



Report on
Onondaga County Long-Term Debt
Updated through December 31, 2018
By Onondaga County Comptroller Matthew J. Beadnell

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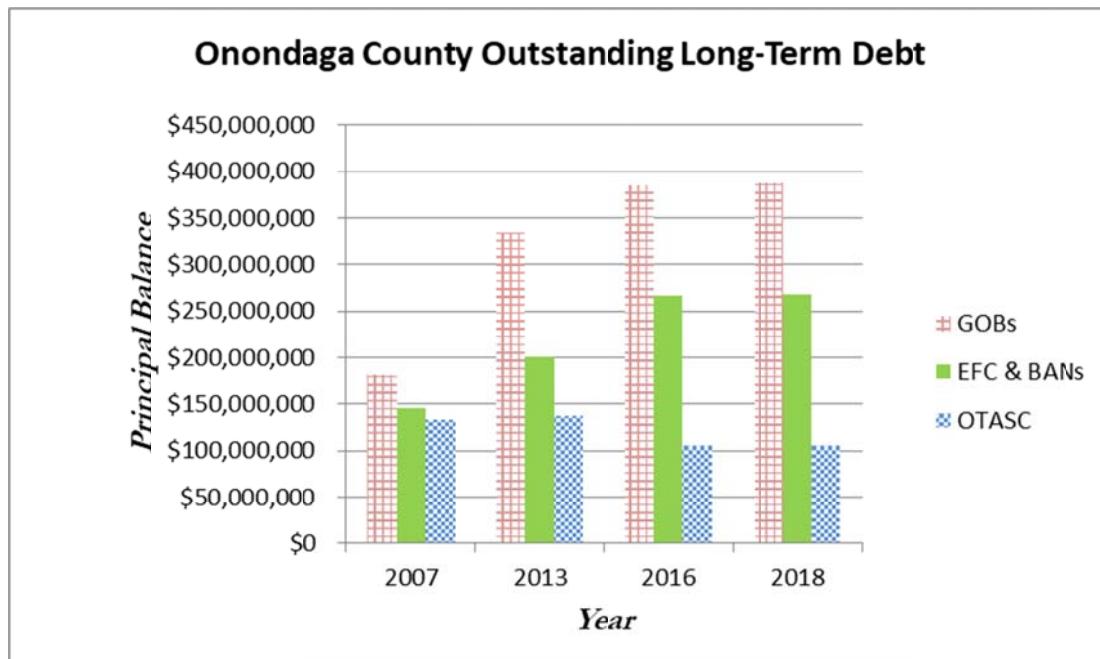
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Onondaga County Debt Summary

Onondaga County issues several types of debt:

- General Obligation Bonds known as Serial Bonds (GOBs)
- Loans made through Environmental Facilities Corporation (EFC)
- Bond Anticipation Notes (BANs)
- Onondaga Tobacco Asset Securitization Corporation (OTASC) Debt Proceeds



Debt Issuance

The State Legislature has granted the power and defined the procedure for Onondaga County (the County) to issue debt through the enactment of the Local Finance Law, Article 2, Title 1. The County authorizes the issuance of bonds by the adoption of a bond resolution. In order for a resolution to pass, it must be approved by at least two-thirds of the County Legislature. Through the bond resolution, the County Legislature delegates to the County Chief Fiscal Officer the power to authorize and sell Bond Anticipation Notes (BANs) in anticipation of authorized bonds.

BANs are short term borrowings, 12 months or less, and are used for two main reasons: 1. for projects that are small in amount or would otherwise be inappropriate for long term borrowing, 2. they allow the County the ability to capitalize on favorable interest rates for long-term debt. Each bond resolution authorizes the construction, acquisition or installation of the object or purpose to be financed, the plan of financing, the amount of money being borrowed, and the Period of Probable Usefulness. NYS law permits BANs to be renewed each year provided annual principal installments are made. If the principal

is not paid off after the fourth renewal (five years from original date of borrowing), the BAN must be converted to a Serial Bond, with exception for Special District Borrowing for Water Environment Protection Fund (WEP) and Water Fund. General Obligation or serial bonds can be issued for a period of time that is not greater than the Period of Probable Usefulness and are subject to legal restrictions. The County Legislature also has the ability to issue Revenue Anticipation Notes (RANs) and Tax Anticipation Notes (TANs), which would be paid off when the respective item is received; these are typically issued for short term cash shortages due to timing differences. We are not aware of the County issuing RANs or TANs from 2007 through 2018.

The Finance Department proposes a resolution to the Onondaga County Legislature to bond for projects. The resolution requires a two-thirds vote from the Onondaga County Legislature. Once it is authorized, the monies can be spent by the departments on their projects. Fiscal Advisors & Marketing, Inc. (Fiscal Advisors) assists the Finance Department in structuring the bond. Fiscal Advisors is a financial service firm that advises local governments on the timing, method, and amount of bond sales. They help prepare debt repayment maturity schedules and provide guidance in the debt structuring and sale of bonds. Once Fiscal Advisors structures the bond repayment schedule, the Finance Department adjusts it based on the knowledge they have of individual projects. For example, a project may be completed before the term of the bond, resulting in that project's principal amount being paid off earlier than other projects within the bond. Next, an official statement is assembled, with the aid of Fiscal Advisors and the County's bond counsel, Orrick, Herrington & Sutcliffe Law, for the proposed bonding for competitive bids in the bond market.

The official statement is sent to the rating agencies with the previous year's Onondaga County Comprehensive Annual Financial Report (CAFR) to provide them information with which to determine a bond issuance rate. As part of the process, representatives from the County Finance Department meet with the rating agencies to advocate for the strength of the County's financial position. Once the new bond rate is set, a sale date is chosen and sent out on the wire. The new bond issue is placed in the trade newspaper, Bond Buyer.

Investment companies may bid as one or as a group bond purchase. Onondaga County seeks to obtain a good "premium" on the sale of the bond and a good effective NIC (net interest cost) rate and/or effective TIC (true interest cost) rate. The effective NIC rate is the total amount of interest to accrue on the bonds from their inception date to their respective maturities, less the amount of any premium or plus the amount of any discount. The effective TIC rate takes into consideration the true cost of borrowing. It considers the time value of money while NIC does not. The bidding investment companies put down a deposit of "good faith" with their bid. The deposit of the investment company selected by Onondaga County to represent the sale of the bond becomes part of the bond value. For those companies not selected, the deposits are refunded.

The Finance Department completes all wire transfer payments on General Obligation serial bonds; for EFC bonds, the money is automatically withdrawn from the County's bank account.

There are costs associated with bond issuance. Bond issue costs include rating agency fees, attorney fees, publication fees, local accounting fees, printing fees, and bond advisory fees. See Exhibit B for General Obligation Bond issuance costs from 2009 through 2018.

General Obligation Bonds Known as Serial Bonds (GOBs)

The County generally borrows funds on a long-term basis for the purpose of financing the acquisition of land, equipment, construction of buildings and improvements, and infrastructure. The County authorizes and issues GOB and EFC bonds for these purposes. Projects initiated through the Water Environment Protection (WEP) and Water Funds are supported by revenues raised within those individual funds and do not rely on financial support from the general property tax levy. County projects outside the WEP and Water Funds address basic operating services including public safety, finance, information technology, parks and recreation, highway, and other direct operating services. Debt service for borrowing associated with these capital projects is an operating budget expense supported primarily by the property tax levy and sales tax revenue.

Bond principal and interest payments are subsidized in several ways. One source of subsidy is the Reserve for Bonded Debt (RBD). RBD is an escrow account of bond premiums, bond monies unused from projects, and interest earned. As of December 31, 2018, the Reserve for Bonded Debt account had a balance of \$15,620,891. Of this balance, \$10,056,558 is restricted to pay specific debt; \$5,564,333 is unrestricted, meaning there are no restrictions on what debt balances can be paid off. The Onondaga County Department of Management and Budget determines the manner in which RBD funds are utilized.

Another source of payment or subsidy of the General Obligation Bond principal and interest is the Build America Bonds (BABs) and Recovery Zone (RZ) bond issue. BABs provide state and local governments with a direct federal payment subsidy for a portion of their borrowing costs on taxable bonds. The BABs subsidy was initially 35% of the taxable borrowing costs. The BABs capital projects generally encompass work on public buildings, courthouses, schools, transportation infrastructure, government hospitals, public safety facilities, and government housing projects and public utilities. RZ bonds were intended to stimulate economic recovery. These bonds allowed the County to borrow at a lower cost than traditional tax-exempt financing. The RZ bonds had an initial 45% interest subsidy. They were issued for purposes of promoting development or other economic activity, including public infrastructure. The BABs and RZ bond issues are subject to sequestration by the IRS. This means that subsidy refund payments processed each federal fiscal year are reduced by an annual rate established by the federal government. Sequestration began on these bonds in 2013 and has been in the range of 6.6% to 8.7%. Currently, the sequestration order is scheduled to last through 2024. In 2018, there was a total BABs and RZ bond interest subsidy of \$375,679.

E911 surcharges are used to pay down General Obligation Bonds for E911 projects. In 2018, a total of \$3,277,690 in surcharge revenue was appropriated in the budget to offset debt service of E911 projects.

Onondaga Community College (OCC) debt service was partially funded with college chargeback collections of \$500,000 in 2018. Chargeback revenue is generated by payments made by the sponsoring county for non-resident OCC students. The rates vary by college and are set annually by the State University of New York based on the sponsoring county's contribution to the college divided by the number of county residents enrolled. The rates are comprised of a capital and operating component; the capital component is applied to debt service.

WEP pays principal and interest via an annual sewer fee that is described in detail on page 7. The annual sewer fee is used to pay WEP operations and any available excess could be used to pay General Obligation WEP debt and Environmental Funding Corporation (EFC) debt.

Onondaga County had a one-time opportunity to pay down a large portion of Serial Bond debt, \$95 million in 2001 and \$18 million in 2005, due to the sale of OTASC bonds funded from a Tobacco Master Settlement. In 2016 there was refunding and exchanging of older issue bonds at negotiated prices. See page 11 - OTASC Bonds.

The total General Obligation Serial Bond principal and interest outstanding as of December 31, 2007, 2013, 2016, and 2018 are as follows:

	Principal	Interest	Total
12/31/07	\$ 181,057,700	\$ 56,691,430	\$ 237,749,130
12/31/13	333,656,000	101,481,928	435,137,928
12/31/16	384,795,000	120,334,332	505,129,332
12/31/18	388,185,000	116,496,810	504,681,810

The principal amounts are detailed by Onondaga County department as follows:

Department	Principal Balance				Principal Inc (Dec) 2007 to 2018
	12/31/2007	12/31/2013	12/31/2016	12/31/2018	
BOE	\$ -	\$ 364,000	\$ 237,151	\$ 143,787	\$ 143,787
Corrections	150,000	2,039,100	1,588,122	1,688,976	1,538,976
E911	8,385,000	26,405,000	17,581,653	11,173,854	2,788,854
Facilities	49,717,310	36,987,179	37,408,401	41,997,606	(7,719,704)
General Fund	3,920,000	-	-	929,000	(2,991,000)
Hillbrook	6,000,000	4,350,000	3,227,166	2,712,118	(3,287,882)
IT	-	12,224,812	8,982,214	5,872,552	5,872,552
Metro Water Board	4,225,000	24,358,131	31,959,800	31,991,414	27,766,414
OCC	11,873,000	35,308,409	34,567,845	31,266,731	19,393,731
On Comm Pub Lib	662,000	4,927,936	6,395,073	5,112,102	4,450,102
OnCenter	1,775,000	12,918,461	11,638,204	10,033,643	8,258,643
Parks	5,994,000	19,227,340	68,691,475	68,341,356	62,347,356
Sheriff	11,973,200	1,996,000	470,000	-	(11,973,200)
Transportation	36,856,190	75,109,595	77,935,200	80,287,823	43,431,633
Van Duyn	-	3,460,000	2,050,000	2,393,891	2,393,891
WEP	39,527,000	73,980,037	82,062,696	94,240,147	54,713,147
Total	\$ 181,057,700	\$ 333,656,000	\$ 384,795,000	\$ 388,185,000	\$ 207,127,300

% Increase in Serial Bonds Principal from 12/31/07-12/31/18 **114.40%**

Exhibits D and E display General Obligation Bonds principal and interest as of 12/31/18.

Environmental Financing Corporation Bonds (EFC)

The New York State Environmental Facilities Corporation, (EFC), provides low-cost capital and expert technical assistance for environmental projects in New York State. EFC extends financial and technical assistance to municipalities, non-profits, and small businesses, ensuring they meet water and air quality regulations. Onondaga County EFC interest on bonds is subsidized at approximately 50% of total interest by NYS Environmental Facilities Corporation. See page 9 for a detail of EFC bonds outstanding.

Onondaga County pays yearly administrative fees to EFC for the loans. For the period of 2019 thru 2043 for the loans outstanding, Onondaga County will pay administrative fees in the amount of \$6,718,969. See Exhibit C – EFC Administration Fees for yearly breakdown of payments.

The Onondaga County EFC bonds are funded by sanitary sewer system charges. Sewer rents are allocated and charged annually on County property tax bills on the basis of “units” (one unit = an estimated 137,000 gallons annual usage) as defined in the schedule below as per Onondaga County Legislative Resolution 2017-46 adopted on April 4, 2017.

- a. Single family structure, mobile home, townhouse, and condominium – one unit each.
- b. All other multi-family residential structures – three-fourths unit per family.
- c. Mixed use properties having both residential and commercial use – three-fourths unit per family plus one unit assigned for the total commercial space, or, alternatively, in the event that the actual water usage exceeds the calculation of gallons per unit within this subsection (c) for the residential and commercial portions of the property, the number of units to be assigned to such property shall be based on water bills, as follows:
 1. Up to 137,000 gallons per year – one unit.
 2. One unit and fraction thereof for each 137,000 gallons per year.
- d. Commercial, industrial and institutional properties – units assigned based on water bills, or where property is metered, or sufficient verification exists of wastewater discharged, as follows:
 1. Up to 137,000 gallons per year – one unit.
 2. One unit and fraction thereof for each 137,000 gallons per year.

Unit charge rates are adjusted annually to account for fluctuations in costs of operating the sewer system.

Annual Consolidated Districts Sewer Charges

Year	Unit Charge	Number of Units	Total Sewer Charge
2019	\$ 442.04	184,850	\$ 81,710,890
2018	\$ 417.07	183,849	\$ 76,677,383
2017	\$ 411.11	183,511	\$ 75,443,867
2016	\$ 411.11	180,777	\$ 74,319,488
2015	\$ 411.19	180,741	\$ 74,318,921
2014	\$ 388.80	180,765	\$ 70,281,472
2013	\$ 362.55	180,326	\$ 65,376,983
2012	\$ 358.68	180,967	\$ 64,909,147
2011	\$ 338.33	179,863	\$ 60,851,332
2010	\$ 325.71	181,269	\$ 59,040,837

Total EFC bond principal (including BANs) and interest outstanding as of December 31, 2007, 2013, 2016, and 2018:

	Principal	Interest	Total
12/31/07	\$ 145,537,938	\$ 81,812,725	\$ 227,350,663
12/31/13	200,942,657	57,132,444	258,075,101
12/31/16	267,290,296	112,353,953	379,644,249
12/31/18	267,938,477	109,630,751	377,569,228

The EFC bond principal amounts are detailed by capital project as follows:

Project	EFC Project Description	Principal Balance				Principal Inc(Dec) 2007 to 2018
		12/31/07	12/31/13	12/31/16	12/31/18	
587301	TRUNK SEWER IMP	\$ 7,407,050	\$ 5,732,300	\$ 4,811,100	\$ 4,141,200	\$ (3,265,850)
587341	PUMP STATIONS IMP	1,127,950	877,700	718,900	618,800	(509,150)
587351	BREWERTON/ROT SL DRUM THICK	1,110,000	665,000	425,000	260,000	(850,000)
587354	ACJ METRO IMPR PH PHOS REM/CHE	3,605,000	2,040,000	1,200,000	615,000	(2,990,000)
587372	SYR & GEDDES CONV SYS IMP BR 1	3,440,000	2,165,000	1,485,000	1,010,000	(2,430,000)
587373	WETZEL RD WWTP UPGRADE BR 300	41,713,628	34,425,000	30,510,000	27,810,000	(13,903,628)
587383	ENVIRON LAB & FLOW CONTROL	4,775,000	3,260,000	2,435,000	1,860,000	(2,915,000)
587384	L'POOL PUMP STATIONS IMPROVEME	5,045,439	3,560,000	2,735,000	2,170,000	(2,875,439)
587398	ACJ BIOSOLIDS HANDLING IMP BR	14,924,894	11,105,000	8,985,000	7,490,000	(7,434,894)
587584	ELECTRONICS PARK TRUNK SEWER	-	-	2,830,000	2,660,000	2,660,000
587586	OAK ORCHARD	-	-	-	8,885,816	8,885,816
587592	LEY CREEK IMPROVEMENTS	-	-	-	4,340,330	4,340,330
587599	Metro WWTP-002 Bypass Treatmen	-	-	-	17,506,894	17,506,894
587605	MBL IMPROVEMENTS	-	-	-	9,444,332	9,444,332
587944	MCP-AERATION SYS ENG BR 61-98	715,000	400,000	235,000	120,000	(595,000)
587947	MCP-COMP BASED PROC CONTR SYS	210,000	120,000	75,000	45,000	(165,000)
587948	ACJ MIDLAND AVE CONV ENG	24,896,449	31,940,177	28,938,898	30,432,677	5,536,228
587949	ACJ MALTBIE ST/TEALL & HARBOR	430,000	280,000	190,000	130,000	(300,000)
587951	ACJ FRANKLIN ST FCF	875,000	489,436	315,308	192,948	(682,052)
587953	ACJ KIRKPATRICK ST PS	3,580,000	2,355,000	1,695,000	1,230,000	(2,350,000)
587954	ACJ METRO IMPR PH PHOS REM/CHE	575,000	335,000	215,000	135,000	(440,000)
587955	ACJ SIPHON CROSSINGS	70,000	35,000	20,000	10,000	(60,000)
587956	ACJ WEST STREET SEWER SEPARATI	280,000	160,000	100,000	60,000	(220,000)
587958	ACJ ERIE BLVD STORAGE SYSTEM U	730,000	460,000	310,000	210,000	(520,000)
587959	ACJ HARBOR BROOK IN WATER TRMT	-	-	59,106,000	55,625,000	55,625,000
587960	ACJ CLINTON ST CONVEYANCES	-	14,320,000	75,446,817	70,235,000	70,235,000
587961	ACJ FULL SCALE AMMONIA/PHOS RE	15,309,284	10,495,000	7,845,000	5,995,000	(9,314,284)
587963	ACJ SEWER SEPARATION	2,573,244	9,550,953	8,025,000	6,960,000	4,386,756
587968	SANITARY DISTRICT IMP BR 18 2/	2,030,000	1,375,000	1,020,000	780,000	(1,250,000)
588491	METRO STP PHASE 1 CONSENT ORD	2,070,000	-	-	-	(2,070,000)
588510	HIAWATHA/SPRING ST CSO	1,880,000	1,060,000	620,000	315,000	(1,565,000)
588525	METRO ODOR CONTROLSYSTEM IMP	4,580,000	2,280,000	1,030,000	160,000	(4,420,000)
588609	J'VILLE PEN PUMP STA & CONV SY	1,585,000	1,070,000	795,000	605,000	(980,000)
EFC Subtotal		145,537,938	140,555,566	242,117,023	262,052,997	116,515,059
BANS						
7/10/05	32	-	25,810,710	-	-	-
8/16/09	33	-	34,576,381	-	-	-
9/24/15	35, 36, 37	-	-	25,173,273	-	-
2018	39	-	-	-	5,885,480	5,885,480
EFC Total		\$ 145,537,938	\$ 200,942,657	\$ 267,290,296	\$ 267,938,477	\$ 122,400,539

% Increase in EFC Bonds Principal from 12/31/07-12/31/18 (incl. BANS)

84.10%

Exhibits F and G display EFC bonds principal and interest by project as of 12/31/2018.

County Debt Limit

Local Finance Law permits Onondaga County to issue General Obligation debt up to a statutory debt limit. The statutory debt limit is 7% of the 5 year average full valuation of Taxable Real Property within the County. Total Net Indebtedness is calculated by adding the County's short and long-term debt and subtracting the legal exclusions. The percentage of debt contracting power exhausted is the total net indebtedness divided by the 7% Debt Limit.

Calculation of Total Net Indebtedness

5 year average full valuation of taxable real property	\$	26,852,296,639
Debt Limit (7% of 5 year average)	\$	1,879,660,765
Scheduled Debt as of December 31, 2018		
General Obligation Bonds	\$	388,185,000
EFC Bonds		262,052,997
Bond Anticipation Notes (BANS)		5,885,480
Outstanding Gross Indebtedness		656,123,477
Less Exclusions:		
EFC Bonds & BANS		(267,938,477)
Sewer Debt		(50,921,385)
Water Debt		(30,191,414)
Approp. Serial Bonds 2018		(25,155,405)
		<u>(374,206,681)</u>
Total Net Indebtedness	\$	281,916,796
<i>divided by</i>		
Net Debt-Contracting Margin	\$	<u>1,597,743,969</u>
Percentage of Debt contracting Power		
Exhausted		<u>15.00%</u>

Finance Law allows that some debt can be exempt from the Constitutional Debt Limit. This is the limit put on government to prevent over borrowing. Defeased debt, defined as when the borrower has set aside sufficient assets to cover the debt, does not have to be recorded on the balance sheet. General Obligation principal debt payments appropriated in the adopted budget are excludable. All Water bonds are exempt. Sewer debt is also excludable provided an exclusion has been filed with the NYS Office of the State Comptroller. Drainage district bonds are exempt. All Serial Bonds and BANS for sewer and water and EFC bonds/notes for Sewer are exempt/excludable debt.

Debt Defeasance

Defeasance of debt can be either legal or in substance. A legal defeasance occurs when debt is legally satisfied based on certain provisions in the debt instrument even though the debt is not actually paid. An in substance defeasance occurs when debt is considered defeated for accounting and financial reporting purposes even though a legal defeasance has not occurred. When debt is defeated, it is no longer reported as a liability on the balance sheet; only the new debt, if any, is reported as a liability.

Debt is considered defeated in substance for accounting and financial reporting purposes if the debtor irrevocably places cash or other assets with an escrow agent in a trust to be used solely for satisfying scheduled payments of both interest and principal of the defeated debt, and the possibility the debtor will be required to make future payments on that debt is remote. The trust is restricted to owning only monetary assets that are essentially risk-free as to the amount, timing, and collection of interest and principal.

In a defeasance, the escrow agent purchases government securities for deposit in an escrow account. The escrow account is held by a bank or trust company that serves as escrow agent. Under the terms of an escrow agreement, the government securities are irrevocably pledged for the payment of the outstanding bonds. The government securities are in a principal amount such that the principal and interest earned are sufficient to retire the principal and interest of the outstanding bonds as they come due. The government securities and all costs related to the defeasance are paid with funds accumulated in the various accounts established for the outstanding bonds or with other available funds.

OTASC Bonds

In November 1998 the Tobacco Master Settlement Agreement (MSA) was entered into originally between the four largest US tobacco companies and the attorneys general of 46 states, including New York. The states settled their Medicaid lawsuits against the tobacco industry for recovery of their tobacco-related health-care costs, and also exempted the companies from private tort liability regarding harm caused by tobacco use. In exchange, the companies agreed to stop certain tobacco marketing practices, as well as to pay, in perpetuity, various annual payments to the states to compensate them for some of the medical costs of caring for persons with smoking-related illnesses. The tobacco companies agreed to pay a minimum of \$206 billion over the first 25 years of the agreement to the 46 states.

In 2001, Onondaga County formed the Onondaga Tobacco Asset Securitization Corporation (OTASC), a local development corporation, for the special purpose of the sale of Onondaga County's allocable share of tobacco assets to be received from New York State. OTASC is legally separate from the County of Onondaga; however, it is a blended component unit of the County, and therefore is included in the County's financial statements. On July 3, 2001, Onondaga County sold to OTASC all of its future rights, title and interest in the Tobacco Settlement Revenues.

The purchase price of the County's future rights, title, and interest in the Tobacco Settlement Revenues was financed by the issuance of serial bonds to investors which will be paid back with the money that OTASC expects to receive annually from tobacco companies from the master settlement agreement.

The 2001 OTASC bond had an original issue of \$111,470,000 and a portion of the proceeds from the sale (\$95.8 million) was placed into an irrevocable escrow account maintained by a party independent of the County, and was subsequently used to purchase securities to provide debt service payments for bonds that were removed from the General Long-Term Debt Account Group.

In 2005, OTASC issued bonds, of which a portion of the net proceeds of \$31.4 million was used by the County to advance refund \$6,975,000 of outstanding 2002 General Obligation Bonds and \$12,944,754 of 2005 Public Improvement Bonds. Proceeds in the amount of \$18,990,501 were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments on the 2002 and 2005 bonds. The remaining \$11.6 million was deposited into the Capital Projects Fund to support future improvements and acquisitions.

