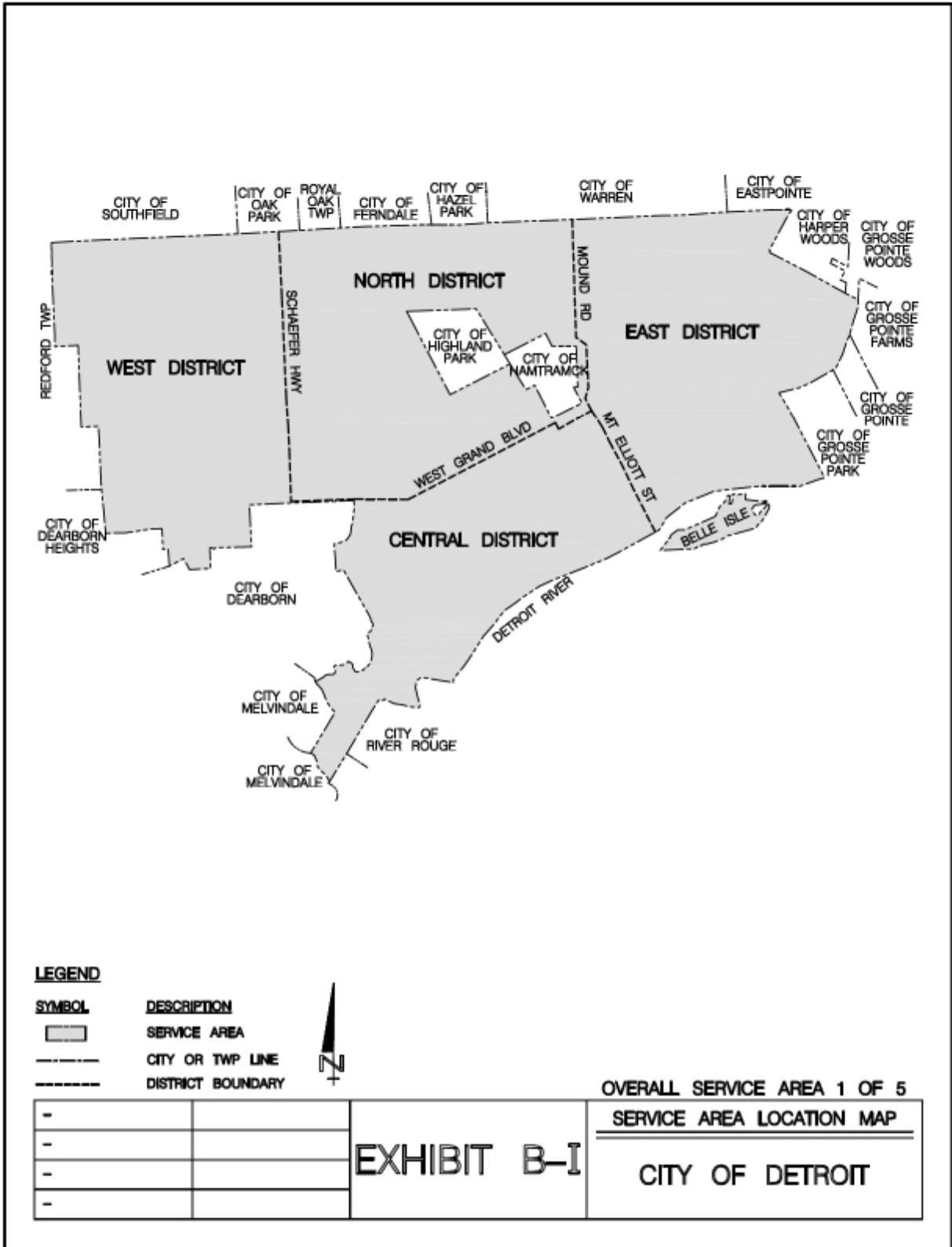
20.06 Accounting of Project Expenses. Authority recognizes that City’s allocation of rates and charges to its Retail Customers may vary depending upon the nature, location and purpose of the particular project carried out by Authority. Accordingly, when requested by City in writing, Authority shall provide reasonable information to assist City in the accounting of expenses for a specified project.

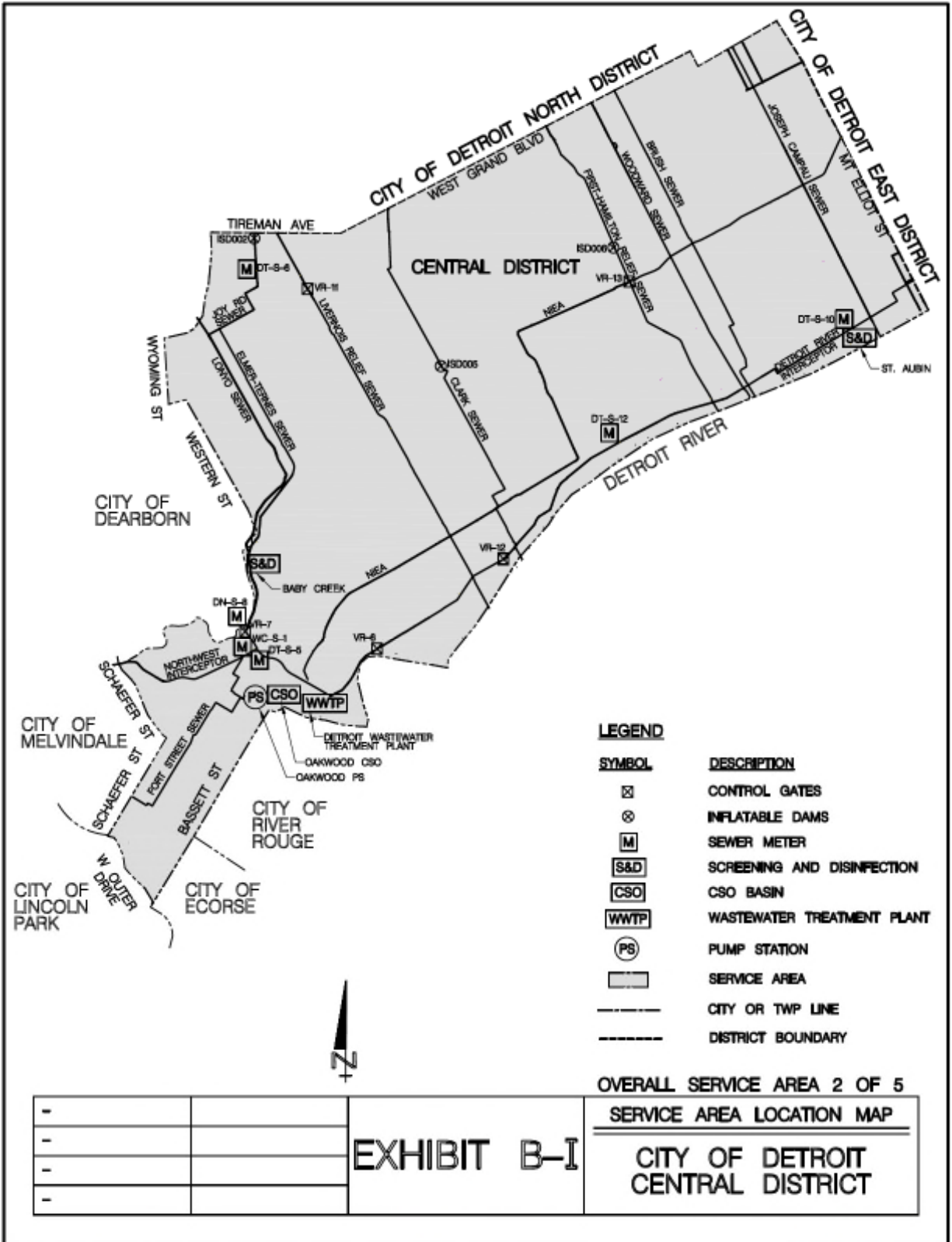
**ARTICLE 21**  
**[RESERVED]**

EXHIBIT B-I  
City's Service Area

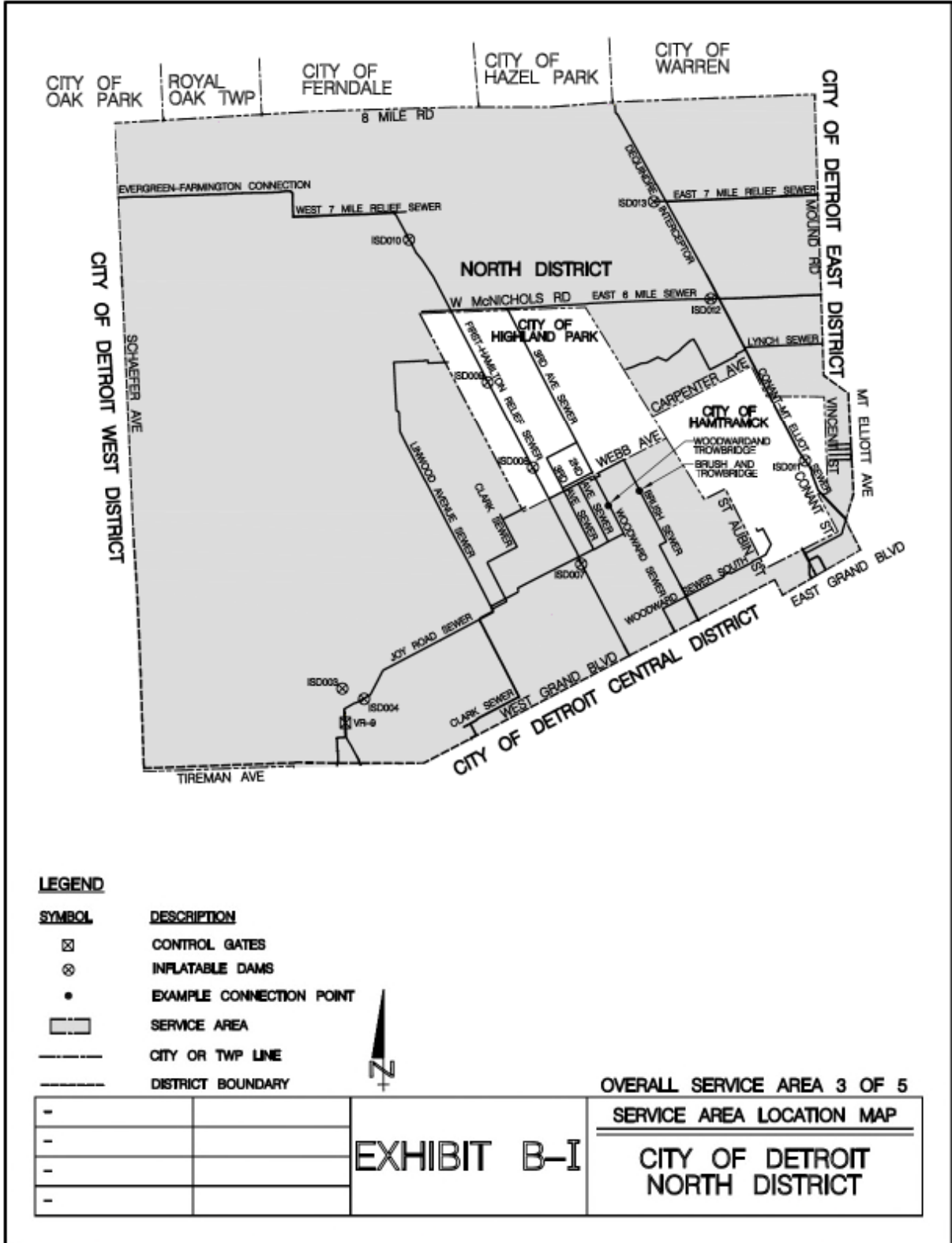
This Exhibit contains the following information:

1. The corporate limits of City;
2. The Service Area of City;
3. [RESERVED]
4. Specific Location of Meter(s) and meter vault(s)
5. The Points of Connection to the Regional Sewer System









**LEGEND**

SYMBOL	DESCRIPTION
☒	CONTROL GATES
⊗	INFLATABLE DAMS
•	EXAMPLE CONNECTION POINT
▭	SERVICE AREA
---	CITY OR TWP LINE
---	DISTRICT BOUNDARY