In 2016, OTASC issued Series VI 2001 A-1 Bonds, payable from pledged Tobacco Settlement Rights and investment earnings. The \$95,590,000 proceeds from these bonds were used as follows:

- The proceeds of \$55,005,000 in Series VI 2016 A-1 Bonds were used to currently refund \$55,005,000 of OTASC Series II 2001 Bonds. This was accomplished pursuant to a Purchase and Exchange Agreement between OTASC and the 2001 bond holders.

The proceeds of \$40,585,000 in Series VI 2016 A-2 Bonds, were used in addition to certain other funds to currently refund \$19,685,000 in OTASC Series II 2001 Bonds and currently refund \$11,674,474 in principal and accreted interest of the OTASC Series V 2005 Bonds. Additionally, \$33,371,407 (including Series VI 2016 Bond proceeds in addition to other funds) was used to completely defease the S1, S2, and S4A of the Series V 2005 Bonds (\$35,142,650, comprised of \$17,434,106 in principal and \$17,708,544 in accreted interest) and purchase, at negotiated prices pursuant to a Purchase and Exchange Agreement between OTASC and the 2005 bond holders, all of the Series V 2005 S-2 and S-4A Bonds.

The 2016 OTASC refinancing activity is summarized as follows:

NYCTT II Series 2001 bonds exchanged	\$55,005,000
NYCTT II Series 2001 bonds refunded	\$19,685,000
NYCTT V Series 2005 (S1, S2, S4A) bonds refunded	\$11,674,474
NYCTT V Series 2005 (S1, S2, S4A) bonds repurchased	\$35,142,650

The 2018 and 2017 OTASC financial statements presented no significant change in the overall bond financing structure. At December 31, 2018, the outstanding bond principal on the remaining OTASC bond issues (Series 2005 & 2016) was \$106,069,202. This principal and associated interest is detailed on page 13.

OTASC had a Reserve for Bonded Debt (RBD) balance of \$6,477,668 as of December 31, 2018, restricted to subsidize future payment of the bond principal and interest.

The total OTASC bond principal and interest outstanding as of December 31, 2018 is as follows:

OTASC Series 2005				
Year	Principal	Interest	Total	
2054	\$ 11,989,202	\$ 127,330,798	\$ 139,320,000	
Total	\$ 11,989,202	\$ 127,330,798	\$ 139,320,000	
OTASC Series 2016				
Year	Principal	Interest	Total	
2019	\$ 855,000	\$ 5,050,059	\$ 5,905,059	
2020	1,245,000	4,990,997	6,235,997	
2021	1,320,000	4,918,856	6,238,856	
2022	1,400,000	4,842,356	6,242,356	
2023	1,480,000	4,761,356	6,241,356	
2024-2028	8,800,000	22,417,125	31,217,125	
2029-2033	11,425,000	19,572,523	30,997,523	
2034-2038	14,110,000	15,941,100	30,051,100	
2039-2043	17,490,000	11,434,025	28,924,025	
2044-2048	21,070,000	6,424,500	27,494,500	
2049-2051	14,885,000	1,138,375	16,023,375	
Total	\$ 94,080,000	\$ 101,491,272	\$ 195,571,272	
Total OTASC Series 2005 & 2016 as of 12/31/18	\$ 106,069,202	\$ 228,822,070	\$ 334,891,272	

Authorized and Unissued Debt

As of December 31, 2018, the authorized, unissued debt amount for Onondaga County was \$218,184,240, with \$154,656,912 attributed to Water Environment Protection. Authorized, unissued bonds are those authorized by the Onondaga County Legislature, but not yet issued for their respective projects. See Exhibit A for 2018 detail.

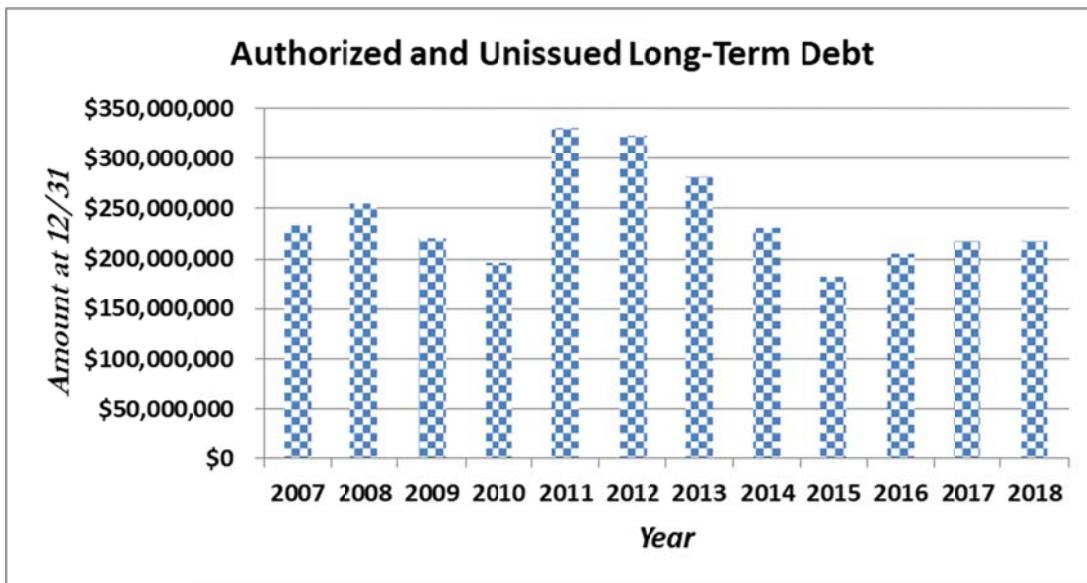


Exhibit A 12/31/18
Authorized/Inissued Debt

COUNTY OF ONONDAGA
G/L 188 - AUTHORIZED/UNISSUED LONG TERM DEBT GROUP OF ACCOUNTS

3/20/2019

Subsid Acct	Subsidiary Account Title	Department	Auth Reso Number and Date	12/31/2017 Balance	2018 Borrowings	St & Fed Aid/ other funds EFC, Adjustments & Closed Proj	2018 Authorizations	12/31/2018 Balance
510001	Tax Collect & Deliq Software	Finance	BR-212 12/14	0				0
512558	New Criminal Courthouse	Fac Mgmt	224/98, 333/98, 117/00, 227&229/00, 118/01	0				0
512575	Energy Performance Contract	Fac Mgmt	283-12/03, 170-8/04, 116 6/05, 225-11/1/05	0				0
512578	Courthouse Exterior Rehab.	Fac Mgmt	204-10/06	0				0
512581	Oncenter Complex Rehab/Renov	Fac Mgmt	BR-207-9/08, 043-4/09	0				0
512585	BOE Office Building Purch/Renov	Fac Mgmt	BR-197-9/10	0				0
512588	Justice Center Roof Replacement	Fac Mgmt	BR-506 10/11	0				0
512589	CC Windows Systems Replacement	Fac Mgmt	BR-506 10/11	0				0
512590	Ed Kochian COB Rehab & Renov	Fac Mgmt	BR-506 '11 BR-217 '12 BR221 '14	593,103	593,103			0
512591	CC Office & Masonry Improvements	Fac Mgmt	BR-506 '11 217 '12 221 '14 97 '16 192 '17	686,000	686,000			0
512592	Downtown Campus Various Imp	Fac Mgmt	BR-506 '11 BR-217 '12 221 '14 97 '16 192 '17	3,187,583	500,000	(1,560)		2,686,023
512593	Community Plaza & Walks Renov	Fac Mgmt	BR-506 10/11	0				0
512594	Courthouse Sidewall Copper Flashing	Fac Mgmt	BR-506 10/11	30,736	30,736			0
512595	Community Plaza Garage	Fac Mgmt	BR-217 12/12	0				0
512596	Remodeling TA Intake	Fac Mgmt	BR-217 12/12, BR 192 12/17	3,189,000	2,000,000			1,189,000
512597	OnCenter Rehabilitation	Fac Mgmt	BR-217 12/12 97 '16, BR-169 12/18	1,500,000	1,200,000	(250)	1,500,000	1,799,750
512598	Civic Center Re-Roof	Fac Mgmt	BR-97 6/16	1,383,000	1,383,000			0
512599	CFS Rehab/Renov	Fac Mgmt	BR-97 6/16	335,000	150,000			185,000
512600	Courthouse HVAC Renov	Fac Mgmt	BR-97 6/16	400,000				400,000
512602	War Memorial Improvements	Fac Mgmt	BR-129 9/17	4,500,000	4,500,000			0
591743	Document Management System	County Clerk	BR-87 '16	600,000	360,000			240,000
592661	Land Pruchase for Hotel	Fac Mgmt	117/2001	0				0
592674	PeopleSoft	IT	BR-127 6/10	0				0
592675	VOIP Assessment	IT	BR-485 10/11	0				0
592676	IT Project	IT	BR-510 10/11	0				0
592678	Enterprise Resource Plan Financials Up	IT	BR-012 2/16	0				0
514002	Van Duy Capital Projects	Van Duyn	BR-64 4/09	1,630,732	602,853			1,027,879
514004	Demoliiition of S1 Building	Van Duyn	BR-251 12/18/12	1,500,000	546,469			953,531
522692	Pratts Falls Recovery	Parks & Rec	BR-245 & BR-247 12/07	0				0
522695	Bank Stadium Natural Grass	Parks & Rec	BR-120 7/07	0				0
522696	PFT 2 - OLP Marina	Parks & Rec	BR-247 12/07	2,000				2,000
522697	PFT 2 - New Elephant Exhibit	Parks & Rec	BR-238 12/07	0				0
522698	PFT 2 - Primate Island Exhibit	Parks & Rec	BR-238 12/07	0				0
522699	PFT 2 - Zoo Improvements	Parks & Rec	BR-238 12/07	0				0
522701	PFT 2 - OS Improvements	Parks & Rec	BR- 247 12/07	0				0
522702	PFT 2 - OS Playground	Parks & Rec	BR-247 12/07	0				0
522703	PFT 2 - Oneida Boat Launch Imp	Parks & Rec	BR-247 12/07	0				0
522704	PFT 2 - Pratts Falls Masonry	Parks & Rec	BR-247 12/07	0				0
522706	PFT 2 - Project Manager	Parks & Rec	BR-238 & BR-247 12/07	0				0
522707	PFT 2 - Onondaga Lake Park	Parks & Rec	BR-247 12/07	0				0
522719	2010 Parks Roofs	Parks & Rec	BR-199 9/10	0				0
522721	Parks Improvement & Maintenance	Parks & Rec	BR-507 10/11	0				0
522722	Parks Roads/Parking/Trail Paving	Parks & Rec	BR-507 10/11 BR-174 11/12	510,699	250,000	(20,698)		240,001
522723	Parks Main Office Environ Imp	Parks & Rec	BR-507 10/11	0				0
522724	Zoo Preventive Maintenance	Parks & Rec	BR-507 10/11	0				0

Exhibit A 12/31/18
Authorized/Issued Debt

COUNTY OF ONONDAGA
G/L 188 - AUTHORIZED/UNISSUED LONG TERM DEBT GROUP OF ACCOUNTS

3/20/2019

Subsidy Acct	Subsidiary Account Title	Department	Auth Reso Number and Date	12/31/2017 Balance	2018 Borrowings	St & Fed Aid/ other funds EFC, Adjustments & Closed Proj	2018 Authorizations	12/31/2018 Balance
522726	Zoo HVAC Rehabilitation	Parks & Rec	BR-174 11/12	0				0
522733	Onondaga Lake W. Shore Revitalization	Parks & Rec	BR-172 11/14	0				0
522735	Parks Various Improvements	Parks & Rec	BR-009 2/16, BR-231 12/17	728,000	653,496			74,504
522737	Zoo Boardwalk Replacement	Parks & Rec	BR-132 8/16, BR-230 12/17	1,700,000	1,459,945			240,055
522738	Salt Museum Improvements	Parks & Rec	BR-133 8/16	72,000				72,000
522739	Parks Shoreline Stabilization	Parks & Rec	BR-250 12/16	756,000	139,025			616,975
522740	Parks Roof Replacement	Parks & Rec	BR-251 12/16	569,000	492,006			76,994
522741	Loop the Lake Trails	Parks & Rec	BR-183 12/17	1,000,000	1,000,000			0
522742	Zoo Animal Medical Care Center	Parks & Rec	BR-190 12/17, BR-170 12/18	500,000	500,000		7,200,000	7,200,000
522743	Carpenters Brook FH Pond Repair	Parks & Rec	BR-170-12/18	0			302,000	302,000
522744	Parks Rds, Parking Areas & Trail Paving	Parks & Rec	BR-170-12/18	0			750,000	750,000
522745	Parks Infrastructure Improvements	Parks & Rec	BR-170-12/18	0			645,000	645,000
551556	Corrections-Phys Plant Imp	Corrections	289-12/16/02	0				0
535010	Various Co Rd Imp	Highway	163-5/00, 97-01,111-03,114-04 81-5/12	0				0
535011	Syr-Cedarvale Rd. Phase 2	Highway	71-5/06 less sb rev from 535070-008	0				0
535012	Thompson Rd.	Highway	71-5/06, 111-5/08, 80 5/14	440,000				440,000
535013	Fly Rd. Phase 1 Design	Highway	79-5/07, 111-5/08	0				0
535020	County Bridges	Highway	164-00,99-01,111-03,113-04,97-05	0				0
535021	Bridges '06	Highway	71-5/06	0				0
535024	Warners Rd Bridge-Construction	Highway	BR-77 & 78 5/5/09	0				0
535025	Various Co Rd Imp	Highway	163-5/00, 97-01,111-03,114-04,98-05	0				0
535026	Fed Aid Local Match	Highway	71-5/06	500,000		(319,500)		180,500
535028	Bridges '07	Highway	78-5/07	0				0
535029	Various Co Rd Imp	Highway	79-5/07	307,000				307,000
535030	Various Co Rd Imp	Highway	163-5/00, 97-01,111-03,114-04	0				0
535031	Traffic Systems Mgmt '06	Highway	71-5/06	0				0
535032	Traffic Systems Mgmt '06	Highway	79-5/07	0				0
535033	Fed Aid Local Match '09	Highway	BR-78 5/09	0				0
535034	2010 Fed Aid Local Match (Temp)	Highway	BR-88 5/10	0				0
535035	2011 Fed Aid Local Match (Temp)	Highway	BR-401 5/11	0				0
535036	2012 Fed Aid Local Match (Temp)	Highway	BR-81 5/12	0				0
535039	Camillus Highway Facility Imp	Highway	BR-249 12/16	8,500,000	8,500,000			0
535040	Various Co Rd Imp	Highway	163-5/00, 97-01,111-03,114-04,98-05	0				0
535041	Paving '06	Highway	71-5/06	0				0
535042	Paving '07	Highway	79-5/07	0				0
535044	NAMF Maint Facility Improvements	Highway	BR-189 12/17	10,000,000	1,000,000			9,000,000
535055	Various Co Rd Imp	Highway	163-5/00, 97-01,111-03,114-04,98-05	0				0
535056	Cold Mix -Mulch '06	Highway	71-5/06	0				0
535057	Cold Mix -Mulch '07	Highway	79-5/07	0				0
535060	Various Co Rd Imp	Highway	95-5/6/96,111-03	0				0
535070	Various Co Rd Imp	Highway	163-5/00, 97-01,111-03,114-04,111-08	400,000				400,000
535100	Green Design	Highway	BR-81 5/12	0				0
535101	Electronics Pky Green Design	Highway	BR-81 5/12	200,000				200,000
535103	Caughdenoy-Ec.Dev.-Design	Highway	BR-165 10/9/12	530,000				530,000
535104	2015 Sign Replacement Project	Highway	BR-72 5/15	100,000				100,000

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COUNTY OF ONONDAGA
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3/20/2019

Subsid Acct	Subsidiary Account Title	Department	Auth Reso Number and Date	12/31/2017 Balance	2018 Borrowings	St & Fed Aid/ other funds EFC, Adjustments & Closed Proj	2018 Authorizations	12/31/2018
								Balance
535150	Velasko Rd-Construction	Highway	111-5/08, 401-5/11- 81 5/12	30,000				30,000
535151	Old Rte 5 Repaving Ph 1	Highway	111-5/08, 401-5/11- 81 5/12	25,000				25,000
535152	Buckley Rd CSX RR Design	Highway	BR111-5/08, 88 -5/10, 401-5/11, 65-5/13	0				0
535153	Civic Strip	Highway	100-6/09	68,000	68,000	319,500		319,500
535154	Jamesville Rd Paving	Highway	BR100-6/09, 88-5/10	0				0
535155	2010 Bridge Painting	Highway	BR100-6/09, 88-5/10	0				0
535156	Fremont Rd Bridge/CSX-Design	Highway	BR100-6/09, 88-5/10, 401-5/11	0				0
535157	Northern Blvd Safety/Paving	Highway	BR-88 5/10-BR-65 5/13	50,000				50,000
535158	2010 Traffic Signals	Highway	BR-88 5/10, 401-5/11, 65 5/13, 80 6/14	0				0
535159	Fly Rd Paving-Design	Highway	BR-88 5/10- 81 5/12 ,65 5/13	0				0
535160	South Bay Rd Paving-Design	Highway	BR-88 5/10-BR-65 5/13	0				0
535161	Allen Rd Paving-Design	Highway	88 5/10, 401-5/11, 65 5/13, 80 6/14, 72 5/15, 78 5/16	25,000				25,000
535162	Old Liverpool/Elec Pky Design	Highway	BR-88 5/10- 81 5/12,65 5/13, 72 5/15	5,000				5,000
535163	Jordan RD Bridge Proj Design	Highway	BR-88 5/10- BR-65 5/13, 72 5/15	0				0
535164	Rural paving - Construction	Highway	BR-401 5/11	0				0
535165	Costello Pky/ CSX Construction	Highway	BR-401 5/11	0				0
535166	Bridge Maint Ph1-Design	Highway	BR-65 5/13 BR-72 5/15, 78 5/16,53 5/17	56,000	17,000			39,000
535167	Oran Delphi Rd Bridge Design	Highway	BR-65 5/13, 78 5/16, 53 5/17	82,500	22,000			60,500
535168	John Glenn Blvd Bridge-Design	Highway	BR-65 5/13 BR-72 5/15, 78 5/16	140,000				140,000
535169	ElecPkwy Signal Interco	Highway	BR-65 5/13 BR-72 5/15, BR-56 5/18	55,000	10,000		12,500	57,500
535170	Willis Ave over CSX	Highway	BR-65 5/13	0				0
535171	Otisco Valley Rd Bridge	Highway	BR-80 5/14, 78 5/16, 53 5/17	60,000				60,000
535172	Old Rte 5 & Warners Paving Design	Highway	BR-80 5/14, 53 5/17, BR-56 5/18	4,000				165,000
535173	Fremont Butternut Creek-Design	Highway	BR-80 5/14, 78 5/16, BR 56 5/18	0				6,000
535174	Electronics Pky Paving Design	Highway	BR-80 5/14, 53 5/17, BR-56 5/18	5,000				220,000
535175	John Glenn & Kirkville Rd Paving	Highway	BR-80 5/14, 78 5/16	65,000				65,000
535176	Morgan @ Ver Plank Safety Design	Highway	BR-80 5/14	40,000				40,000
535177	Taft Rd 2R Paving Design	Highway	BR-80 5/14, 78 5/16, BR 56 5/18	0				190,000
535178	Bridge Maint Ph II-Design	Highway	BR-80 5/14 BR-72 5/15, BR-56 5/18	49,000				35,000
535179	Old Rt 57 2R Paving Design	Highway	BR-80 5/14 BR-72 5/15, BR-56 5/18	0				185,000
535180	Tully Farms Rd Bridge Design	Highway	BR-80 5/14	0				0
535181	Benson Road Bridge	Highway	BR-72 5/15, 78 5/16	35,000				35,000
535182	Bridge Painting Project	Highway	BR-72 5/15, BR 56 5/18	0				67,500
535183	Buckley Road Paving (1R)	Highway	BR-72 5/15, 56 5/18	0				67,500
535184	West Taft Rd Paving (1R)	Highway	BR-72 5/15, BR 56 5/18	0				77,500
535185	Old Rt 57 1R Paving Design	Highway	BR-78 5/16, BR 56 5/18	60,000				92,500
535186	Old Liverpool Rd 2R, Design	Highway	BR-53, 5/17	140,000	20,000			120,000
535187	Tuttle Rd Bridge Design	Highway	BR-53 5/17, BR 56 5/18	72,000	20,000			50,000
535188	Canalway Trail Extension	Highway	BR-78 5/16	0				0
535189	South Street Bridge Design	Highway	BR-53 5/17	135,000	15,000			120,000
535190	East Taft Rd 2R Design	Highway	BR-53 5/17	98,000	20,000			78,000
535191	Canalway Trail Extension Phase II	Highway	BR-78 5/16, 53 5/17	760,000	65,000			695,000
535250	Morgan Rd/E. Waterhouse RD	Highway	111-5/08	0				0
535253	TSM '09-Traffic Signal Upgrades	Highway	BR-77 & 78 5/09	0				0
535254	TSM '09-Hopkins Rd @ Buckley	Highway	BR-77 & 78 5/09	0				0

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COUNTY OF ONONDAGA
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Subsidy Acct	Subsidiary Account Title	Department	Auth Reso Number and Date	12/31/2017 Balance	2018 Borrowings	St & Fed Aid/ other funds EFC, Adjustments & Closed Proj	2018 Authorizations	12/31/2018 Balance
535255	TSM '09-Carrier Site Access	Highway	BR-77 & 78 5/5/09	50,000				50,000
535256	TSM '10-Traffic Signal Upgrades	Highway	BR-88 5/10	0				0
535257	TSM-Allen/Bear Rd Traffic Study	Highway	BR-88 5/10- 81 5/12	0				0
535258	TSM '12-Traffic Design	Highway	BR-81 5/12	0				0
535260	Traffic Engineering & Traffic Counts	Highway	BR-80 5/14	0				0
535261	TSM '15 Traffic Signal Upgrade	Highway	BR-72 5/15	0				0
535262	TSM '16 Traffic Signal Upgrade	Highway	BR-78 5/16	0				0
535263	TSM '17 Traffic Signal Upgrade	Highway	BR-53 5/17	320,000	250,000			70,000
535264	Traffic Signal Upgrades	Highway	BR-56 5/18	0			250,000	250,000
535275	Cold Mix-Mulch '08	Highway	111-5/08	0				0
535276	Cold Mix-Mulch '09	Highway	Br-77 & 78 5/5/09	0				0
535277	Cold Mix-Mulch '10	Highway	BR-88 5/10	0				0
535278	Cold Mix-Mulch '11	Highway	BR-401 5/11	0				0
535279	Cold Mix-Mulch '12	Highway	BR-81 5/12	0				0
535280	Cold Mix-Mulch '13	Highway	BR-65 5/13	0				0
535281	Cold Mix Bituminous Reconstruction	Highway	BR-80 5/14	0				0
535282	2015 Cold Mix Bituminous Reco	Highway	BR-72 5/15	0				0
535283	2016 Cold Mix Bituminous Reco	Highway	BR-78 5/16	0				0
535284	2017 Cold Mix Bituminous Reco	Highway	BR-53 5/17	0				0
535285	2018 Cold Mix Bituminous Reco	Highway	BR-56 5/18	0		(753,882)	1,046,500	292,618
535290	Misc 2013 Paving	Highway	BR-65 5/13	0				0
535325	Bridges '08	Highway	110-5/08	0				0
535326	Bridges '09	Highway	BR-77 5/5/09	0				0
535327	Bridges '10	Highway	BR-88 5/10	0				0
535328	Bridges '11	Highway	BR-400 5/11	0				0
535329	Bridges '12	Highway	BR-80 5/12	0				0
535330	Bridges '13	Highway	BR-65 5/13	0				0
535331	Bridges '14	Highway	BR-80 5/14	0				0
535332	Bridges '15	Highway	BR-73 5/15	0				0
535533	Bridges 2016-Bond	Highway	BR-077 5/16	0				0
535350	Repaving '08	Highway	111-5/08	0				0
535351	Repaving '09	Highway	BR-77 & 78 5/5/09	0				0
535352	Repaving '10	Highway	BR-88 5/10	0				0
535353	Repaving '11	Highway	BR-401 5/11	0				0
535354	Repaving '12	Highway	BR-81 5/12	0				0
535355	Repaving '13	Highway	BR-65 5/13	0				0
535356	Hot Mix Bituminous Paving	Highway	BR-80 5/14	0				0
535357	2015 Hot Mix Bituminous Paving	Highway	BR-72 5/15	0				0
535358	2016 Hot Mix Bituminous Paving	Highway	BR-78 5/16	0				0
535359	2017 Hot Mix Bituminous Paving	Highway	BR-53 5/17	3,072,000	3,072,000			0
535360	2018 Hot Mix Bituminous Paving	Highway	BR-56 5/18	0		(1,292,069)	2,490,000	1,197,931
535384	Guiderail '18	Highway	BR-56 5/18	0			250,000	250,000
535459	Drainage '17	Highway	BR-53 5/17	525,000	250,000			275,000
535460	Drainage '18	Highway	BR-56 5/18	0			500,000	500,000
535476	Facilities Environ Improvements	Highway	09-2/09	0				0