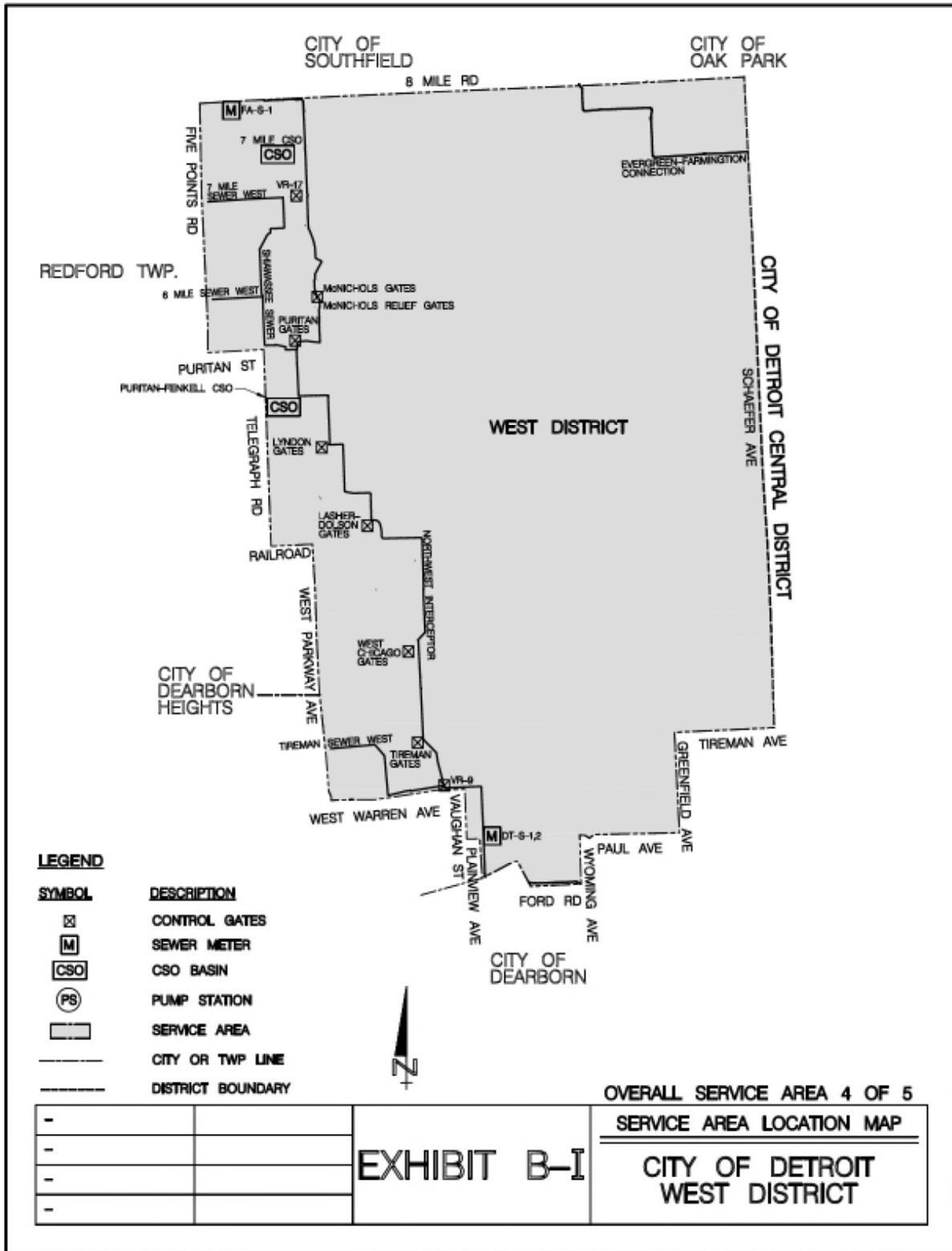


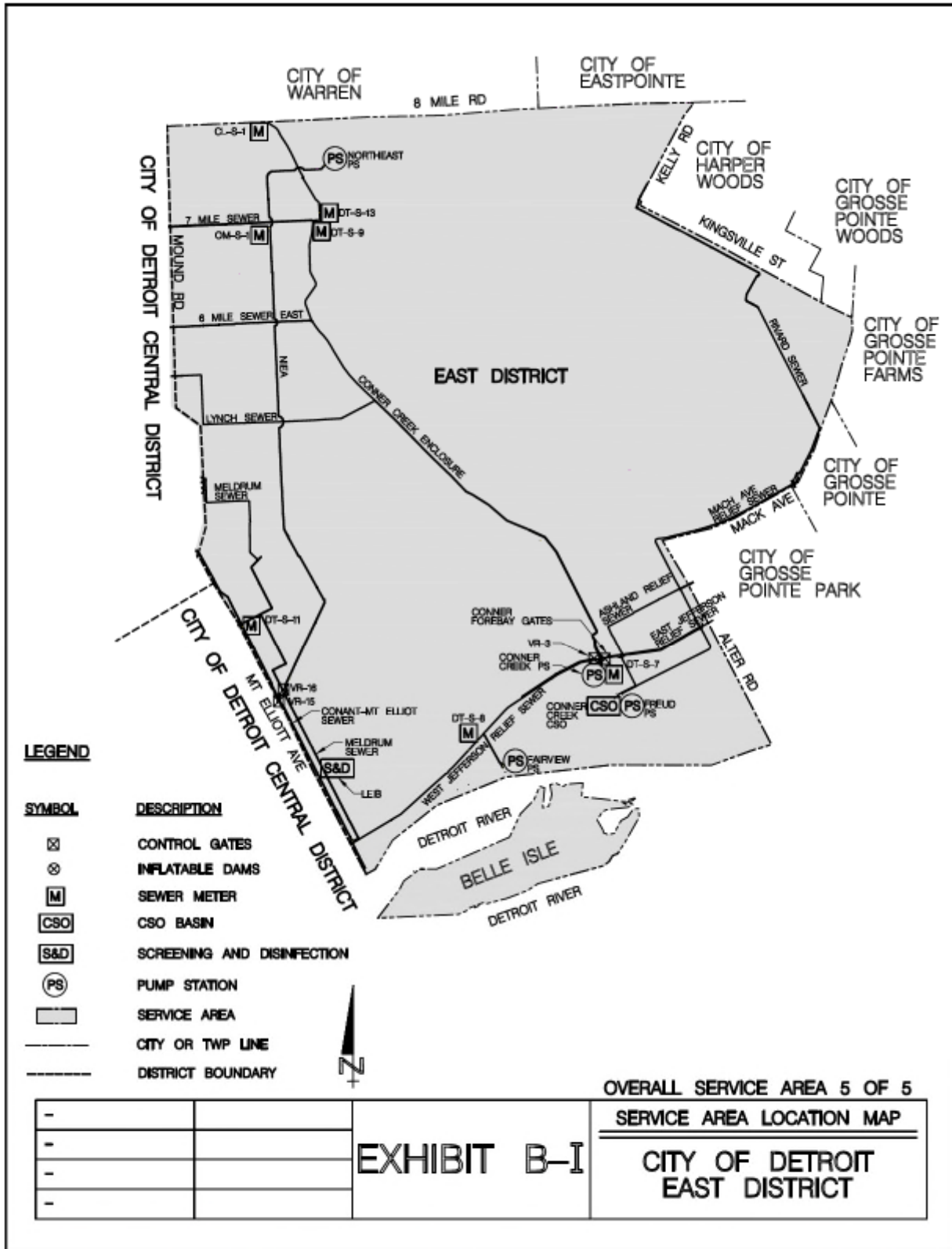
OVERALL SERVICE AREA 3 OF 5

SERVICE AREA LOCATION MAP

**EXHIBIT B-I**

**CITY OF DETROIT  
NORTH DISTRICT**





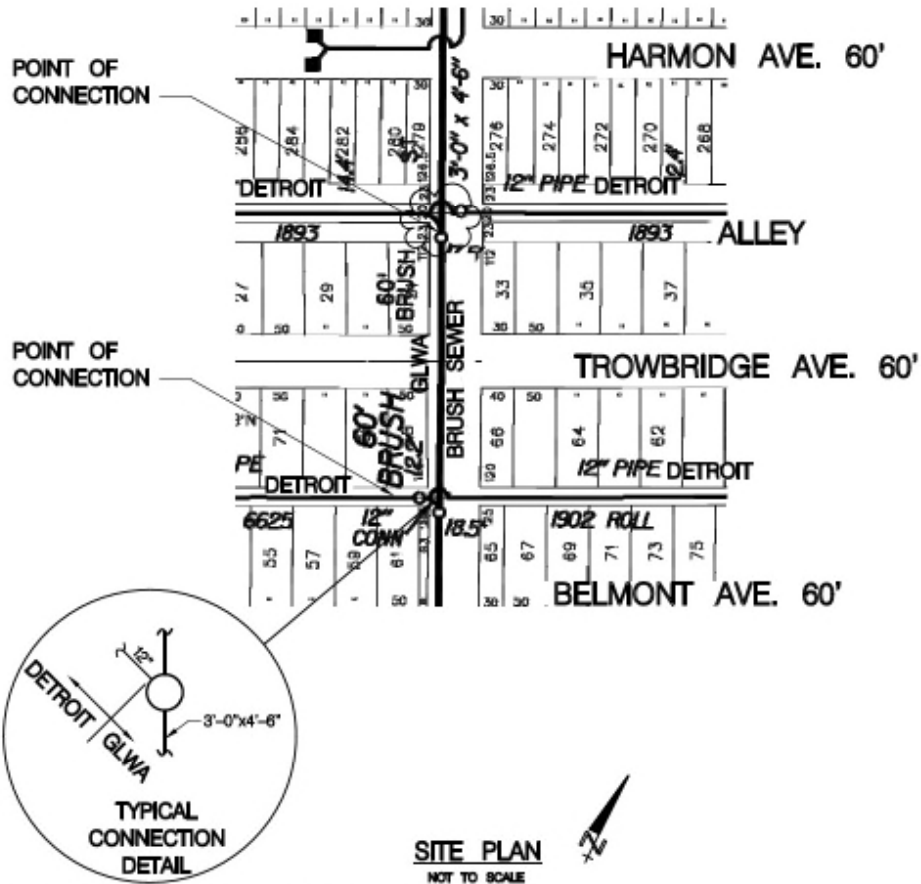
**EXHIBIT B-I**

**City of Detroit Customers Outside Municipal Limits:**

870-0008.3001 6401 E 8 Mile Rd, Dearborn Heights  
870-0009.3001 6401 E 8 Mile Rd, Dearborn Heights  
870-0013.3001 13400 W Outer Dr, Dearborn Heights  
870-0014.3001 13400 W Outer Dr, Dearborn Heights  
870-0015.3001 13400 W Outer Dr, Dearborn Heights  
870-0017.3001 21500 Mount Rd, Dearborn Heights  
870-0018.3001 15600-70 Woodrow Wilson St, Dearborn Heights  
870-0023.3001 21500 Mount Rd, Dearborn Heights  
870-0024.3001 100 Zug Island Rd, Dearborn Heights  
870-0025.300, 6109 E 8 Mile Rd, Dearborn Heights  
870-0026.300, 100 Zug Island Rd, Dearborn Heights  
7512 Hazelton, Dearborn Heights  
7518, Hazelton, Dearborn Heights  
7530, Hazelton, Dearborn Heights  
7536, Hazelton, Dearborn Heights  
7546, Hazelton, Dearborn Heights  
7554, Hazelton, Dearborn Heights  
7568, Hazelton, Dearborn Heights  
7604, Hazelton, Dearborn Heights  
7612, Hazelton, Dearborn Heights  
7618, Hazelton, Dearborn Heights  
7626, Hazelton, Dearborn Heights  
7634, Hazelton, Dearborn Heights  
7642, Hazelton, Dearborn Heights  
7676, Hazelton, Dearborn Heights  
7696, Hazelton, Dearborn Heights  
7702, Hazelton, Dearborn Heights  
7716, Hazelton, Dearborn Heights  
7724, Hazelton, Dearborn Heights  
7732, Hazelton, Dearborn Heights  
7740, Hazelton, Dearborn Heights  
7748, Hazelton, Dearborn Heights  
7756, Hazelton, Dearborn Heights  
7764, Hazelton, Dearborn Heights  
7776, Hazelton, Dearborn Heights  
7788, Hazelton, Dearborn Heights  
8028, Hazelton, Dearborn Heights  
8038, Hazelton, Dearborn Heights  
8048, Hazelton, Dearborn Heights  
8056, Hazelton, Dearborn Heights  
8066, Hazelton, Dearborn Heights

8074, Hazelton, Dearborn Heights  
8084, Hazelton, Dearborn Heights  
8092, Hazelton, Dearborn Heights  
8102, Hazelton, Dearborn Heights  
8110, Hazelton, Dearborn Heights  
8120, Hazelton, Dearborn Heights  
8128, Hazelton, Dearborn Heights  
8138, Hazelton, Dearborn Heights  
8146, Hazelton, Dearborn Heights  
8156, Hazelton, Dearborn Heights  
8164, Hazelton, Dearborn Heights  
8174, Hazelton, Dearborn Heights  
8182, Hazelton, Dearborn Heights  
8202, Hazelton, Dearborn Heights  
8216, Hazelton, Dearborn Heights  
8226, Hazelton, Dearborn Heights  
8234, Hazelton, Dearborn Heights  
8244, Hazelton, Dearborn Heights  
8254, Hazelton, Dearborn Heights  
8264, Hazelton, Dearborn Heights  
8284, Hazelton, Dearborn Heights  
8300, Hazelton, Dearborn Heights  
8308, Hazelton, Dearborn Heights  
8320, Hazelton, Dearborn Heights  
8330, Hazelton, Dearborn Heights  
8402, Hazelton, Dearborn Heights  
8414, Hazelton, Dearborn Heights  
23290 Ann Arbor Trail, Dearborn Heights

**EXHIBIT B-I  
 CONNECTION POINT TYPICAL DETAIL  
 BRUSH SEWER  
 BRUSH AND TROWBRIDGE  
 CITY OF DETROIT**

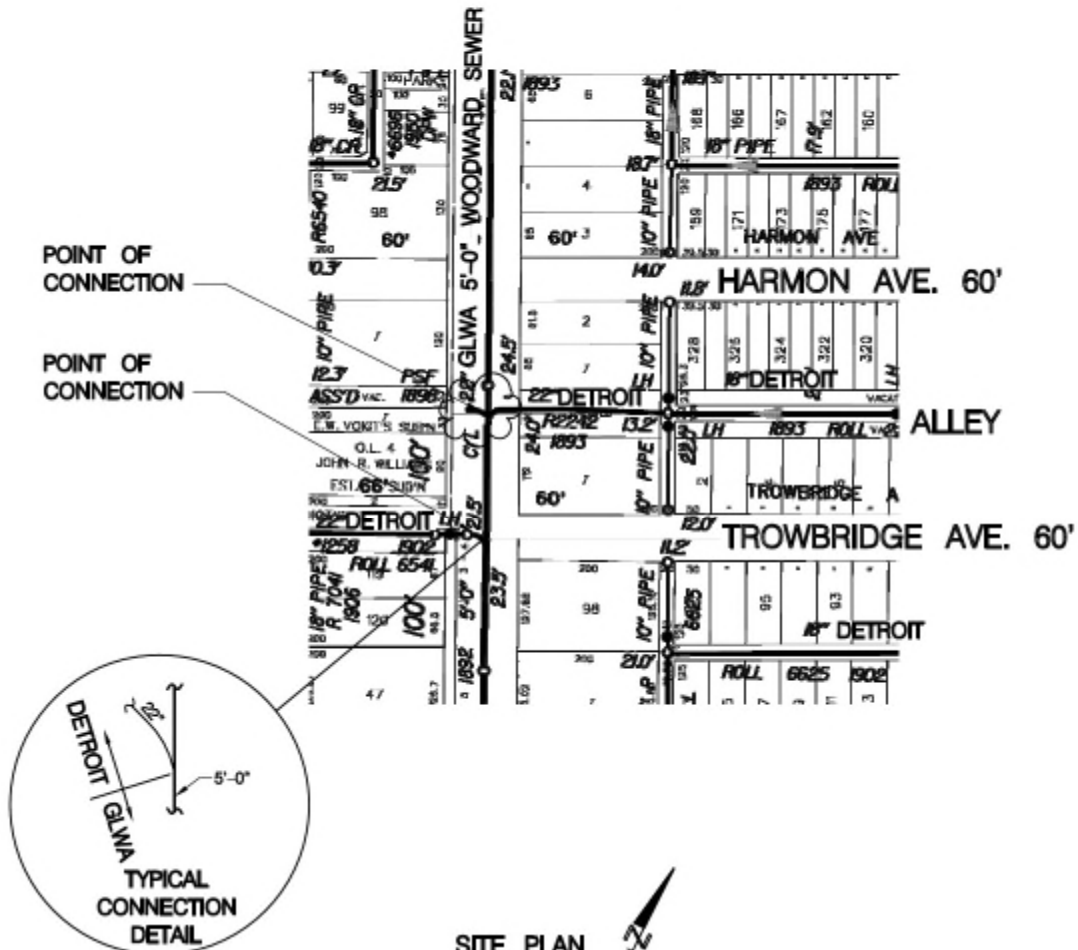


DETROIT- CITY OF DETROIT RETAIL SYSTEM  
 GLWA- GREAT LAKES WATER AUTHORITY  
 N.C.- NOT CONNECTED

**NOTE: ASSETS TO BE LEASED INCLUDE NOT ONLY THE SEWER MAINS IDENTIFIED ON THE MAP BUT ALSO INCLUDE ALL MANHOLES, DROP STRUCTURES WITHIN SUCH MANHOLES, IN-SYSTEM STORAGE DEVICES, SPECIAL STRUCTURES, DIVERSION STRUCTURES, REGULATORS AND THE LIKE LOCATED ON SUCH MAINS**



**EXHIBIT B-I  
 CONNECTION POINT TYPICAL DETAIL  
 WOODWARD SEWER  
 WOODWARD AND TROWBRIDGE  
 CITY OF DETROIT**



DETROIT- CITY OF DETROIT RETAIL SYSTEM  
 GLWA- GREAT LAKES WATER AUTHORITY  
 N.C.- NOT CONNECTED

NOTE: ASSETS TO BE LEASED INCLUDE NOT ONLY THE SEWER MAINS IDENTIFIED ON THE MAP BUT ALSO INCLUDE ALL MANHOLES, DROP STRUCTURES WITHIN SUCH MANHOLES, IN-SYSTEM STORAGE DEVICES, SPECIAL STRUCTURES, DIVERSION STRUCTURES, REGULATORS AND THE LIKE LOCATED ON SUCH MAINS

EXHIBIT B-II

Design Standards Committee

- I. Name. The name of this committee is the Design Standards Committee (hereinafter, the “Committee”).
- II. Purpose/General Responsibilities. The Committee is formed to discuss and make recommendations to Authority, or its designee, on the appropriate specifications and standards which shall govern the design, use of material, and construction of wastewater collection and transport facilities which may, from time to time, be constructed by a First Tier Customer, including the City, for the purpose of collecting and transporting wastewater to the Regional Sewer System. To effectuate this purpose, First Tier Customers may request a review of construction plans and specification by the Committee. In such a case, the Committee shall make the requested review and shall make its recommendations thereon to Authority or its designee.
- III. Membership. The entities comprising the Committee shall consist of one (1) representative from the Authority and one (1) representative from each First Tier Customer. The Authority member shall also serve as Chairperson of the Committee.
- IV. Meetings. Committee meetings shall be held as follows:
  - A. Meetings and Notice Thereof. The Committee shall meet at an agreed upon date and time. The time and place of such meeting shall be fixed by the Chairperson. Meetings shall be held as may be necessary and at such times and places as shall be determined by the Committee.
  - B. Meeting Quorum. A majority of all the members present shall constitute a quorum.
  - C. Record Keeping. The Committee shall keep a journal of its proceedings, which shall include a record of each vote and each recommendation made to Authority, or its designee, by the Committee.
  - D. Voting. The Committee shall act by motion. Passage of any measure shall require a simple majority affirmative vote of the quorum present. Deliberation and consideration are required prior to any vote. Each member shall be entitled to one (1) vote adhering to the principle of “one person, one vote”.
  - E. Committee Recommendation. All Committee recommendations shall be transmitted to the Authority, or its designee, for consideration and final determination.
- V. Dissolution. The Committee shall continue in existence until dissolved by action of the Committee membership.
- VI. Appeals Procedure. Any First Tier Customer who is aggrieved by a decision of Authority, or its designee, relating to a determination based upon a Committee recommendation may appeal to the Board for possible relief of that grievance. Any such appeal shall be made in writing. The determination of the Board shall be final.



EXHIBIT B-III  
RESERVED

EXHIBIT B-IV  
RESERVED

EXHIBIT B-V

Modified List of Relevant Ratemaking Terms

**A. Rate Making Process**

1. User Charge Regional Sewer System. Not less than every two years, Authority shall review its method for determining the revenue required for the operation and maintenance of the Regional Sewer System and to ensure that the replacement portion of Authority's rates are distributed proportionately to each user or user class that is tributary to Authority's treatment works (the "User Charge System") to assure that it accomplishes the requirements set out in 40 C.F.R. §35.929-2(b).

2. Local User Charge Regional Sewer System. The City agrees that, as the Authority's agent, it shall adopt and enforce rules and regulations to implement and maintain a revenue system whereby, as a minimum, the operation, maintenance and replacement portion of Authority's rates are distributed proportionately to each user or user class within the City Retail Customer Class that is tributary to Authority's treatment works. The rules and regulations shall provide for monitoring of commercial, governmental and industrial users and shall be consistent with the monitoring rules and regulations of the Authority. The Board shall have the right under said rules and regulations to audit all monitoring activities including the right to perform monitoring tests itself to verify the accuracy of monitoring results.

3. Future Ratemaking Information.

a. Whenever Authority undertakes any study which may result in the revision of rates to the Retail Customers and the wholesale customers, it shall notify the City and the wholesale customers and provide those customers, their agents, consultants and attorneys, any final reports prepared in the course of such study and, upon written request, any interim or preliminary reports, and meet with the contracting parties to explain and discuss the reports being provided. When implementing any change in sewage treatment rates, the City and Authority shall comply with the applicable public participation requirements of 40 CFR Part 25, and MCL 117.5e(b). The Authority shall hold a public hearing prior to the adoption of sewage treatment rates. No later than fifteen (15) days prior to the Authority's hearing, and upon request, the Authority shall provide the City with the rate report and supporting documents to be considered by the Board.

4. Commitment to Collaborative Process. Authority shall establish and continue a customer outreach and involvement process to facilitate a cooperative working partnership between Authority and First Tier Customers based on the free flow of information regarding financial conditions and operational functions. The Steering Committee, with its subcommittees, is established as the forum in which discussion and development of recommendations to Authority regarding wastewater system operation, maintenance, rates, and best practices occurs. The parties agree that the rate making process will incorporate guidance and input from the Steering Committee and its work groups.

**B. Revenue Requirements**

1. Revenue Requirements. Revenue requirements shall be based upon the finances required to meet all operating, maintenance, capital requirements including debt financing and debt service coverage required by the Master Bond Ordinance, or Board policy, and any obligations imposed by law, and shall reflect not only recent cost experience but also a

recognition of the reasonably estimated future cost levels during the period for which the rates are being established.

a. Operating and Maintenance Expenses of the Regional Sewer System.

(i) Operating and maintenance expenses shall include replacement of process equipment, accessories, or appurtenances which are necessary to maintain the capacity and performance for which the treatment works is designed and constructed.

(ii) The rate for operation and maintenance expenses, including replacement, shall include surcharges to be applied to discharges of individual users whose loadings of specified pollutants exceed normal loadings. The Board shall specify the pollutants that may be surcharged and shall define normal loading thresholds of each pollutant. The rate shall conform to Section 204(b) (1) (A) of Public Law 92-500, as amended, and regulations of the United States Environmental Protection Agency, being 40 CFR 35.929 through 35.929-3.

b. Capital Financing. Authority shall adopt a five-year financial plan and a five-year capital improvement plan for the expansion, renewal and replacement of common use major capital assets and improvements and shall update the plans at least bi-annually. The plans shall provide for the financing of major capital assets and improvements with a mix of revenue bonds and revenue-financed capital designed to accomplish the financial goals established by the Board, considering public water and sewer utility financial benchmarks, including, without limitation, unrestricted net assets, rate stability, strong bond ratings and a long-term goal of achieving reasonable debt service coverage levels and reasonable levels of debt service as a percentage of total revenue.

c. Depreciation. To the extent that the “Cash Basis” of ratemaking is applied in future rates, revenue requirements shall not include a depreciation expense element, which, together with a rate of return and provision for operation and maintenance expense, would generate revenues in excess of system revenue requirements including coverage.

2. Adjustments to Prospective Revenue Requirements. Authority shall review the differences in each class cost pool between the projected revenue requirement for a rate year and the actual revenue received for that rate year to determine potential adjustments to prospective allocations and budgets/revenue requirements for that cost pool according to the procedures set forth in **Attachment B-V-1**, Rate Simplification Recommendations, November 22, 2013. The purpose of this review will be to avoid material deviations from the principles in Section D(1) below between projected and actual revenue requirements over the medium term. To the extent that the Board determines that a material variance exists in a cost pool, the Board may, at its discretion, modify prospective revenue requirements in one or more subsequent rate years to eliminate the variance.

3. Bad Debt Expense.

a. A “bad debt expense” is a delinquency by an Authority customer that is classified as “bad debt expense” pursuant to then applicable accounting procedures.

b. Quarterly, the Authority will provide to the City and the wholesale customers current information on individual delinquencies in payment of Retail Customer (“City Retail Customer Class”) and wholesale class bills (a “Delinquent Customer”). On or before January 1 each year, the Authority will provide the City and the wholesale customers a statement of the

amount of bad debt expense attributable to a Delinquent Customer to be included in the prospective rates for that customer if delinquent and each Delinquent Customer and the amount of bad debt expense from prior rate years for each such Delinquent Customer.

c. The Authority shall review the differences between the projected bad debt expense assigned to specific customer classes (noted below) in a rate year and the actual bad debt expense incurred for that rate year. Any negative variance between the projected bad debt expense and the actual bad debt expense incurred for that year shall be incorporated into the revenue requirement for the next-commencing rate year to insure that revenue shortfalls due to nonpayment of sewer charges are recovered.

d. For purposes of this clause, specific customer classes are defined as:

	Bad Debt Expense	Responsible Customer Class
1.	Detroit Retail Customers	Detroit Retail Customers
2.	Wholesale Contract Customers	Wholesale Contract Customers
3.	Surcharge Customers	Surcharge Customers
4.	Wayne County Hwy Drainage	Wayne County Hwy Drainage
5.	Michigan DOT Hwy Drainage	Michigan DOT Hwy Drainage
6.	Industrial Waste Control	Industrial Waste Control

e. The Authority shall use all commercially reasonable efforts, which may include legal action, to recover all delinquent wholesale billings before they are classified as bad debt expense and charged to the wholesale customer class.

f. Delinquencies that have been classified as bad debt expense shall continue to be charged against and shown on the Delinquent Customer’s bill until such time as the delinquency is paid or released. Payments made by a wholesale customer with regard to its delinquent accounts after they have been charged as a bad debt expense to the wholesale customer class shall be credited to the wholesale customer class’ revenue requirement in the rate year following such payment. Payments received from delinquent wholesale customers shall be applied to the oldest unpaid invoice, whether or not the invoice has been classified as a bad debt expense.

g. [Reserved]

h. [Reserved]

i. [Reserved]

j. The Board shall develop rules and procedures as necessary to implement and carry out the provisions of section B(3) of this Exhibit B-V.

**C. [RESERVED]**

**D. Allocation of Costs of Service**

1. Uniform Allocations of Costs Incurred. Authority shall recover costs incurred by the Regional Sewer System by instituting rates which assign, allocate, and apportion such costs to all ratepayers on the basis of principles uniformly applicable to all, it being the intention of the parties that such rates (whether designed on the utility or cash basis) will, as nearly as is practical, recover from each customer class the respective costs of providing service regardless of the ratepayer's location. In particular:

a. If Authority implements rates based upon a system of charging a percentage rate of return on net asset or capital structure rate base, (through the use of the so-called utility basis of rate making), there shall be no differential in the rate of return charged to Retail Customers residing or located within the City of Detroit and Retail Customers located outside the City of Detroit. Nothing herein contained shall prohibit Authority from designing its rates on the so-called cash basis.

b. Should Authority use the cash basis to allocate capital costs in any future rate study, the allocation of debt service costs to all customers or facilities shall be based upon the system weighted average interest rate at the time.

c. Authority shall use surcharges to recover incremental revenue requirements incurred in treating sewage which, at the point of discharge, contains specified pollutants in concentrations exceeding those of normal domestic sewage as defined by the Board.

d. All revenue requirements other than those revenue requirements recovered by surcharges pursuant to subsection (1)(c) may be recovered by volume alone, or by volume and surcharges, or by any method which provides a distribution of costs reasonably related to the service provided.

e. The parties' current plan (at the time of this agreement) for achieving the principles set forth in this Section is set forth in **Attachment B-V-1**. Consistent with Section A(2) of this Exhibit B-V, the Parties, by mutual agreement, may modify **Attachment B-V-1** to reflect new information and approaches to achieving the principle set forth in Section D(1).

2. Combined Sewer Overflow (Wet Weather Facilities).

a. Certain new wet weather facilities being constructed or to be constructed by the City or Authority to alleviate combined sewer overflows from its wastewater transportation, conveyance and treatment system contain or will contain wet weather flows generated from both inside and outside the City of Detroit. Subject to Section 5.2(f) of the Agreement, Authority shall charge customers within the City of Detroit 83% and customers outside the City of Detroit 17% of the capital costs and costs incurred in the operation and maintenance of such facilities. Authority shall allocate the 17% of such capital and operation and maintenance costs charged to customers outside the City of Detroit consistent with **Attachment B-V-2**, Agreement to Revise CSO Project List.

b. **Attachment B-V-2** provides a description of the new wet weather facilities, referred to in subsection (2)(a) above, that are currently under construction or to be constructed by Authority and their estimated costs. Costs associated with improvements to facilities at the WWTP, also listed on **Attachment B-V-2**, will continue to be allocated on a common-to-all basis to Retail Customers consistent with municipalities which are wholesale customers. Costs associated with Detroit-only projects, also listed on **Attachment B-V-2**, will be charged to Retail Customers only. If Authority determines that it is reasonable, appropriate or necessary to

construct additional wet weather facilities in the future that will serve wet weather flows generated inside and outside of the City of Detroit, each contract customer or customer class reserves the right to contest its respective allocation of costs.

**E. Evaluation of Wastewater Flows.** The Authority shall continue ongoing technical review of wastewater flows in the Regional Sewer System to establish and maintain wastewater contribution data that will support the proportional allocation of costs as set forth in D(1). The parties agree that the wastewater flow elements of ratemaking terms under prior agreements, including the allocation of infiltration and inflow and the application of a uniform overflow credit are accommodated in the sewer rate methodology set forth in Exhibit B-V-1. The scope of the ongoing review is intended to encompass the types of evaluations traditionally conducted utilizing the Greater Detroit Regional Sewer System model and related tools. The scope of ongoing review will be established from time to time by the Board, after consultation with the Steering Committee and related forums.

**F. Industrial Waste Charges.** Prior to the adoption by the Authority, and concurrence with by the constituent members, of rules and regulations pertaining to the use, design and construction of sewers, and the discharge of industrial or commercial wastes into sewers where such sewers are tributary to the Authority's treatment works:

1. The City agrees that it shall not amend or adopt any ordinances pertaining to the use, design and construction of sewers, and the discharge of industrial or commercial wastes into sewers, less stringent than the current provisions of Chapter 56, Article I, and Chapter 56, Article III, of the Municipal Code of the City of Detroit. In the event the City violates this Section, or fails to diligently enforce the relevant ordinances, the matter shall be referred to the Engineer Panel under Section 7.3 for resolution. The Engineer Panel shall be empowered to order any of the following:

a. Deny or condition new or increased contributions of pollutants or changes in the nature of pollutants to the waste collection system by Industrial Users and Significant Industrial Users served by the Local Sewer System. The terms "Industrial Users" and "Significant Industrial Users" shall mean those users defined in Section 56-3-58.1(a) of Chapter 56, Article III, Division 3 of the Municipal Code of the City of Detroit and as may be amended from time to time.

b. Require compliance with applicable current future National Pretreatment Standards and other more restrictive requirements as may be imposed by the Authority promulgated by the U.S. EPA under the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq.

c. Control, through permit, contract order, or similar means, the contribution to the waste collection system by Industrial Users and Significant Industrial Users served by the Local Sewer System to ensure compliance with subsection (b) above.

d. Require the development of compliance schedules by Industrial Users and Significant Industrial Users served by the Local Sewer System for the installation and operation of facilities required to meet applicable National Pretreatment Standards and other more restrictive requirements as may be imposed by the Authority.

e. Require the submission of notices and self-monitoring reports from Industrial Users and Significant Industrial Users served by the Local Sewer System to assess and assure compliance with National Pretreatment Standards and other more restrictive requirements as may be imposed by the Authority.

f. Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by Industrial Users and Significant Industrial Users served by the Local Sewer System, compliance or noncompliance with applicable National Pretreatment Standards and other more restrictive requirements as may be imposed by the Authority. The parties recognize that the Authority may contract with qualified parties to carry out the inspection, surveillance and monitoring procedures of this paragraph.

g. Seek injunctive relief against Industrial Users and Significant Industrial Users served by the Local Sewer System for noncompliance with National Pretreatment Standards and other more restrictive requirements as may be imposed by the Authority.

h. Require Industrial Users and Significant Industrial Users served by the Local Sewer System to install containment facilities to protect the treatment works from accidental spills of critical or hazardous materials

2. [RESERVED]



EXHIBIT B-V  
ATTACHMENT 1  
RATE SIMPLIFICATION RECOMMENDATIONS

EXHIBIT E

ATTACHMENT 1

RATE SIMPLIFICATION RECOMMENDATIONS

**TO:** Board of Water Commissioners  
**FROM:** Rate Simplification Work Group  
**DATE:** November 22, 2013  
**SUBJECT:** Rate Simplification Recommendations

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## EXECUTIVE SUMMARY

### 1. The Why and What of Rate Simplification

The Rate Simplification Work Group (“Group”) was charged with recommending a simplified approach to estimate each customer’s relative share of the sewer system’s common-to-all revenue requirements while maintaining the present level of fairness and accuracy of the share estimates, improving transparency and revenue predictability, but requiring less time and effort.

Accordingly, the Group recommends three proposals to simplify the rate-setting process. The proposals will be implemented in the FY 2014-15 rates.

Before the end of the FY 2016-17 rate year, the Sewer Steering Committee will evaluate the implementation of the proposals and recommend adjustments as may be deemed necessary.

DWSD will continue to monitor the flow and cost data used in allocating common-to-all revenue requirements to insure that the data and the processes/equipment used to generate the data are valid and accurate and to correct material errors when detected. These efforts are necessary and will continue whether or not the simplification proposals are implemented.

### 2. Simplified Allocation of Common-To-All Costs

For more than a decade, each Tier 1 customer’s share of the common-to-all revenue requirement has been remarkably stable, notwithstanding that there have been significant changes in demographics and economic conditions. Furthermore there appears to be a consensus among customers that the overall allocation of the revenue requirement has been fair.

It is proposed that the allocation of common-to-all revenue requirements be simplified as follows:

- Each Tier 1 customer’s “Share” expressed as a percentage of the DWSD common-to-all revenue requirements for an agreed-upon future multi-year “Rate Period” will be based on its average share of system revenue requirements for an agreed-upon prior period. The first Rate Period will be three years beginning FY 2014-15. The Work Group is still evaluating the period to be used to establish shares for the first Rate Period.
- Differences between the projected revenue requirement for a rate year and the actual revenue requirement for that year may be made up by adjusting revenue

requirements in a subsequent rate year as decided by the Board. However, differences between the amounts of bad debt estimated in the budget and actual bad debt will be incorporated into the revenue requirement for a subsequent rate year to insure that revenue shortfalls due to nonpayment of sewer charges are recovered.

- The rate protocols used to calculate Shares will not be changed during a Rate Period.
- Each customer's share of the system revenue requirement will be billed in monthly installments.
- Shares may be adjusted during a Rate Period if a customer can demonstrate a material change in shares has occurred.
- The current "Look Back" process will not be continued after FY 2013-14.

### 3. Simplified Flow Balancing

Over half of the flow reaching the Wastewater Treatment Plant is not measured through customer wastewater billing meters and, therefore, is not directly attributable to any specific customer based on wastewater meter data. DWSD and its customers developed procedures to estimate these flows and to remove from the rate allocation process some flows that do not reach the wastewater treatment plant.

The Group recommends a simplified approach to allocate flows between customers with billing meters and the unmetered customers Detroit plus Highland Park and Hamtramck and other small unmetered customers. The simplified flow balance process is designed to accomplish the same flow allocation as the more complex procedures presently used.

### 4. Simplified Estimates of Cost Pools

DWSD's costs are accumulated into several cost pools reflecting costs for certain types of wastewater services because use of these services varies by customer class (Detroit retail specific, suburban wholesale specific, industrial specific, CSO-related, sanitary and stormwater).

The Group recommends that for the first Rate Period, operating costs in the cost pools will be approximated as the best estimate of costs for the Rate Period. Capital costs will continue to be allocated to cost pools based on DWSD's fixed asset database. At the end of the first Rate Period, the quality of DWSD cost accounting will be evaluated with the objective of revisiting the best method to allocate costs to the cost pools for rate setting purposes.

## **DETAILED DESCRIPTION OF RECOMMENDATIONS**

### **1. The Why and What of Rate Simplification**

The Rate Simplification Work Group was charged with recommending a simplified approach to estimate each customer's relative share of the sewer system's common-to-all revenue requirements while maintaining the present level of fairness and accuracy of the share estimates, improving transparency and revenue predictability, but requiring less time and effort.

During the Group's work, it became clear that other aspects of the rate setting process could be simplified. A proposal to simplify the presently complex process of allocating unmetered flows in the system among customers has been developed. Likewise the Work Group proposes that the process of grouping of costs into the costs pools that are allocated among different customer classes should be simplified.

Accordingly, the Group recommends three significant proposals to simplify the rate-setting process.

The recommendations will be implemented in the FY 2014-15 rates. They will remain in place through the FY 2016-17 rate year. Before the end of the FY 2016-17 rate year, the Sewer Steering Committee will evaluate the implementation of the following recommendations and recommend adjustments as may be deemed necessary.

The Group recommends continuing activities to monitor the flow and cost data used in allocating common-to-all revenue requirements to insure that the data and the processes/equipment used to generate the data are valid and accurate and to correct material errors when detected. These efforts are necessary and will continue whether or not the simplification proposals set forth below are implemented.

### **2. Summary of the Recommended Approach for Rate Simplification**

Each customer's charge for common-to-all sewer services is a function of two components: the sewer system's total revenue requirement and each customer's relative share ("Share") of that revenue requirement based on its relative volume and flow characteristics. Because much of the flow in the system does not pass through billing meters, a complicated methodology to allocate "unmetered" flow has been developed and is currently employed. Further, because the costs to treat wastewater flow depend on flow characteristics, other protocols are used to develop costs pools for various types of transport and treatment costs. The recommendations below seek to simplify each of these processes.

#### **(a) Historical Stability of Customers' Relative Shares of Revenue Requirements**

The key to the rate simplification recommendations is that for more than a decade, each Tier 1 or wholesale customer's share of the total sewer revenue requirement has been remarkably stable, notwithstanding that there have been significant changes in demographics and economic conditions and revisions to the rate-setting protocols.

Figure 1 shows each Tier 1 customer's share of "allocation volume" for the period 2008 to 2012 and the average over that period. Allocation volume is the principal measure on which

“common-to-all” costs (those costs all customers share) are allocated. This measure is coupled with the characteristics of sanitary and non-sanitary flow and the pollutant strength of each to determine each customer’s final share of common-to-all costs.

Figure 2 shows each Tier 1 customer’s share of common-to-all revenue requirements over the same period using the FY 2011-12 rate protocols.

In both figures, it can be seen that annual deviations from the long term average are minor with very limited exception.

There is a consensus among customers that the overall allocation of the revenue requirement has been fair. Furthermore, when a customer has identified data that is in error, questioned the proper attribution or accounting for costs, or challenged an aspect for the rate protocols, DWSD and the customers have worked successfully to reach a consensus on a resolution.

The take-away has been that the allocation of revenue requirements could be greatly simplified by allocating revenue requirement based on “historical” shares so long as there are processes to:

- Adjust historical shares to reflect any material changes in use of the wastewater system over time, and
- Address any errors in flow data, correct any inaccuracies in aggregation or allocation of costs to customer classes, and review any rate protocol that appears to stray from the underlying principle that customers should bear a proportional share of system costs based on their use.

The Group believes that the recommendations below are an appropriate way to allocate costs consistent with historical practices while incorporating those protections.

(b) Simplified Calculation of Common-to-All Shares

At present, the calculation of each customer’s common-to-all revenue requirement is performed before each rate year begins, using detailed budget and flow projections. After the close of the rate year, a Look Back is performed in which the detailed calculations are repeated to true up customers’ charges based on audited financials and actual flow. The calculations rely on complex technical analyses, approximations and assumptions to produce “best estimates” of volume and flow characteristics for each customer. Analyses of these rate protocols have demonstrated that although they demand substantial time and effort in their calculation, they result in only approximate estimates of each customer’s use of or demand on the DWSD’s system. Further, when considered as a proportionate share of the total system revenue requirement, each customer’s estimated relative share of the common-to-all revenue requirement has been fairly constant over the past 10 years, notwithstanding demographic changes and changes in the rate protocols.

**To simplify the calculation of Shares, the Group recommends:**

- Each wholesale customer’s percentage “Share” of the DWSD sewer system’s common-to-all revenue requirement for an agreed-upon future multi-year “Rate Period” will be based on its average share of system revenue requirements for an agreed-upon prior period.
- The first Rate Period will be three years from FY 2014-15 through FY 2016-17.
- Shares for the first Rate Period were developed as described in Exhibit 1, The Foster Group, Memorandum, “Initial Rate Period SHARES” (November 22, 2013).
- Although the length of the second Rate Period will be determined later during evaluation of the first Rate Period, the initial expectation of most group members is to establish subsequent Rate Periods of five-years duration.
- Each year during a Rate Period, DWSD will establish annual budgets and annual common-to-all revenue requirements for all customers. Thus, although a customer’s Share will remain the same during a Rate Period, its annual common-to-all revenue requirement during the Rate Period will go up or down as DWSD’s annual common-to-all budget goes up or down.
- Differences between the projected revenue requirement for a rate year and the actual revenue requirement for that year may be made up by adjusting revenue requirements in one or more subsequent rate years. This will be an annual Board policy decision based on the Board’s current financial plan.
  - However, differences between the amounts of bad debt estimated in the budget and actual bad debt will be incorporated into the revenue requirement for a subsequent rate year to insure that revenue shortfalls due to nonpayment of sewer charges are recovered.
- The rate protocols used to calculate Shares will not be changed during a Rate Period.
- Changes in Shares will be adjusted during the Rate Period only to the extent that the Steering Committee approves interim adjustments.
  - If, during a Rate Period, a customer demonstrates to the satisfaction of the Steering Committee that its flows will or have changed materially during that Rate Period, the Steering Committee will recommend to the Board adjustments to all customers’ Shares during that Rate Period. Exhibit 2 is the process for reviewing and acting on requests for changes in shares.
    - In a similar fashion, if there is a reason to change the allocation of CSO/wet weather costs, DWSD and its customers will engage in a process to reallocate.

- During the Rate Period, meters will continue to be maintained, meter data will continue to be collected, and the data will be monitored at least annually for any apparent permanent trends in relative shares.
- Before the beginning of a Rate Period, customer Shares will be updated as necessary to take into consideration any changes in relative shares among customers during the immediately preceding Rate Period.
- Each customer’s share of the system revenue requirement will be billed in monthly installments.
  - The default approach will be 12 equal installments, but winter and summer seasonal factors will be developed at customer request.
- The current “Look Back” process will not be continued after FY 2013-14.

Exhibit 1 sets forth the Base Shares for Detroit retail and all wholesale customers.

(c) Simplified Calculation of “Suburban Common-to-All Revenue Requirements

Costs for metering and customer outreach are allocated only to suburban wholesale customers based on relative flow. The relative flow percentages for each suburban wholesale customer are set forth in Exhibit 1. All other provisions of rate simplification for common-to-all revenue shall apply to these costs as well.

(d) Allocation of CSO Costs

There will be no change in the allocation of costs associated with DWSD’s CSO program. The CSO allocation shares are set forth in Exhibit 1.

(e) Simplified Flow Balancing

Over half of the flow reaching the Wastewater Treatment Plant is not measured through customer wastewater billing meters and, therefore, is not directly attributable to any specific customer based on wastewater billing meter data. The flows originating within Detroit come from unmetered retail customers. The local sewer systems in Highland Park, Hamtramck, parts of Dearborn are interconnected with Detroit’s system or are otherwise unmetered, preventing customer-specific metering of those flows. Finally downstream from customer billing meters there is infiltration and in-flow (I/I) into the shared trunk and interceptor sewers that is unmetered in terms of contributions from specific customers.

DWSD and its customers developed procedures to estimate these unmetered flows and to remove from the rate allocation process some flows that do not reach the wastewater treatment plant. The practical net effect of this allocation process is to attribute some unmetered flow to Detroit, Highland Park and Hamtramck and several small wholesale customers (collectively “Detroit+ Flow”), and to attribute the balance of the unmetered flow (“Common Flow”), to all customers pro rata.



**To simplify the allocation of unmetered flows, the Group recommends:**

- Common Flow (aka the "Z Factor") as an average percentage of total flow will be estimated based on a review of historical data. For the first Rate Period, the Z Factor will be calculated as the average Z Factor in effect during for FY 2007-08 through FY 2011-12.
- Common Flow will be excluded when computing Shares.
- Shares will be computed as fractions of the sum of billing meter flows plus Detroit+ Flow.
- Detroit+ Flow will be allocated among Detroit, Hamtramck, Highland Park and all other unmetered customers based on estimated retail water sales or some other basis as determined by DWSD.

(f) Simplified Estimates of Cost Pools

DWSD's costs are accumulated into several cost pools reflecting costs for certain types of wastewater services because use of these services varies by customer class (Detroit retail specific, suburban wholesale specific, industrial specific, CSO-related, sanitary and stormwater).

It has been challenging to accurately accumulate many of DWSD's non-capital costs into distinct cost pools.

As DWSD implements new finance and accounting systems, accurate cost accumulation should improve.