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535478	Buckley Morgan Land Acq&Dsgn	Highway	BR-175 9/09	0				0
535481	Heavy Equipment Purchase	Highway	BR-234 10/10	0				0
535484	Replace No Area & Camillus Mtce. Facil.	Highway	BR-035 3/13	0				0
535489	Facilities Repair '17	Highway	BR-53 5/17	34,000	34,000			0
536031	EAB Strategic Implementation	Environment	BR-015 2/16, BR193 12/17, BR128 11/18	1,500,000			750,000	2,250,000
536238	Jamesville Bldg Const	Highway	363-12/4/00, 310-12/3/01	0				0
536245	North Area Salt Shed '06	Highway	114-3/06	0				0
536506	Velasko Rd-Safety Design	Highway	BR-80 5/14	0				0
536509	Factory@Lemoyne-Construction	Highway	BR88-5/10- 81 5/12	0				0
536511	E. Taft Rd. Construction	Highway	111-5/08	0				0
536513	Morgan/Liverpool Bypass	Highway	111-5/08	0				0
536514	Patcher Truck	Highway	BR-508 10/11	0				0
551518	E-911 Upgrades	Emer Comm	125-6/7/05	0				0
551519	E-911 Microwave Trans Net	Emer Comm	37-3/06	0				0
551520	Interoperable Communication Sys	Emer Comm	248-12/07	0				0
551521	Computer Aided Dispatch Refresh	Emer Comm	BR-509 10/11	0				0
551525	Furniture Consoles & Carpeting	Emer Comm	BR-91 6/4/13	0				0
551526	Main Center HVAC System Replace	Emer Comm	BR-217 12/14	782,042		(16,279)		765,763
551527	E-911 Center Facility Rehabilitation	Emer Comm	BR-033 2/16	0				0
551528	Replace MDCN Infrastructure	Emer Comm	BR-034 2/16	0				0
551529	E-911 Center Roof Replacement	Emer Comm	BR-245 12/16	303,000	303,000			0
551531	Rose Hill Radio Tower	Emer Comm	BR-225 12/17	339,000				339,000
551560	Correctional Facility Various Imp	Corrections	BR-63 3/08	0				0
551571	Correction Facility Improvements	Corrections	BR-224 12/17	325,000	325,000			0
552330	Hillbrook Detention Fac Improvements	Hillbrook	BR-67 6/17, BR-186 12/17, BR-93 8/18	394,500	100,000		5,000,000	5,294,500
552343	Hillbrook Renovation	Hillbrook	143-7/5/05	0				0
552498	Special Opertions Facility Replacement	Sheriff	BR-185 11/12	0				0
552499	Behavioral Health Unit @ Justice Center	Sheriff	BR-173 11/12	100,000				100,000
782211	Thoreck Judgment	Sheriff	BR-152 10/14	0				0
561848	Applied Tech Center	OCC	148-06/06/94	0				0
561860	OCC Master Plan	OCC	04-1/5/04	0				0
561861	OCC facilities Master Plan	OCC	215-11/1/05	0				0
561862	OCC Indoor Sports Arena	OCC	172-8/08	0				0
561863	OCC Mawhinney Hall	OCC	172-8/08	0				0
561864	OCC All Purpose Field	OCC	172-8/08	0				0
561865	OCC HPE Building Renov & Exp	OCC	172-8/08	0				0
561866	OCC Site Improvements	OCC	172-8/08	0				0
561867	OCC Science Labs	OCC	172-8/08	0				0
561868	OCC Other Improvements	OCC	172-8/08	0				0
561870	Ferrante Hall Add & Renov	OCC	171-9/09	0				0
561871	Site Improvements	OCC	105-6/12	205				205
561872	Technology Improvements	OCC	105-6/12	0				0
561873	Campus Wide Energy Projects	OCC	105-6/12	0				0
561874	Athletic Fields	OCC	105-6/12	0				0
561875	W. Quad Renov:Ferrante/Coulter	OCC	BR92-6/15	2,800,000	800,000			2,000,000

2018 Debt
Stmt 2018 GL188

Exhibit A 12/31/18
Authorized/Issued Debt

COUNTY OF ONONDAGA
G/L 188 - AUTHORIZED/UNISSUED LONG TERM DEBT GROUP OF ACCOUNTS

3/20/2019

Subsidy Acct	Subsidiary Account Title	Department	Auth Reso Number and Date	12/31/2017 Balance	2018 Borrowings	St & Fed Aid/ other funds EFC, Adjustments & Closed Proj	2018 Authorizations	12/31/2018 Balance
562130	OCPL Int. Library System	Library	321-12/19/06	0				0
562133	OCPL Galleries Roof	Library	233-10/14/08	0				0
562136	Branches Comp Infrastructure	Library	198-10/09	0				0
562137	Central Library Reconfiguration	Library	BR-494-10/11	0				0
575086	Eastern Branch Pipeline	MWB	190-9/2/2003, 104-5/3/05	0				0
575090	Terminal Reservoir Tanks	MWB	BR412-5/11	7,579,556	2,956			7,576,600
575104	Comp Energy & Asset Renewal	MWB	BR590 12/11	7,500,000	2,000,000			5,500,000
575107	Water Treatment Assurance Program	MWB	BR214 12/15	3,672,000				3,672,000
587301	Trunk Sewer Imp	WEP	103-5/2/1994	0				0
587354	Oak Orchard	WEP	147-6/1/98	0				0
587372	Syr & Geddes Conv Sys Imp	WEP	160-06/04/01	0				0
587373	Wetzel Rd WWTP	WEP	300-11/05/01, br146-8/1/06, 78-5/13	0				0
587375	Metro Screen Eval & Repair	WEP	BR 81 4/5/2005	0				0
587383	Env Lab & Flow Control	WEP	BR 75 4/1/02, BR 292 12/6/02	0				0
587384	L'pool Pump Station Imp	WEP	Budget letter 5/7/02	0				0
587385	B'ville/Seneca Knolls WWTP	WEP	Budget letter 5/7/02	0				0
587390	M'Brook Limestone WTP Imp	WEP	BR 48 & 49 3/1/05	0				0
587394	Metro LLPS Replacement	WEP	BR 247 11/8/06	0				0
587398	Biosolids Handling Imp	WEP	BR144-07/2004	0				0
587510	M'Brook Drainage District	WEP	BR 286 - 12/20/05	0				0
587521	Pump Station Improvements	WEP	BR 45 3/6/07	0				0
587532	Trunk Sewer Force Main Proj	WEP	BR 88 5/1/07	0				0
587539	Bear Trap Ley Creek Drainage	WEP	BR-93 5/10	0				0
587554	Digestor Cleaning & Repairs	WEP	BR-51 3/10	0				0
587563	Westside Pumping Station Service Area	WEP	BR-230 12/14 97 '16	13,700,000		(190,000)		13,510,000
587564	Brewerton WPCP Asset Renewal	WEP	BR-187-12/18	0			12,575,000	12,575,000
587583	Purchase of Heavy Equipment	WEP	BR-524 11/11	0				0
587584	Electronics Park Trunk Sewer	WEP	BR-526 11/11	4,653,764		(4,653,764)		0
587585	Metro WWTP Grit Handling	WEP	BR-528 11/11	226,559		(226,559)		0
587586	Oak Orchard	WEP	BR-530 11/11; BR100 7/17	354,184				354,184
587592	Ley Creek Pump Station	WEP	BR-230 12/14	225,670	122,000			103,670
587597	Suburban Green Infrastructure Imp	WEP	BR-115 7/12, BR-135 9/13, BR-127 8/15	1,491,469	350,000			1,141,469
587598	Oneida Lake PS	WEP	BR-230 12/12, BR212 12/15	5,020,000	4,500,000			520,000
587599	Metro WWTP Bypass Treatment	WEP	BR-227 12/12, 100-6/15	5,463,480				5,463,480
587600	MetroWWTP Primary Pump Replace	WEP	BR-225 12/12	1,014,963		(1,014,963)		0
587601	Metro WWTP Phos Treatment Sys	WEP	BR-223 12/12; BR16 2/17	22,445,403	385,000	(1,880,278)		20,180,125
587605	MBL WWTP Disinfection System	WEP	BR-18 2/17;	1,905,668	100,000	(25,000)		1,780,668
587608	Hiawatha Trunk Sewer Service Area Imp	WEP	BR-286 12/14	2,500,000				2,500,000
587612	Oak Orchard WWTP	WEP	BR-199 12/17	11,540,000	3,000,000			8,540,000
587614	Baldwinsville Seneca Knolls WWTP	WEP	BR-226 12/14, BR14 2/17; BR99 7/17	5,719,250	2,736,000			2,983,250
587622	WEP Energy Projects (ESCO)	WEP	BR-58 4/16	10,150,000	900,000			9,250,000
587626	Oak Orchard Secondary Clarifier Rehab	WEP	BR-20 2/17;	950,000	102,000			848,000
587627	Camillus FM Replacement	WEP	BR-22 2/17	3,500,000	2,500,000			1,000,000
587628	Harbor Brook DD Culvert Imp	WEP	BR-24 2/17	0				0
587629	Bear Trap North Midler Culvert	WEP	BR-26 2/17	0				0

Authorized/Inissued Debt

**COUNTY OF ONONDAGA
G/L 188 - AUTHORIZED/UNISSUED LONG TERM DEBT GROUP OF ACCOUNTS**

Subsid Acct	Subsidiary Account Title	Department	Auth Reso Number and Date	12/31/2017 Balance	2018 Borrowings	St & Fed Aid/ other funds EFC, Adjustments & Closed Proj	2018 Authorizations	12/31/2018 Balance
587632	Ley Creek/Liverpool FM Rehab Replace	WEP	BR195 12/17	2,300,000	150,000			2,150,000
587634	Meadowbrook-Limestone WWTP Inflow	WEP	BR113 10/18	0			9,000,000	9,000,000
587635	Metro WWTP-Thickener rehabilitation	WEP	BR185 12/18	0			3,730,000	3,730,000
587636	Metro WWTP-Biosolids Drying System	WEP	BR189 12/18	0			15,106,000	15,106,000
587946	LP Newell St RTF	WEP	61-3/2/98	0				0
587947	LP Metro Digital	WEP	61-3/2/98	0				0
587948	LP ACJ Midland Ave	WEP	64-3/98, 354-12/00, 51-3/08, 248-12/13, 160-10/16	27,203,785	1,009,679			26,194,106
587949	LPACJ Maltbie/Teall/Harborbrook	WEP	64-3/2/98	0				0
587950	LP ACJ Onondaga Creek	WEP	64-3/2/98	0				0
587951	LP ACJ Franklin	WEP	64-3/2/98, 217-8/6/2001	0				0
587952	LP ACJ Oxygenation Demo	WEP	64-3/2/98	0				0
587953	LP ACJ Kirkpatrick	WEP	64-3/2/98, 103-5/6/02	0				0
587956	LPACJ West St	WEP	171-7/6/98,29-3/1/99	0				0
587958	LP ACJ Erie Blvd	WEP	164-7/6/99	0				0
587959	LP ACJ Harbor Brook In Water	WEP	164-7/6/99, 114-6/09,291-12/10, 388-4/11 181-11/16	4,743,577	643,745			4,099,832
587960	LP ACJ Clinton St RTF	WEP	231-9/7/99, 90 5/1/07, 387-4/11, 247-12/13	14,077,673	1,520,987	(55,207)		12,501,479
587961	LP ACJ Full Scale Amm/Phosp	WEP	370-12/20/99	0				0
587962	LP ACJ Phos Removal Pilot	WEP	370-12/20/99	0				0
587963	LP ACJ Sewer Separation	WEP	358-12/4/00, 116-6/09, 148-6/10	1,125,649		0		1,125,649
587964	LP Lake Partnership - Fed	WEP	358-12/4/01	0				0
587968	Sanitary Dist Imp	WEP	18-2/3/03	0				0
587979	Midland WWTP Mitigation Costs	WEP	BR-53 3/08	0				0
588609	J'ville Pen Sewer Pump Station	WEP	241-09/04/01	0				0
			TOTAL	218,016,750	51,960,000	(10,130,510)	62,258,000	218,184,240
	Serial Bonds		51,960,000.00					
	EFC Loans		0.00					
			51,960,000.00					

Exhibit B - Onondaga County General Obligation Bonds Issuance Costs

2009 - 2018

	2018 GO	2017 Refunding	2017 GO	2016 Refunding ¹	2016 GO	2015 QECB ¹	2015 Refunding ¹	2015 GO	2014 Refunding ¹	2014 GO
Variable Costs:										
Rating Agencies										
Moody's	\$34,000	\$24,300	\$18,500		\$25,000			\$38,000		\$16,593
Fitch	32,000	22,100	18,000		26,000			43,000		25,000
S&P	28,975	21,250	18,900		24,000			42,000		15,955
Orrick - attorney fee	45,000	25,000	28,743		29,275			58,915		35,405
Bond Buyer (Source Media)	1,160		1,045		1,045			1,045		1,160
IPREO / I-Del LLC					1,500			1,500		1,500
Verification agent		2,500								
Syracuse Newspapers			108		105			120		112
Total Variable Costs	141,135	95,150	85,296	0	106,925	0	0	184,580	0	95,725
Fixed Costs:										
Fiscal Advisors	40,915	32,840	29,940		32,190			55,000		36,600
Internet										
Printing	3,035	2,000	3,000		1,292			1,523		1,582
Bonadio	2,500							1,500		3,000
Total Fixed Costs	46,450	34,840	32,940	0	33,482	0	0	58,023	0	41,182
Other Costs:										
Total Cost of Issuance				141,000		177,553		71,000		78,000
Underwriter				98,684		37,282		41,728		
Contingencies & Escrow Agent		5,010								
GFA										
Total Other Costs	0	5,010	0	239,684	0	214,835	112,728	0	78,000	0
Grand Total - Bond Issuance Costs										
Bond Amount	\$51,960,000	\$33,835,000	\$21,780,000	\$35,885,000	\$26,500,000	\$2,650,000	\$11,370,000	\$79,900,000	\$19,600,000	\$34,800,000
Bond Issuance costs as a Percent of Bond Amount	0.36%	0.40%	0.54%	0.67%	0.53%	8.11%	0.99%	0.30%	0.40%	0.39%

¹ Note: Bond Issuance costs were paid directly by the bond underwriters; a detailed breakdown of the costs is not available.

Exhibit B - Onondaga County General Obligation Bonds Issuance Costs

2009 - 2018

	2013 GO	2012 Refunding	2012 GO	2011 Refunding	2010 GO	2009 Refunding	2009 GO	Total
Variable Costs:								
<u>Rating Agencies</u>								
Moody's	\$28,000	\$7,552	\$26,500	\$17,000	\$14,300	\$15,600	\$21,500	\$286,845
Fitch	25,000	6,554	23,000	17,000	13,000	12,000	15,000	277,654
S&P	33,000	7,124	25,000	15,000	19,380	16,200	20,000	286,784
Orrick - attorney fee	44,825	32,000	42,230	36,300	57,225	30,275	52,130	517,323
Bond Buyer (Source Media)	1,045		1,005	1,005	2,010	2,500	1,005	14,025
IPREO / I-Del LLC			1,500	1,500	1,500	1,500		10,500
Verification agent						3,700		6,200
Syracuse Newspapers	103		112	101	198		91	1,050
Total Variable Costs	131,973	53,230	119,347	87,906	107,613	81,775	109,726	1,400,381
Fixed Costs:								
Fiscal Advisors	48,935	9,850	41,700	35,000	42,500	29,900	32,500	467,870
Internet								
Printing	1,658	1,500	1,553	1,529	1,330	2,434	2,788	25,223
Bonadio	2,000							9,000
								0
Total Fixed Costs	52,593	11,350	43,253	36,529	43,830	32,334	35,288	502,093
Other Costs:								
Total Cost of Issuance								467,553
Underwriter								177,694
Contingencies & Escrow Age								
GFA				45,000	57,983		88,000	190,983
Total Other Costs	0	0	0	45,000	57,983	0	88,000	836,230
Grand Total - Bond Issuance Costs	\$184,566	\$64,580	\$162,599	\$169,435	\$209,427	\$114,109	\$233,014	\$2,738,704
Bond Amount	\$67,870,000	\$20,615,000	\$51,425,000	\$33,755,000	\$53,625,000	\$33,345,000	\$61,725,000	\$640,640,000
Bond Issuance costs as a Percent of Bond Amount	0.27%	0.31%	0.32%	0.50%	0.39%	0.34%	0.38%	0.43%

Exhibit C - EFC Administration Fees

ANNUAL ADMINISTRATION FEES

EFC Loans

2019 Forward

<u>Year</u>	<u>2000A</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006C</u>	<u>2007D</u>	<u>2010C</u>	<u>2011C</u>	<u>2012B</u>	<u>2012E</u>	<u>2014B</u>	<u>2016B</u>	<u>2017C</u>	<u>Total</u>
	\$ 400	\$ 3,561	\$ 8,427	\$ 3,124	\$ 8,112	\$ 17,287	\$ 67,775	\$ 59,299	\$ 4,600	\$ 25,400	\$ 22,762	\$ 7,612	\$ 277,460	\$ 8,924	\$ 97,182	\$ 611,925
2019	200	1,947	7,042	2,322	6,822	14,112	64,050	55,162	4,262	23,500	21,550	7,150	268,098	8,536	101,584	586,337
2020	310	5,627	1,510	5,510	10,875	60,262	50,937	3,900	21,562	20,286	6,662	258,596	8,136	96,872	551,045	
2021	4,184	686	4,174	7,575	56,437	46,650	3,536	19,586	19,000	6,162	248,960	7,724	92,044	516,718		
2022	3,647		2,810	4,224	52,562	42,287	3,174	17,562	17,686	5,650	239,170	7,312	87,106	483,190		
2023	3,099		1,410	812	48,624	37,862	2,800	15,500	16,350	5,124	229,232	6,886	82,072	449,771		
2024	2,518				44,637	33,375	2,412	13,412	14,986	4,586	219,146	6,448	76,920	418,440		
2025	1,919				40,587	28,825	2,024	11,274	13,600	4,036	208,946	6,012	71,668	388,891		
2026	1,302				36,750	24,187	1,636	9,100	12,186	3,486	198,582	5,562	66,296	359,087		
2027	671				32,862	21,900	1,236	6,886	10,750	2,936	188,108	5,098	60,810	331,257		
2028					28,925	19,587	824	4,636	9,286	2,374	177,486	4,636	55,220	302,974		
2029					24,937	17,237	412	2,336	7,800	1,800	166,684	4,162	49,520	274,888		
2030					20,900	14,862			6,286	1,212	155,746	3,674	43,708	246,388		
2031					16,812	12,462			4,750	612	144,670	3,186	37,798	220,290		
2032					12,675	10,025			3,186		133,472	2,686	31,758	193,802		
2033					8,500	7,562			1,612		122,108	2,174	25,608	167,564		
2034					4,275	5,075					110,596	1,636	19,358	140,940		
2035						2,550					98,934	1,100	12,998	115,582		
2036											87,108	550	6,520	94,178		
2037											75,146			75,146		
2038											63,046			63,046		
2039											50,734			50,734		
2040											38,258			38,258		
2041											25,636			25,636		
2042											12,882			12,882		
2043																
	\$600	\$5,818	\$38,436	\$7,642	\$28,838	\$54,885	\$621,570	\$489,844	\$30,816	\$170,754	\$202,076	\$59,402	\$3,798,804	\$94,442	\$1,115,042	\$ 6,718,969

Exhibit D - General Obligation Bonds Schedule of Principal Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2045
740																		
512558-002	512558 Facilities	41,000																
512578-001	512578 Facilities	140,000																
512581-001	512581 OnCenter	349,000																
522696-001	522696 Parks	40,000																
522698-001	522698 Parks	40,000																
535030-011	535030 Transportation	40,000																
535275-001	535275 Transportation	190,000																
535350-001	535350 Transportation	105,000																
551520-001	551520 E911	3,050,000																
551560-001	551560 Corrections	100,000																
561863-001	561863 OCC	100,000																
561864-001	561864 OCC	120,000																
561867-001	561867 OCC	45,000																
561868-001	561868 OCC	30,000																
587373-001	587373 WEP	240,000																
587394-001	587394 WEP	120,000																
587510-001	587510 WEP	5,000																
587521-001	587521 WEP	70,000																
587979-001	587979 WEP	-																
592661-002	592661 OnCenter	100,000																
Total		4,925,000																
750																		
512554	512554 Facilities	-																
512558	512558 Facilities	631,000	435,000	425,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
512558-003	512558 Facilities	986,000	977,000	958,000	935,000	846,000	-	-	-	-	-	-	-	-	-	-	-	-
512705	512705 Sheriff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
522684	522684 Parks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535010	535010 Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535010-006	535010 Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535030-008	535030 Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
586211	586211 WEP	129,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
586424	586424 WEP	239,000	73,000	72,000	70,000	69,000	-	-	-	-	-	-	-	-	-	-	-	-
Total		1,985,000	1,485,000	1,455,000	1,005,000	915,000												
760																		
512581-001	512581 OnCenter	60,000																
512581-002	512581 OnCenter	85,000																
514002-008	514004 Van Duyn	315,000																
522697-001	522697 Parks	101,000																
522698-001	522698 Parks	19,000																
522699-001	522699 Parks	47,000																
522701-001	522701 Parks	73,000																
522702-001	522702 Parks	9,000																
522703-001	522703 Parks	45,000																
522704-001	522704 Parks	4,000																
522706-001	522706 Parks	14,000																
522707-001	522707 Parks	13,000																
535010-019	535010 Transportation	25,000																
535012-001	535012 Transportation	105,000																
535025-005	535025 Transportation	60,000																
535028-001	535028 Transportation	30,000																
535032-001	535032 Transportation	20,000																
535250-001	535250 Transportation	65,000																
535276-001	535276 Transportation	268,000																
535277-001	535277 Transportation	180,000																
535325-001	535325 Transportation	50,000																
535326-001	535326 Transportation	10,000																
535351-001	535351 Transportation	355,000																
535352-001	535352 Transportation	275,000																
535476-001	535476 Transportation	30,000																
535478-001	535478 Transportation	27,000																
551520-001	551520 E911	90,000																
561862-001	561862 OCC	100,000																
561865-001	561865 OCC	200,000																
561870-001	561870 OCC	40,000																
587532-001	587532 WEP	80,000																

Exhibit D - General Obligation Bonds Schedule of Principal Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2045
587948-002	587948	WEP	50,000															
587959-001	587959	WEP	12,000															
587959-002	587959	WEP	48,000															
587960-001	587960	WEP																
587960-002	587960	WEP																
Total																		
																		<u>3,000,000</u>

761

512581-001	512581	OnCenter	-	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	
512581-002	512581	OnCenter	-	90,000	90,000	90,000	100,000	100,000	100,000	100,000	100,000	110,000							
514002-008	514002	Van Duyt	-	330,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
522697-001	522697	Parks	-	105,000	152,000	135,000	135,000	152,000	146,000	146,000	152,000								
522698-001	522698	Parks	-	20,000	28,000	25,000	25,000	28,000	27,000	27,000	28,000								
522699-001	522699	Parks	-	48,000	48,000	48,000	48,000	-	-	-	-	-	-	-	-	-	-	-	
522701-001	522701	Parks	-	73,000	73,000	73,000	73,000	-	-	-	-	-	-	-	-	-	-	-	
522702-001	522702	Parks	-	9,000	9,000	9,000	9,000	-	-	-	-	-	-	-	-	-	-	-	
522703-001	522703	Parks	-	46,000	46,000	46,000	46,000	-	-	-	-	-	-	-	-	-	-	-	
522704-001	522704	Parks	-	5,000	5,000	5,000	5,000	-	-	-	-	-	-	-	-	-	-	-	
522706-001	522706	Parks	-	15,000	15,000	15,000	15,000	-	-	-	-	-	-	-	-	-	-	-	
522707-001	522707	Parks	-	14,000	14,000	14,000	14,000	-	-	-	-	-	-	-	-	-	-	-	
535012-001	535012	Transportation	-	105,000	110,000	95,000	-	-	-	-	-	-	-	-	-	-	-	-	
535028-001	535028	Transportation	-	30,000	30,000	30,000	30,000	35,000	35,000	-	-	-	-	-	-	-	-	-	
535032-001	535032	Transportation	-	20,000	20,000	20,000	-	-	-	-	-	-	-	-	-	-	-	-	
535250-001	535250	Transportation	-	65,000	65,000	65,000	-	-	-	-	-	-	-	-	-	-	-	-	
535276-001	535276	Transportation	-	288,000	288,000	288,000	309,000	330,000	288,000	-	-	-	-	-	-	-	-	-	
535277-001	535277	Transportation	-	180,000	180,000	180,000	202,000	202,000	202,000	-	-	-	-	-	-	-	-	-	
535325-001	535325	Transportation	-	50,000	50,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	-	-	-	-	-	
535326-001	535326	Transportation	-	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-	-	-	
535351-001	535351	Transportation	-	382,000	382,000	382,000	409,000	436,000	382,000	-	-	-	-	-	-	-	-	-	
535352-001	535352	Transportation	-	275,000	275,000	275,000	308,000	308,000	308,000	-	-	-	-	-	-	-	-	-	
535476-001	535476	Transportation	-	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	-	-	-	-	-	-	
535478-001	535478	Transportation	-	30,000	30,000	30,000	32,000	34,000	30,000	-	-	-	-	-	-	-	-	-	
551520-001	551520	E911	-	90,000	90,000	100,000	100,000	-	-	-	-	-	-	-	-	-	-	-	
561862-001	561862	OCC	-	105,000	105,000	105,000	105,000	115,000	115,000	115,000	125,000	-	-	-	-	-	-	-	
561865-001	561865	OCC	-	200,000	255,000	245,000	245,000	225,000	282,000	282,000	295,000	-	-	-	-	-	-	-	
561870-001	561870	OCC	-	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	45,000	-	-	-	-	-	-	
587532-001	587532	WEP	-	80,000	80,000	80,000	80,000	90,000	90,000	90,000	90,000	90,000	-	-	-	-	-	-	
587948-001	587948	WEP	-	50,000	50,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	-	-	-	-	-	
587959-001	587959	WEP	-	12,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	-	-	-	-	-	
587959-002	587959	WEP	-	48,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	-	-	-	-	-	
587960-002	587960	WEP	-	95,000	95,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	-	-	-	-	-	