**To simplify the development of cost pools, the Group recommends:**

- For the first Rate Period, cost pools will be based on the best estimate of relative cost pools for FYFY 2015 to FY 2017 3-14. The common-to-all costs is comprised on a flow-based sub-pool for those common-to-all costs that vary with flow and a strength of flow-based cost pool for those common-to-all costs that vary with both flow and strength of flow. For the common-to-all cost pool, 47% of these costs will be attributed to the flow-based common-to-all cost sub-pool and 53% will be attributed to the strength of flow common-to-all cost sub-pool.
- CSO-related costs that will be allocated on the 83%/17% Detroit/suburban wholesale split shall be budgeted and tracked as accurately as possible
- At the end of the first Rate Period, the quality of DWSD cost accounting will be evaluated with the objective of revisiting the best method to allocate costs to the cost pools for rate setting purposes.
- Capital revenue requirements will continue to be assigned to cost pools based on DWSD's fixed asset records.

(g) Rate Simplification Pro Forma

Exhibit 3, The Foster Group, Memorandum, Rate Simplification Pro Forma (November 22, 2013) sets forth the hypothetical calculations of how the rate simplification recommendations would have been applied to the projected FY 2013-14 revenue requirements had the Base Shares set forth in Exhibit 1 been in effect.

### **3. Activities to Insure the Accuracy of Flow and Cost Data**

#### **(a) Flows**

Presently the Flow Monitoring Task Force is charged with overseeing the accuracy of meters and data validation. This activity will continue as before. A stronger emphasis will be placed on determining whether any customer's underlying flow characteristics have changed (as distinguished from normal variations due to climatological conditions). The rate simplification approach will reduce the level of effort for activities related to cost allocation (*e.g.*, flow balance) and may permit a reduction in the amount or frequency of data validation activities.

Data verification will be performed annually.

While a detailed cost allocation procedure will not be performed annually, DWSD and the wholesale customers will develop flow-based measure(s) to compare how annual shares track against the historical average being used for the Rate Period. If a significant trend is found, communication to all customers for future rate planning will occur.

As the rate simplification process was nearing completion, the Detroit retail representatives requested a further evaluation of strength of non-sanitary flow. This topic will be given further study during the initial Rate Period with the results incorporated in the allocation for the next Rate Period as appropriate.

#### **(b) Costs**

The tracking of costs by cost center and customer class is an activity that has been challenging. DWSD has several initiatives underway to improve cost tracking and allocation for a variety of management purposes, not only rate setting. DWSD is committed to continue these efforts as part of its overall program to improvement financial planning and accounting. The proposal to simplify the allocation of cost pools should help streamline this effort.

There are a number of open issues related to the accounting for or classification of certain costs:

- Customer outreach costs,
- Customer connect interceptor costs, and
- Classification of capital assets to customer classes.

Resolution of these issues will not affect or be affected by the above rate simplification recommendations. Efforts to resolve these issues will continue as part of ongoing rate committee activities.

FIGURE 1

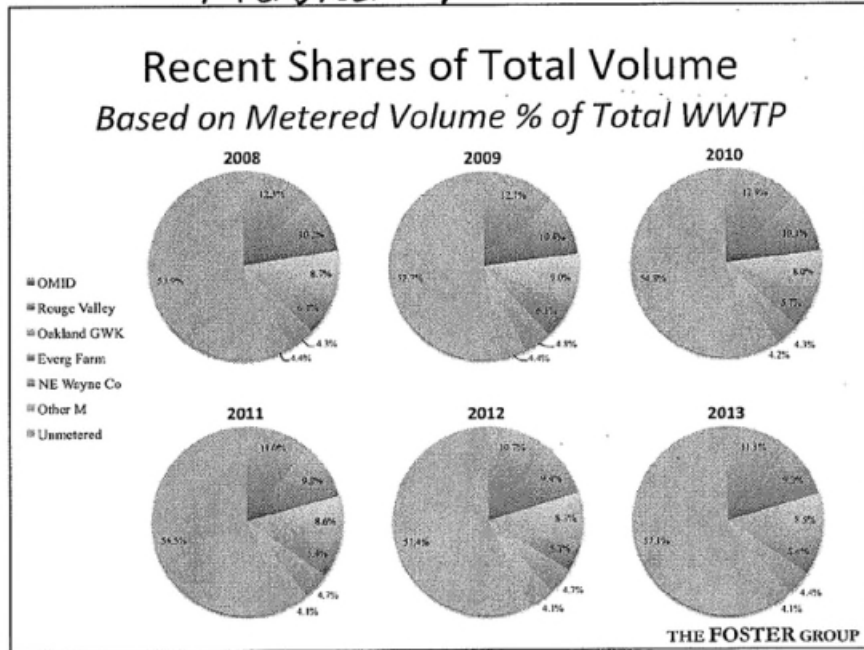


FIGURE 2

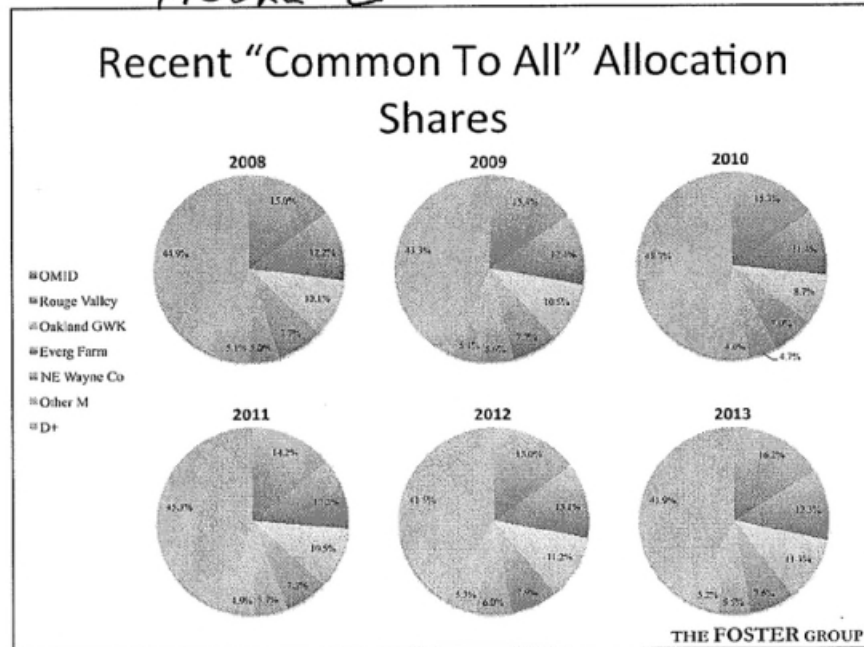


EXHIBIT E

ATTACHMENT 1

EXHIBIT 1

INITIAL RATE PERIOD SHARES



## THE FOSTER GROUP

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### MEMORANDUM

Initial Rate Period SHARES

November 22, 2013  
*Updated February 7, 2014*

To: Sue McCormick, Nickie Bateson

From: Bart Foster

The intent of this memorandum is to provide final recommendations regarding the SHARES by which to allocate costs to customers and compute recommended FY 2014-15 sewer rates under the Rate Simplification Proposal. It is our understanding that all of the major county districts (and a few individual community customers) have reviewed and approved these SHARES, and that processes are in place for review with representatives other suburban customers. Under the terms of the Rate Simplification Proposal, these SHARES will be used to allocate “common-to-all” costs to customers, and (absent changes for extraordinary events<sup>1</sup>) will remain constant for the initial Rate Period, which includes FY 2015-16 and FY 2016-17.

The Look-Back Committee has deliberated on this topic for close to a year, and there are numerous documents that have been produced regarding this matter. All of these documents are published on the DWSD portal, many of which are incorporated by reference into this recommendation.

*Subsequent to initial publishing of this document, additional data emerged for two communities that resulted in revised SHARE calculations. This memorandum, including the accompanying exhibits, has been edited to reflect the revised calculations, which were finalized in February 2014 and produced the sewer rates that were subsequently approved by the Board of Water Commissioners.*

#### **Background and General Philosophy**

The DWSD Sewer Rate Methodology has always allocated revenue requirements to customers based on a cost of service principles. The traditional methodology is designed to proportionally allocate cost responsibility, based fundamentally on the wastewater volumes (flows) contributed by each customer. Over the years the basic methodology was modified to also reflect the type of flow that was contributed (dry weather vs. wet weather, sanitary vs. infiltration, etc.) and the relative pollutant loadings of each type of flow. These elements

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<sup>1</sup> The Rate Simplification Proposal lays out a specific process by which customers can seek modifications to SHARES within a Rate Period, which requires demonstration of a material change to the Steering Committee.

were introduced to reflect the varying treatment costs associated with different types of wastewater contributions. In recent years the technical efforts to analyze and determine flows have grown increasingly complex, yet the overall relative cost responsibility for each customer did not materially change from year to year.

The core philosophy toward implementing the Rate Simplification Proposal centers around its first initiative: “*Simplified Calculation of SHARES*”. This premise focuses on establishing simplified SHARES by which to assign the portion of the DWSD revenue requirement that is to be allocated as “common to all” customers. Initial efforts towards determining such SHARES focused on reviewing each customer’s relative share actually experienced in recent years, and using a historical average of these individual annual amounts to use for future rate calculations. The individual SHARES would be locked in for a designated, multi-year Rate Period.

As the Committee’s deliberations progressed, it became apparent that the quality of recent data did not adequately support a direct application of unadjusted “historical average” share calculations. The Committee concluded that the increased complexity of flow balancing efforts was not providing the level of precision and confidence that it was intended to produce on the relative flows by source, and therefore customers. In part, the old approach relied on imprecise definitions of “dry days” and “wet days” to attempt to assign flow types, which led to confusing conclusions. More pertinently, it became apparent that the existing flow balance protocols for allocating contributed flow volumes to sanitary and non-sanitary sources dramatically overstated the sanitary portion, and understated the non-sanitary portion. As these relative flow types have a material impact on cost allocation, the Committee concluded that historical data produced from the existing flow balance efforts did not produce reliable historical averages to use for future rates. This realization launched the emergence of the second Rate Simplification initiative: “*Simplified Flow Balancing*”.

The premise of simplified flow balancing involves estimating the level of total flow contributed to the wastewater treatment plant that is reasonably considered “common”, and therefore the responsibility of all customers, and remove it from the flow balance equation<sup>2</sup>. This common flow was defined as “Z” and it is estimated by establishing a “Z Factor” reflecting the relative percentage of total WWTP flow that is to be considered “common”.

The simplified approach eliminates:

- The need to separate dry weather and wet weather flows; and therefore the need to apply individual overflow credits to individual customer’s wet weather flow amounts;
- The prior approach’s attempts to assign extraneous “common” DWII flows to individual customers.

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<sup>2</sup> Basically, Z is removed from the allocation “pie” and is discarded for purposes of computing SHARES. Since all customers would basically be allocated a proportional allocation of “Z” there is no need to include this element in SHARE calculations, as relative SHARES would not change.

Rather, the new simplified flow balance approach consists of:

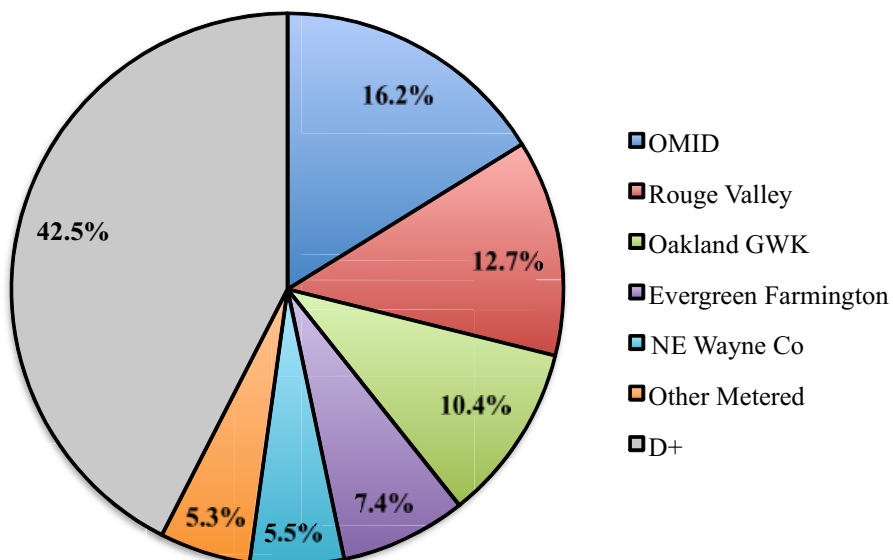
- Starting with overall reported WWTP flow (**W**);
- Subtracting the “Common” flow (**Z**) based on the agreed to Z Factor;
- Subtracting the metered flow (**M**) from the metered customer communities. *The metered flow for these communities now becomes their total allocation volume, and does not need to be adjusted in any manner.*
- The remaining flow is allocated to the unmetered communities (primarily Detroit), who are collectively referred to as **D+** for purposes of the Rate Simplification Proposal.

The final aspect of the new approach is to assign individual community flows to sanitary and non-sanitary portions, so that relative pollutant loadings can be computed to reflect the strength of flow concept in the cost allocation methodology. The Committee, through the Flow Balance Task Force, collected and reviewed substantial amounts of data to achieve a better understanding of the relative sanitary flows within each community. The protocol that emerged was to estimate each community’s sanitary flows based on reported water sales during a “winter quarter” – so as to eliminate high season water use from the equation.

The simplified flow balance approach was utilized to produce alternative historical data points and individual annual shares. Several approaches for applying these two initiatives to recent data were developed and reviewed by the Committee. The recommendation that has emerged for determining initial Rate Period SHARES is summarized below, described herein, and illustrated in the exhibits accompanying this memorandum.

### **Major Customer SHARES**

So as to avoid anomalies associated with smaller customers, the Committee initially focused on “major” customer classifications in evaluating SHARES. The SHARES that emerged are summarized below.



These SHARES were determined utilizing the a three step approach:

Step 1 – Determine a reasonable estimate for historical “Z” factor using the old flow balance protocol, but recognizing new understandings regarding “best available data”. (*see pages 2 through 4*)

Step 2 – Apply the historical “Z” factor to the historical data set, using the new Simplified Flow Balancing protocol to determine effective annual Shares for each major customer for each year from FY 2007-08 through FY 2011-12<sup>3</sup>. (*see pages 5 through 7*).

Step 3 – Establish the initial Rate Period SHAREs as the average of the annual shares for the five-year period. (*see page 8*)

Specifics regarding the calculations conducted for each of these steps are noted below.

Step 1 – Determine Historical Z

- Start by accumulating the flow data that was used in the LBA calculations for each year in the study period.
- Adjust these data points to reflect “best available data”, including:
  - Remove the effects of “Rate Model Averaging” from the data. *Certain of the original data points were 5-year averages of DWII and wet weather volumes. The Committee believed that eliminating this approach from the data set would produce a better depiction of annual data points.*
  - Revise the originally reported WWTP flow downward by 12 mgd to reflect revised estimates of recycle flow.
  - Estimate the impact of the prior bullet on the original flow balance, and reflect accordingly. *This effectively changes the DWII allocated to the D+ class.*
  - Rebalance the sanitary / non-sanitary allocations of each communities resulting flow based on the findings of the FBTF.
  - Apply the newest estimated overflow credit of 15% to all years in the period. (*Original data points were 30.8% through FY 2010-11*)
- Re-compute “allocation volumes” for **M** and **D+** using these revised data points.
- Subtract **M** and **D+** from **W** to result in **Z**.
- Compute effective annual **Z** Factors and a weighted average **Z** factor for the 5-year period, which equals 14.87%.

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<sup>3</sup> This period was selected because it aligned with the “5-Year LBA” period that the LBA Committee was originally formulated to address. While the Committee also review data for prior periods and preliminary data for FY 2012-13, those periods were not included in the historical averages as the prior periods had not received as much scrutiny and the data for FY 2012-13 is unaudited and/or incomplete.



Step 2 – Compute Annual Shares Under Simplified Protocol

- Rebuild allocation volumes using the new protocol
  - For **M** class, simply equals metered volume, unadjusted
  - Apply average **Z** Factor of 14.87% to reported (and adjusted) **W** (WWTP volume) for each year.
  - **D+** then equals **W – M – Z**
- Allocate total allocation volumes into sanitary and non-sanitary portions based on the findings of the FBTF
- Allocate relative pollutant loadings to each customer, maintaining the assumption that non-sanitary flows are 1/3<sup>rd</sup> the relative strength of sanitary flows
- Compute individual customer volume and pollutant shares
- Apply relative flow/pollutant CTA revenue requirement split to arrive at annual shares for each customer.

Step 3 – Establish Initial Rate Period SHARES

- Simply compute an average of the five individual annual shares.

**Small Customer SHARES**

Once the Committee achieved consensus on the SHARES for large, major customers, analyses were conducted to assess the applicability of this approach for smaller customers. In effect there are two separate sets of “small” customers – those with metered wastewater that make up the “other metered” major class discussed above, and those that do not have metered connections that are included in the D+ class above. It was acknowledged that relatively minor change in absolute shares could have an absolute dollar impact that would not be material to a large customer, but that could significantly impact smaller customers. Also, there was some concern that the underlying data (such as the estimates of sanitary volumes) may not have been as thoroughly vetted as that for the larger customers.

Several alternative approaches for small customer SHARES were explored, discussed, and analyzed. The Committee concluded that the most prudent approach was to:

- Treat the “small” metered communities in the same manner as the major metered class. (*see pages 9 and 10*)
  - *Uniformity in approach was a priority amongst the Committee.*
- Treat all of the D+ communities as a singular class, and establish SHARES that change uniformly from existing shares.
  - *Recognizes that much of the data for the small D+ customers is difficult to differentiate from Detroit – thus the original grouping.*

As we reviewed the resulting small customer SHARES, it became evident that two modifications to this general approach were appropriate:

- The two metered Dearborn districts were consolidated into a single SHARE.
  - *Reflects the difficulty in aligning water use (used to assign sanitary flows) within the Dearborn service area.*
  - *Reflects Dearborn's signaled desire to consolidate several of their districts anyway.*
  - ***SHAREs for Dearborn were reviewed and modified after the original publication of this memorandum.***
- Grosse Pointe Farms was removed from the D+ class and effectively treated as an anomaly in the M class.
  - Grosse Pointe Farms was unmetered for a large portion of the historical data period, but became metered during FY 2011-12.
  - The initial Grosse Pointe Farms SHARE ***was reviewed and modified after the original publication of this memorandum.***

The Committee recognizes that many of the “small” customers have not been actively involved in the deliberative process and established a process by which to invite their review and input prior to finalizing initial Rate Period SHAREs. ***This process resulted in the modifications for Dearborn and Grosse Pointe Farms noted above.***

#### Summary

Recommended Initial Rate Period SHAREs for all customers are set forth on Page 1 of the attached exhibits. ***These SHAREs were utilized to development of the FY 2014-15 sewer rates and the accompanying aspects of the Rate Simplification Proposal.***

We are available to discuss this matter at your convenience.