Total 3,000,000 2,800,000 2,800,000 2,800,000 2,500,000 2,450,000 1,220,000

762

512581-001	512581	OnCenter	-	-	-	-	-	-	-	-	-	60,000	60,000	60,000	60,000	60,000	60,000
512581-002	512581	OnCenter	-	-	-	-	-	-	-	-	-	110,000	110,000	110,000	110,000	110,000	110,000
522697-001	522697	Parks	-	-	-	-	-	-	-	-	-	152,000	152,000	152,000	152,000	152,000	152,000
522698-001	522698	Parks	-	-	-	-	-	-	-	-	-	28,000	28,000	28,000	28,000	28,000	28,000
535325-001	535325	Transportation	-	-	-	-	-	-	-	-	-	60,000	60,000	60,000	60,000	60,000	60,000
535326-001	535326	Transportation	-	-	-	-	-	-	-	-	-	10,000	10,000	15,000	15,000	15,000	15,000
561862-001	561862	OCC	-	-	-	-	-	-	-	-	-	125,000	125,000	125,000	125,000	125,000	125,000
561865-001	561865	OCC	-	-	-	-	-	-	-	-	-	300,000	300,000	295,000	295,000	295,000	295,000
561870-001	561870	OCC	-	-	-	-	-	-	-	-	-	45,000	45,000	45,000	45,000	45,000	45,000
587532-001	587532	WEP	-	-	-	-	-	-	-	-	-	90,000	90,000	90,000	90,000	90,000	90,000
587948-002	587948	WEP	-	-	-	-	-	-	-	-	-	60,000	60,000	60,000	60,000	60,000	60,000
587959-001	587959	WEP	-	-	-	-	-	-	-	-	-	60,000	60,000	60,000	60,000	60,000	60,000
587959-002	587959	WEP	-	-	-	-	-	-	-	-	-	15,000	15,000	15,000	15,000	15,000	15,000
587960-002	587960	WEP	-	-	-	-	-	-	-	-	-	110,000	110,000	110,000	110,000	110,000	110,000

Total 1,225,000 1,225,000 1,225,000 1,230,000

770

512581-001	512581	OnCenter	50,000
512585-001	512585	BOE	48,000
522692-001	522692	Parks	3,850
522697-001	522697	Parks	272,170
522701-001	522701	Parks	44,650
522702-001	522702	Parks	10,000

Exhibit D - General Obligation Bonds Schedule of Principal Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2045
522703-001	522703 Parks	25,400																
522704-001	522704 Parks	5,000																
522706-001	522706 Parks	4,000																
522707-001	522707 Parks	2,150																
522707-002	522707 Parks	7,780																
535012-001	535012 Transportation	335,060																
535024-002	535024 Transportation	770																
535028-001	535028 Transportation	15,000																
535032-001	535032 Transportation	4,630																
535155-001	535155 Transportation	17,950																
535156-001	535156 Transportation	11,110																
535250-001	535250 Transportation	10,480																
535277-001	535277 Transportation	84,750																
535278-001	535278 Transportation	136,440																
535325-001	535325 Transportation	15,000																
535326-001	535326 Transportation	25,000																
535352-001	535352 Transportation	115,250																
535353-001	535353 Transportation	170,560																
535481-001	535481 Transportation	160,000																
561862-001	561862 OCC	40,000																
561866-001	561866 OCC	77,880																
561867-001	561867 OCC	22,120																
561870-001	561870 OCC	220,000																
562136-001	562136 On Comm Pub Lib	30,000																
587532-001	587532 WEP	30,000																
587554-001	587554 WEP	65,000																
587960-001	587960 WEP	15,000																
592674	592674 IT	450,000																
Total		2,525,000																
780																		
512588-001	512588 Facilities	58,700	62,000	62,000	62,000	62,000	62,000	62,000	74,400	74,400	74,400	74,400	74,400	74,400	74,400	-	-	-
512589-001	512589 Facilities	171,100	180,800	180,800	180,800	180,800	180,800	180,800	216,900	216,900	216,900	216,900	216,900	216,900	216,900	-	-	-
512591-001	512591 Facilities	57,500	60,700	60,700	60,700	60,700	60,700	60,700	72,800	72,800	72,800	72,800	72,800	72,800	72,800	-	-	-
512592-001	512592 Facilities	67,700	71,500	71,500	71,500	71,500	71,500	71,500	85,900	85,900	85,900	85,900	85,900	85,900	85,900	-	-	-
522707-001	522707 Parks	30,000	30,000	36,000	36,000	36,000	-	-	-	-	-	-	-	-	-	-	-	-
522719-001	522719 Parks	16,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	-	-	-	-	-	-	-	-	-
522721-001	522721 Parks	66,700	63,700	79,700	80,000	80,000	85,000	85,000	85,000	-	-	-	-	-	-	-	-	-
522722-001	522722 Parks	133,300	127,300	159,300	160,000	160,000	170,000	170,000	170,000	-	-	-	-	-	-	-	-	-
535010-001	535010 Transportation	23,100	23,400	23,400	23,400	23,400	28,200	28,200	28,200	-	-	-	-	-	-	-	-	-
535013-001	535013 Transportation	30,000	40,000	40,000	40,000	-	-	-	-	-	-	-	-	-	-	-	-	-
535026-001	535026 Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535030-001	535030 Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535031-001	535031 Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535100-001	535100 Transportation	7,100	7,200	7,200	7,200	7,200	8,700	8,700	8,700	8,700	-	-	-	-	-	-	-	-
535151-001	535151 Transportation	10,400	10,400	10,400	12,200	12,500	-	-	-	-	-	-	-	-	-	-	-	-
535156-002	535156 Transportation	21,900	21,900	21,900	21,900	21,900	21,900	21,900	-	-	-	-	-	-	-	-	-	-
535157-001	535157 Transportation	2,800	3,300	3,300	3,800	4,200	4,200	4,200	-	-	-	-	-	-	-	-	-	-
535158-001	535158 Transportation	1,400	1,600	1,600	1,900	2,100	2,100	-	-	-	-	-	-	-	-	-	-	-
535159-001	535159 Transportation	2,800	3,300	3,300	3,800	4,200	4,200	4,200	-	-	-	-	-	-	-	-	-	-
535164-002	535164 Transportation	7,800	8,300	10,200	10,200	11,500	11,500	11,500	-	-	-	-	-	-	-	-	-	-
535165-001	535165 Transportation	7,200	7,700	9,500	9,500	10,700	10,700	10,700	-	-	-	-	-	-	-	-	-	-
535254-001	535254 Transportation	8,100	8,100	8,100	8,100	8,100	8,100	8,100	-	-	-	-	-	-	-	-	-	-
535278-001	535278 Transportation	108,100	116,200	142,100	142,100	160,100	160,100	160,100	160,100	-	-	-	-	-	-	-	-	-
535279-001	535279 Transportation	212,900	215,600	215,600	215,600	259,800	259,800	259,800	259,800	-	-	-	-	-	-	-	-	-
535326-001	535326 Transportation	35,000	35,000	35,000	35,000	40,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	-	-	-
535327-001	535327 Transportation	22,000	22,000	22,000	22,000	26,000	26,000	26,000	29,000	30,000	33,000	33,000	33,000	33,000	33,000	33,000	-	-
535328-001	535328 Transportation	25,000	25,000	25,000	25,000	24,900	25,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	-	-
535353-001	535353 Transportation	146,900	157,800	193,200	193,200	217,700	217,700	217,700	217,700	-	-	-	-	-	-	-	-	-
535354-001	535354 Transportation	141,900	143,800	143,800	143,800	173,300	173,300	173,300	173,300	-	-	-	-	-	-	-	-	-
536509-002	536509 Transportation	5,000	5,800	5,800	6,500	7,500	7,500	7,500	-	-	-	-	-	-	-	-	-	-
536511-002	536511 Transportation	2,600	2,600	2,600	3,000	3,100	-	-	-	-	-	-	-	-	-	-	-	-
536513-001	536513 Transportation	4,200	4,200	4,200	4,900	5,100	-	-	-	-	-	-	-	-	-	-	-	-
536513-002	536513 Transportation	12,800	12,800	12,800	14,900	15,400	-	-	-	-	-	-	-	-	-	-	-	-
551521-001	551521 E911	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
561865-001	561865 OCC	75,000	75,000	75,000	75,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	-	-	-	-
562136-001	562136 On Comm Pub Lib	305,000	305,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
575090-001	575090 Metro Water Board	273,000	268,000	268,000	349,000	353,000	358,000	319,000	361,000	343,000	344,000	344,000	344,000	349,000	349,000	400,000	400,000	1,200,000
587539	587539 WEP	14,000	14,000	18,000	18,000	18,000	18,000	18,000	21,000	21,000	21,000	21,000	21,000	21,000	-	-	-	-
587554	587554 WEP	60,000	65,000	75,000	75,000	75,000	75,000	75,000	75,000	90,000	90,000	90,000	90,000	90,000	90,000	-	-	-
587583	587583 WEP	24,000	24,000	28,000	36,000	36,000	36,000	36,000	36,000	-	-	-	-	-	-	-	-	-

Exhibit D - General Obligation Bonds Schedule of Principal Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2045
587584	WEP	52,000	52,000	65,000	65,000	67,000	78,000	78,000	78,000	78,000	78,000	78,000	78,000	78,000	-	-	-	
587585	WEP	157,000	157,000	157,000	157,000	157,000	157,000	157,000	157,000	174,000	188,000	188,000	188,000	188,000	188,000	-	-	-
587948-001	WEP	14,000	14,000	14,000	17,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	-	-	-
587959-001	WEP	13,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	-	-	-
587960-001	WEP	161,100	196,800	196,800	196,800	196,800	241,600	241,600	241,600	241,600	241,600	241,600	241,600	-	-	-	-	-
587960-002	WEP	18,900	23,200	23,200	23,200	23,200	27,000	27,000	27,000	28,400	28,400	28,400	28,400	-	-	-	-	-
592661-001	OnCenter	18,000	22,000	27,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
592674-001	IT	575,000	575,000	575,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		3,200,000	3,300,000	3,150,000	2,675,000	2,700,000	2,750,000	2,750,000	2,825,000	2,425,000	1,675,000	1,675,000	1,675,000	1,275,000	400,000	400,000	1,200,000	
790																		
512558-004	512558	Facilities	77,000	75,000	79,000	78,000	71,000	60,000	-	-	-	-	-	-	-	-	-	-
512558-005	512558	Facilities	124,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
512569-001	512569	Facilities	23,000	22,000	22,000	22,000	20,000	-	-	-	-	-	-	-	-	-	-	-
512570-001	512570	Facilities	19,000	18,000	21,000	19,000	19,000	19,000	20,000	-	-	-	-	-	-	-	-	-
535010-018	535010	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535010-535070	535010	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535010-535866	535010	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535020-037	535020	Transportation	41,000	50,000	49,000	49,000	48,000	-	-	-	-	-	-	-	-	-	-	-
535020-040	535020	Transportation	59,000	58,000	57,000	57,000	51,000	-	-	-	-	-	-	-	-	-	-	-
535020-044	535020	Transportation	71,000	64,000	63,000	56,000	56,000	56,000	-	-	-	-	-	-	-	-	-	-
535040-029	535040	Transportation	304,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535060-007	535060	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
536238-002	536238	Transportation	225,000	221,000	220,000	218,000	-	-	-	-	-	-	-	-	-	-	-	-
561860-001	561860	OCC	147,000	143,000	169,000	167,000	169,000	167,000	158,000	-	-	-	-	-	-	-	-	-
586424-001	586424	WEP	25,000	27,000	26,000	26,000	24,000	21,000	-	-	-	-	-	-	-	-	-	-
586426-001	586426	WEP	67,000	65,000	79,000	73,000	75,000	73,000	74,000	-	-	-	-	-	-	-	-	-
587301-001	587301	WEP	33,000	32,000	37,000	32,000	33,000	32,000	33,000	-	-	-	-	-	-	-	-	-
587354-001	587354	WEP	7,000	7,000	7,000	7,000	6,000	5,000	-	-	-	-	-	-	-	-	-	-
587372-001	587372	WEP	9,000	9,000	10,000	10,000	9,000	7,000	-	-	-	-	-	-	-	-	-	-
587383-001	587383	WEP	81,000	80,000	79,000	78,000	71,000	60,000	-	-	-	-	-	-	-	-	-	-
587383-002	587383	WEP	24,000	23,000	26,000	23,000	23,000	23,000	-	-	-	-	-	-	-	-	-	-
592661-001	592661	OnCenter	49,000	71,000	66,000	65,000	55,000	47,000	-	-	-	-	-	-	-	-	-	-
Total		1,385,000	965,000	1,010,000	980,000	730,000	570,000	285,000										
800																		
512581-001	512581	OnCenter	30,000	30,000	30,000	-	-	-	-	-	-	-	-	-	-	-	-	-
512590-001	512590	Facilities	60,000	70,000	70,000	-	-	-	-	-	-	-	-	-	-	-	-	-
512593-001	512593	Facilities	140,000	160,000	180,000	-	-	-	-	-	-	-	-	-	-	-	-	-
512595-001	512595	Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
512596-001	512596	Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
512597-001	512597	OnCenter	25,000	25,000	25,000	-	-	-	-	-	-	-	-	-	-	-	-	-
514004-001	514004	Van Duyn	110,000	120,000	120,000	-	-	-	-	-	-	-	-	-	-	-	-	-
522721-001	522721	Parks	69,000	77,000	77,000	-	-	-	-	-	-	-	-	-	-	-	-	-
522722-001	522722	Parks	152,000	169,000	169,000	-	-	-	-	-	-	-	-	-	-	-	-	-
522724-001	522724	Parks	4,000	4,000	4,000	-	-	-	-	-	-	-	-	-	-	-	-	-
522726-001	522726	Parks	85,000	95,000	95,000	-	-	-	-	-	-	-	-	-	-	-	-	-
535154-001	535154	Transportation	24,000	29,000	29,000	-	-	-	-	-	-	-	-	-	-	-	-	-
535253-001	535253	Transportation	15,000	15,000	15,000	-	-	-	-	-	-	-	-	-	-	-	-	-
535279-001	535279	Transportation	155,000	175,000	175,000	-	-	-	-	-	-	-	-	-	-	-	-	-
535280-001	535280	Transportation	45,000	45,000	45,000	-	-	-	-	-	-	-	-	-	-	-	-	-
535327-001	535327	Transportation	40,000	40,000	40,000	-	-	-	-	-	-	-	-	-	-	-	-	-
535328-001	535328	Transportation	40,000	50,000	50,000	-	-	-	-	-	-	-	-	-	-	-	-	-
535354-001	535354	Transportation	220,000	250,000	250,000	-	-	-	-	-	-	-	-	-	-	-	-	-
535355-001	535355	Transportation	55,000	55,000	55,000	-	-	-	-	-	-	-	-	-	-	-	-	-
536509-002	536500	Transportation	1,000	1,000	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-
551560-001	551560	Corrections	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
552498-001	552498	Sheriff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
552499-001	552499	Sheriff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
561870-001	561870	OCC	180,000	200,000	200,000	-	-	-	-	-	-	-	-	-	-	-	-	-
561871-001	561871	OCC	90,000	90,000	100,000	-	-	-	-	-	-	-	-	-	-	-	-	-
561872-001	561872	OCC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
561873-001	561873	OCC	25,000	25,000	30,000	-	-	-	-	-	-	-	-	-	-	-	-	-
561874-001	561874	OCC	150,000	150,000	150,000	-	-	-	-	-	-	-	-	-	-	-	-	-
562136-001	562136	On Comm Pub Lib	45,000	45,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
562137-001	562137	On Comm Pub Lib	125,000	125,000	140,000	-	-	-	-	-	-	-	-	-	-	-	-	-
575090-003	575090	Metro Water Board	555,000	545,000	555,000	-	-	-	-	-	-	-	-	-	-	-	-	-
575104-001	575104	Metro Water Board	125,000	125,000	125,000	-	-	-	-	-	-	-	-	-	-	-	-	-
587373-001	587373	WEP	300,000	300,000	300,000	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit D - General Obligation Bonds Schedule of Principal Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2045
587586-001	WEP	75,000	75,000	75,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587597-001	WEP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587598-001	WEP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587599-001	WEP	40,000	40,000	40,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587600-001	WEP	100,000	100,000	100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587601-001	WEP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587948-002	WEP	50,000	50,000	60,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587959-002	WEP	70,000	75,000	75,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587960-002	WEP	225,000	225,000	250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
592674-001	IT	150,000	170,000	170,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
592675-001	IT	225,000	275,000	275,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
592676-001	IT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		3,800,000	4,025,000	4,075,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
810																		
512589-001	Facilities	213,200	235,300	242,600	242,600	242,600	242,600	272,100	272,100	272,100	272,100	316,200	316,200	316,200	316,200	316,200	316,200	316,200
512590-001	Facilities	76,800	84,700	87,400	87,400	87,400	87,400	97,900	97,900	97,900	97,900	113,800	113,800	113,800	113,800	113,800	113,800	113,800
512590-002	Facilities	30,000	30,000	35,000	35,000	35,000	35,000	35,000	40,000	40,000	40,000	40,000	40,000	40,000	45,000	45,000	45,000	45,000
512595-001	Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
522721-001	Parks	24,431	26,310	26,310	28,190	30,069	30,069	31,948	33,827	33,827	-	-	-	-	-	-	-	-
522722-001	Parks	71,551	77,054	77,054	82,558	88,062	88,062	93,566	99,070	99,070	-	-	-	-	-	-	-	-
522723-001	Parks	1,659	1,786	1,786	1,914	2,042	2,042	2,169	2,297	2,297	-	-	-	-	-	-	-	-
522724-001	Parks	32,359	34,850	34,850	37,338	39,827	39,827	42,317	44,806	44,806	-	-	-	-	-	-	-	-
535012-001	Transportation	275,000	300,000	300,000	325,000	-	-	-	-	-	-	-	-	-	-	-	-	-
535031-001	Transportation	25,000	30,000	30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535070-001	Transportation	11,400	11,400	14,300	14,300	14,300	14,300	12,500	13,700	6,000	6,000	-	-	-	-	-	-	-
535150-001	Transportation	18,200	18,200	20,900	20,900	20,900	20,900	17,400	17,400	17,400	700	-	-	-	-	-	-	-
535150-002	Transportation	2,900	2,900	3,300	3,300	3,300	3,300	2,000	2,200	900	900	-	-	-	-	-	-	-
535159-001	Transportation	13,900	13,900	13,900	14,000	14,000	14,000	13,900	17,400	17,400	700	-	-	-	-	-	-	-
535159-002	Transportation	5,000	5,000	5,000	5,700	5,700	5,700	6,200	6,300	6,300	600	-	-	-	-	-	-	-
535160-001	Transportation	5,800	5,800	5,900	6,700	6,700	6,700	-	-	-	-	-	-	-	-	-	-	-
535161-001	Transportation	4,300	4,200	4,200	4,800	4,800	4,800	-	-	-	-	-	-	-	-	-	-	-
535162-001	Transportation	4,700	4,700	4,700	5,100	5,100	5,200	6,000	6,000	6,000	1,200	-	-	-	-	-	-	-
535163-001	Transportation	4,850	5,200	5,150	5,850	5,850	5,950	3,100	3,200	3,200	3,200	-	-	-	-	-	-	-
535163-002	Transportation	4,850	5,200	5,150	5,850	5,850	5,950	3,100	3,200	3,200	3,200	-	-	-	-	-	-	-
535170-001	Transportation	1,500	1,800	1,800	2,000	2,000	2,100	2,200	2,300	2,300	2,300	-	-	-	-	-	-	-
535256-001	Transportation	15,900	15,900	15,900	18,200	18,200	18,200	-	-	-	-	-	-	-	-	-	-	-
535257-001	Transportation	2,800	2,800	2,800	3,100	3,100	3,100	3,100	3,100	3,100	3,100	-	-	-	-	-	-	-
535280-001	Transportation	33,600	33,700	33,600	37,900	37,900	37,800	37,800	37,800	37,800	37,800	-	-	-	-	-	-	-
535290-001	Transportation	43,500	49,900	50,000	56,500	56,500	58,100	62,100	64,600	64,600	64,600	-	-	-	-	-	-	-
535329-001	Transportation	147,400	169,400	169,400	191,100	191,100	196,600	210,200	218,400	218,400	218,400	-	-	-	-	-	-	-
535329-002	Transportation	65,000	65,000	65,000	75,000	75,000	75,000	85,000	85,000	85,000	85,000	90,000	95,000	95,000	95,000	95,000	95,000	95,000
535347-001	Transportation	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	25,000	25,000	25,000	25,000	25,000	25,000
535478-001	Transportation	71,400	82,000	82,000	92,700	92,700	95,300	101,900	105,800	105,800	105,800	-	-	-	-	-	-	-
535478-002	Transportation	70,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535484-001	Transportation	450,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
551525-001	E911	195,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
552498-001	Sheriff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
561870-001	OCC	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	25,000	25,000	25,000	30,000	30,000	30,000	30,000
561871-001	OCC	25,000	25,000	25,000	30,000	30,000	-	-	-	-	-	-	-	-	-	-	-	-
561872-001	OCC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
561873-001	OCC	15,000	15,000	15,000	15,000	15,000	-	-	-	-	-	-	-	-	-	-	-	-
561874-001	OCC	21,000	25,000	25,000	25,000	27,000	27,000	30,000	30,000	30,000	-	-	-	-	-	-	-	-
575090-003	Metro Water Board	183,000	208,000	202,000	192,000	198,000	231,000	196,000	195,000	215,000	240,000	225,000	225,000	230,000	230,000	230,000	230,000	230,000
587554-001	WEP	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	5,000	5,000	5,000	5,000	5,000	5,000
587585-001	WEP	80,000	90,000	90,000	90,000	90,000	90,000	100,000	90,000	100,000	100,000	100,000	120,000	120,000	120,000	120,000	120,000	120,000
587599-001	WEP	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
587600-001	WEP	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	20,000	20,000	20,000	20,000
587601-001	WEP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587948-001	WEP	10,000	10,000	10,000	10,000	14,000	15,000	-	-	-	-	-	-	-	-	-	-	-
587959-001	WEP	31,600	31,600	37,100	39,000	39,000	39,000	-	-	-	-	-	-	-	-	-	-	-
587959-002	WEP	53,400	53,400	62,900	66,000	66,000	66,000	-	-	-	-	-	-	-	-	-	-	-
587960-001	WEP	112,400	130,600	134,700	137,500	145,200	145,200	-	-	-	-	-	-	-	-	-	-	-
587960-002	WEP	296,600	344,400	355,300	362,500	382,800	382,800	-	-	-	-	-	-	-	-	-	-	-
587963-001	WEP	30,000	30,000	35,000	35,000	35,000	35,000	35,000	40,000	40,000	40,000	40,000	40,000	45,000	45,000	45,000	45,000	45,000
Total		2,850,000	2,350,000	2,400,000	2,475,000	2,200,000	2,175,000	1,550,000	1,575,000	1,575,000	1,325,000	950,000	1,000,000	1,025,000	1,050,000	1,050,000	1,050,000	1,050,000

575086-001 Metro Water Board | 135,200 136,100 156,800 157,800 158,100 161,600 161,800 160,600

Exhibit D - General Obligation Bonds Schedule of Principal Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2045
587962-001	WEP	98,400	94,900	124,500	126,000	108,600	133,500	129,000	132,300									
587963-001	WEP	25,700	25,900	25,800	26,100	30,400	31,100	31,100	30,900									
587964-001	WEP	25,700	30,200	30,100	30,400	30,400	32,000	32,900	32,600									
587375-001	WEP	236,600	291,900	256,600	255,300	269,500	285,300	280,600	280,200									
512578-001	Facilities	164,900	164,300	164,100	161,000	162,400	163,100	164,500	166,000									
535010-018	535010	Transportation	14,100	14,100	18,800	18,400	18,600	18,600	18,800	19,000								
535025-003	535025	Transportation	-	-	-	-	-	-	-	-								
535010-016	535010	Transportation	-	-	-	-	-	-	-	-								
535030-004	535030	Transportation	179,000	-	-	-	-	-	-	-								
535030-006	535030	Transportation	259,100	258,200	258,000	-	-	-	-	-								
535021-001	535021	Transportation	65,900	65,700	65,700	73,600	74,200	74,600	75,200	75,800								
561860-001	561860	OCC	56,500	56,300	56,300	55,200	55,700	65,200	65,800	66,400								
561861-001	561861	OCC	164,900	187,800	187,600	184,000	185,600	186,400	188,000	189,600								
587390-001	587390	WEP	202,600	230,000	201,700	225,400	227,400	228,300	239,700	241,700								
551519-001	551519	E911	282,600	281,700	281,400	-	-	-	-	-								
552343-001	552343	Hillbrook	263,800	262,900	262,600	266,800	269,100	270,300	272,600	274,900								
Total			2,175,000	2,100,000	2,090,000	1,580,000	1,590,000	1,650,000	1,660,000	1,670,000								

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512590-002	512590	Facilities	21,500	22,000	22,700	23,300	23,900	24,600	25,300	26,000	26,700	27,500	28,300	29,100	29,900	30,700	31,500	32,400	33,400
512591-002	512591	Facilities	14,392	13,605	14,150	14,785	15,419	15,933	16,417	16,961	17,415	17,838	18,201	20,076	18,896	19,289	21,104	21,315	21,436
512592-002	512592	Facilities	33,208	31,395	32,650	34,115	35,581	36,767	37,883	39,139	40,185	41,162	41,999	46,324	43,604	44,511	48,696	49,185	49,464
512597-001	512597	Facilities	21,500	22,000	22,700	23,300	23,900	24,600	25,300	26,000	26,700	27,500	28,300	29,100	29,900	30,700	31,500	32,400	33,400
592674-001	592674	IT	42,500	43,600	44,900	46,100	47,300	48,700	50,100	51,400	52,900	54,300	55,900	57,500	59,100	60,600	62,300	64,100	66,000
522733-001	522733	Parks	1,195,000	1,230,000	1,260,000	1,300,000	1,335,000	1,370,000	1,410,000	1,450,000	1,490,000	1,530,000	1,575,000	1,615,000	1,665,000	1,710,000	1,755,000	1,805,000	23,515,000
535012-001	535012	Transportation	86,049	88,052	90,808	93,389	95,997	98,314	101,235	103,999	106,912	109,833	112,920	116,511	119,607	122,694	125,947	129,886	133,287
535151-002	535151	Transportation	13,738	14,080	14,506	14,934	15,274	15,786	16,213	16,640	17,152	17,579	18,091	18,603	19,115	19,627	20,138	20,736	21,334
535152-001	535152	Transportation	5,166	5,288	5,451	5,614	5,736	5,898	6,061	6,224	6,427	6,590	6,793	6,997	7,159	7,363	7,566	7,769	8,014
535156-002	535156	Transportation	2,599	2,675	2,752	2,828	2,904	2,981	3,057	3,134	3,210	3,287	3,363	3,516	3,592	3,669	3,745	3,898	3,975
535157-002	535157	Transportation	8,064	8,271	8,507	8,745	8,982	9,219	9,516	9,753	10,020	10,316	10,613	10,909	11,206	11,502	11,828	12,154	12,510
535158-001	535158	Transportation	260	268	275	283	290	298	306	313	329	336	352	359	367	375	390	397	
535160-002	535160	Transportation	5,375	5,514	5,672	5,830	5,988	6,146	6,344	6,503	6,679	6,878	7,075	7,273	7,470	7,668	7,885	8,103	8,340
535162-002	535162	Transportation	215	220	227	233	239	247	254	260	268	274	282	290	299	307	315	324	333
535163-002	535163	Transportation	541	557	573	589	606	621	637	653	669	684	701	732	749	764	780	812	828
535166-001	535166	Transportation	860	882	908	933	958	985	1,014	1,040	1,069	1,100	1,132	1,164	1,195	1,227	1,262	1,296	1,334
535167-001	535167	Transportation	1,290	1,323	1,361	1,399	1,437	1,475	1,523	1,560	1,603	1,651	1,698	1,745	1,794	1,840	1,893	1,945	2,002
535168-001	535168	Transportation	4,300	4,411	4,538	4,664	4,791	4,917	5,075	5,202	5,344	5,502	5,660	5,818	5,976	6,134	6,308	6,482	6,672
535169-001	535169	Transportation	860	882	908	933	958	983	1,015	1,040	1,069	1,100	1,132	1,164	1,195	1,227	1,262	1,296	1,334
535170-001	535170	Transportation	6,451	6,617	6,806	6,996	7,186	7,375	7,613	7,802	8,016	8,253	8,490	8,727	8,964	9,202	9,462	9,724	10,008
535171-001	535171	Transportation	1,083	1,092	1,131	1,173	1,217	1,219	1,255	1,296	1,331	1,368	1,402	1,471	1,505	1,539	1,569	1,634	1,660
535172-001	535172	Transportation	2,165	2,183	2,262	2,346	2,434	2,437	2,510	2,591	2,663	2,736	2,804	2,941	3,010	3,077	3,138	3,267	3,319
535173-001	535173	Transportation	2,598	2,620	2,715	2,815	2,921	2,925	3,013	3,109	3,196	3,283	3,364	3,529	3,612	3,693	3,766	3,920	3,983
535174-001	535174	Transportation	2,728	2,751	2,850	2,956	3,067	3,071	3,163	3,265	3,355	3,448	3,532	3,706	3,792	3,877	3,954	4,116	4,182
535175-001	535175	Transportation	2,165	2,183	2,262	2,346	2,434	2,437	2,510	2,591	2,663	2,738	2,804	2,941	3,010	3,077	3,138	3,267	3,319
535177-001	535177	Transportation	3,248	3,275	3,393	3,519	3,651	3,656	3,766	3,887	3,994	4,104	4,205	4,412	4,515	4,616	4,708	4,901	4,979
535178-001	535178	Transportation	1,083	1,092	1,131	1,173	1,217	1,219	1,255	1,296	1,331	1,368	1,401	1,470	1,505	1,539	1,569	1,634	1,660
535179-001	535179	Transportation	1,819	1,834	1,900	1,971	2,045	2,047	2,109	2,177	2,237	2,298	2,355	2,471	2,528	2,636	2,744	2,788	
535180-001	535180	Transportation	1,081	1,092	1,131	1,173	1,217	1,219	1,255	1,296	1,331	1,368	1,402	1,471	1,505	1,539	1,569	1,634	1,660
535256-001	535256	Transportation	7,534	7,712	7,949	8,186	8,364	8,602	8,839	9,076	9,373	9,610	9,907	10,203	10,441	10,737	11,034	11,331	11,686
535258-001	535258	Transportation	2,147	2,200	2,267	2,333	2,387	2,467	2,533	2,600	2,680	2,747	2,827	2,907	2,986	3,066	3,147	3,240	3,333
535260-001	535260	Transportation	4,330	4,366	4,526	4,692	4,868	4,874	5,021	5,182	5,326	5,472	5,607	5,882	6,020	6,154	6,277	6,534	6,639
535281-001	535281	Transportation	35,529	35,820	37,124	38,498	39,946	41,198	42,522	43,700	44,903	46,006	48,263	49,392	50,496	51,502	53,612	54,471	
535330-001	535330	Transportation	17,200	17,600	18,200	18,700	19,100	19,700	20,300	20,800	21,400	22,000	22,600	23,300	23,900	24,500	25,200	25,900	26,700
535356-001	535356	Transportation	74,089	74,703	77,415	80,280	83,299	83,401	85,908	88,671	91,128	93,634	95,937	100,644	102,997	105,299	107,399	111,798	113,589
536506-007	536506	Transportation	433	437	452	469	487	487	502	518	533	547	561	588	602	615	628	653	664
551526-001	551526	E911	15,000	15,400	15,900	16,300	16,800	17,200	17,700	18,200	18,700	19,200	19,800	20,300	20,900				

Exhibit D - General Obligation Bonds Schedule of Principal Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2045		
Total		2,500,000	2,570,000	2,640,000	2,720,000	2,790,000	2,870,000	2,950,000	3,030,000	3,115,000	3,200,000	3,295,000	3,380,000	3,480,000	3,575,000	3,675,000	3,775,000	25,540,000		
821																				
512578-001	512578	Facilities	113,333	113,333	112,889	112,320	111,500	111,500	112,500	113,500	0									
522695-001	522695	Parks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
535057-001	535057	Transportation	94,444	94,444	94,074	93,600	0	0	0	0	0	0	0	0	0	0	0	0		
551518-001	551518	E911	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
551519-001	551519	E911	75,556	75,556	75,259	0	0	0	0	0	0	0	0	0	0	0	0	0		
552343-001	552343	Hillbrook	47,222	56,667	56,444	56,160	55,750	65,042	65,625	66,208	0									
561861-001	561861	OCC	283,333	264,444	263,407	243,360	278,750	269,458	271,875	293,208	0									
562130-001	562130	On Comm Pub Lib	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
587384-001	587384	WEP	28,333	28,333	28,222	28,080	27,875	27,875	28,125	0	0	0	0	0	0	0	0	0		
587390-001	587390	WEP	28,333	28,333	28,222	28,080	27,875	27,875	28,125	28,375	0									
587394-001	587394	WEP	103,889	103,889	103,481	102,960	102,208	102,208	103,125	104,042	99,000									
587510-001	587510	WEP	113,333	122,778	122,296	121,680	120,792	120,792	121,875	122,958	117,000									
587521-001	587521	WEP	47,222	47,222	47,037	46,800	55,750	55,750	56,250	56,750	54,000									
587532-001	587532	WEP	207,780	207,779	206,966	205,920	204,417	204,417	206,250	217,542	189,000									
587959-001	587959	WEP	28,333	28,333	28,222	28,080	27,875	27,875	28,125	28,375	27,000									
587960-001	587960	WEP	103,889	103,889	103,481	102,960	102,208	102,208	103,125	104,042	99,000									
Total			1,275,000	1,275,000	1,270,000	1,170,000	1,115,000	1,115,000	1,125,000	1,135,000	585,000									
822																				
512589-001	512589	Facilities	265,000	265,000	265,000	265,000	265,000	265,000	265,000	265,000	265,000									
Total			265,000	265,000																
830																				
512597-002	512597	Facilities	22,000	22,000	23,000	23,000	24,000	24,000	25,000	26,000	26,000	27,000	27,000	28,000	29,000	29,000	30,000	31,000	63,000	
592661-002	592661	OnCenter	56,000	57,000	59,000	60,000	62,000	63,000	64,000	66,000	67,000	69,000	70,000	72,000	74,000	75,000	77,000	79,000	162,000	
522722-001	522722	Parks	31,000	31,000	32,000	33,000	34,000	34,000	35,000	36,000	37,000	37,000	38,000	39,000	40,000	41,000	42,000	43,000	89,000	
522735-001	522735	Parks	127,000	130,000	133,000	136,000	140,000	143,000	146,000	149,000	153,000	156,000	160,000	163,000	167,000	171,000	174,000	179,000	369,000	
535104-001	535104	Transportation	4,000	4,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	6,000	6,000	6,000	6,000	12,000	
535152-002	535152	Transportation	8,000	8,000	8,000	8,000	9,000	9,000	9,000	9,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-	
535161-001	535161	Transportation	12,000	12,000	13,000	13,000	13,000	13,000	14,000	14,000	14,000	14,000	15,000	15,000	16,000	-	-	-	-	
535163-002	535163	Transportation	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	500	500	500	-	-	-	-	-	
535166-001	535166	Transportation	1,300	1,300	1,300	1,300	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	-	-	
535167-001	535167	Transportation	1,900	1,800	1,800	2,000	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,700	-	-	-	-	-	
535169-001	535169	Transportation	1,300	1,300	1,300	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	-	-	-	-	
535170-001	535170	Transportation	9,400	9,700	10,000	10,000	10,200	10,500	10,800	11,100	11,400	11,800	11,800	12,100	12,400	-	-	-	-	
535171-001	535171	Transportation	1,500	1,600	1,600	1,600	1,800	1,800	1,800	1,800	1,800	1,800	1,800	2,300	-	-	-	-	-	
535172-001	535172	Transportation	3,100	3,200	3,300	3,300	3,400	3,500	3,700	3,700	3,800	3,900	3,900	4,100	4,100	-	-	-	-	
535173-001	535173	Transportation	3,800	3,900	4,000	4,000	4,100	4,200	4,300	4,400	4,600	4,800	4,800	4,800	4,800	-	-	-	-	
535174-001	535174	Transportation	3,900	4,100	4,200	4,200	4,300	4,400	4,500	4,700	4,800	5,000	5,000	5,100	-	-	-	-	-	
535177-001	535177	Transportation	4,700	4,800	5,000	5,000	5,100	5,300	5,400	5,600	5,700	5,800	5,800	6,200	-	-	-	-	-	
535179-001	535179	Transportation	6,600	6,700	6,900	7,100	7,300	7,500	7,700	7,900	8,400	8,400	8,400	9,000	8,600	-	-	-	-	
535180-001	535180	Transportation	1,500	1,600	1,600	1,600	1,800	1,800	1,800	1,800	1,800	1,800	1,800	2,300	-	-	-	-	-	
535181-001	535181	Transportation	4,100	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000	5,100	5,300	-	-	-	-	
535182-001	535182	Transportation	2,400	2,400	2,500	2,500	2,600	2,700	2,800	2,900	2,900	3,000	3,000	-	-	-	-	-	-	
535183-001	535183	Transportation	2,200	2,200	2,200	2,300	2,400	2,500	2,600	2,600	2,700	2,700	2,700	-	-	-	-	-	-	
535184-001	535184	Transportation	3,800	3,900	4,000	4,000	4,100	4,200	4,300	4,400	4,600	4,800	4,800	4,800	-	-	-	-	-	
535258-001	535258	Transportation	3,100	3,200	3,300	3,300	3,400	3,500	3,700	3,800	3,900	3,900	4,100	4,100	-	-	-	-	-	
535261-001	535261	Transportation	19,800	19,900	20,300	20,800	21,200	21,700	22,400	22,800	23,300	23,900	24,400	24,800	25,500	-	-	-	-	-
535282-001	535282	Transportation	78,800	79,700	81,400	83,300	85,000	86,900	91,200	93,100	95,800	97,400	99,300	102,000	-	-	-	-	-	
535331-001	535331	Transportation	51,000	51,000	53,000	54,000	55,000	56,000	58,000	59,000	60,000	62,000	63,000	64,000	66,000	-	-	-	-	-
535357-001	535357	Transportation	214,800	217,600	222,200	227,500	232,100	237,200	244,300	249,000	254,000	261,200	265,900	271,200	278,600	-	-	-	-	-
536031-001	536031	General Fund	185,000	190,000	194,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
561875-001	561875	OCC	219,000	223,000	227,000	232,000	240,000	245,000	251,000	256,000	262,000	267,000	274,000	279,000	286,000	292,000	299,000	306,000	632,000	
575090-003	575090	Metro Water Board	46,000	47,000	48,000	50,000	51,000	52,000	53,000	54,000	55,000	57,000	58,000	59,000	61,000	62,000	63,000	65,000	134,000	
587563-001	587563	WEP	197,000	202,000	207,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
587585-001	587585	WEP	13,000	13,000	14,000	14,000	14,000	15,000	15,000	16,000	16,000	16,000	17,000	17,000	18,000	18,000	18,000	18,000	38,000	
587592-001	587592	WEP	4,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	13,000	
587597-002	587597	WEP	367,000	376,000	385,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
587601-001	587601	WEP	45,000	4																

Exhibit D - General Obligation Bonds Schedule of Principal Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2045	
831																			
592661-002	592661	Oncenter	81	96,724	95,345	103,899	109,156	108,779	109,677	109,274	109,274	106,818	103,191	0					
522696-001	522696	Parks	32	38,690	38,138	37,782	37,967	37,836	0	0	0	0	0	0	0				
522698-001	522698	Parks	32	38,690	38,138	37,782	37,967	37,836	0	0	0	0	0	0	0				
512558-002	512558	Facilities	33	39,657	0	0	0	0	0	0	0	0	0	0	0				
512578-001	512578	Facilities	114	154,759	152,552	151,126	151,869	151,344	157,935	157,355	157,355	0	0	0	0				
551520-001	551520	E911	2,480	96,724	95,347	94,434	94,979	94,502	0	0	0	0	0	0	0				
561863-001	561863	OCC	81	96,724	109,647	108,622	109,156	108,779	118,453	118,016	118,016	115,364	111,447	0					
561867-001	561867	OCC	46	64,677	68,486	67,555	68,046	73,675	75,042	74,483	75,109	74,216	72,620	27,028					
561868-001	561868	OCC	24	29,017	33,371	33,059	33,221	33,107	30,710	30,597	30,597	29,909	28,894	0					
561864-001	561864	OCC	97	116,069	114,414	113,345	113,902	113,508	0	0	0	0	0	0	0				
551560-001	551560	Corrections	81	96,724	95,345	141,681	142,377	141,885	131,613	131,129	131,129	128,182	123,830	0					
535030-001	535030	Transportation	32	0	0	0	0	0	0	0	0	0	0	0	0				
535275-001	535275	Transportation	155	217,629	214,526	217,244	223,058	222,287	0	0	0	0	0	0	0				
535350-001	535350	Transportation	85	120,905	119,181	122,790	128,139	127,697	0	0	0	0	0	0	0				
587373-001	587373	WEP	195	232,138	228,828	236,135	237,295	236,475	232,516	240,403	240,403	235,000	227,021	0					
587521-001	587521	WEP	57	67,707	66,741	66,118	66,443	66,213	61,419	61,194	61,194	59,818	0	0					
587394-001	587394	WEP	97	120,905	119,181	118,067	118,648	118,238	109,677	109,274	109,274	106,818	0	0					
587510-001	587510	WEP	4	4,836	4,767	4,723	4,746	4,730	4,387	4,371	0	0	0	0					
512581-001	512581	OnCenter	303	370,869	380,755	371,815	430,951	442,711	414,976	404,077	402,033	403,213	387,335	56,727					
512585-001	512585	BOE	19	45,898	49,870	0	0	0	0	0	0	0	0	0					
592674-001	592674	IT	178	478,095	470,477	0	0	0	0	0	0	0	0	0					
522697-001	522697	Parks	107	260,246	256,099	250,120	253,300	0	0	0	0	0	0	0					
522701-001	522701	Parks	18	42,694	42,013	41,033	41,554	0	0	0	0	0	0	0					
522702-001	522702	Parks	4	9,562	9,409	9,190	9,307	0	0	0	0	0	0	0					
522703-001	522703	Parks	10	24,287	23,901	23,342	23,639	0	0	0	0	0	0	0					
522704-001	522704	Parks	2	4,781	4,705	4,595	4,653	0	0	0	0	0	0	0					
522706-001	522706	Parks	2	3,825	3,763	3,676	3,723	0	0	0	0	0	0	0					
522707-001	522707	Parks	1	2,056	2,023	1,976	2,001	0	0	0	0	0	0	0					
522707-002	522707	Parks	3	7,439	7,321	7,150	7,241	0	0	0	0	0	0	0					
522692-001	522692	Parks	2	3,681	3,622	3,538	3,583	0	0	0	0	0	0	0					
561862-001	561862	OCC	16	38,248	37,638	41,354	46,533	45,862	45,862	54,250	52,364	52,727	52,727	52,364					
561866-001	561866	OCC	31	74,468	73,281	71,571	72,480	92,862	94,292	92,948	95,154	95,814	95,814	95,154					
561870-001	561870	OCC	87	236,179	251,236	254,560	269,895	279,760	259,578	305,608	288,000	290,001	290,000	288,000					
562136-001	562136	On Comm Pub Lib	12	28,686	0	0	0	0	0	0	0	0	0	0					
535326-001	535326	Transportation	10	23,905	28,229	27,570	27,920	27,517	27,517	27,125	26,181	26,364	26,364	26,181					
535028-001	535028	Transportation	6	14,343	14,114	13,785	13,960	13,758	18,345	18,083	17,455	17,575	17,575	17,455					
535032-001	535032	Transportation	2	4,427	4,356	4,255	0	0	0	0	0	0	0	0					
535012-001	535012	Transportation	131	320,381	315,276	320,818	170,991	77,241	0	0	0	0	0	0					
535250-001	535250	Transportation	5	10,021	9,861	9,631	9,753	0	0	0	0	0	0	0					
535155-001	535155	Transportation	7	17,164	16,890	19,777	20,028	19,739	19,739	0	0	0	0	0					
535156-001	535156	Transportation	4	10,623	10,454	12,259	12,415	12,236	0	0	0	0	0	0					
535024-002	535024	Transportation	0	736	724	855	866	853	0	0	0	0	0	0					
535277-001	535277	Transportation	34	81,037	79,746	77,884	77,736	0	0	0	0	0	0	0					
535352-001	535352	Transportation	46	110,200	108,446	105,913	107,259	105,713	0	0	0	0	0	0					
535325-001	535325	Transportation	6	19,124	18,819	18,380	18,613	18,344	18,083	17,455	17,576	17,576	17,455						
535481-001	535481	Transportation	63	152,990	150,552	0	0	0	0	0	0	0	0	0					
535353-001	535353	Transportation	68	172,659	169,908	170,022	193,895	191,098	191,098	188,374	0	0	0	0					
535278-001	535278	Transportation	54	138,103	135,902	136,001	155,105	152,867	152,868	150,689	0	0	0	0					
587532-001	587532	WEP	12	28,686	28,228	27,570	27,920	27,517	36,690	40,688	39,273	39,545	39,545	39,272					
587554-001	587554	WEP	26	62,152	61,162	78,114	88,413	87,138	85,896	82,908	83,485	83,485	82,909						
587960-001	587960	WEP	6	14,343	14,114	13,784	13,960	13,758	18,345	18,083	17,455	17,576	17,576	17,455					
Total			5,000	5,315,000	5,235,000	4,625,000	4,640,000	4,215,000	2,690,000	2,440,000	2,075,000	1,900,000	1,695,000	720,000					
840																			
512591-001	512591	Facilities	52,476	54,000	56,000	58,000	60,000	62,000	64,000	66,000	69,000	70,000	73,000	75,000	78,000	80,000	82,000	85,000	273,000
512592-001	512592	Facilities	18,000	20,000	21,000	21,000	22,000	23,000	23,000	24,000	25,000	26,000	27,000	28,000	29,000	30,000	30,000	31,000	102,000
522737-001	522737	Parks	29,000	30,000	30,000	32,000	32,000	34,000	35,000	36,000	37,000	38,000	40,000	41,000	42,000	44,000	-	-	-
522738-001	522738	Parks	13,000	13,000	13,000	14,000	14,000	15,000	15,000	16,000	16,000	17,000	17,000	18,000	18,000	19,000	-	-	-
535166-001	535166	Transportation	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	2,000	2,000	2,000	2,000	2,000	2,000	-	-	-
535168-002	535168	Transportation	17,000	19,000	19,000	20,000	21,000	22,000	22,000	23,000	23,000	24,000	25,000	26,000	26,000	27,000	-	-	-
535181-003	535181	Transportation	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	3,000	-	-	-	-
535171-002	535171	Transportation	470	470	470	510	510	540	580	580	610	640	640	680	720	-	-	-	-
535175-001	535175	Transportation	1,490	1,490	1,490	1,590	1,590	1,690	1,800	1,800	1,800	1,910	2,010	2,010	2,120	2,210	-	-	-
535175-002	535175	Transportation	10,380	10,380	10,380	11,120	11,120	11,860	12,610	12,610	12,610	13,350	14,090	14,090	14,830	15,570	-	-	-
535177-002	535177	Transportation	470	470	470	510	510	540	580	580	610	640	640	680	720	-	-	-	-
535178-001	535178	Transportation	1,190	1,190	1,190	1,270	1,270	1,37											