## Sewer Rate Simplification - Summary Initial Rate Period SHARES

	(1)	(2)	(3)	(4)
	<u>Status Quo</u>	<u>Recommend</u>	<u>Relative Chg</u>	<u>Relative % Chg</u>
	<i>FY 2014 Rates</i>	<i>Simplified Avg</i>	<i>(2) - (1)</i>	<i>(3) / (1)</i>
<u>Major County Systems</u>				
OMID	16.305%	16.183%	-0.122%	-0.7%
Rouge Valley	13.321%	12.693%	-0.628%	-4.7%
Oakland GWK	10.608%	10.428%	-0.180%	-1.7%
Evergreen Farmington	7.952%	7.393%	-0.559%	-7.0%
NE Wayne Co	5.553%	5.501%	-0.052%	-0.9%
Subtotal	53.739%	52.198%	-1.541%	-2.9%
<u>Other Metered Customers</u>				
Allen Park	0.146%	0.154%	0.008%	5.5%
Center Line	0.229%	0.212%	-0.017%	-7.4%
Dearborn East & West	3.763%	4.015%	0.252%	6.7%
Farmington	0.252%	0.254%	0.002%	0.8%
Grosse Pointe Park	0.346%	0.374%	0.028%	8.1%
Melvindale	0.332%	0.316%	-0.016%	-4.8%
M <sup>o</sup> Subtotal	5.068%	5.325%	0.257%	5.1%
Grosse Pointe Farms	0.677%	0.566%	-0.111%	-16.4%
M <sup>o</sup> Total	5.745%	5.891%	0.146%	2.5%
M Total	59.484%	58.089%	-1.395%	-2.3%
<u>D+ Customers</u>				
Dearborn E. (Storm Only)	0.061%	0.063%	0.002%	3.3%
Dearborn N.E.	0.310%	0.321%	0.011%	3.5%
Grosse Pointe	0.186%	0.192%	0.006%	3.2%
Hamtramck	0.778%	0.805%	0.027%	3.5%
Harper Woods	0.052%	0.054%	0.002%	3.8%
Highland Park	1.096%	1.134%	0.038%	3.5%
Small Districts	0.053%	0.055%	0.002%	3.8%
Detroit	37.980%	39.287%	1.307%	3.4%
D+ Subtotal	40.516%	41.911%	1.395%	3.4%
TOTAL SHARES	100.000%	100.000%	0.000%	0.0%

Sewer Rate Simplification - Summary of Recommended SHARES  
Including Supporting Cost Pool Shares

	(1)	(2)	(3)	(4)
	<u>SHARE</u>	<u>Share Details</u>		Suburban
	~ (2) & (3)	<u>Flow</u>	<u>Pollutants</u>	<u>Wholesale Only</u>
				~ (2)
<u>Metered Customers</u>				
OMID	16.18%	14.28%	17.50%	24.90%
Rouge Valley	12.69%	11.90%	13.24%	20.75%
Oakland GWK	10.43%	10.17%	10.60%	17.73%
Evergreen Farmington	7.39%	6.86%	7.76%	11.96%
NE Wayne Co	5.50%	5.43%	5.54%	9.47%
Allen Park	0.15%	0.14%	0.16%	0.24%
Center Line	0.21%	0.19%	0.23%	0.33%
Dearborn East & West	4.02%	3.86%	4.12%	6.73%
Farmington	0.25%	0.24%	0.26%	0.41%
Grosse Pointe Park	0.37%	0.36%	0.39%	0.62%
Melvindale	0.32%	0.29%	0.33%	0.51%
<i>Grosse Pointe Farms</i>	0.57%	0.59%	0.55%	1.03%
<b>M Total</b>	58.09%	54.31%	60.68%	94.69%
<u>Detroit + Unmetered</u>				
Dearborn E. (Storm Only)	0.06%	0.09%	0.05%	0.15%
Dearborn N.E.	0.32%	0.41%	0.32%	0.71%
Grosse Pointe	0.19%	0.23%	0.21%	0.40%
Hamtramck	0.81%	1.03%	0.84%	1.80%
Harper Woods	0.05%	0.06%	0.06%	0.11%
Highland Park	1.13%	1.18%	1.07%	2.06%
Small Districts	0.06%	0.05%	0.05%	0.08%
Detroit	39.29%	42.65%	36.73%	
<b>D+ Total</b>	41.91%	45.69%	39.32%	5.31%
<b>Total</b>	100.00%	100.00%	100.00%	100.00%
<i>Suburbs in D+</i>	2.62%	3.04%	2.59%	5.31%
<i>Detroit</i>	39.29%	42.65%	36.73%	0.00%

**Sewer Rate Simplification - Sample Share Calculations**  
*Historical Data Points Modified for Original WWTP Vols, New Recycle Flow Estimates*  
*Flow Balance Task Force Recommendations and Related "Best Available" Data*

	Historical Data				
	2008	2009	2010	2011	2012
	<i>Mcf</i>	<i>Mcf</i>	<i>Mcf</i>	<i>Mcf</i>	<i>Mcf</i>
<b><u>Metered Flow</u></b>					
OMID	4,103,454	4,491,406	3,907,695	3,799,596	3,727,240
Rouge Valley	3,382,764	3,671,128	3,041,654	3,363,061	3,269,196
Oakland GWK	2,883,453	3,188,621	2,404,934	2,958,988	2,891,656
Evergreen Farmington	2,042,275	2,154,256	1,725,742	1,872,225	1,851,461
NE Wayne Co	1,422,601	1,698,509	1,296,673	1,611,703	1,618,773
Other Metered	1,471,581	1,554,845	1,275,774	1,404,618	1,430,021
<b>M Total</b>	15,306,127	16,758,765	13,652,472	15,010,191	14,788,347
Balance = (D+ + Z)	17,341,335	18,107,794	15,947,075	18,880,501	19,364,359
<b>Total WWTP Flow</b>	<b>32,647,463</b>	<b>34,866,560</b>	<b>29,599,546</b>	<b>33,890,692</b>	<b>34,152,706</b>
<i>M% of Total</i>	46.9%	48.1%	46.1%	44.3%	43.3%
<b><u>Allocation Volume</u></b>					
<b><u>Sanitary Volume</u></b>					
OMID	2,225,973	2,225,973	2,225,973	2,225,973	2,225,973
Rouge Valley	1,528,344	1,528,344	1,528,344	1,528,344	1,528,344
Oakland GWK	1,132,238	1,132,238	1,132,238	1,132,238	1,132,238
Evergreen Farmington	911,944	911,944	911,944	911,944	911,944
NE Wayne Co	577,355	577,355	577,355	577,355	577,355
Other Metered	672,431	672,431	672,431	672,431	672,431
<b>M Total</b>	7,048,284	7,048,284	7,048,284	7,048,284	7,048,284
<b>D+</b>	<b>3,186,963</b>	<b>3,186,963</b>	<b>3,186,963</b>	<b>3,186,963</b>	<b>3,186,963</b>
Subtotal Allo Volume	10,235,247	10,235,247	10,235,247	10,235,247	10,235,247
System "Z" Volume	0	0	0	0	0
<b>Total</b>	10,235,247	10,235,247	10,235,247	10,235,247	10,235,247
<b><u>Local DWII</u></b>					
OMID	1,340,329	1,707,547	1,565,674	1,211,546	1,139,190
Rouge Valley	1,083,730	1,056,230	1,036,517	1,044,697	950,832
Oakland GWK	807,242	835,865	742,368	687,017	619,685
Evergreen Farmington	607,687	600,969	602,234	647,286	626,522
NE Wayne Co	414,867	414,573	378,019	360,477	367,547
Other Metered	359,806	345,644	325,348	302,965	329,424
<b>M Total</b>	4,613,662	4,960,828	4,650,161	4,253,988	4,033,200
<b>D+</b>	<b>5,277,929</b>	<b>5,266,190</b>	<b>5,513,446</b>	<b>5,329,958</b>	<b>5,696,933</b>
Subtotal Allo Volume	9,891,591	10,227,018	10,163,607	9,583,945	9,730,133
System "Z" Volume	0	0	0	0	0
<b>Total</b>	9,891,591	10,227,018	10,163,607	9,583,945	9,730,133

**Sewer Rate Simplification - Sample Share Calculations**  
*Historical Data Points Modified for Original WWTP Vols, New Recycle Flow Estimates*  
*Flow Balance Task Force Recommendations and Related "Best Available" Data*

	Historical Data				
	<u>2008</u> <i>Mcf</i>	<u>2009</u> <i>Mcf</i>	<u>2010</u> <i>Mcf</i>	<u>2011</u> <i>Mcf</i>	<u>2012</u> <i>Mcf</i>
<b>System DWII</b>					
OMID	0	0	0	0	0
Rouge Valley	0	0	0	0	0
Oakland GWK	53,701	55,016	57,283	<b>56,385</b>	<b>63,697</b>
Evergreen Farmington	92,911	94,929	96,931	<b>79,665</b>	<b>89,996</b>
NE Wayne Co	21,388	21,680	20,856	<b>6,357</b>	<b>7,181</b>
Other Metered	9,499	9,729	10,112	<b>9,808</b>	<b>11,079</b>
<b>M Total</b>	177,499	181,354	185,182	152,215	171,953
D+	1,207,529	1,237,000	1,287,187	<b>1,271,157</b>	<b>1,430,803</b>
Subtotal Allo Volume	1,385,028	1,418,354	1,472,369	1,423,372	1,602,756
System "Z" Volume	4,549,636	5,460,328	2,578,994	6,007,989	5,968,573
<b>Total</b>	5,934,663	6,878,683	4,051,363	7,431,361	7,571,329
<b>Wet Weather Flow</b>					
OMID	537,152	557,886	116,048	362,077	362,077
Rouge Valley	770,690	1,086,554	476,793	790,020	790,020
Oakland GWK	943,973	1,220,518	530,328	1,139,733	1,139,733
Evergreen Farmington	522,644	641,344	211,564	312,996	312,996
NE Wayne Co	430,379	706,582	341,299	673,872	673,872
Other Metered	439,344	536,770	277,995	429,222	428,165
<b>M Total</b>	3,644,182	4,749,653	1,954,026	3,707,920	3,706,863
D+	4,104,008	4,104,008	4,104,008	4,104,008	4,076,662
Subtotal Allo Volume	7,748,190	8,853,661	6,058,034	7,811,928	7,783,526
System "Z" Volume	0	0	0	0	0
<b>Total</b>	7,748,190	8,853,661	6,058,034	7,811,928	7,783,526
Overflow Credit	<b>15.0%</b>	<b>15.0%</b>	<b>15.0%</b>	<b>15.0%</b>	15.0%
<b>Net Wet Weather Flow</b>					
OMID	456,579	474,203	98,640	307,766	307,766
Rouge Valley	655,087	923,571	405,274	671,517	671,517
Oakland GWK	802,377	1,037,441	450,779	968,773	968,773
Evergreen Farmington	444,247	545,142	179,830	266,046	266,046
NE Wayne Co	365,822	600,594	290,104	572,791	572,791
Other Metered	373,442	456,254	236,296	364,839	363,941
<b>M Total</b>	3,097,554	4,037,205	1,660,922	3,151,732	3,150,834
D+	3,488,407	3,488,407	3,488,407	3,488,407	3,465,163
Subtotal Allo Volume	6,585,961	7,525,612	5,149,329	6,640,139	6,615,997
System "Z" Volume	0	0	0	0	0
<b>Total</b>	6,585,961	7,525,612	5,149,329	6,640,139	6,615,997

**Sewer Rate Simplification - Sample Share Calculations**  
*Historical Data Points Modified for Original WWTP Vols, New Recycle Flow Estimates*  
*Flow Balance Task Force Recommendations and Related "Best Available" Data*

	Historical Data				
	<u>2008</u> <i>Mcf</i>	<u>2009</u> <i>Mcf</i>	<u>2010</u> <i>Mcf</i>	<u>2011</u> <i>Mcf</i>	<u>2012</u> <i>Mcf</i>
<u>Subtotal Non-Sanitary</u>					
OMID	1,796,908	2,181,750	1,664,315	1,519,312	1,446,955
Rouge Valley	1,738,817	1,979,801	1,441,791	1,716,214	1,622,349
Oakland GWK	1,663,320	1,928,321	1,250,429	1,712,175	1,652,155
Evergreen Farmington	1,144,845	1,241,040	878,995	992,997	982,564
NE Wayne Co	802,078	1,036,847	688,980	939,624	947,519
Other Metered	742,748	811,628	571,756	677,611	704,444
<b>M Total</b>	<u>7,888,715</u>	<u>9,179,387</u>	<u>6,496,266</u>	<u>7,557,934</u>	<u>7,355,987</u>
D+	9,973,865	9,991,597	10,289,039	10,089,522	10,592,899
Subtotal Allo Volume	17,862,580	19,170,985	16,785,305	17,647,456	17,948,886
System "Z" Volume	4,549,636	5,460,328	2,578,994	6,007,989	5,968,573
<b>Total</b>	<u>22,412,216</u>	<u>24,631,313</u>	<u>19,364,299</u>	<u>23,655,445</u>	<u>23,917,459</u>
<u>Total Allocation Volume</u>					
OMID	4,022,881	4,407,723	3,890,287	3,745,285	3,672,928
Rouge Valley	3,267,160	3,508,145	2,970,135	3,244,558	3,150,693
Oakland GWK	2,795,558	3,060,559	2,382,667	2,844,413	2,784,393
Evergreen Farmington	2,056,789	2,152,983	1,790,939	1,904,941	1,894,508
NE Wayne Co	1,379,432	1,614,202	1,266,334	1,516,979	1,524,873
Other Metered	1,415,179	1,484,059	1,244,187	1,350,042	1,376,875
<b>M Total</b>	<u>14,936,999</u>	<u>16,227,671</u>	<u>13,544,550</u>	<u>14,606,218</u>	<u>14,404,271</u>
D+	13,160,828	13,178,560	13,476,002	13,276,485	13,779,862
Subtotal Allo Volume	28,097,827	29,406,232	27,020,552	27,882,703	28,184,133
System "Z" Volume	4,549,636	5,460,328	2,578,994	6,007,989	5,968,573
<b>Total</b>	<u>32,647,463</u>	<u>34,866,560</u>	<u>29,599,546</u>	<u>33,890,692</u>	<u>34,152,706</u>
<i>Effective "Z"</i>	<i>13.9%</i>	<i>15.7%</i>	<i>8.7%</i>	<i>17.7%</i>	<i>17.5%</i>
Weighted 5-year average Effective "Z"					<b>14.87%</b>

**Sewer Rate Simplification - Sample Share Calculations**  
**Alternative LBA SHARE Calculations Modified for Simplified Approach**  
**(Flows in Mcf, Loadings in lbs) \*\* Z = 14.87%**

	Look-Back Data				
	2008	2009	2010	2011	2012
CTA Rev Req't	270,367,870	282,307,711	262,509,268	324,651,788	328,280,488
<u>CTA Revenue Req't Split</u>					
Volume	35.8%	42.1%	36.0%	42.6%	45.9%
Strength	64.2%	57.9%	64.0%	57.4%	54.1%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%
<b><u>Metered Flow</u></b>					
OMID	4,103,454	4,491,406	3,907,695	3,799,596	3,727,240
Rouge Valley	3,382,764	3,671,128	3,041,654	3,363,061	3,269,196
Oakland GWK	2,883,453	3,188,621	2,404,934	2,958,988	2,891,656
Evergreen Farmington	2,042,275	2,154,256	1,725,742	1,872,225	1,851,461
NE Wayne Co	1,422,601	1,698,509	1,296,673	1,611,703	1,618,773
Other Metered	1,471,581	1,554,845	1,275,774	1,404,618	1,430,021
<b>M Total</b>	<b>15,306,127</b>	<b>16,758,765</b>	<b>13,652,472</b>	<b>15,010,191</b>	<b>14,788,347</b>
Balance = (D+ + Z)	17,341,335	18,107,794	15,947,075	18,880,501	19,364,359
<b>Total</b>	<b>32,647,463</b>	<b>34,866,560</b>	<b>29,599,546</b>	<b>33,890,692</b>	<b>34,152,706</b>
<i>M% of Total</i>	46.9%	48.1%	46.1%	44.3%	43.3%
<b><u>Allocation Volume</u></b>					
<b><u>Sanitary Volume</u></b>					
OMID	2,225,973	2,225,973	2,225,973	2,225,973	2,225,973
Rouge Valley	1,528,344	1,528,344	1,528,344	1,528,344	1,528,344
Oakland GWK	1,132,238	1,132,238	1,132,238	1,132,238	1,132,238
Evergreen Farmington	911,944	911,944	911,944	911,944	911,944
NE Wayne Co	577,355	577,355	577,355	577,355	577,355
Other Metered	615,385	615,385	615,385	615,385	615,385
<b>M Total</b>	<b>6,991,238</b>	<b>6,991,238</b>	<b>6,991,238</b>	<b>6,991,238</b>	<b>6,991,238</b>
D+	3,139,007	3,139,007	3,139,007	3,139,007	3,139,007
Subtotal Allo Volume	10,130,245	10,130,245	10,130,245	10,130,245	10,130,245
System "Z" Volume	0	0	0	0	0
<b>Total</b>	<b>10,130,245</b>	<b>10,130,245</b>	<b>10,130,245</b>	<b>10,130,245</b>	<b>10,130,245</b>
<b><u>Non-Sanitary</u></b>					
OMID	1,877,481	2,265,433	1,681,722	1,573,624	1,501,267
Rouge Valley	1,854,420	2,142,784	1,513,310	1,834,717	1,740,852
Oakland GWK	1,751,215	2,056,383	1,272,696	1,826,750	1,759,418
Evergreen Farmington	1,130,331	1,242,313	813,798	960,281	939,517
NE Wayne Co	845,246	1,121,154	719,318	1,034,348	1,041,418
Other Metered	856,196	939,460	660,389	789,233	814,636
<b>M Total</b>	<b>8,314,889</b>	<b>9,767,527</b>	<b>6,661,233</b>	<b>8,018,953</b>	<b>7,797,109</b>
D+	9,346,345	9,782,735	8,405,431	10,700,592	11,145,479
Subtotal Allo Volume	17,661,234	19,550,263	15,066,665	18,719,545	18,942,587
System "Z" Volume **	4,855,984	5,186,052	4,402,637	5,040,902	5,079,873
<b>Total</b>	<b>22,517,218</b>	<b>24,736,315</b>	<b>19,469,301</b>	<b>23,760,447</b>	<b>24,022,461</b>



**Sewer Rate Simplification - Sample Share Calculations**  
**Alternative LBA SHARE Calculations Modified for Simplified Approach**  
**(Flows in Mcf, Loadings in lbs) \*\* Z = 14.87%**

	Look-Back Data				
	2008	2009	2010	2011	2012
<b>Total Allocation Volume</b>					
OMID	4,103,454	4,491,406	3,907,695	3,799,596	3,727,240
Rouge Valley	3,382,764	3,671,128	3,041,654	3,363,061	3,269,196
Oakland GWK	2,883,453	3,188,621	2,404,934	2,958,988	2,891,656
Evergreen Farmington	2,042,275	2,154,256	1,725,742	1,872,225	1,851,461
NE Wayne Co	1,422,601	1,698,509	1,296,673	1,611,703	1,618,773
Other Metered	1,471,581	1,554,845	1,275,774	1,404,618	1,430,021
<b>M Total</b>	<b>15,306,127</b>	<b>16,758,765</b>	<b>13,652,472</b>	<b>15,010,191</b>	<b>14,788,347</b>
D+	12,485,352	12,921,742	11,544,438	13,839,599	14,284,485
Subtotal Allo Volume	27,791,479	29,680,508	25,196,910	28,849,790	29,072,832
System "Z" Volume	4,855,984	5,186,052	4,402,637	5,040,902	5,079,873
<b>Total</b>	<b>32,647,463</b>	<b>34,866,560</b>	<b>29,599,546</b>	<b>33,890,692</b>	<b>34,152,706</b>
<i>Effective "Z"</i>	<i>14.9%</i>	<i>14.9%</i>	<i>14.9%</i>	<i>14.9%</i>	<i>14.9%</i>
<b>Volume Allocation Shares</b>					
OMID	<i>14.8%</i>	<i>15.1%</i>	<i>15.5%</i>	<i>13.2%</i>	<i>12.8%</i>
Rouge Valley	<i>12.2%</i>	<i>12.4%</i>	<i>12.1%</i>	<i>11.7%</i>	<i>11.2%</i>
Oakland GWK	<i>10.4%</i>	<i>10.7%</i>	<i>9.5%</i>	<i>10.3%</i>	<i>9.9%</i>
Evergreen Farmington	<i>7.3%</i>	<i>7.3%</i>	<i>6.8%</i>	<i>6.5%</i>	<i>6.4%</i>
NE Wayne Co	<i>5.1%</i>	<i>5.7%</i>	<i>5.1%</i>	<i>5.6%</i>	<i>5.6%</i>
Other Metered	<i>5.3%</i>	<i>5.2%</i>	<i>5.1%</i>	<i>4.9%</i>	<i>4.9%</i>
<b>M Total</b>	<b>55.1%</b>	<b>56.5%</b>	<b>54.2%</b>	<b>52.0%</b>	<b>50.9%</b>
D+	<i>44.9%</i>	<i>43.5%</i>	<i>45.8%</i>	<i>48.0%</i>	<i>49.1%</i>
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Loadings Allocation (BOD)</b>					
Total Loadings	239,742,200	236,396,400	239,268,900	154,896,900	141,046,400
Total Strength - mg/l	118	109	130	73	66
Non-San / San Ratio	<b>33.3%</b>	<b>33.3%</b>	<b>33.3%</b>	<b>33.3%</b>	<b>33.3%</b>
<b>Weighted Adj Influent Split</b>					
Sanitary	10,130,245	10,130,245	10,130,245	10,130,245	10,130,245
Non-Sanitary	7,504,989	8,244,614	6,489,118	7,919,357	8,006,686
Total	17,635,234	18,374,859	16,619,363	18,049,602	18,136,931
Sanitary %	57%	55%	61%	56%	56%
Non-Sanitary %	43%	45%	39%	44%	44%
Sanitary Loadings	137,715,625	130,327,720	145,845,094	86,935,078	78,780,394
Non-Sanitary Loadings	102,026,575	106,068,680	93,423,806	67,961,822	62,266,006
Total Loadings	239,742,200	236,396,400	239,268,900	154,896,900	141,046,400
Sanitary Strength	218	206	231	138	125
Non-Sanitary Strength	73	69	77	46	42
Allocated Strength	126	116	139	78	70
Total Strength	118	109	130	73	66

**Sewer Rate Simplification - Sample Share Calculations**  
**Alternative LBA SHARE Calculations Modified for Simplified Approach**  
**(Flows in Mcf, Loadings in lbs) \*\* Z = 14.87%**

	Look-Back Data				
	2008	2009	2010	2011	2012
<b>Total Loadings (BOD)</b>					
OMID	38,767,944	38,351,725	40,117,094	23,603,732	21,202,108
Rouge Valley	29,179,537	28,850,667	29,265,207	18,363,669	16,397,823
Oakland GWK	23,327,047	23,384,195	22,407,880	14,941,605	13,365,529
Evergreen Farmington	17,519,001	17,059,350	17,034,275	10,572,744	9,527,179
NE Wayne Co	11,678,699	12,235,269	11,763,835	7,913,243	7,189,290
Other Metered	12,245,319	11,945,440	12,028,587	7,538,510	6,897,227
<b>M Total</b>	<b>132,717,548</b>	<b>131,826,645</b>	<b>132,616,878</b>	<b>82,933,503</b>	<b>74,579,156</b>
D+	85,021,961	82,332,097	85,525,888	57,544,946	53,300,257
Subtotal Allo Loadings	217,739,509	214,158,742	218,142,766	140,478,448	127,879,413
System "Z" Loadings	22,002,691	22,237,658	21,126,134	14,418,452	13,166,987
<b>Total</b>	<b>239,742,200</b>	<b>236,396,400</b>	<b>239,268,900</b>	<b>154,896,900</b>	<b>141,046,400</b>
<i>Effective "Z"</i>	9.2%	9.4%	8.8%	9.3%	9.3%
<b>Pollutant Allocation Shares</b>					
OMID	17.8%	17.9%	18.4%	16.8%	16.6%
Rouge Valley	13.4%	13.5%	13.4%	13.1%	12.8%
Oakland GWK	10.7%	10.9%	10.3%	10.6%	10.5%
Evergreen Farmington	8.0%	8.0%	7.8%	7.5%	7.5%
NE Wayne Co	5.4%	5.7%	5.4%	5.6%	5.6%
Other Metered	5.6%	5.6%	5.5%	5.4%	5.4%
<b>M Total</b>	<b>61.0%</b>	<b>61.6%</b>	<b>60.8%</b>	<b>59.0%</b>	<b>58.3%</b>
D+	39.0%	38.4%	39.2%	41.0%	41.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>SHARES</b>					
OMID	16.7%	16.7%	17.4%	15.3%	14.9%
Rouge Valley	13.0%	13.0%	12.9%	12.5%	12.1%
Oakland GWK	10.6%	10.8%	10.0%	10.5%	10.2%
Evergreen Farmington	7.8%	7.7%	7.5%	7.1%	7.0%
NE Wayne Co	5.3%	5.7%	5.3%	5.6%	5.6%
Other Metered	5.5%	5.4%	5.4%	5.2%	5.2%
<b>M Total</b>	<b>58.8%</b>	<b>59.4%</b>	<b>58.4%</b>	<b>56.0%</b>	<b>54.9%</b>
D+	41.2%	40.6%	41.6%	44.0%	45.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

## Sewer Rate Simplification - 5-Year Average Share Calculations

	Look-Back Data					5-Year Average
	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	
OMID	<i>16.7%</i>	<i>16.7%</i>	<i>17.4%</i>	<i>15.3%</i>	<i>14.9%</i>	<i>16.2%</i>
Rouge Valley	<i>13.0%</i>	<i>13.0%</i>	<i>12.9%</i>	<i>12.5%</i>	<i>12.1%</i>	<i>12.7%</i>
Oakland GWK	<i>10.6%</i>	<i>10.8%</i>	<i>10.0%</i>	<i>10.5%</i>	<i>10.2%</i>	<i>10.4%</i>
Evergreen Farmington	<i>7.8%</i>	<i>7.7%</i>	<i>7.5%</i>	<i>7.1%</i>	<i>7.0%</i>	<i>7.4%</i>
NE Wayne Co	<i>5.3%</i>	<i>5.7%</i>	<i>5.3%</i>	<i>5.6%</i>	<i>5.6%</i>	<i>5.5%</i>
Other Metered	<i>5.5%</i>	<i>5.4%</i>	<i>5.4%</i>	<i>5.2%</i>	<i>5.2%</i>	<i>5.3%</i>
M Total	<i>58.8%</i>	<i>59.4%</i>	<i>58.4%</i>	<i>56.0%</i>	<i>54.9%</i>	<i>57.5%</i>
D+	<i>41.2%</i>	<i>40.6%</i>	<i>41.6%</i>	<i>44.0%</i>	<i>45.1%</i>	<i>42.5%</i>
Total	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>

Sewer Rate Simplification - Sample Share Calculations  
*Alternative LBA SHARE Calculations Modified for Simplified Approach*  
 (Flows in Mcf, Loadings in lbs) \*\* Z = 14.87%

	Look-Back Data				
	2008	2009	2010	2011	2012
<b>Unbundle Other METERED</b>					
<b><u>Metered Flow</u></b>					
Allen Park	38,220	39,252	34,382	42,616	41,950
Center Line	57,160	60,825	36,128	57,072	55,629
Dearborn East	507,432	529,147	480,415	489,313	486,046
Dearborn West	607,632	652,945	513,399	567,568	590,981
Farmington	68,050	75,344	57,180	71,087	64,081
Grosse Pointe Park	112,129	108,704	83,776	91,841	104,248
Melvindale	80,958	88,628	70,494	85,121	87,086
<b>M° Subtotal</b>	<b>1,471,581</b>	<b>1,554,845</b>	<b>1,275,774</b>	<b>1,404,618</b>	<b>1,430,021</b>
<b><u>Allocation Volume</u></b>					
<b><u>Sanitary Volume</u></b>					
Allen Park	20,115	20,115	20,115	20,115	20,115
Center Line	28,407	28,407	28,407	28,407	28,407
Dearborn East	240,100	240,100	240,100	240,100	240,100
Dearborn West	214,277	214,277	214,277	214,277	214,277
Farmington	30,272	30,272	30,272	30,272	30,272
Grosse Pointe Park	43,334	43,334	43,334	43,334	43,334
Melvindale	38,881	38,881	38,881	38,881	38,881
<b>M° Subtotal</b>	<b>615,385</b>	<b>615,385</b>	<b>615,385</b>	<b>615,385</b>	<b>615,385</b>
<b><u>Non-Sanitary Volume</u></b>					
Allen Park	18,105	19,137	14,267	22,501	21,835
Center Line	28,753	32,418	7,721	28,665	27,222
Dearborn East	267,332	289,047	240,315	249,213	245,946
Dearborn West	393,355	438,668	299,122	353,291	376,704
Farmington	37,778	45,072	26,908	40,815	33,809
Grosse Pointe Park	68,795	65,370	40,442	48,507	60,914
Melvindale	42,077	49,747	31,613	46,240	48,205
<b>M° Subtotal</b>	<b>856,196</b>	<b>939,460</b>	<b>660,389</b>	<b>789,233</b>	<b>814,636</b>
<b><u>Volume Allocation Factor</u></b>					
Allen Park	<i>0.14%</i>	<i>0.13%</i>	<i>0.14%</i>	<i>0.15%</i>	<i>0.14%</i>
Center Line	<i>0.21%</i>	<i>0.20%</i>	<i>0.14%</i>	<i>0.20%</i>	<i>0.19%</i>
Dearborn East	<i>1.83%</i>	<i>1.78%</i>	<i>1.91%</i>	<i>1.70%</i>	<i>1.67%</i>
Dearborn West	<i>2.19%</i>	<i>2.20%</i>	<i>2.04%</i>	<i>1.97%</i>	<i>2.03%</i>
Farmington	<i>0.24%</i>	<i>0.25%</i>	<i>0.23%</i>	<i>0.25%</i>	<i>0.22%</i>
Grosse Pointe Park	<i>0.40%</i>	<i>0.37%</i>	<i>0.33%</i>	<i>0.32%</i>	<i>0.36%</i>
Melvindale	<i>0.29%</i>	<i>0.30%</i>	<i>0.28%</i>	<i>0.30%</i>	<i>0.30%</i>
<b>M° Subtotal</b>	<b><i>5.30%</i></b>	<b><i>5.24%</i></b>	<b><i>5.06%</i></b>	<b><i>4.87%</i></b>	<b><i>4.92%</i></b>

Sewer Rate Simplification - Sample Share Calculations  
*Alternative LBA SHARE Calculations Modified for Simplified Approach*  
*(Flows in Mcf, Loadings in lbs) \*\* Z = 14.87%*

	Look-Back Data				
	2008	2009	2010	2011	2012
<b>Total Loadings (BOD)</b>					
Allen Park	355,489	340,844	358,057	236,982	213,026
Center Line	516,459	504,468	446,024	325,771	291,473
Dearborn East	4,475,332	4,328,361	4,609,873	2,773,295	2,504,687
Dearborn West	4,695,296	4,637,713	4,520,284	2,849,382	2,642,791
Farmington	582,707	582,724	564,945	376,529	323,051
Grosse Pointe Park	900,818	837,806	817,941	510,625	494,886
Melvindale	719,219	713,524	711,463	465,925	427,314
<b>M<sup>o</sup> Subtotal</b>	<b>12,245,319</b>	<b>11,945,440</b>	<b>12,028,587</b>	<b>7,538,510</b>	<b>6,897,227</b>
<b>Pollutant Allocation Shares</b>					
Allen Park	<b>0.16%</b>	<b>0.16%</b>	<b>0.16%</b>	<b>0.17%</b>	<b>0.17%</b>
Center Line	<b>0.24%</b>	<b>0.24%</b>	<b>0.20%</b>	<b>0.23%</b>	<b>0.23%</b>
Dearborn East	<b>2.06%</b>	<b>2.02%</b>	<b>2.11%</b>	<b>1.97%</b>	<b>1.96%</b>
Dearborn West	<b>2.16%</b>	<b>2.17%</b>	<b>2.07%</b>	<b>2.03%</b>	<b>2.07%</b>
Farmington	<b>0.27%</b>	<b>0.27%</b>	<b>0.26%</b>	<b>0.27%</b>	<b>0.25%</b>
Grosse Pointe Park	<b>0.41%</b>	<b>0.39%</b>	<b>0.37%</b>	<b>0.36%</b>	<b>0.39%</b>
Melvindale	<b>0.33%</b>	<b>0.33%</b>	<b>0.33%</b>	<b>0.33%</b>	<b>0.33%</b>
<b>M<sup>o</sup> Subtotal</b>	<b>5.62%</b>	<b>5.58%</b>	<b>5.51%</b>	<b>5.37%</b>	<b>5.39%</b>
<b>SHARES</b>					
Allen Park	<b>0.15%</b>	<b>0.15%</b>	<b>0.15%</b>	<b>0.16%</b>	<b>0.16%</b>
Center Line	<b>0.23%</b>	<b>0.22%</b>	<b>0.18%</b>	<b>0.22%</b>	<b>0.21%</b>
Dearborn East	<b>1.97%</b>	<b>1.92%</b>	<b>2.04%</b>	<b>1.86%</b>	<b>1.83%</b>
Dearborn West	<b>2.17%</b>	<b>2.18%</b>	<b>2.06%</b>	<b>2.00%</b>	<b>2.05%</b>
Farmington	<b>0.26%</b>	<b>0.26%</b>	<b>0.25%</b>	<b>0.26%</b>	<b>0.24%</b>
Grosse Pointe Park	<b>0.41%</b>	<b>0.38%</b>	<b>0.36%</b>	<b>0.34%</b>	<b>0.37%</b>
Melvindale	<b>0.32%</b>	<b>0.32%</b>	<b>0.31%</b>	<b>0.32%</b>	<b>0.32%</b>
<b>M<sup>o</sup> Subtotal</b>	<b>5.51%</b>	<b>5.44%</b>	<b>5.35%</b>	<b>5.15%</b>	<b>5.18%</b>

EXHIBIT E

ATTACHMENT 1

EXHIBIT 2

PROCESS TO ADDRESS CUSTOMER'S REQUEST FOR INTERIM SHARE CHANGE

## **Process To Address Customer's Request For Interim Share Change.**

A customer may request interim re-evaluation of its Share during a Rate Period when the following five conditions have been established:

1. The customer knows with reasonable certainty that its flows will change or have changed;
2. The change in flow can be predicted or measured with reasonable certainty;
3. There is a date when it is reasonably likely that the change of flow will or did occur;
4. The cause of the change in flow is not likely to be one that affects most other customers similarly; and
5. The change in flow is likely to cause a material change in the customer's Share.

A customer makes a request for re-evaluation of Shares by providing a written submission to the Sewer Steering Committee with documents and analyses that substantiate the five conditions have been met.

Whenever an increase in service area occurs, the customer whose service area is increased shall provide a submission to the Steering Committee that provides an estimate of the flow likely to be generated from the increased service area.

Within 30 days of receipt of either a written request and its supporting submission or a submission associated with a change in service area, the Steering Committee shall refer the submission to an appropriate subcommittee/work group for evaluation.

The subcommittee shall expeditiously review the submission. If there is disagreement with the data or analyses presented by the customer, the subcommittee will work with the customer as necessary to reach agreement upon data and analyses on which a final determination can be made.

In the case of a request, the customer requesting the re-evaluation has the burden of establishing that the five conditions for re-evaluation have been satisfied. In the case of a change in service area:

- **ALTERNATIVE I:** the subcommittee has the burden to establish that the change in service area will result in a material increase in the customer's Share.
- **ALTERNATIVE II:** the customer increasing its service area has the burden to establish that the change in service area will not result in a material increase in the customer's Share

Following the analyses of the material submitted, the subcommittee shall submit a recommendation to the Steering Committee either to make adjustments to all customers' Shares

and the amounts of such adjustments, to deny the request, or to determine that the increase in service area does not justify a change in Share.

#### Final Review and Approval

The Steering Committee shall review the subcommittee's recommendation and can request further evaluation by the subcommittee, reject the recommendation, or refer the recommendation on to the Board.

Following Steering Committee action on the subcommittee recommendation, it shall forward the recommendation to the Board for action. If the recommendation to the Board is opposed by the requesting customer or by the customer whose service area has increased, that customer may file a position paper supporting its view to the Board before the Board acts.

#### Timing of Adjustments

If the change in Share is the result of an increased service area or the result of a request for re-evaluation that was made before the expected change occurs, the revised Share shall be effective upon the occurrence of the change of flow. If the change will occur in the middle of a rate year, the subcommittee can recommend that the impact be prorated over the rate year if it determines that is appropriate. When the customer requests a re-evaluation after the conditions have already changed, any adjustments in Shares shall occur beginning in the rate year following receipt of the request for re-evaluation.

#### Challenges by Another Customer

If another customer (the "Challenger") concludes that a customer received a new source of flow but did not inform the Steering Committee and request a re-evaluation of Shares, the Challenger may initiate a request for re-evaluation of the customer's share by submitting information showing that the above five factors have been met.



EXHIBIT E

ATTACHMENT 1

EXHIBIT 3

RATE SIMPLIFICATION PRO FORMA



## THE FOSTER GROUP

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### MEMORANDUM

Rate Simplification Pro Forma

November 22, 2013

To: Sue McCormick, Nickie Bateson

From: Bart Foster

The intent of this memorandum is to present a “pro forma” calculation of Sewage Disposal Fund cost allocations and rate structure under the principles and approaches established by the Rate Simplification Proposal. As we have noted in prior discussions on this matter, implementation of the Rate Simplification Proposal will effectively streamline the documentation of sewer rate calculations into five simple tables. The attached pro forma illustrates these calculations.

For purposes of this illustration, we’ve assumed a hypothetical revenue requirement and preliminary cost pool assignments. These elements will be finalized for FY 2014-15 as the Department’s budget and financial plan gets developed over the next two months. The SHAREs included in this illustration reflect the final recommendations of the Look-Back Committee and we do not anticipate any changes.

Inputs to the simplified pro forma rate calculation illustrated in the attached exhibit are highlighted in yellow. All other figures are calculated based on the simple calculations described herein.

**A. Revenue Requirements.** Total operating expense and capital revenue requirements are developed from the Department’s financial plan and become the baseline “revenue requirement from rates” for the calculations. Operating expense will emerge from the Department’s budget request. Capital revenue requirements consist of debt service on bonded indebtedness, capital improvements financed by revenues, and amounts necessary to establish and maintain reserve funds.

- *The figures in this version of the pro forma are hypothetical pending finalization of the FY 2014-15 financial plan. These figures will be updated each year in the Rate Period to reflect annual financial plans.*

**B. Revenue Requirement Allocation Factors.** This approach embraces and implements the “Simplified Estimates of Cost Pools” element of the Rate

Simplification Proposal. Allocation factors are developed based on historical averages and adjusted for estimable changes in cost structure to assign the revenue requirements developed in Part A to the costs pools necessary to allocate revenue requirements to customers.

- *The figures in this version of the pro forma are preliminary and may change subtly as the FY 2014-15 financial plan is finalized. The Look-Back Committee has developed SHARES (see Part D) that are indicative of an overall common-to-all (“CTA”) revenue requirement split of approximately 47% based on volume and approximately 53% based on pollutants. The relative factors in columns 9 and 10 have been (and will be) designed to produce that relative split. (See Part C).*

**C. Revenue Requirement Cost Pool Allocation.** Simply applies the allocation factors in Part B to the revenue requirements in Part A to assign costs to cost pools.

- *Note that the relative CTA split in footnote b is 47% volume / 53% pollutants, as targeted by the allocation factors presented in Part B.*

**D. SHARES.** Represents initial Rate Period SHARES (in Column 1) established by the parties for CTA revenue requirements. The CSO facility Shares are consistent with the 1999 Rate Settlement Agreement. Columns 6 and 7 illustrate relative Flow and Pollutant Shares, which are used to compute overall SHARES.

- *The Suburban Wholesale Cost Pool Shares in Column 3 are determined based on the relative (of the suburban total) Flow Shares shown in Column 6. Costs in this cost pool are not related to the wastewater treatment plant and therefore not allocable based on relative pollutant loadings.*

**E. Allocation of Revenue Requirements / Design of Fixed Charges.** Simply applies the SHARES from Part D to allocate revenue requirements in each cost pool to each customer. Totals individual cost pool allocations to determine total revenue requirement for each customer and calculates a fixed monthly charge for each customer.