Exhibit D - General Obligation Bonds Schedule of Principal Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2045
535283-001	535283 Transportation	72,000	74,000	76,000	79,000	81,000	84,000	87,000	91,000	92,000	96,000	100,000	103,000	106,000	109,000	-	-	-
535358-001	535358 Transportation	181,000	188,000	193,000	202,000	206,000	214,000	223,000	230,000	234,000	242,000	252,000	261,000	268,000	276,000	-	-	-
535332-001	535332 Transportation	32,000	33,000	35,000	36,000	37,000	38,000	39,000	41,000	42,000	44,000	45,000	47,000	48,000	50,000	51,000	53,000	169,000
535333-001	535333 Transportation	35,000	35,000	35,000	36,000	38,000	40,000	41,000	43,000	44,000	46,000	47,000	49,000	50,000	52,000	53,000	55,000	177,000
551526-001	551526 E911	100,000	100,000	105,000	105,000	110,000	115,000	120,000	120,000	125,000	-	-	-	-	-	-	-	-
561875-001	561875 OCC	39,000	40,000	41,000	43,000	44,000	46,000	47,000	48,000	50,000	52,000	54,000	55,000	57,000	59,000	61,000	63,000	201,000
575107-001	575107 Metro Water Board	71,000	72,000	74,000	77,000	79,000	82,000	84,000	87,000	90,000	93,000	97,000	100,000	103,000	106,000	109,000	113,000	363,000
587592-001	587592 WEP	3,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	9,000
587598-001	587598 WEP	155,000	158,000	167,000	168,000	177,000	180,000	190,000	193,000	199,000	207,000	213,000	222,000	230,000	234,000	245,000	253,000	809,000
587601-001	587601 WEP	75,904	78,000	81,000	86,000	-	-	-	-	-	-	-	-	-	-	-	-	-
587614-001	587614 WEP	75,750	77,000	79,000	84,000	-	-	-	-	-	-	-	-	-	-	-	-	-
587622-001	587622 WEP	6,000	6,000	6,000	6,000	7,000	7,000	7,000	7,000	8,000	8,000	8,000	8,000	9,000	9,000	9,000	9,000	30,000
587628-001	587628 WEP	8,000	8,000	8,000	9,000	9,000	9,000	9,000	10,000	10,000	10,000	11,000	11,000	12,000	12,000	13,000	40,000	-
587629-001	587629 WEP	5,000	5,000	5,000	6,000	6,000	6,000	6,000	6,000	7,000	7,000	7,000	7,000	8,000	8,000	8,000	8,000	26,000
587948-001	587948 WEP	55,384	57,000	59,000	61,000	63,000	65,000	67,000	69,000	72,000	74,000	77,000	79,000	82,000	84,000	87,000	90,000	288,000
587960-001	587960 WEP	65,486	69,000	71,000	74,000	76,000	79,000	81,000	84,000	87,000	90,000	93,000	96,000	99,000	102,000	105,000	109,000	348,000
Total		1,145,000	1,175,000	1,215,000	1,260,000	1,125,000	1,165,000	1,205,000	1,240,000	1,280,000	1,195,000	1,240,000	1,280,000	1,320,000	1,360,000	855,000	885,000	2,835,000

841																		
512581-001	512581 OnCenter	39	37	37	28,845	28,646	28,273	32,941	32,885	32,750	32,009	31,281	31,000	-	-	-	-	-
512590-001	512590 Facilities	79	87	86	67,304	66,841	65,970	65,882	75,165	74,857	73,164	71,500	79,714	78,200	78,200	77,718	-	-
512593-001	512593 Facilities	184	199	221	173,068	171,878	-	-	-	-	-	-	-	-	-	-	-	-
512595-001	512595 Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
512596-001	512596 Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
512597-001	512597 OnCenter	33	31	31	24,037	23,872	23,561	28,235	28,187	28,071	27,436	26,813	26,571	26,067	26,067	25,906	-	-
514004-001	514004 Van Duy	145	149	147	124,994	124,134	-	-	-	-	-	-	-	-	-	-	-	-
522721-001	522721 Parks	91	96	94	74,035	81,165	80,106	80,000	86,440	86,086	-	-	-	-	-	-	-	-
522722-001	522722 Parks	200	210	207	162,492	177,607	175,291	175,059	190,732	189,950	-	-	-	-	-	-	-	-
522724-001	522724 Parks	5	5	5	3,846	3,820	3,770	3,765	4,698	4,679	-	-	-	-	-	-	-	-
522726-001	522726 Parks	112	118	117	91,342	90,713	89,530	103,529	102,929	100,600	-	-	-	-	-	-	-	-
535154-001	535154 Transportation	32	36	36	26,922	26,737	26,388	26,353	-	-	-	-	-	-	-	-	-	-
535253-001	535253 Transportation	20	19	18	14,422	14,323	18,848	18,824	-	-	-	-	-	-	-	-	-	-
535279-001	535279 Transportation	204	217	215	177,876	176,652	183,773	183,529	197,309	201,179	-	-	-	-	-	-	-	-
535280-001	535280 Transportation	59	56	55	43,267	57,293	56,545	56,471	56,374	56,143	50,300	-	-	-	-	-	-	-
535327-001	535327 Transportation	53	50	49	43,267	47,744	47,121	47,059	46,978	46,786	54,873	53,625	53,143	52,133	52,133	-	-	-
535328-001	535328 Transportation	53	62	61	48,075	47,744	47,121	47,059	46,978	46,786	54,873	53,625	53,143	52,133	52,133	-	-	-
535354-001	535354 Transportation	289	311	307	254,795	253,043	263,879	263,529	281,871	276,036	-	-	-	-	-	-	-	-
535355-001	535355 Transportation	72	68	67	52,882	62,067	61,258	61,176	61,072	60,821	64,018	-	-	-	-	-	-	-
536509-002	536509 Transportation	1	1	1	1,923	1,910	1,885	1,882	-	-	-	-	-	-	-	-	-	-
551560-001	551560 Corrections	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
552498-001	552498 Sheriff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
552499-001	552499 Sheriff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
561870-001	561870 OCC	237	248	245	192,299	190,976	212,045	211,764	211,403	224,571	219,491	214,501	212,571	-	-	-	-	-
561871-001	561871 OCC	118	112	123	100,956	100,262	-	-	-	-	-	-	-	-	-	-	-	-
561872-001	561872 OCC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
561873-001	561873 OCC	33	31	37	28,845	28,646	-	-	-	-	-	-	-	-	-	-	-	-
561874-001	561874 OCC	197	186	184	144,224	143,232	169,636	169,412	169,122	168,429	164,618	-	-	-	-	-	-	-
562136-001	562136 On Comm Pub Lib	59	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
562137-001	562137 On Comm Pub Lib	164	155	172	134,609	133,683	131,939	131,765	131,540	131,000	146,327	143,000	141,714	147,711	147,711	146,800	-	-
575090-003	575090 Metro Water Board	731	677	681	567,278	582,475	574,879	597,649	601,324	594,177	589,882	634,559	624,431	647,323	647,323	639,012	-	-
575104-001	575104 Metro Water Board	164	155	153	120,186	119,360	117,803	117,647	114,935	140,357	137,182	134,063	132,857	130,333	130,333	129,529	-	-
578737-001	578737 WEP	395	373	368	288,447	286,463	283,727	329,412	328,849	327,500	320,091	312,813	336,571	330,178	330,178	328,141	-	-
587586-001	587586 WEP	99	93	92	72,112	71,616	70,682	70,588	70,468	84,214	82,309	80,438	79,714	78,200	78,200	77,718	-	-
587597-001	587597 WEP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587598-001	587598 WEP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587599-001	587599 WEP	53	50	49	38,460	38,195	37,697	37,647	37,583	37,429	45,727	44,688	44,286	43,444	43,444	43,176	-	-
587600-001	587600 WEP	132	124	123	96,149	95,488	103,667	103,529	103,353	102,929	100,600	98,313	110,714	108,611	108,611	107,941	-	-
587601-001	587601 WEP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587948-002	587948 WEP	66	62	74	57,689	57,293	-	-	-	-	-	-	-	-	-	-	-	-
587959-002	587959 WEP	92	93	92	86,534	85,939	-	-	-	-	-	-	-	-	-	-	-	-
587960-002	587960 WEP	296	280	307	240,373	238,720	235,606	235,294	258,381	257,321	251,500	245,781	243,571	260,667	260,667	259,059	-	-
592674-001	592674 IT	197	211	209	-	-	-	-	-	-	-	-	-	-	-	-	-	-
592675-001	592675 IT	296	342	337	288,447</													

Exhibit D - General Obligation Bonds Schedule of Principal Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035-2045		
535153-001	535153	Transportation	-	4,000	4,000	4,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	6,000	6,000	-	-		
535166-001	535166	Transportation	-	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	2,000	2,000	2,000	-	-		
535167-001	535167	Transportation	-	1,000	1,000	1,000	1,000	1,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-	-		
535169-001	535169	Transportation	-	500	500	500	500	500	500	500	1,000	1,000	1,000	1,000	1,000	1,000	-	-		
535191-001	535191	Transportation	-	4,000	4,000	4,000	4,000	4,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	6,000	-	-		
535186-001	535186	Transportation	-	1,000	1,000	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	-	-		
535187-001	535187	Transportation	-	1,000	1,000	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	-	-		
535189-001	535189	Transportation	-	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	2,000	-	-		
535190-001	535190	Transportation	-	1,000	1,000	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	-	-		
535263-001	535263	Transportation	-	15,000	15,000	16,000	16,500	17,000	17,500	18,000	18,500	19,000	19,500	20,000	20,500	21,000	-	-		
535359-001	535359	Transportation	-	181,500	188,500	195,000	199,000	203,000	212,000	214,000	223,000	225,500	234,500	238,500	246,500	254,500	256,500	-	-	
535459-001	535459	Transportation	-	15,000	15,000	16,000	16,500	17,000	17,500	18,000	18,500	19,000	19,500	20,000	20,500	21,000	-	-		
535489-001	535489	Transportation	-	2,000	2,000	2,000	2,000	2,000	2,000	2,000	3,000	3,000	3,000	3,000	3,000	3,000	-	-		
512590-001	512590	Facilities	-	25,103	25,000	26,000	26,000	27,000	28,000	29,000	29,000	30,000	31,000	32,000	33,000	33,000	34,000	35,000	150,000	
512591-001	512591	Facilities	-	47,000	50,000	52,000	54,000	55,000	57,000	59,000	60,000	62,000	64,000	65,000	67,000	69,000	71,000	302,000		
512594-001	512594	Facilities	-	736	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	2,000	2,000	8,000		
512596-001	512596	Facilities	-	119,000	123,000	126,000	129,500	81,500	85,500	86,500	88,500	92,500	94,500	95,500	99,500	102,500	105,000	107,000	464,000	
512597-001	512597	Facilities	-	50,000	50,000	52,000	53,000	54,000	56,000	58,000	59,000	61,000	62,000	64,000	66,000	68,000	70,000	72,000	305,000	
512598-001	512598	Facilities	-	57,000	58,000	60,000	61,000	63,000	65,000	66,000	68,000	69,000	72,000	74,000	76,000	78,000	80,000	82,000	354,000	
512599-001	512599	Facilities	-	6,000	6,000	6,000	7,000	7,000	7,000	8,000	8,000	8,000	8,000	8,000	9,000	9,000	9,000	38,000		
512602-001	512602	Facilities	-	179,000	187,500	192,500	202,000	207,000	211,000	216,000	222,000	227,000	234,000	240,000	247,000	257,000	262,000	267,000	1,149,000	
591743-001	591743	General Fund	-	85,000	90,000	90,000	95,000	-	-	-	-	-	-	-	-	-	-	-		
522722-001	522722	Parks	-	24,000	24,000	24,000	29,000	29,000	29,000	29,000	33,000	-	-	-	-	-	-	-	-	
552330-001	552330	Hillbrook	-	11,000	11,000	11,000	11,000	11,000	11,000	11,000	12,000	-	-	-	-	-	-	-	-	
522735-001	522735	Parks	-	39,496	40,000	41,000	41,000	44,000	44,000	46,000	47,000	48,000	50,000	51,000	53,000	54,000	55,000	-	-	
522737-001	522737	Parks	-	90,945	91,000	91,000	94,000	97,000	100,000	101,000	105,000	107,000	111,000	113,000	116,000	120,000	123,000	-	-	
522739-001	522739	Parks	-	38,031	38,000	40,000	40,000	42,000	43,000	44,000	46,000	48,000	49,000	51,000	53,000	53,000	-	-	-	
522741-001	522741	Parks	-	61,000	61,000	63,000	65,000	67,000	68,000	69,000	72,000	74,000	76,000	77,000	80,000	83,000	84,000	-	-	
522742-001	522742	Parks	-	119,000	123,000	127,000	131,000	-	-	-	-	-	-	-	-	-	-	-		
551529-001	551529	E911	-	11,000	13,000	13,000	13,000	14,000	14,000	15,000	15,000	15,000	16,000	16,000	17,000	17,000	18,000	18,000	78,000	
551571-001	551571	Corrections	-	14,000	14,000	14,000	14,000	15,000	15,000	16,000	16,000	16,000	17,000	17,000	18,000	18,000	19,000	19,000	83,000	
561875-001	561875	OCC	-	33,000	34,000	35,000	35,000	36,000	37,000	38,000	39,000	40,000	42,000	43,000	44,000	45,000	47,000	48,000	204,000	
575090-001	575090	Metro Water Board	-	156	100	100	100	100	100	100	100	200	200	200	200	200	200	800		
575104-001	575104	Metro Water Board	-	77,800	84,900	84,900	89,900	89,900	94,900	94,900	99,900	99,900	104,800	104,800	109,800	114,800	114,800	119,800	514,200	
587592-001	587592	WEP	-	5,000	5,000	5,000	6,000	6,000	6,000	6,000	6,000	6,000	7,000	7,000	7,000	7,000	7,000	31,000		
587598-001	587598	WEP	-	184,000	186,000	193,000	196,000	205,000	208,000	219,000	220,000	227,000	234,000	242,000	248,000	252,000	263,000	267,000	1,156,000	
587601-001	587601	WEP	-	15,000	16,000	17,000	17,000	18,000	18,000	19,000	20,000	20,000	21,000	21,000	22,000	22,000	23,000	24,000	98,000	
587605-001	587605	WEP	-	4,000	4,000	4,000	4,000	5,000	5,000	5,000	5,000	5,000	5,000	6,000	6,000	6,000	6,000	25,000		
587612-001	587612	WEP	-	125,000	128,000	127,000	132,000	136,000	139,000	144,000	148,000	151,000	156,000	160,000	165,000	169,000	174,000	178,000	768,000	
587614-001	587614	WEP	-	110,000	113,000	119,000	123,000	125,000	130,000	131,000	135,000	140,000	143,000	146,000	150,000	155,000	158,000	163,000	695,000	
587622-001	587622	WEP	-	36,000	38,000	39,000	40,000	41,000	42,000	43,000	44,000	46,000	47,000	48,000	49,000	51,000	52,000	54,000	230,000	
587627-001	587627	WEP	-	101,000	105,000	108,000	111,000	113,000	117,000	120,000	124,000	126,000	130,000	134,000	138,000	141,000	145,000	150,000	637,000	
587632-001	587632	WEP	-	6,000	6,000	7,000	7,000	7,000	7,000	7,000	8,000	8,000	8,000	8,000	8,000	9,000	9,000	9,000	38,000	
587948-001	587948	WEP	-	40,679	43,000	43,000	45,000	46,000	47,000	48,000	50,000	51,000	53,000	54,000	55,000	57,000	59,000	60,000	258,000	
587959-001	587959	WEP	-	26,745	27,000	28,000	28,000	29,000	30,000	31,000	32,000	33,000	34,000	34,000	35,000	36,000	37,000	38,000	165,000	
587960-001	587960	WEP	-	63,987	64,000	65,000	67,000	69,000	71,000	73,000	75,000	77,000	79,000	81,000	83,000	86,000	88,000	90,000	389,000	
587597-001	587597	WEP	-	20,000	20,000	20,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	30,000	30,000	30,000	-	-	
587626-001	587626	WEP	-	27,000	25,000	25,000	-	-	-	-	-	-	-	-	-	-	-	-		
514002-001	514002	Van Duyt	-	274,322	285,000	290,000	300,000	-	-	-	-	-	-	-	-	-	-	-		
Total			-	2,740,000	2,825,000	2,895,000	2,985,000	2,450,000	2,520,000	2,580,000	2,655,000	2,720,000	2,760,000	2,825,000	2,910,000	2,995,000	3,070,000	2,460,000	10,570,000	
Total All Issues				33,005,000	32,575,000	32,485,000	29,545,000	29,025,000	26,115,000	23,965,000	22,320,000	19,580,000	17,160,000	16,420,000	15,745,000	13,465,000	13,160,000	11,855,000	9,565,000	42,200,000

12/31/18 General Obligation Bonds Principal

388,185,000

Exhibit E - General Obligation Bonds Schedule of Gross Interest Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2045			
740																					
512558-002	512558 Facilities		820																		
512578-001	512578 Facilities			2,800																	
512581-001	512581 OnCenter				6,980																
522696-001	522696 Parks					800															
522698-001	522698 Parks						800														
535030-011	535030 Transportation						800														
535275-001	535275 Transportation							3,800													
535350-001	535350 Transportation								2,100												
551520-001	551520 E911									61,000											
551560-001	551560 Corrections										2,000										
561863-001	561863 OCC											2,000									
561864-001	561864 OCC											2,400									
561867-001	561867 OCC											900									
561868-001	561868 OCC											600									
587373-001	587373 WEP											4,800									
587394-001	587394 WEP											2,400									
587510-001	587510 WEP											100									
587521-001	587521 WEP											1,400									
587979-001	587979 WEP											-									
592661-002	592661 OnCenter											2,000									
Total		98,500																			
750																					
512554	512554 Facilities		-	-	-	-	-	-	-	-	-										
512558	512558 Facilities			42,106	19,806	6,641															
512558-003	512558 Facilities				143,895	104,590	74,966	44,804	14,805												
512705	512705 Sheriff		-	-	-	-	-	-	-	-	-										
522684	522684 Parks		-	-	-	-	-	-	-	-	-										
535010	535010 Transportation		-	-	-	-	-	-	-	-	-										
535010-006	535010 Transportation		-	-	-	-	-	-	-	-	-										
535030-008	535030 Transportation		-	-	-	-	-	-	-	-	-										
586211	586211 WEP			3,225	-	-	-	-	-	-	-										
586424	586424 WEP				15,105	8,035	5,815	3,553	1,208												
Total		204,331	132,431	87,422	48,356	16,013															
760																					
512581-001	512581 OnCenter			1,500																	
512581-002	512581 OnCenter				2,125																
514002-008	514002 Van Duyn				7,875																
522697-001	522697 Parks				2,525																
522698-001	522698 Parks					475															
522699-001	522699 Parks						1,175														
522701-001	522701 Parks							1,825													
522702-001	522702 Parks								225												
522703-001	522703 Parks									1,125											
522704-001	522704 Parks									100											
522706-001	522706 Parks									350											
522707-001	522707 Parks										325										
535010-019	535010 Transportation											625									
535012-001	535012 Transportation												2,625								
535025-005	535025 Transportation													1,500							
535028-001	535028 Transportation														750						
535032-001	535032 Transportation															500					
535250-001	535250 Transportation																1,625				
535276-001	535276 Transportation																	6,700			
535277-001	535277 Transportation																		4,500		
535325-001	535325 Transportation																			1,250	
535326-001	535326 Transportation																			250	
535351-001	535351 Transportation																			8,875	
535352-001	535352 Transportation																			6,875	
535476-001	535476 Transportation																			750	
535478-001	535478 Transportation																			675	
551520-001	551520 E911																			2,250	
561862-001	561862 OCC																			2,500	
561865-001	561865 OCC																			5,000	
561870-001	561870 OCC																			1,000	

Exhibit E - General Obligation Bonds Schedule of Gross Interest Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2045
587532-001	587532	WEP	2,000															
587948-002	587948	WEP	1,250															
587959-001	587959	WEP	300															
587959-002	587959	WEP	1,200															
587960-002	587960	WEP	2,375															
Total			75,000															
761																		
512581-001	512581	OnCenter	20,010	18,735	16,110	13,365	10,530	7,605	4,605	1,545								
512581-002	512581	OnCenter	32,525	30,613	26,675	22,558	18,065	13,190	8,190	2,833								
514002-008	514002	Van Duyn	14,025	7,013	-	-	-	-	-	-								
522697-001	522697	Parks	46,785	44,554	38,903	32,344	25,965	18,963	11,515	3,914								
522698-001	522698	Parks	8,664	8,239	7,184	5,973	4,792	3,499	2,124	721								
522699-001	522699	Parks	8,736	7,716	5,616	3,420	1,152	-	-	-								
522701-001	522701	Parks	13,286	11,735	8,541	5,201	1,752	-	-	-								
522702-001	522702	Parks	1,638	1,447	1,053	641	216	-	-	-								
522703-001	522703	Parks	8,372	7,395	5,382	3,278	1,104	-	-	-								
522704-001	522704	Parks	910	804	585	356	120	-	-	-								
522706-001	522706	Parks	2,730	2,411	1,755	1,069	360	-	-	-								
522707-001	522707	Parks	2,548	2,251	1,638	998	336	-	-	-								
535012-001	535012	Transportation	13,830	11,599	6,893	2,209	-	-	-	-								
535028-001	535028	Transportation	8,960	8,323	7,010	5,638	4,220	2,634	884	-								
535032-001	535032	Transportation	2,680	2,255	1,380	465	-	-	-	-								
535250-001	535250	Transportation	11,830	10,449	7,605	4,631	1,560	-	-	-								
535276-001	535276	Transportation	84,303	78,183	65,583	52,407	38,295	22,712	7,272	-								
535277-001	535277	Transportation	54,016	50,191	42,316	34,081	25,048	15,201	5,101	-								
535325-001	535325	Transportation	19,135	18,073	15,885	13,365	10,530	7,605	4,605	1,545								
535326-001	535326	Transportation	3,335	3,123	2,685	2,228	1,755	1,268	768	258								
535351-001	535351	Transportation	111,693	103,576	86,863	69,387	50,689	30,082	9,646	-								
535352-001	535352	Transportation	82,434	76,590	64,559	51,978	38,192	23,177	7,777	-								
535476-001	535476	Transportation	8,460	7,823	6,510	5,138	3,720	2,258	758	-								
535478-001	535478	Transportation	8,754	8,117	6,804	5,432	3,966	2,357	758	-								
551520-001	551520	E911	17,325	15,413	11,475	7,125	2,400	-	-	-								
561862-001	561862	OCC	37,048	34,816	30,223	25,419	20,458	15,091	9,341	3,219								
561865-001	561865	OCC	83,699	79,449	69,461	58,027	46,451	35,002	22,313	7,596								
561870-001	561870	OCC	13,598	12,748	10,998	9,168	7,278	5,328	3,328	1,159								
587532-001	587532	WEP	28,195	26,495	22,995	19,335	15,555	11,408	6,908	2,318								
587948-001	587948	WEP	19,135	18,073	15,885	13,365	10,530	7,605	4,605	1,545								
587959-001	587959	WEP	4,875	4,620	4,028	3,341	2,633	1,901	1,151	386								
587959-002	587959	WEP	19,500	18,480	16,110	13,365	10,530	7,605	4,605	1,545								
587960-002	587960	WEP	35,373	33,354	29,198	24,503	19,305	13,943	8,443	2,833								
Total			828,405	764,655	637,905	509,805	377,505	248,430	124,693	31,415								
762																		
512581-001	512581	OnCenter	13,815	13,815	13,815	13,815	13,815	13,815	12,165	8,790	5,303	1,770						
512581-002	512581	OnCenter	25,328	25,328	25,328	25,328	25,328	25,328	25,328	22,303	16,115	9,721	3,245					
522697-001	522697	Parks	34,998	34,998	34,998	34,998	34,998	34,998	30,818	22,268	13,433	4,484						
522698-001	522698	Parks	6,447	6,447	6,447	6,447	6,447	6,447	6,447	5,677	4,102	2,475	826					
535325-001	535325	Transportation	13,815	13,815	13,815	13,815	13,815	13,815	12,165	8,790	5,303	1,770						
535326-001	535326	Transportation	2,891	2,891	2,891	2,891	2,891	2,891	2,891	2,616	2,054	1,326	443					
561862-001	561862	OCC	28,781	28,781	28,781	28,781	28,781	28,781	25,344	18,312	11,047	3,688						
561865-001	561865	OCC	68,781	68,781	68,781	68,781	68,781	68,781	68,781	60,531	43,656	26,366	8,850					
561870-001	561870	OCC	10,361	10,361	10,361	10,361	10,361	10,361	9,124	6,593	3,977	1,328						
587532-001	587532	WEP	20,723	20,723	20,723	20,723	20,723	20,723	20,723	18,248	13,185	7,954	2,655					
587948-002	587948	WEP	13,815	13,815	13,815	13,815	13,815	13,815	13,815	12,165	8,790	5,303	1,770					
587959-001	587959	WEP	13,815	13,815	13,815	13,815	13,815	13,815	13,815	12,165	8,790	5,303	1,770					
587959-002	587959	WEP	3,454	3,454	3,454	3,454	3,454	3,454	3,454	3,041	2,198	1,326	443					
587960-002	587960	WEP	25,328	25,328	25,328	25,328	25,328	25,328	25,328	22,303	16,115	9,721	3,245					
Total			282,351	248,664	179,758	108,554	36,285											
770																		
512581-001	512581	OnCenter	1,000															
512585-001	512585	BOE	960															
522692-001	522692	Parks	77															
522697-001	522697	Parks	5,443															
522701-001	522701	Parks	893															