- *Note that the rate structure for the Detroit retail class will continue to consist of both fixed and commodity charges.*

We trust that this information provides an effective, executive summary description and illustration of the Rate Simplification Proposal and we are prepared to present this information to policy makers and stakeholders.

**DWSD Sewer Rate Model Template - Pro Forma Calculations**

*Designed to Illustrate Rate Simplification Concept*

*Inputs & Assumptions are HYPOTHETICAL and presented for demonstration purposes only*

Source: Budget/financial plan development

**A. Revenue Requirements**

Operating Expense - \$	225,000,000
Capital Costs - \$	275,000,000
Total - \$	500,000,000

**B. Revenue Requirement Allocation Factors**

Source: Historical averages, adjusted for known changes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
	Functional Cost Allocation Factors	Common to All	Detroit Only	Suburban Wholesale	OMID Specific	Cost Pool Allocation Factors				Common to All Detail		
						CSO Facilities	Industrial Waste Control	TOTAL	Flow	Pollutants		
<u>Operating Expense</u>												
WWTP	70.0%	100.0%						100.0%	22.5%	77.5%		
Collection System	11.0%	60.0%	10.00%	15.0%	15.0%			100.0%	60.0%			
CSO	4.0%					100.0%						
Retail Billing	5.0%		100.0%									
Industrial Waste Control	10.0%						100.0%					
Total	100.0%							100.0%				
<u>Capital Costs</u>												
WWTP	62.0%	100.0%						100.0%	50.0%	50.0%		
Collection System	25.0%	60.0%	32.00%	5.0%	3.0%			100.0%	60.0%			
CSO	13.0%					100.0%						
Retail Billing	0.0%		100.0%									
Industrial Waste Control	0.0%						100.0%					
Total	100.0%							100.0%				

**DWSD Sewer Rate Model Template - Pro Forma Calculations**

*Designed to Illustrate Rate Simplification Concept*

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**C. Revenue Requirement Cost Pool Allocation**

Source: **B** (factors) applied to **A** (revenue requirements)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Functional Cost Allocation	Common to All	Detroit Only	Suburban Wholesale	OMID Specific	CSO Facilities	Industrial Waste Control	TOTAL	Common to All (b) Flow	Pollutants
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<u>Operating Expense</u>										
WWTP	157,500,000	157,500,000	-	-	-	-	-	157,500,000	35,437,500	122,062,500
Collection System	24,750,000	14,850,000	2,475,000	3,712,500	3,712,500	-	-	24,750,000	14,850,000	-
CSO	9,000,000	-	-	-	-	9,000,000	-	9,000,000	-	-
Retail Billing	11,250,000	-	11,250,000	-	-	-	-	11,250,000	-	-
Industrial Waste Control	22,500,000	-	-	-	-	-	22,500,000	22,500,000	-	-
Total Operating	225,000,000	172,350,000	13,725,000	3,712,500	3,712,500	9,000,000	22,500,000	225,000,000	50,287,500	122,062,500
<u>Capital Costs</u>										
WWTP	170,500,000	170,500,000	-	-	-	-	-	170,500,000	85,250,000	85,250,000
Collection System	68,750,000	41,250,000	22,000,000	3,437,500	2,062,500	-	-	68,750,000	41,250,000	-
CSO	35,750,000	-	-	-	-	35,750,000	-	35,750,000	-	-
Retail Billing	0	-	-	-	-	-	-	0	-	-
Industrial Waste Control	0	-	-	-	-	-	-	0	-	-
Total Capital	275,000,000	211,750,000	22,000,000	3,437,500	2,062,500	35,750,000	0	275,000,000	126,500,000	85,250,000
Total Revenue Req't	500,000,000	384,100,000	35,725,000	7,150,000	5,775,000	44,750,000	22,500,000	500,000,000	176,787,500	207,312,500
less: Industrial Specific (a)	(27,500,000)	(5,000,000)	-	-	-	-	(22,500,000)	(27,500,000)	-	(5,000,000)
Net Revenue Requirement	472,500,000	379,100,000	35,725,000	7,150,000	5,775,000	44,750,000	0	472,500,000	176,787,500	202,312,500
(a) Industrial Surcharge Customers									47%	2.4%
(b) Relative Flow/Pollutants in CTA Cost Pool										53%

based on % of total tributary pollutant loadings that are "surchargeable"

**DWSD Sewer Rate Model Template - Pro Forma Calculations**

*Designed to Illustrate Rate Simplification Concept*

*Inputs & Assumptions are HYPOTHETICAL and presented for demonstration purposes only*

**D. SHARES**

Source: Simplified flow balance results ("Z" factor)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	CTA SHARE	Detroit Only	Suburban Wholesale	OMID Specific	CSO Facilities	Share Flow	Share Details Pollutants
<u>Metered Customers</u>							
OMID	16.14%	100.00%	24.84%	100.00%	2.65%	14.28%	17.42%
Rouge Valley	12.66%		20.70%		2.96%	11.90%	13.18%
Oakland GWK	10.40%		17.69%		2.26%	10.17%	10.55%
Evergreen Farmington	7.37%		11.93%		1.49%	6.86%	7.73%
NE Wayne Co	5.49%		9.44%		1.17%	5.43%	5.52%
Allen Park	0.15%		0.24%		0.03%	0.14%	0.16%
Center Line	0.21%		0.33%		0.06%	0.19%	0.23%
Dearborn East & West	4.15%		6.72%		0.00%	3.86%	4.34%
Farmington	0.25%		0.41%		0.05%	0.24%	0.26%
Grosse Pointe Park	0.37%		0.62%		0.06%	0.36%	0.38%
Melvindale	0.32%		0.51%		0.07%	0.29%	0.33%
Grosse Pointe Farms	0.71%		1.18%		0.50%	0.68%	0.72%
<b>M Total</b>	58.22%	0.00%	94.61%	100.00%	11.30%	54.40%	60.83%
<u>Detroit + Unmetered</u>							
Dearborn E. (Storm Only)	0.06%		0.15%		1.63%	0.09%	0.05%
Dearborn N.E.	0.32%		0.81%		0.00%	0.47%	0.43%
Grosse Pointe	0.19%		0.39%		0.23%	0.23%	0.20%
Hamtramck	0.80%		1.79%		1.59%	1.03%	0.84%
Harper Woods	0.05%		0.11%		0.01%	0.06%	0.06%
Highland Park	1.13%		2.05%		2.06%	1.18%	1.06%
Small Districts	0.06%		0.08%		0.17%	0.05%	0.05%
Detroit	39.16%	100.00%			83.00%	42.51%	36.49%
<b>D+ Total</b>	41.78%	100.00%	5.39%		88.70%	45.60%	39.17%
<b>Total</b>	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Suburbs in D+	2.62%	0.00%	5.39%	0.00%	5.70%	3.10%	2.68%
Detroit	39.16%	100.00%	0.00%	0.00%	83.00%	42.51%	36.49%

**DWSD Sewer Rate Model Template - Pro Forma Calculations**

*Designed to Illustrate Rate Simplification Concept*

*Inputs & Assumptions are HYPOTHETICAL and presented for demonstration purposes only*

**E. Allocation of Revenue Requirements / Design of Fixed Charges**      *Source: D (shares) applied to C (allocated revenue requirements)*

	(1)	(2)			(3)	(4)	(5)	(6)	(7)
		Detroit Only	Suburban Wholesale	OMID Specific					
Common to All	\$	\$	\$	\$	\$	\$	\$	\$	\$/mo
<b>Metered Customers</b>									
OMID	61,186,700	0	1,775,900	5,775,000	1,186,400	69,924,000	5,827,000		
Rouge Valley	47,994,100	0	1,479,900	0	1,322,700	50,796,700	4,233,100		
Oakland GWK	39,426,400	0	1,264,700	0	1,009,500	41,700,600	3,475,100		
Evergreen Farmington	27,939,700	0	853,100	0	664,600	29,457,400	2,454,800		
NE Wayne Co	20,812,600	0	675,300	0	525,300	22,013,200	1,834,400		
Allen Park	583,800	0	17,400	0	13,800	615,000	51,300		
Center Line	799,900	0	23,500	0	24,800	848,200	70,700		
Dearborn East & West	15,713,700	0	480,200	0	0	16,193,900	1,349,500		
Farmington	959,100	0	29,600	0	23,400	1,012,100	84,300		
Grosse Pointe Park	1,414,000	0	44,300	0	27,600	1,485,900	123,800		
Melvindale	1,194,200	0	36,400	0	33,100	1,263,700	105,300		
Grosse Pointe Farms	2,691,600	0	84,600	0	225,500	3,001,700	250,100		
<b>M Total</b>	220,715,800	0	6,764,900	5,775,000	5,056,700	238,312,400	19,859,400		
<b>Detroit + Unmetered</b>									
Dearborn E. (Storm Only)	238,800	0	10,700	0	729,900	979,400	81,600		
Dearborn N.E.	1,213,100	0	58,200	0	0	1,271,300	105,900		
Grosse Pointe	727,900	0	28,200	0	102,100	858,200	71,500		
Hamtramck	3,040,400	0	127,800	0	713,600	3,881,800	323,500		
Harper Woods	204,700	0	7,600	0	5,700	218,000	18,200		
Highland Park	4,283,800	0	146,900	0	924,000	5,354,700	446,200		
Small Districts	208,500	0	5,700	0	75,300	289,500	24,100		
Detroit (a)	148,466,900	35,725,000	0	0	37,142,500	221,334,400	18,444,500		
<b>D+ Total</b>	158,384,100	35,725,000	385,100	0	39,693,100	234,187,300	19,515,500		
<b>Total</b>	379,099,900	35,725,000	7,150,000	5,775,000	44,749,800	472,499,700	39,374,900		
Suburbs in D+	9,917,200	0	385,100	0	2,550,600	12,852,900	1,071,000		
Detroit (a)	148,466,900	35,725,000	0	0	37,142,500	221,334,400	18,444,500		

(a) Retail rates for Detroit will still contain fixed and commodity charges.

EXHIBIT E

ATTACHMENT 2

AGREEMENT TO REVISE CSO PROJECT LIST



## Attachment 2

### AGREEMENT TO REVISE CSO PROJECT LIST

**THIS SETTLEMENT AGREEMENT (“Agreement”)** is entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2013 by and between the City of Detroit by and through its Board of Water Commissioners, the County of Oakland, acting by and through its Water Resources Commissioner, the County of Macomb, acting by and through its Public Works Commissioner, and the County of Wayne.

#### RECITALS:

A. WHEREAS that parties entered into a certain rate settlement agreement dated September 1, 2000 (known as the **“1999 Rate Settlement Agreement”**) which deals with allocation of costs for wet weather facilities consistent with the projects identified for construction in the NPDES Permit which was issued to Detroit on July 1, 1997, and estimation and determination of responsibility for infiltration/inflow (unaccounted for flows);

B. WHEREAS the United States District Court has ordered that paragraphs 2, 3, 5, 6, 8, 9, 10, 11, and 13 and Exhibit B of the 1999 Rate Settlement Agreement be incorporated in all of the wastewater services contracts between Detroit and its Tier 1 or wholesale customers. Order to Incorporate Rate Settlements into Wastewater Contracts and Dismiss All Prior Rate Settlements (August 31, 2011), *United States v City of Detroit*, Case No. 77-71100 (dkt #2393);

C. WHEREAS the 1999 Rate Settlement Agreement identified specific past, then-ongoing and future wet weather projects and assigned them to one of four customers classes for cost allocation purposes: Detroit only, common-to-all (wastewater treatment plant improvements), 83% Detroit/17% wholesale customers (new wet weather facilities), and customer-specific. Those projects were set forth in Exhibit B to the 1999 Rate Settlement Agreement;

D. WHEREAS all of the projects on Exhibit B have been completed or have been cancelled as not cost-effective as then formulated;

E. WHEREAS the 1999 Rate Settlement Agreement provides that:

**“In the event that DWSD determines that it is reasonable, appropriate or necessary to construct additional wet weather facilities in the future, suburban customers reserve the right to contest the allocation of costs of such facilities to them.”**

F. WHEREAS Detroit’s NPDES Permit was modified on September 26, 2003 to require construction of certain additional projects not included on Exhibit B as follows:

- Oakwood CSO Basin and Pump Station,
- Oakwood District Sewer Improvements, and
- Belle Isle CSO Basin;

G. **WHEREAS** Detroit's NPDES permit was again modified on March 10, 2010 to eliminate the Upper Rouge Tunnel and the Detroit River Outfall ("DRO-2") projects, provided that Detroit identify substitute CSO control facilities for future construction along the Upper Rouge River to control outfalls which were previously slated to be connected to the now-terminated Upper Rouge Tunnel, and to design and construct a new Rouge River Outfall ("RRO-2") at the wastewater treatment plant as a replacement to the now-terminated Detroit River Outfall (DRO-2) project;

H. **WHEREAS** Detroit's NPDES permit was again modified on June 28, 2011 (the "Existing NPDES Permit") to require the following additional projects, including certain projects not included on Exhibit B for both conventional CSO control facilities and a new Green Infrastructure Program in the Upper Rouge Tributary Area as follows:

- Construction of ten new Conventional CSO Control Facilities along the Upper Rouge to replace the Upper Rouge Tunnel to be completed and placed in service by 2035,
- Implementation of a Green Infrastructure Program in the Upper Rouge tributary area to be completed by 2032,
- Renovation and structural rehabilitation of the Hubbell-Southfield CSO Basin and the Task 1 In-System Storage Gates by 2014, and
- Construction of ten new Conventional CSO control facilities along the Detroit River to be completed and placed in service by 2045;

I. **WHEREAS** Detroit is negotiating a new NPDES permit for the period 2013-2017 (the "New NPDES Permit") which will include several wet weather projects not included on Exhibit B, of which three projects are to be constructed prior to the expiration of the New NPDES Permit in 2017:

- New Rouge River Outfall (RRO-2) Segment 2,
- Hubbell-Southfield Basin, and
- Task 1 Gate Renovations

J. **WHEREAS** the wholesale customers have previously informally contested the allocation of cost for certain of the planned Green Infrastructure Program;

K. **WHEREAS** the parties have now resolved the challenges to the allocation of Green Infrastructure Projects through 2017 and have agreed on the allocation of conventional wet weather projects that are either i) constructed or presently under construction and not included on Exhibit B, ii) included in the Existing NPDES Permit and not yet constructed, or iii) to be constructed pursuant to the New NPDES Permit, and wish to memorialize the resolutions of these issues through this Agreement.

NOW THEREFORE, in consideration of the foregoing and the mutual promises hereafter the parties agree as follows:

1. Status of Wet Weather Projects on Exhibit B to the 1999 Rate Settlement Agreement.

- (a) All projects on Exhibit B to the 1999 Rate Settlement Agreement are deemed to have been completed or abandoned except to the extent they are identified on Exhibit 1 to this Agreement;
  - (b) To the extent Detroit has incurred capital costs for the facilities on Exhibit B and is incurring operation and maintenance costs, such costs shall be allocated in current and future rates consistent with the allocation established in Exhibit B to the 1999 Rate Settlement Agreement; and
  - (c) Objections to such capital costs are waived and released with prejudice.
2. Wet Weather Projects Not on Exhibit B to the 1999 Rate Settlement Agreement
- (a) The parties agree that the completed wet weather projects on Exhibit 1a are valid and approved wet weather projects and their capital, operating and maintenance costs shall be allocated as set forth in Exhibits 1a.
  - (b) The parties agree that the wet weather projects now underway and shown on Exhibit 1b are valid and approved wet weather projects and their capital, operating and maintenance costs shall be allocated as shown on Exhibit 1b, subject to Paragraph 3(c) below.
  - (c) The parties agree that the proposed wet weather projects shown on Exhibit 1c are valid and approved wet weather projects and their capital, operating and maintenance cost shall be allocated as shown on Exhibit 1c, subject to Paragraph 3(c) below.
  - (d) The parties agree that Detroit may not allocate to the wholesale customers the capital, operating and maintenance costs of any wet weather project not shown on either Exhibit B to the 1999 Rate Settlement Agreement or Exhibit 1a, b and c until and unless this Agreement and Exhibit 1a, b and c are amended by the parties.
3. Green Infrastructure Program
- (a) The parties agree that the capital, operating and maintenance costs incurred through June 30, 2017, for green infrastructure wet weather control facilities that 1) are required by the New NPDES Permit, 2) meet the criteria in Paragraphs 3(c)(ii) or (iii) below, and 3) are implemented in the area tributary to the Upper Rouge Tunnel (as defined in Exhibit 2) between July 1, 2010 and June 30, 2017, shall be allocated 83% to the City of Detroit and 17% to wholesale customers. The allocation of these costs among wholesale customers shall be according to the percentages set forth in Exhibit A to the 1999 Rate Settlement Agreement, as Exhibit A may hereafter be amended to address additions or deletions of flow from one or more wholesale customers.
  - (b) To the extent that green infrastructure wet weather control projects are required within the area tributary to the Upper Rouge Tunnel as part of the 2018-2022

NPDES permit and meet the criteria in Paragraphs 3(c)(ii) or (iii), Detroit, and Wayne and Macomb Counties agree that costs incurred shall be allocated 83% to the City of Detroit and 17% to wholesale customers. Before June 30, 2017, Oakland County agrees to enter into negotiations with regard to the allocation of such costs and with regard to operating and maintenance costs associated with green infrastructure projects implement pursuant to Paragraph 3(a).

(c) Guidelines for Projects Subject to Paragraph 3(a)

The parties agree that the following shall apply to the cost allocation of green infrastructure projects in the New NPDES Permit to be constructed before 2018:

- i. Eaves trough and downspout disconnection projects shall be charged 100% to Detroit:
- ii. The following types of wet weather control projects may be allocated 83%/17% if the specified criteria are met:
  - Demolition of structures if needed to accomplish a specific wet weather control project not consisting entirely of land clearance and involving other elements – e.g., land assembly for a detention pond or drainage swale or tree planting.
- iii. All other types of green infrastructure wet weather control projects may be allocated 83% /17% in all circumstances.

(d) The parties agree to negotiate in good faith with regard to the allocation of costs of any other green infrastructure project included in a future NPDES permit or in the DWSD Capital Improvement Program.

(e) Detroit agrees to comply with New NPDES Permit, Section A(5)(a), “Green Infrastructure (GI) Program – Tributary Area for Rouge River Outfalls.”

(f) Detroit will account for and report to the wholesale customers the actual capital, operating and maintenance costs incurred for green infrastructure on a fiscal year basis and by June 30, 2017 prepare a five-year projection of operating and maintenance costs for the green infrastructure constructed or to be constructed pursuant to the New Permit.

4. Wet Weather Projects to Be Constructed after 2017. Consistent with the 1999 Rate Settlement Agreement, the capital, operating and maintenance costs of wet weather facilities constructed or to be constructed by DWSD in the future and not listed on Exhibit 1 that alleviate combined sewer overflows from Detroit’s wastewater transportation, conveyance and treatment system and that will reduce flows into sewers that contain or will contain wet weather flows generated from both inside and outside the City of Detroit shall be allocated between Detroit and the wholesale customers on a 83%/17% basis. The foregoing does not apply to green infrastructure projects subject to Paragraph 3(b).

5. Except as may be modified herein, the wastewater contracts between parties and the surviving rate terms as defined in the Court's Order of August 31, 2011, remain in full force and effect unless such surviving rate terms are amended or modified by a separate agreement.
6. Detroit and the three Counties shall amend their wastewater services contracts to incorporate the terms of this Agreement and Detroit shall obtain similar amendments in all of the other wholesale customers' contracts.