Exhibit E - General Obligation Bonds Schedule of Gross Interest Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2045	
522702-001	522702	Parks	200																
522703-001	522703	Parks	508																
522704-001	522704	Parks	100																
522706-001	522706	Parks	80																
522707-001	522707	Parks	43																
522707-002	522707	Parks	156																
535012-001	535012	Transportation	6,701																
535024-002	535024	Transportation	15																
535028-001	535028	Transportation	300																
535032-001	535032	Transportation	93																
535155-001	535155	Transportation	359																
535156-001	535156	Transportation	222																
535250-001	535250	Transportation	210																
535277-001	535277	Transportation	1,695																
535278-001	535278	Transportation	2,729																
535325-001	535325	Transportation	300																
535326-001	535326	Transportation	500																
535352-001	535352	Transportation	2,305																
535353-001	535353	Transportation	3,411																
535481-001	535481	Transportation	3,200																
561862-001	561862	OCC	800																
561866-001	561866	OCC	1,558																
561867-001	561867	OCC	442																
561870-001	561870	OCC	4,400																
562136-001	562136	On Comm Pub Lib	600																
587532-001	587532	WEP	600																
587554-001	587554	WEP	1,300																
587960-001	587960	WEP	300																
592674-001	592674	IT	9,000																
Total			50,500																
780																			
512588-001	512588	Facilities	32,050	29,326	26,226	23,126	20,646	18,786	16,926	14,880	12,648	10,416	8,184	5,952	3,627	1,209	-	-	
512589-001	512589	Facilities	93,448	85,506	76,466	67,426	60,194	54,770	49,346	43,380	36,873	30,366	23,859	17,352	10,574	3,525	-	-	
512591-001	512591	Facilities	31,370	28,703	25,668	22,633	20,205	18,384	16,563	14,560	12,376	10,192	8,008	5,824	3,549	1,183	-	-	
512592-001	512592	Facilities	36,983	33,841	30,266	26,691	23,831	21,686	19,541	17,180	14,603	12,026	9,449	6,872	4,188	1,396	-	-	
522707-001	522707	Parks	6,780	5,430	3,780	1,980	540	-	-	-	-	-	-	-	-	-	-	-	
522719-001	522719	Parks	6,920	6,050	4,950	3,850	2,970	2,310	1,650	990	330	-	-	-	-	-	-	-	
522721-001	522721	Parks	25,104	22,178	18,593	14,600	11,400	8,925	6,375	3,825	1,275	-	-	-	-	-	-	-	
522722-001	522722	Parks	50,196	44,348	37,183	29,200	22,800	17,850	12,750	7,650	2,550	-	-	-	-	-	-	-	
535010-019	535010	Transportation	8,058	7,011	5,841	4,671	3,735	2,961	2,115	1,269	423	-	-	-	-	-	-	-	
535013-001	535013	Transportation	6,600	5,000	3,000	1,000	-	-	-	-	-	-	-	-	-	-	-	-	
535026-001	535026	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
535030-001	535030	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
535031-001	535031	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
535100-001	535100	Transportation	2,482	2,160	1,800	1,440	1,152	914	653	392	131	-	-	-	-	-	-	-	
535151-001	535151	Transportation	2,233	1,765	1,245	680	188	-	-	-	-	-	-	-	-	-	-	-	
535156-002	535156	Transportation	5,694	4,709	3,614	2,519	1,643	986	329	-	-	-	-	-	-	-	-	-	
535157-001	535157	Transportation	954	816	651	473	315	189	63	-	-	-	-	-	-	-	-	-	
535158-001	535158	Transportation	472	404	324	237	158	95	32	-	-	-	-	-	-	-	-	-	
535159-001	535159	Transportation	954	816	651	473	315	189	63	-	-	-	-	-	-	-	-	-	
535164-002	535164	Transportation	2,971	2,608	2,145	1,635	1,208	863	518	173	-	-	-	-	-	-	-	-	
535165-001	535165	Transportation	2,763	2,427	1,997	1,522	1,124	803	482	161	-	-	-	-	-	-	-	-	
535254-001	535254	Transportation	2,106	1,742	1,337	932	608	365	122	-	-	-	-	-	-	-	-	-	
535278-001	535278	Transportation	41,394	36,327	29,870	22,765	16,811	12,008	7,205	2,402	-	-	-	-	-	-	-	-	
535279-001	535279	Transportation	74,242	64,594	53,814	43,034	34,410	27,279	19,485	11,691	3,897	-	-	-	-	-	-	-	
535326-001	535326	Transportation	16,600	15,025	13,275	11,525	10,050	8,775	7,425	6,075	4,725	3,375	2,025	675	-	-	-	-	
535327-001	535327	Transportation	12,965	11,975	10,875	9,775	8,835	8,055	7,275	6,450	5,565	4,620	3,630	2,640	1,609	536	-	-	
535328-001	535328	Transportation	13,097	11,972	10,722	9,472	8,473	7,725	6,900	6,000	5,100	4,200	3,300	2,400	1,462	487	-	-	
535353-001	535353	Transportation	56,272	49,389	40,614	30,954	22,859	16,328	9,797	3,266	-	-	-	-	-	-	-	-	
535354-001	535354	Transportation	49,518	43,085	35,895	28,705	22,953	18,197	12,998	7,799	2,600	-	-	-	-	-	-	-	
536509-002	536509	Transportation	1,680	1,435	1,145	838	563	338	113	-	-	-	-	-	-	-	-	-	
536511-002	536511	Transportation	555	438	308	168	47	-	-	-	-	-	-	-	-	-	-	-	
536513-001	536513	Transportation	902	713	503	276	77	-	-	-	-	-	-	-	-	-	-	-	
536513-002	536513	Transportation	2,743	2,167	1,527	835	231	-	-	-	-	-	-	-	-	-	-	-	
551521-001	551521	E911	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
561865-001	561865	OCC	33,900	30,525	26,775	23,025	20,025	17,550	14,850	12,150	9,450	6,750	4,050	1,350	-	-	-	-	
562136-001	562136	On Comm Pub Lib	21,350	7,625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
575090-001	575090	Metro Water Board	223,875	211,715	198,315	182,890	168,870	158,205	148,050	137,850	127,290	116,985	106,665	96,345	85,514	74,171	62,000	48,750	63,000
587539	587539	WEP	8,915	8,285	7,485	6,585	5,865	5,325	4,785	4,200	3,570	2,940	2,310	1,680	1,024	341	-	-	

Exhibit E - General Obligation Bonds Schedule of Gross Interest Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2045	
587554	587554	WEP	37,150	34,325	30,825	27,075	24,075	21,825	19,575	17,325	15,075	12,600	9,900	7,200	4,388	1,463	-	-	
587583	587583	WEP	10,280	9,200	7,900	6,300	4,860	3,780	2,700	1,620	540	-	-	-	-	-	-	-	
587584	587584	WEP	33,210	30,870	27,945	24,695	22,095	20,115	17,940	15,600	13,260	10,920	8,580	6,240	3,803	1,268	-	-	
587585	587585	WEP	79,890	72,825	64,975	57,125	50,845	46,135	41,425	36,715	31,750	26,320	20,680	15,040	9,165	3,055	-	-	
587948-001	587948	WEP	8,935	8,305	7,605	6,830	6,090	5,460	4,830	4,200	3,570	2,940	2,310	1,680	1,024	341	-	-	
587959-001	587959	WEP	7,085	6,450	5,700	4,950	4,350	3,900	3,450	3,000	2,550	2,100	1,650	1,200	731	244	-	-	
587960-001	587960	WEP	88,038	79,896	70,056	60,216	52,344	46,440	39,864	32,616	25,368	18,120	10,872	3,624	-	-	-	-	
587960-002	587960	WEP	10,362	9,404	8,244	7,084	6,156	5,460	4,686	3,834	2,982	2,130	1,278	426	-	-	-	-	
592661-001	592661	OnCenter	5,780	4,870	3,645	2,295	1,215	405	-	-	-	-	-	-	-	-	-	-	
592674-001	592674	IT	69,000	43,125	14,375	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total			1,225,875	1,079,375	918,125	772,500	665,125	583,375	500,875	417,250	338,500	277,000	226,750	176,500	130,656	89,219	62,000	48,750	63,000
790																			
512558-004	512558	Facilities	16,205	12,405	9,740	7,000	3,275	750	-	-	-	-	-	-	-	-	-	-	
512558-005	512558	Facilities	3,100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
512569-001	512569	Facilities	4,215	3,090	2,320	1,550	500	-	-	-	-	-	-	-	-	-	-	-	
512570-001	512570	Facilities	5,223	4,298	3,428	2,533	1,583	829	275	-	-	-	-	-	-	-	-	-	
535010-018	535010	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
535010-535070	535010	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
535010-535866	535010	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
535020-037	535020	Transportation	9,355	7,080	5,340	3,625	1,200	-	-	-	-	-	-	-	-	-	-	-	
535020-040	535020	Transportation	10,915	7,990	5,970	3,975	1,275	-	-	-	-	-	-	-	-	-	-	-	
535020-044	535020	Transportation	14,741	11,366	8,506	5,846	3,046	823	-	-	-	-	-	-	-	-	-	-	
535040-029	535040	Transportation	7,600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
535060-007	535060	Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
536238-002	536238	Transportation	31,975	20,825	13,100	5,450	-	-	-	-	-	-	-	-	-	-	-	-	
561860-001	561860	OCC	43,638	36,388	29,433	21,878	13,478	6,799	2,173	-	-	-	-	-	-	-	-	-	
586424-001	586424	WEP	5,520	4,220	3,285	2,375	1,125	263	-	-	-	-	-	-	-	-	-	-	
586426-001	586426	WEP	19,666	16,366	13,161	9,756	6,056	3,108	1,018	-	-	-	-	-	-	-	-	-	
587301-001	587301	WEP	9,003	7,378	5,838	4,298	2,673	1,378	454	-	-	-	-	-	-	-	-	-	
587354-001	587354	WEP	1,440	1,090	845	600	275	63	-	-	-	-	-	-	-	-	-	-	
587372-001	587372	WEP	2,000	1,550	1,225	875	400	88	-	-	-	-	-	-	-	-	-	-	
587383-001	587383	WEP	16,555	12,530	9,740	7,000	3,275	750	-	-	-	-	-	-	-	-	-	-	
587383-002	587383	WEP	5,766	4,591	3,496	2,401	1,251	338	-	-	-	-	-	-	-	-	-	-	
592661-001	592661	OnCenter	13,270	10,270	7,835	5,550	2,550	588	-	-	-	-	-	-	-	-	-	-	
Total			220,188	161,438	123,263	84,713	41,963	15,775	3,919										
800																			
512581-001	512581	OnCenter	3,750	2,250	750	-	-	-	-	-	-	-	-	-	-	-	-	-	
512590-001	512590	Facilities	8,500	5,250	1,750	-	-	-	-	-	-	-	-	-	-	-	-	-	
512593-001	512593	Facilities	20,500	13,000	4,500	-	-	-	-	-	-	-	-	-	-	-	-	-	
512595-001	512595	Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
512596-001	512596	Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
512597-001	512597	OnCenter	3,125	1,875	625	-	-	-	-	-	-	-	-	-	-	-	-	-	
514004-001	514004	Van Duyn	14,750	9,000	3,000	-	-	-	-	-	-	-	-	-	-	-	-	-	
522721-001	522721	Parks	9,425	5,775	1,925	-	-	-	-	-	-	-	-	-	-	-	-	-	
522722-001	522722	Parks	20,700	12,675	4,225	-	-	-	-	-	-	-	-	-	-	-	-	-	
522724-001	522724	Parks	500	300	100	-	-	-	-	-	-	-	-	-	-	-	-	-	
522726-001	522726	Parks	11,625	7,125	2,375	-	-	-	-	-	-	-	-	-	-	-	-	-	
535154-001	535154	Transportation	3,500	2,175	725	-	-	-	-	-	-	-	-	-	-	-	-	-	
535253-001	535253	Transportation	1,875	1,125	375	-	-	-	-	-	-	-	-	-	-	-	-	-	
535279-001	535279	Transportation	21,375	13,125	4,375	-	-	-	-	-	-	-	-	-	-	-	-	-	
535280-001	535280	Transportation	5,625	3,375	1,125	-	-	-	-	-	-	-	-	-	-	-	-	-	
535327-001	535327	Transportation	5,000	3,000	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	
535328-001	535328	Transportation	6,000	3,750	1,250	-	-	-	-	-	-	-	-	-	-	-	-	-	
535354-001	535354	Transportation	30,500	18,750	6,250	-	-	-	-	-	-	-	-	-	-	-	-	-	
535355-001	535355	Transportation	6,875	4,125	1,375	-	-	-	-	-	-	-	-	-	-	-	-	-	
536509-002	536500	Transportation	125	75	25	-	-	-	-	-	-	-	-	-	-	-	-	-	
551560-001	551560	Corrections	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
552498-001	552498	Sheriff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
552499-001	552499	Sheriff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
561870-001	561870	OCC	24,500	15,000	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	
561871-001	561871	OCC	11,750	7,250	2,500	-	-	-	-	-	-	-	-	-	-	-	-	-	
561872-001	561872	OCC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
561873-001	561873	OCC	3,375	2,125	750	-	-	-	-	-	-	-	-	-	-	-	-	-	
561874-001	561874	OCC	18,750	11,250	3,750	-	-	-	-	-	-	-	-	-	-	-	-	-	
562136-001	562136	On Comm Pub Lib	3,375	1,125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
562137-001	562137	On Comm Pub Lib	16,375	10,125	3,500	-	-	-	-	-	-	-	-	-	-	-	-	-	

Exhibit E - General Obligation Bonds Schedule of Gross Interest Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2045
575090-003	Metro Water Board	68,875	41,375	13,875														
575104-001	Metro Water Board	15,625	9,375	3,125														
587373-001	WEP	37,500	22,500	7,500														
587586-001	WEP	9,375	5,625	1,875														
587597-001	WEP	-	-	-														
587598-001	WEP	-	-	-														
587599-001	WEP	5,000	3,000	1,000														
587600-001	WEP	12,500	7,500	2,500														
587601-001	WEP	-	-	-														
587948-002	WEP	6,750	4,250	1,500														
587959-002	WEP	9,250	5,625	1,875														
587960-002	WEP	29,375	18,125	6,250														
592674-001	IT	20,750	12,750	4,250														
592675-001	IT	33,125	20,625	6,875														
592676-001	IT	-	-	-														
Total		500,000	304,375	101,875														
810																		
512589-001	Facilities	158,033	146,821	134,873	122,743	110,613	98,483	89,017	81,534	73,371	65,208	57,045	47,825	37,549	27,272	16,601	5,534	
512590-001	Facilities	56,892	52,855	48,552	44,182	39,812	35,442	32,033	29,341	26,404	23,467	20,530	17,212	13,514	9,815	5,975	1,992	
512590-002	Facilities	22,138	20,638	19,013	17,263	15,513	13,763	12,450	11,413	10,213	9,013	7,813	6,563	5,263	3,881	2,363	788	
512595-001	Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
522721-001	Parks	10,487	9,218	7,902	6,540	5,083	3,580	2,429	1,522	507	-	-	-	-	-	-	-	
522722-001	Parks	30,712	26,997	23,144	19,154	14,888	10,485	7,114	4,458	1,486	-	-	-	-	-	-	-	
522723-001	Parks	712	626	537	444	345	243	165	103	34	-	-	-	-	-	-	-	
522724-001	Parks	13,890	12,210	10,467	8,662	6,733	4,742	3,217	2,016	672	-	-	-	-	-	-	-	
535012-001	Transportation	53,125	38,750	23,750	8,125	-	-	-	-	-	-	-	-	-	-	-	-	
535031-001	Transportation	3,625	2,250	750	-	-	-	-	-	-	-	-	-	-	-	-	-	
535070-001	Transportation	3,000	2,430	1,788	1,073	358	-	-	-	-	-	-	-	-	-	-	-	
535150-001	Transportation	5,828	4,918	3,940	2,895	1,850	1,015	531	270	90	-	-	-	-	-	-	-	
535150-002	Transportation	922	777	622	457	292	159	82	41	14	-	-	-	-	-	-	-	
535158-001	Transportation	5,333	4,638	3,943	3,245	2,545	1,848	1,283	804	282	11	-	-	-	-	-	-	
535159-002	Transportation	2,031	1,781	1,531	1,264	979	694	474	302	113	9	-	-	-	-	-	-	
535160-001	Transportation	1,735	1,445	1,153	838	503	168	-	-	-	-	-	-	-	-	-	-	
535161-001	Transportation	1,248	1,035	825	600	360	120	-	-	-	-	-	-	-	-	-	-	
535162-001	Transportation	1,904	1,669	1,434	1,189	934	676	471	306	126	18	-	-	-	-	-	-	
535163-001	Transportation	1,887	1,636	1,377	1,102	809	514	327	240	144	48	-	-	-	-	-	-	
535163-002	Transportation	1,887	1,636	1,377	1,102	809	514	327	240	144	48	-	-	-	-	-	-	
535170-001	Transportation	785	702	612	517	417	315	235	173	104	35	-	-	-	-	-	-	
535256-001	Transportation	4,718	3,923	3,128	2,275	1,365	455	-	-	-	-	-	-	-	-	-	-	
535257-001	Transportation	1,079	939	799	651	496	341	225	140	47	-	-	-	-	-	-	-	
535257-002	Transportation	13,103	11,421	9,738	7,951	6,056	4,161	2,741	1,701	567	-	-	-	-	-	-	-	
535280-001	Transportation	22,004	19,669	17,172	14,509	11,684	8,819	6,590	4,845	2,907	969	-	-	-	-	-	-	
535290-001	Transportation	74,476	66,556	58,086	49,074	39,519	29,826	22,284	16,380	9,828	3,276	-	-	-	-	-	-	
535329-001	Transportation	47,200	43,950	40,700	37,200	33,450	29,700	26,888	24,675	22,125	19,575	17,025	14,288	11,281	8,194	4,988	1,663	
535330-001	Transportation	12,425	11,425	10,425	9,425	8,425	7,425	6,675	6,125	5,525	4,925	4,325	3,700	2,969	2,156	1,313	438	
535355-001	Transportation	36,090	32,255	28,155	23,787	19,152	14,452	10,796	7,935	4,761	1,587	-	-	-	-	-	-	
535478-001	Transportation	1,750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
535484-001	Transportation	11,250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
551525-001	E911	4,875	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
552498-001	Sheriff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
561870-001	OCC	13,400	12,400	11,400	10,400	9,400	8,400	7,650	7,100	6,500	5,825	5,075	4,294	3,481	2,588	1,575	525	
561871-001	OCC	6,125	4,875	3,625	2,250	750	-	-	-	-	-	-	-	-	-	-	-	
561872-001	OCC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
561873-001	OCC	3,375	2,625	1,875	1,125	375	-	-	-	-	-	-	-	-	-	-	-	
561874-001	OCC	9,525	8,375	7,125	5,875	4,575	3,225	2,175	1,350	450	-	-	-	-	-	-	-	
575090-003	Metro Water Board	124,575	114,800	104,550	94,700	84,950	74,225	66,000	60,625	54,775	48,625	41,800	34,544	27,231	19,838	12,075	4,025	
587554-001	WEP	5,200	4,700	4,200	3,700	3,200	2,700	2,325	2,050	1,750	1,450	1,150	838	594	431	263	88	
587585-001	WEP	58,850	53,600	49,100	44,600	40,100	35,600	32,100	29,500	26,800	23,950	20,950	17,825	14,250	10,350	6,300	2,100	
587599-001	WEP	2,938	2,688	2,438	2,188	1,938	1,688	1,500	1,363	1,213	1,063	913	756	594	431	263	88	
587600-001	WEP	9,325	8,575	7,825	7,075	6,325	5,575	5,013	4,600	4,150	3,700	3,250	2,781	2,294	1,725	1,050	350	
587601-001	WEP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
587948-001	WEP	3,200	2,700	2,200	1,700	1,100	375	-	-	-	-	-	-	-	-	-	-	
587959-001	WEP	10,075	8,495	6,778	4,875	2,925	975	-	-	-	-	-	-	-	-	-	-	
587959-002	WEP	17,050	14,380	11,473	8,250	4,950	1,650	-	-	-	-	-	-	-	-	-	-	
587960-001	WEP	37,470	31,395	24,763	17,958	10,890	3,630	-	-	-	-	-	-	-	-	-	-	
587960-002	WEP	98,805	82,780	65,288	47,343	28,710	9,570	-	-	-	-	-	-	-	-	-	-	
587963-001	WEP	22,138	20,638	19,013	17,263	15,513	13,763	12,450	11,413	10,213	9,013	7,813	6,563	5,263	3,881	2,363	788	
Total		1,026,188	896,188	777,438	655,563	538,688	429,313	355,563	312,563	265,313	221,813	187,688	157,188	124,281	90,563	55,125	18,375	