MACOMB COUNTY

CITY OF DETROIT

By: Joe M. Cornish  
 Its: Director, DWSD

By: *[Signature]*

Its: CHIEF DEPUTY  
 MACOMB COUNTY  
 PUBLIC WORKS COMMISSIONER

OAKLAND COUNTY

By: \_\_\_\_\_  
 Its: \_\_\_\_\_

WAYNE COUNTY

By: *[Signature]*  
 Its: ACEO/CO

11/20/13

5. Except as may be modified herein, the wastewater contracts between parties and the surviving rate terms as defined in the Court's Order of August 31, 2011, remain in full force and effect unless such surviving rate terms are amended or modified by a separate agreement.
6. Detroit and the three Counties shall amend their wastewater services contracts to incorporate the terms of this Agreement and Detroit shall obtain similar amendments in all of the other wholesale customers' contracts.


MACOMB COUNTY

CITY OF DETROIT

By: \_\_\_\_\_  
Its: \_\_\_\_\_

By: \_\_\_\_\_  
Its: \_\_\_\_\_

OAKLAND COUNTY

By:   
Its: \_\_\_\_\_

WAYNE COUNTY

By: \_\_\_\_\_  
Its: \_\_\_\_\_

EXHIBIT E

ATTACHMENT 2

EXHIBIT 1

APPROVED WET WEATHER FACILITIES

## APPROVED WET WEATHER FACILITIES

<u>Project Description</u>	<u>Actual Capital Cost</u>	<u>Cost Allocation</u> (Detroit/Suburban)
<b>a. Completed Facilities Not on Exhibit B</b>		
• Belle Isle CSO Basin	\$16.1 M	100% / 0%
• Oakwood CSO Basin & Pump Station (082)	\$168.7 M	
a. CSO Basin	TBD	83% / 17%
b. Pump Station	TBD	Common-to-all
• Oakwood District Sewer Improvements	\$27.0 M	100% / 0%
• Detroit River Outfall (DRO-2)	\$88.2 M	Common-to-all
	<b><u>Estimated Cost</u></b>	
<b>b. Facilities Under Construction and Not on Exhibit B</b>		
• Rouge River Outfall Segment 1 (RRO-2)	\$14.4 M	Common-to-all
• Green Infrastructure (2010-12) (059-069, 072-075, 077, 079)	(Max) \$9.0 M	Para. 3(c)
<b>c. Facilities to be Constructed Pursuant to New NPDES Permit</b>		
Facilities to be constructed by 2017:		
• Green Infrastructure (2013-2017) (Outfalls 059-069, 072-075, 077, 079)	\$15.0 M	Para. 3(c)
• Rouge River Outfall Segment 2 (RRO-2)	\$91.0 M	Common-to-All
• Hubbell-Southfield Basin Renovations, Task 1 Gate Rehab.	\$19.0M	83% / 17%
• In-System Storage Gate Renovation (Outfalls 059, 060, 061, 065, 069, 072, 074)	\$2.0M	83% / 17%
Facilities to be constructed after 2017:		
• Green Infrastructure (2018 - ) (Outfalls 059-069, 072-075, 077, 079)	\$26.0 M	TBD



*(End Exhibit E)*

EXHIBIT B-VI

WASTEWATER TREATMENT NPDES PERMIT ASSIGNMENT OF FUNCTIONS

List of NPDES Requirements

Page	Part	Section	Subsection	Requirement	Current Version Date	Due Date	Frequency of Updates	Current Responsibility		Type of Work to be Performed	Responsibility for Compliance	
Cover	-	-	-	Reapply as Required	-	4/1/2017	Five Year Interval	-	-	Prepare Application	Shared	
3-6	I	A. Limitations and Monitoring Requirements	1. Final Effluent Limitations, Monitoring Point 049F	Dry and wet weather discharges	-	-	-	-	-	Detroit River Outfall	Operate	Authority
7	I	A. Limitations and Monitoring Requirements	2. Final Effluent Limitations, Monitoring Point 049A	Dry and wet weather discharges	-	-	-	-	-	Detroit River Outfall	Operate	Authority
8-9	I	A. Limitations and Monitoring Requirements	3. Final Effluent Limitations, Monitoring Point 049B	Dry and wet weather discharges	-	-	-	-	-	Detroit River Outfall	Operate	Authority
9-12	I	A. Limitations and Monitoring Requirements	4. Final Effluent Limitations, Monitoring Point 050A	Dry and wet weather discharges	-	-	-	-	-	Rouge River Outfall	Operate	Authority
11	I	A. Limitations and Monitoring Requirements	4. Final Effluent Limitations, Monitoring Point 050A - d. Evaluation of Copper Effluent Concentrations	Copper Evaluation	Oct. 27, 2013	Oct. 27, 2013	None	-	-	Reported was written by IWC, analytical lab	Study/Report	Complete
13-16	I	A. Limitations and Monitoring Requirements	5. Final Effluent Limitations, Monitoring Point 084A (RRO2)	Several deadlines associated with disinfection of wet weather flow. <sup>1</sup>	-	-	-	-	-	-	Construct Improvements and Study	Authority
18-19	I	A. Limitations and Monitoring Requirements	6. Combined Sewer Overflow Retention Treatment Basin Discharge Authorization, Monitoring Points 101A, 102A, 103A, 104A, 108A and 109A	Effluent flow-weighted composite sampling	-	-	-	-	-	Equipment and procedures recently developed at Conner Creek and Hubbell-Southfield RTB	Study/Construct	Authority
19	I	A. Limitations and Monitoring Requirements	6. Combined Sewer Overflow Retention Treatment Basin Discharge Authorization, Monitoring Points 101A, 102A, 103A, 104A, 108A and 109A	Operations and Maintenance Plans	-	-	-	-	-	-	Prepare Plans	Shared
21	I	A. Limitations and Monitoring Requirements	7. Combined Sewer Overflow Screening and Disinfection Facilities Discharge Authorization, Monitoring Points 105A, 106A and 107A - d. Operation and Maintenance Plan	Operations and Maintenance Plans	-	-	-	-	-	-	Prepare Plans	Shared
22	I	A. Limitations and Monitoring Requirements	8. Total Residual Chlorine Minimization Program	TRC Minimization Assessment	21-Dec-12	-	Completed	-	-	TRC report completed and submitted to MDEQ and awaiting review	Study/Construct	Authority
22	I	A. Limitations and Monitoring Requirements	8. Total Residual Chlorine Minimization Program	TRC Minimization Procedures	-	Upon MDEQ approval	-	-	-	TRC minimization procedures to be implemented upon MDEQ approval	Study/Construct	Authority
22	I	A. Limitations and Monitoring Requirements	8. Total Residual Chlorine Minimization Program	In-stream TRC Effluent Plume Evaluation	21-Dec-12	-	Completed	-	-	TRC plume study submitted to MDEQ and awaiting review	Study	Authority
23	I	A. Limitations and Monitoring Requirements	8. Total Residual Chlorine Minimization Program	Best Practices Work Group Meetings	-	-	Quarterly	-	-	Currently meetings are facilitated by Project Innovations	Participate	Authority
23	I	A. Limitations and Monitoring Requirements	8. Total Residual Chlorine Minimization Program	Summary of Work Group meetings and BMPs	Feb-15	March 1	Annually	WW Operations	-	Report prepared by Project Innovations	Prepare Report	Authority
24-25	I	A. Limitations and Monitoring Requirements	9. Additional Monitoring Requirements	Whole Effluent Toxicity & Hardness, metals, organics, etc.	August-14	May-15	May 2015, March 2016, Oct. 2016	Operations & analytical lab	-	-	Monitor	Authority
25-26	I	A. Limitations and Monitoring Requirements	10. Pollutant Minimization Program for Total Mercury and Total PCBs	Pollutant Minimization Program	-	-	-	-	-	-	Monitor	Authority
26	I	A. Limitations and Monitoring Requirements	10. Pollutant Minimization Program for Total Mercury and Total PCBs	PCB/Hg monitoring in influent and sludge	-	1-Oct	Quarterly	IWC	-	-	Monitor	Authority
26	I	A. Limitations and Monitoring Requirements	10. Pollutant Minimization Program for Total Mercury and Total PCBs	PCB/Hg Minimization Report	-	1-Oct	Annually	IWC	-	-	Report	Authority
26	I	A. Limitations and Monitoring Requirements	11. Wastewater Treatment Plant Wet Weather Operational Plan	WWTP Wet Weather Operational Plan	12/29/2014	January 1	Annually	WW Ops/Sup Eng./SCC	-	-	Plan	Authority
27	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Required capacities, solids recycling reporting, solids inventory	-	-	-	-	-	-	Operate	Authority
28	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Short - Term Solids Management Plan	-	-	-	WW Operations	Completed	-	Plan	Complete
28	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	C-I, C-II repairs	-	11/30/2014	-	WW Engineering Construction	Completed	-	Construct	Complete
28	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Belt Filter Presses C-I, C-II	-	1/1/2016	-	WW Engineering Construction	Complete Construction	-	Construct	Authority
28	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Long Term Solids Management Plan	3/1/2013	3/1/2013	Schedule incorporated by reference	WW Operations	Submitted request for revision of the LTSDP on December 8, 2014	-	Plan/Act	Authority
28	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Alum Sludge Correction Plan	-	9/1/2015	annual report after impl.	Water Eng./ops impl.	-	-	Plan/Act	Authority
29	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Quarterly Shutdown Schedule	-	Dec., Mar., June, Sept.	Quarterly	WW Operations/Engineeri	-	Quarterly Meeting held on site with MDEQ	Plan	Authority
29	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Asset Management Program	December-13	1/1/2014	No updates -annual report	-	-	Includes all facilities (GLWA: some collection, WWTP, CSO, pumping stations/DWSD : linear assets)	Plan/Act	Shared
29	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Staffing Plan	10/14/2015	-	As needed	WW Operations	-	Minimum staffing level applies only during	Plan	Authority
29	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Purchasing Procedures	June 30, 2013	June 30, 2013	Update only required if procedures change	Purchasing/WW Admin.	-	Minimum level during staffing applies only ACO/count only WWTP & CSO	Report	Complete
30	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Purchasing Metrics	-	-	-	-	-	Include KPIs in ACO quarterly	-	Authority
30	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Asset Management implementation	Oct. 1, 2014	Oct. 1, 2015	Annual	WW Admin.	-	Prescriptive report, includes collection system, budgets	Report	Shared
30	I	A. Limitations and Monitoring Requirements	12. Facilities Improvement Program	Permittee will participate in MDEQ outreach meetings	-	-	-	-	-	MDEQ sets meetings City of Detroit may be invited	Participate	Authority
30	I	A. Limitations and Monitoring Requirements	13.Reopener for Primary and Secondary Treatment Capacity	Establishes requirement for 1700MGD (raw) Primary Treatment Capacity and 930MGD (includes recycle) Secondary Treatment Capacity	-	throughout permit	-	Operations and Maintenance	-	-	Operate	Authority

32	I	A. Limitations and Monitoring Requirements	14.Outfalls Prohibited from Discharge to Combined Sewer System	5 Outfalls prohibited from discharge	-	Monitoring requirements - captured in SCC. Reported by WWTP	-	WWOG and SCC	Except as provided in Part II.C.9	Monitor/ Report	Authority
32	I	A. Limitations and Monitoring Requirements	15.Discharges from Combined Sewer System a. Limited Discharge Authorization	56 Outfalls Limited discharge authorization	-	-	-	DWSD - WWOG, SCC	Establishes criteria for discharge authorization form CSO outfalls	Operate	Authority
36	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System b. Qualified Operations and Maintenance Manager for CSO Discharges	Designation of qualified Manager to serve as contact for CSO discharges	-	-	-	WWOG		Operate	Authority
36	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System c. Disconnection of Eaves Troughs and Roof Downspouts	Downspout Disconnections/residential & commercial	-	-	-	Green Infrastructure CS-1522 /WW	City Ordinance in place Permit prioritizes implementation	Enforce	City
36-43	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program	Final CSO Control Program: Incorporates Green Infrastructure as component of approved Long-Term	-	-	-	WW Engineering	Requires the elimination or adequate treatment of CSOs under LTCSO Program	Plan/ Construct	Shared
37	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 1) Rouge River Outfalls 059-069, Outfalls 072-075, Outfall 077, and Outfall 079 a. Work Plan	Work Plan to determine frequency & volume of discharges from Upper Rouge River	July 1, 2013	-	NA	WW Engineering	MDEQ approved	Study	Complete
37	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 1) Rouge River Outfalls 059-069, Outfalls 072-075, Outfall 077, and Outfall 079 b. Report on study	Report results of study.	-	April 1, 2015	NA	WW Engineering	Submitted	Report	Complete
37	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 1) Rouge River Outfalls 059-069, Outfalls 072-075, Outfall 077, and Outfall 079 c. Amend "Supplemental Report on Alternative CSO Controls... UR River"	Amend the "Supplemental Report on Alternative CSO Controls for the Upper Rouge River" (dated April 30, 2010) that describes any changes to the recommended long-term CSO control projects for the 17 CSOs.	-	January 1, 2017	-	WW Engineering	Sets changes to long term control plan	Plan/Long Term CSO	Shared
37	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 2) CSO Control Program for Rouge River Task 1 In-System Storage Gate Renovations (Outfalls 060, 061, 065, 069, 072, and 074)	In-system Storage Gate Renovation	-	June 1, 2015	NA	WW Construction	Complete Construction	Construct	Complete
38	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 3) Long-term CSO Control Program for Rouge River Outfall 082/Oakwood Pump Station	Rouge River Outfall/Oakwood Pump Station - Project Performance Certification	-	February 1, 2014	NA	WW Ops Group Engineering		Report	Complete
38	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 4) CSO Control Program for Hubbell Southfield Retention Basin Structural Improvements	Hubbell Southfield Retention Basin Improvements	-	June 1, 2015	NA	WW Ops Group Engineering	On schedule	Construct	Authority
39	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 5) Green Infrastructure (GI) Program a) Tributary Area for Rouge River Outfalls 059-069, 072-075, 077, and 079	Green Infrastructure Plan Avg. \$3 Million/yr. 10 yrs. Upper Rouge Outfalls and \$2 M for following 10 yrs.	Aug-14	Aug 1, 2013	-	WW Engineering and	Applicable to the Upper Rouge Outfalls Shared for planning the GI efforts, Implementation of plan City.	Plan/Act	Shared
39	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 5) Green Infrastructure (GI) Program a) Tributary Area for Rouge River Outfalls 059-069, 072-075, 077, and 079	Annual Report & performance goal of 2.8 Million gals	-	Aug. 1, 2015	annual	CS-1522 WW Engineering		Report	City
40	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 5) Green Infrastructure (GI) Program b) Tributary Area for Detroit River Outfalls 005 - 009, 011, and 012 - 1. Detroit River CSO Control Plan	Detroit River CSO Control Plan- conceptual Includes Green Infrastructure	New required April 1, 2017	-	-	WW Engineering		Plan	Shared
# # # # #	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 5) Green Infrastructure (GI) Program b) Tributary Area for Detroit River Outfalls 005 - 009, 011, and 012 - 2. Future CSO Control and GI req't's	Future CSO Control and GI requirements	-	Post April 2017	-	WW Ops Group Engineering	Applicable to the Detroit River near east-side and includes GI requirements	Plan	Shared
# # # #	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 6) Collection System Improvements a) Control Improvements and b) Collection System Rehabilitation	Collection System Improvements	Oct-14	October 1	annual	WW Ops Group Engineering	Currently consolidated annual report for this section and CSO operational plan 15.e	Report/Act	Shared
# # #	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 8) Evaluation of Financial Capability	Evaluation of Financial Capability	-	April 1, 2017	-	Financial Administration	Financial Capability Report must be submitted on or before the permit renewal application	Study	Shared
41-43	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System d. Final Combined Sewer Overflow Control Program 9) Future CSO Control Projects	Future CSO Control Projects Adaptive management, eliminate discharges in listed outfalls, MDEQ review and approval. Shall propose storm water control for new and re-development in Rouge Sewer and Central Sewer Districts, and proposed control level, procedure and schedule. Procedure to implement control and schedule in two named districts (above).	-	Prior to implementation April 1, 2017	-	-	Complex section Need City Storm water ordinance		Shared City
43-44	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System e. Collection System and CSO Treatment Facilities Operational Plan	Collection System & CSO Operational Plan elements listed includes continue to coordinate with tributary communities.	9/30/2014	October 1	Annually	WWOG & Engineering	Includes O&M plans 1.A.6.d & 1.A.7.d		Shared
# #	I	A. Limitations and Monitoring Requirements	15. Discharges from Combined Sewer System f. New Wastewater Flows	New wastewater flows prohibited from outfalls and controlled outfalls	-	-	-	-	-		Shared
44-45	I	A. Limitations and Monitoring Requirements	16. Untreated or Partially-Treated Sewage Discharge Reporting and Testing Requirements	Discharge Reporting	-	-	Event	-	Details to be worked out by the Operational Working Group that is proposed to be developed		Shared
# #	I	A. Limitations and Monitoring Requirements	17.Facility Contact	Requirement for Facility Contact and Duly Authorized Representative	-	-	Throughout Permit	WWOG and Administration	Notification of changed within 10 days	Reporting/notification	Shared
45-	I	A. Limitations and Monitoring Requirements	18.Monthly Operating Reports	Monthly monitoring reporting Reapplication of Enforcement Authority Agreement	-	-	Monthly	WWOG IWC	DMR	Reporting	Authority Authority

#	I	Section B. Industrial Waste Pretreatment Program	1. Federal Industrial Waste Pretreatment Program e. Report in accordance with agreement	Report in accordance with delegated authority agreement	April 1, 2014	April 1, 2015	Annual	IWC	-	Report	Authority
#	I	Section B. Industrial Waste Pretreatment Program	1. Federal Industrial Waste Pretreatment Program h. Enforcement Response Plan	Industrial Waste Enforcement Response Plan	Continue to Implement	-	-	IWC	-	Plan	Authority
#	I	Section B. Industrial Waste Pretreatment Program	1. Federal Industrial Waste Pretreatment Program n. Evaluation of whether existing local limits need to be revised	Local Limit Evaluation	-	June 1, 2016	-	-	-	Evaluate/ Report	Authority
#	I	Section B. Industrial Waste Pretreatment Program	1. Federal Industrial Waste Pretreatment Program o. Industrial Pretreatment Program Annual Report	Industrial Pretreatment Program Annual Report Submittal	April 1, 2014	April 1, 2015	Annual	IWC	-	Report	Authority
#	I	Section B. Industrial Waste Pretreatment Program	2. Schedule for Notification to Contributing Jurisdictions	Progress Report achievement of all contribution jurisdictions legal authority	Nov. 1, 2014	May 1, 2015	Se mi- Ann	IWC	-	Report	Authority
#	I	Section C. Residuals Management Program	1. Residuals Management Program for Land Application of Biosolids	Approved Residuals Management Program	-	-	As needed	WWOG	-	Comply	Authority
#	I	Section C. Residuals Management Program	1. Residuals Management Program for Land Application of Biosolids a. Annual Report	Annual Residuals Management Program Report	Oct. 30, 2014	Oct. 30, 2015	Annual	WWOG	-	Report	Authority
#	II	Section B. Monitoring Procedures	Entire Section	Various Monitoring Requirements	-	-	-	-	-	Comply	Authority
58-	II	Section C. Reporting Requirements	Entire Section	Various Reporting Requirements	-	-	-	-	-	Comply	Authority
63-	II	Section D. Management Responsibilities	Entire Section	Various Management Responsibilities	-	-	-	-	-	Comply	Authority
#	II	Section E. Activities Not Authorized by This Permit	Entire Section	Activities Not Authorized by this Permit	-	-	-	-	-	Comply	Authority
*This outfall was the focus of the Alternative Disinfection Study-sought alternative to new outfall construction. NPDES permit revision is underway to modify this requirement to the selected alternative for disinfecting 100% of the wet weather flow - secondary and primary treated.											

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