Exhibit E - General Obligation Bonds Schedule of Gross Interest Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2045
811																		
575086-001	575086 Metro Water Board	55,983	50,557	43,915	36,050	28,153	20,160	12,075	4,015									
587962-001	587962 WEP	43,459	39,593	34,583	28,320	22,455	16,403	9,840	3,308									
587963-001	587963 WEP	10,320	9,288	8,125	6,828	5,415	3,878	2,323	773									
587964-001	587964 WEP	11,142	10,024	8,668	7,155	5,635	4,075	2,453	815									
587375-001	587375 WEP	97,783	87,213	74,960	62,163	49,043	35,173	21,025	7,005									
512578-001	512578 Facilities	58,925	52,341	44,953	36,825	28,740	20,603	12,413	4,150									
535010-018	535010 Transportation	6,456	5,892	5,140	4,210	3,285	2,355	1,420	475									
535025-003	535025 Transportation	-	-	-	-	-	-	-	-									
535010-016	535010 Transportation	-	-	-	-	-	-	-	-									
535030-004	535030 Transportation	3,580	-	-	-	-	-	-	-									
535030-006	535030 Transportation	28,410	18,064	6,450	-	-	-	-	-									
535021-001	535021 Transportation	25,901	23,269	20,313	16,830	13,135	9,415	5,670	1,895									
561860-001	561860 OCC	21,612	19,356	16,823	14,035	11,263	8,240	4,965	1,660									
561861-001	561861 OCC	66,870	59,816	51,370	42,080	32,840	23,540	14,180	4,740									
587390-001	587390 WEP	81,462	72,810	63,168	52,490	41,170	29,778	18,078	6,043									
551519-001	551519 E911	30,990	19,704	7,035	-	-	-	-	-									
552343-001	552343 Hillbrook	96,607	86,073	74,250	61,015	47,618	34,133	20,560	6,873									
Total		639,500	554,000	459,750	368,000	288,750	207,750	125,000	41,750									
820																		
512590-002	512590 Facilities	17,828	16,741	15,623	14,473	13,293	12,081	10,833	9,551	8,233	7,153	6,316	5,455	4,570	3,642	2,650	1,612	543
512591-002	512591 Facilities	11,523	10,823	10,129	9,405	8,650	7,866	7,058	6,223	5,364	4,661	4,120	3,546	2,962	2,377	1,732	1,043	348
512592-002	512592 Facilities	26,588	24,973	23,372	21,703	19,961	18,152	16,286	14,360	12,377	10,755	9,508	8,183	6,834	5,484	3,997	2,407	804
512597-001	512597 Facilities	17,828	16,741	15,623	14,473	13,293	12,081	10,833	9,551	8,233	7,153	6,316	5,455	4,570	3,642	2,650	1,612	543
592674-001	592674 IT	35,263	33,111	30,898	28,623	26,288	23,888	21,418	18,881	16,273	14,136	12,483	10,782	9,033	7,200	5,241	3,187	1,073
522733-001	522733 Parks	1,791,088	1,730,463	1,668,213	1,604,213	1,538,338	1,470,713	1,401,213	1,329,713	1,256,213	1,196,013	1,149,438	1,101,588	1,052,388	1,000,694	945,456	887,606	5,168,250
535012-001	535012 Transportation	71,333	66,981	62,509	57,904	53,170	48,312	43,323	38,192	32,920	28,599	25,258	21,816	18,275	14,564	10,600	6,442	2,166
535151-002	535151 Transportation	11,409	10,714	9,999	9,263	8,508	7,732	6,932	6,110	5,266	4,573	4,038	3,488	2,922	2,328	1,695	1,030	347
535152-001	535152 Transportation	4,279	4,018	3,749	3,473	3,189	2,898	2,599	2,292	1,976	1,716	1,516	1,309	1,096	874	636	387	130
535156-002	535156 Transportation	2,147	2,015	1,879	1,740	1,597	1,450	1,299	1,144	985	856	756	653	546	435	317	193	65
535157-002	535157 Transportation	6,689	6,280	5,861	5,430	4,987	4,532	4,063	3,582	3,087	2,682	2,368	2,045	1,714	1,366	994	604	203
535158-001	535158 Transportation	215	202	188	174	160	145	130	114	99	86	76	65	55	43	32	19	6
535160-002	535160 Transportation	4,459	4,187	3,907	3,620	3,324	3,021	2,709	2,388	2,058	1,788	1,579	1,363	1,142	910	663	403	136
535162-002	535162 Transportation	178	167	156	145	133	121	108	95	82	71	63	55	46	36	26	16	5
535163-002	535163 Transportation	447	420	392	363	333	302	271	238	205	178	158	136	114	91	66	40	13
535166-001	535166 Transportation	714	670	625	579	532	483	433	382	329	286	253	218	183	146	106	64	22
535167-001	535167 Transportation	1,070	1,005	938	869	798	725	650	573	494	429	379	327	274	219	159	97	33
535168-001	535168 Transportation	3,568	3,350	3,126	2,896	2,660	2,417	2,167	1,910	1,646	1,430	1,263	1,091	914	728	530	322	108
535169-001	535169 Transportation	714	670	625	579	532	483	433	382	329	286	253	218	183	146	106	64	22
535170-001	535170 Transportation	5,351	5,024	4,689	4,344	3,989	3,625	3,251	2,865	2,470	2,146	1,894	1,636	1,371	1,093	795	483	163
535171-001	535171 Transportation	891	837	781	724	664	603	541	478	412	358	316	273	229	182	133	81	27
535172-001	535172 Transportation	1,782	1,674	1,563	1,447	1,328	1,206	1,082	955	823	716	633	547	457	364	265	161	54
535173-001	535173 Transportation	2,139	2,009	1,875	1,737	1,593	1,447	1,299	1,146	988	859	759	656	549	437	318	193	65
535174-001	535174 Transportation	2,246	2,109	1,969	1,824	1,673	1,520	1,364	1,203	1,038	902	797	689	576	459	334	203	68
535175-001	535175 Transportation	1,782	1,674	1,563	1,447	1,328	1,206	1,082	955	824	716	633	547	457	364	265	161	54
535177-001	535177 Transportation	2,674	2,511	2,344	2,171	1,992	1,809	1,624	1,432	1,235	1,074	949	820	686	546	398	241	81
535178-001	535178 Transportation	891	837	781	724	664	603	541	477	412	358	316	273	229	182	133	81	27
535179-001	535179 Transportation	1,497	1,406	1,313	1,216	1,115	1,013	909	802	692	601	532	459	384	306	223	135	45
535180-001	535180 Transportation	891	837	781	724	664	603	541	478	412	358	316	273	229	182	133	81	27
535256-001	535256 Transportation	6,240	5,859	5,468	5,064	4,651	4,226	3,790	3,343	2,881	2,503	2,210	1,908	1,599	1,274	927	564	190
535258-001	535258 Transportation	1,783	1,674	1,562	1,447	1,329	1,208	1,083	955	823	715	631	545	457	364	265	161	54
535260-001	535260 Transportation	3,564	3,347	3,125	2,894	2,655	2,412	2,165	1,910	1,647	1,432	1,266	1,093	915	728	530	322	108
535281-001	535281 Transportation	29,250	27,466	25,642	23,752	21,791	19,792	17,762	15,669	13,514	11,748	10,384	8,970	7,505	5,976	4,350	2,642	885
535330-001	535330 Transportation	14,268	13,398	12,503	11,581	10,636	9,666	8,666	7,638	6,583	5,718	5,049	4,361	3,653	2,911	2,119	1,289	434
535356-001	535356 Transportation	60,995	57,275	53,472	49,530	45,440	41,273	37,040	32,676	28,181	24,498	21,654	18,706	15,651	12,461	9,070	5,508	1,846
536506-007	536506 Transportation	357	335	313	289	266	241	216	191	165	143	127	109	91	73	53	32	11
551526-001	551526 E911	12,476	11,716	10,934	10,129	9,301	8,451	7,579	6,681	5,759	5,003	4,418	3,817	3,199	2,549	1,854	1,126	379
561872-001	561872 OCC	1,594	1,496	1,396	1,294	1,189	1,081	969	854	736	639	564	487	408	325	237	145	49
562137-001	562137 On Comm Pub Lib	89,231	83,856	78,231	72,481	66,606	60,481	54,231	47,856	41,231	35,756	31,556	27,281	22,856	18,184	13,162	7,962	2,681
575090-003	575090 Metro Water Board	53,495	50,233	46,878	43,425	39,880	36,240	32,495	28,645	24,690	21,449	18,941	16,361	13,709	10,928	7,953	4,834	1,627
575104-001	575104 Metro Water Board	142,668	133,930	124,910	115,738	106,283	96,548	86,543	76,268	65,723	57,089	50,447	43,577	36,479	28,998	21,054	12,797	4,305
587563-001	587563 WEP	17,828	16,741	15,623	14,473	13,293	12,081	10,833	9,551	8,233	7,153	6,316	5,455</					

Exhibit E - General Obligation Bonds Schedule of Gross Interest Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2045
587608-001	587608 WEP	71,587	67,197	62,674	57,924	53,164	48,302	43,149	37,959	32,729	28,469	25,049	21,661	18,302	14,675	10,712	6,523	2,208
587948-001	587948 WEP	8,931	8,386	7,826	7,248	6,656	6,048	5,423	4,781	4,121	3,579	3,159	2,727	2,284	1,822	1,326	806	271
587959-001	587959 WEP	6,913	6,493	6,060	5,615	5,158	4,688	4,205	3,708	3,195	2,775	2,449	2,115	1,771	1,411	1,027	624	210
587960-002	587960 WEP	222,552	208,975	195,015	180,655	165,915	150,775	135,195	119,175	102,715	89,226	78,789	68,054	57,021	45,451	33,079	20,108	6,765
Total		2,875,331	2,748,581	2,618,331	2,484,331	2,346,581	2,205,081	2,059,581	1,910,081	1,756,456	1,630,581	1,533,156	1,433,031	1,330,131	1,222,072	1,106,494	985,431	5,201,156

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512578-001	512578 Facilities	37,143	32,610	28,086	23,581	19,105	14,088	8,488	2,838	-	-	-	-	-	-	-	-
522695-001	522695 Parks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535057-001	535057 Transportation	13,174	9,396	5,625	1,872	-	-	-	-	-	-	-	-	-	-	-	-
551518-001	551518 E911	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
551519-001	551519 E911	7,544	4,521	1,505	-	-	-	-	-	-	-	-	-	-	-	-	-
552343-001	552343 Hillbrook	19,789	17,711	15,449	13,197	10,959	8,218	4,951	1,655	-	-	-	-	-	-	-	-
561861-001	561861 OCC	89,392	78,437	67,880	57,744	47,302	34,991	21,457	7,330	-	-	-	-	-	-	-	-
562130-001	562130 On Comm Pub Lib	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587384-001	587384 WEP	7,867	6,734	5,603	4,477	3,358	2,103	703	-	-	-	-	-	-	-	-	-
587390-001	587390 WEP	9,286	8,153	7,021	5,895	4,776	3,522	2,122	709	-	-	-	-	-	-	-	-
587394-001	587394 WEP	38,998	34,843	30,695	26,566	22,463	17,864	12,730	7,551	2,475	-	-	-	-	-	-	-
587510-001	587510 WEP	45,900	41,178	36,276	31,397	26,547	21,111	15,045	8,924	2,925	-	-	-	-	-	-	-
587521-001	587521 WEP	19,954	18,065	16,180	14,304	12,253	9,744	6,944	4,119	1,350	-	-	-	-	-	-	-
587532-001	587532 WEP	78,019	69,708	61,413	53,155	44,949	35,750	25,483	14,889	4,725	-	-	-	-	-	-	-
587959-001	587959 WEP	10,636	9,503	8,371	7,245	6,126	4,872	3,472	2,059	675	-	-	-	-	-	-	-
587960-001	587960 WEP	38,998	34,843	30,695	26,566	22,463	17,864	12,730	7,551	2,475	-	-	-	-	-	-	-
Total		416,700	365,700	314,800	266,000	220,300	170,125	114,125	57,625	14,625	-	-	-	-	-	-	-

822

512589-001	512589 Facilities	104,145	104,145	104,145	104,145	104,145	104,145	104,145	104,145	104,145	104,145	104,145	104,145	104,145	104,145	104,145	104,145	104,145
Total		104,145																

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512597-002	512597 Facilities	14,915	13,815	12,690	11,540	10,365	9,165	8,065	7,045	6,265	5,735	5,195	4,628	4,004	3,351	2,688	1,963	1,588
592661-002	592661 OnCenter	38,410	35,585	32,685	29,710	26,660	23,535	20,680	18,080	16,090	14,730	13,340	11,875	10,278	8,601	6,891	5,038	4,075
522722-001	522722 Parks	20,951	19,401	17,826	16,201	14,526	12,826	11,276	9,856	8,766	8,026	7,276	6,482	5,618	4,706	3,773	2,763	2,238
522735-001	522735 Parks	87,139	80,714	74,139	67,414	60,514	53,439	46,944	41,044	36,534	33,444	30,284	26,952	23,341	19,539	15,658	11,463	9,288
535104-001	535104 Transportation	2,983	2,558	2,308	2,058	1,808	1,583	1,383	1,233	1,133	1,033	919	788	653	518	375	300	-
535152-002	535152 Transportation	4,058	3,658	3,258	2,858	2,433	1,983	1,578	1,218	938	738	538	331	113	-	-	-	-
535161-001	535161 Transportation	6,159	5,559	4,934	4,284	3,634	2,984	2,379	1,819	1,399	1,119	829	519	180	-	-	-	-
535163-002	535163 Transportation	417	367	317	267	217	167	122	82	52	37	27	17	6	-	-	-	-
535166-001	535166 Transportation	653	588	523	458	388	313	246	186	141	111	81	50	17	-	-	-	-
535167-001	535167 Transportation	964	871	781	691	591	481	382	294	228	184	140	89	30	-	-	-	-
535169-001	535169 Transportation	653	588	523	458	388	313	246	186	141	111	81	50	17	-	-	-	-
535170-001	535170 Transportation	4,867	4,390	3,897	3,397	2,892	2,375	1,896	1,458	1,122	890	654	408	140	-	-	-	-
535171-001	535171 Transportation	810	733	653	573	488	398	317	245	191	155	119	76	26	-	-	-	-
535172-001	535172 Transportation	1,620	1,462	1,300	1,135	967	795	633	485	373	296	218	136	46	-	-	-	-
535173-001	535173 Transportation	1,947	1,755	1,557	1,357	1,155	947	756	582	448	354	258	159	54	-	-	-	-
535174-001	535174 Transportation	2,045	1,845	1,637	1,427	1,215	997	797	613	471	373	273	169	57	-	-	-	-
535177-001	535177 Transportation	2,435	2,197	1,952	1,702	1,450	1,190	949	729	560	445	329	205	70	-	-	-	-
535179-001	535179 Transportation	3,373	3,041	2,701	2,356	2,006	1,646	1,313	1,009	776	613	445	277	97	-	-	-	-
535180-001	535180 Transportation	810	733	653	573	488	398	317	245	191	155	119	76	26	-	-	-	-
535181-001	535181 Transportation	2,071	1,866	1,659	1,446	1,229	1,006	802	616	474	377	278	173	60	-	-	-	-
535182-001	535182 Transportation	1,199	959	837	712	584	465	357	275	218	160	99	34	-	-	-	-	-
535183-001	535183 Transportation	1,101	991	881	769	654	536	426	326	250	198	145	89	30	-	-	-	-
535184-001	535184 Transportation	1,947	1,755	1,557	1,357	1,155	947	756	582	448	354	258	159	54	-	-	-	-
535258-001	535258 Transportation	1,620	1,462	1,300	1,135	967	795	633	485	373	296	218	136	46	-	-	-	-
535261-001	535261 Transportation	10,031	9,038	8,033	7,006	5,956	4,883	3,893	2,989	2,300	1,828	1,345	837	287	-	-	-	-
535282-001	535282 Transportation	40,144	36,182	32,154	28,037	23,829	19,532	15,569	11,955	9,200	7,311	5,379	3,350	1,148	-	-	-	-
535331-001	535331 Transportation	25,950	23,400	20,800	18,125	15,400	12,625	10,065	7,725	5,945	4,725	3,475	2,165	743	-	-	-	-
535357-001	535357 Transportation	109,586	98,776	87,781	76,538	65,048	53,316	42,500	32,634	25,114	19,962	14,691	9,150	3,134	-	-	-	-
536031-001	536031 General Fund	23,825	14,450	4,850	-	-	-	-	-	-	-	-	-	-	-	-	-	-
561875-001	561875 OCC	149,276	138,226	126,976	115,501	103,701	91,576	80,431	70,291	62,551	57,261	51,851	46,147	39,965	33,463	26,814	19,625	15,900
575090-003	575090 Metro Water Board	31,644	29,319	2														

Exhibit E - General Obligation Bonds Schedule of Gross Interest Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2045
587614-001	587614 WEP	8,425	5,125	1,725	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587948-001	587948 WEP	8,438	7,813	7,163	6,513	5,838	5,138	4,508	3,948	3,518	3,218	2,918	2,598	2,248	1,888	1,516	1,113	900
587959-001	587959 WEP	2,983	2,783	2,558	2,308	2,058	1,808	1,583	1,383	1,233	1,133	1,033	919	788	653	518	375	300
587960-001	587960 WEP	85,893	79,443	72,993	66,393	59,593	52,718	46,343	40,503	36,073	33,033	29,873	26,541	22,986	19,263	15,449	11,325	9,163
Total		814,606	715,356	613,981	532,106	470,106	406,731	348,431	295,331	254,831	227,081	198,681	168,766	136,325	108,763	87,163	63,813	51,688
831																		
592661-002	592661 Oncenter	47,177	45,242	41,673	37,441	32,115	27,265	22,951	18,026	12,562	7,160	2,245	-	-	-	-	-	-
522696-001	522696 Parks	8,118	7,344	5,916	4,318	2,424	738	-	-	-	-	-	-	-	-	-	-	-
522698-001	522698 Parks	8,118	7,344	5,916	4,318	2,424	738	-	-	-	-	-	-	-	-	-	-	-
512558-002	512558 Facilities	1,586	793	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
512578-001	512578 Facilities	54,525	51,429	45,718	39,325	31,750	25,003	18,894	11,802	3,934	-	-	-	-	-	-	-	-
551520-001	551520 E911	202,956	183,599	147,909	107,951	60,608	18,439	-	-	-	-	-	-	-	-	-	-	-
561863-001	561863 OCC	49,915	47,980	44,166	39,571	34,126	29,277	24,787	19,468	13,567	7,733	2,424	-	-	-	-	-	-
561867-001	561867 OCC	32,754	31,460	28,992	26,128	22,738	19,601	16,664	13,301	9,561	5,828	2,392	405	-	-	-	-	-
561868-001	561868 OCC	13,950	13,370	12,217	10,819	9,162	7,686	6,426	5,047	3,517	2,005	629	-	-	-	-	-	-
561864-001	561864 OCC	24,354	22,032	17,749	12,954	7,273	2,213	-	-	-	-	-	-	-	-	-	-	-
551560-001	551560 Corrections	57,047	55,112	51,543	46,367	39,265	32,940	27,542	21,631	15,075	8,592	2,694	-	-	-	-	-	-
535030-001	535030 Transportation	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535275-001	535275 Transportation	46,743	42,389	34,359	25,251	14,243	4,333	-	-	-	-	-	-	-	-	-	-	-
535350-001	535350 Transportation	26,448	24,029	19,568	14,455	8,182	2,489	-	-	-	-	-	-	-	-	-	-	-
587373-001	587373 WEP	104,991	100,347	91,782	81,955	70,120	59,577	50,317	39,657	27,637	15,752	4,938	-	-	-	-	-	-
587521-001	587521 WEP	25,773	24,419	21,921	19,124	15,810	12,858	10,339	7,580	4,521	1,495	-	-	-	-	-	-	-
587394-001	587394 WEP	46,024	43,605	39,144	34,149	28,231	22,960	18,462	13,536	8,073	2,670	-	-	-	-	-	-	-
587510-001	587510 WEP	1,627	1,531	1,352	1,152	916	705	525	328	109	-	-	-	-	-	-	-	-
512581-001	512581 OnCenter	180,916	173,497	159,550	143,725	123,656	104,253	87,323	68,922	48,769	28,638	10,130	851	-	-	-	-	-
512585-001	512585 BOE	3,550	2,632	857	-	-	-	-	-	-	-	-	-	-	-	-	-	-
592674-001	592674 IT	35,296	25,733	8,086	-	-	-	-	-	-	-	-	-	-	-	-	-	-
522697-001	522697 Parks	44,384	39,179	29,572	18,918	6,332	-	-	-	-	-	-	-	-	-	-	-	-
522701-001	522701 Parks	7,281	6,427	4,851	3,104	1,039	-	-	-	-	-	-	-	-	-	-	-	-
522702-001	522702 Parks	1,631	1,440	1,087	695	233	-	-	-	-	-	-	-	-	-	-	-	-
522703-001	522703 Parks	4,142	3,656	2,760	1,766	591	-	-	-	-	-	-	-	-	-	-	-	-
522704-001	522704 Parks	815	720	543	348	116	-	-	-	-	-	-	-	-	-	-	-	-
522706-001	522706 Parks	652	576	435	278	93	-	-	-	-	-	-	-	-	-	-	-	-
522707-001	522707 Parks	351	310	234	149	50	-	-	-	-	-	-	-	-	-	-	-	-
522707-002	522707 Parks	1,269	1,120	845	541	181	-	-	-	-	-	-	-	-	-	-	-	-
522692-001	522692 Parks	628	554	418	268	90	-	-	-	-	-	-	-	-	-	-	-	-
561862-001	561862 OCC	22,676	21,911	20,499	18,819	16,621	14,564	12,753	10,480	7,815	5,187	2,720	785	-	-	-	-	-
561866-001	561866 OCC	41,318	39,828	37,080	34,031	30,430	26,808	23,112	18,903	14,200	9,426	4,943	1,427	-	-	-	-	-
561870-001	561870 OCC	131,053	126,329	117,287	106,606	93,494	81,295	70,652	57,820	42,980	28,530	14,960	4,320	-	-	-	-	-
562136-001	562136 On Comm Pub Lib	1,148	574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535326-001	535326 Transportation	12,792	12,314	11,351	10,177	8,789	7,555	6,468	5,240	3,907	2,594	1,360	393	-	-	-	-	-
535028-001	535028 Transportation	7,662	7,375	6,845	6,258	5,564	4,947	4,312	3,493	2,605	1,729	907	262	-	-	-	-	-
535032-001	535032 Transportation	540	451	288	106	-	-	-	-	-	-	-	-	-	-	-	-	-
535012-001	535012 Transportation	54,343	47,935	36,109	22,670	10,375	4,595	1,545	0	0	0	0	0	0	-	-	-	-
535250-001	535250 Transportation	1,709	1,509	1,139	728	244	-	-	-	-	-	-	-	-	-	-	-	-
535155-001	535155 Transportation	4,816	4,473	3,839	3,055	2,060	1,174	395	-	-	-	-	-	-	-	-	-	-
535156-001	535156 Transportation	2,984	2,772	2,380	1,894	1,277	728	245	-	-	-	-	-	-	-	-	-	-
535024-002	535024 Transportation	208	193	166	132	89	51	17	-	-	-	-	-	-	-	-	-	-
535277-001	535277 Transportation	19,960	18,339	15,348	12,030	8,111	4,624	1,555	-	-	-	-	-	-	-	-	-	-
535352-001	535352 Transportation	27,143	24,939	20,871	16,359	11,030	6,289	2,114	-	-	-	-	-	-	-	-	-	-
535325-001	535325 Transportation	8,656	8,273	7,567	6,784	5,860	5,037	4,312	3,493	2,605	1,729	907	262	-	-	-	-	-
535481-001	535481 Transportation	11,295	8,235	2,587	-	-	-	-	-	-	-	-	-	-	-	-	-	-
535353-001	535353 Transportation	55,453	52,000	45,627	38,456	29,358	20,787	13,241	4,709	-	-	-	-	-	-	-	-	-
535278-001	535278 Transportation	44,358	41,596	36,498	30,763	23,485	16,628	10,592	3,767	-	-	-	-	-	-	-	-	-
587532-001	587532 WEP	16,309	15,736	14,677	13,502	12,115	10,881	9,611	7,860	5,861	3,890	2,040	589	-	-	-	-	-
587554-001	587554 WEP	38,537	37,294	35,000	31,996	27,833	23,924	20,483	16,593	12,373	8,213	4,307	1,244	-	-	-	-	-
587960-001	587960 WEP	7,662	7,375	6,845	6,258	5,564	4,947	4,312	3,493	2,605	1,729	907	262	-	-	-	-	-
Total		1,543,644	1,437,319	1,241,169	1,035,694	804,069	605,909	469,950	355,150	242,275	142,900	58,500	10,800					

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512591-001	512591 Facilities	51,072	48,410	45,660	42,810	39,860	36,810	33,660	30,740	28,040	25,260	22,400	19,440	16,770	14,400	11,970	9,465	12,465
512592-001	512592 Facilities	18,810	17,860	16,835	15,785	14,710	13,585	12,435	11,380	10,400	9,380	8,320	7,220	6,225	5,340	4,440	3,525	4,650
522737-001	522737 Parks	20,635	19,160	17,660	16,110	14,510	12,860	11,135	9,540	8,080	6,580	5,020	3,400	1,950	660	-	-	-
522738-001	522738 Parks	8,995	8,345	7,695	7,020	6,320	5,595	4,845	4,150	3,510	2,850	2,170	1,470	840	285	-	-	-
535166-001	535166 Transportation	805	755	705	655	605	555	505	460	400	320	240	160	90	30	-	-	-
535168-002	535168 Transportation	13,005	12,105	11,155	10,180	9,155	8,080	6,980	5,970	5,050	4,110	3,130	2,110	1,200	405	-	-	-
535181-003	535181 Transportation	1																

Exhibit E - General Obligation Bonds Schedule of Gross Interest Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2045	
535171-002	535171	Transportation	330	306	283	258	233	207	179	152	129	105	80	55	32	11	-	-	
535175-001	535175	Transportation	1,031	956	882	805	725	643	556	475	403	329	251	170	98	33	-	-	
535175-002	535175	Transportation	7,215	6,696	6,177	5,640	5,084	4,509	3,897	3,330	2,825	2,306	1,757	1,194	690	234	-	-	
535177-002	535177	Transportation	330	306	283	258	233	207	179	152	129	105	80	55	32	11	-	-	
535178-001	535178	Transportation	825	765	706	644	581	515	445	380	323	264	201	137	79	27	-	-	
535185-001	535185	Transportation	805	755	705	655	605	555	505	460	400	320	240	160	90	30	-	-	
535262-001	535262	Transportation	13,220	12,295	11,320	10,320	9,295	8,220	7,120	6,110	5,170	4,210	3,210	2,170	1,245	420	-	-	
535283-001	535283	Transportation	51,580	47,930	44,180	40,305	36,305	32,180	27,905	23,910	20,250	16,490	12,570	8,510	4,860	1,635	-	-	
535358-001	535358	Transportation	130,905	121,680	112,155	102,280	92,080	81,580	70,655	60,480	51,200	41,680	31,800	21,540	12,300	4,140	-	-	
535332-001	535332	Transportation	31,590	29,965	28,265	26,490	24,665	22,790	20,865	19,070	17,410	15,690	13,910	12,070	10,410	8,940	7,425	5,865	
535333-001	535333	Transportation	33,095	31,345	29,570	27,720	25,795	23,820	21,795	19,910	18,170	16,370	14,510	12,590	10,860	9,330	7,755	6,135	
551526-001	551526	E911	45,050	40,050	34,925	29,675	24,300	18,675	12,800	7,400	2,500	-	-	-	-	-	-	-	
561875-001	561875	OCC	37,615	35,640	33,615	31,515	29,340	27,090	24,765	22,630	20,670	18,630	16,510	14,330	12,375	10,635	8,835	6,975	
575107-001	575107	Metro Water Board	67,675	64,100	60,450	56,675	52,775	48,750	44,600	40,760	37,220	33,560	29,760	25,820	22,275	19,140	15,915	12,585	
587592-001	587592	WEP	1,865	1,740	1,640	1,540	1,440	1,340	1,240	1,150	1,050	930	810	690	585	495	405	315	
587598-001	587598	WEP	150,365	142,540	134,415	126,040	117,415	108,490	99,240	90,630	82,790	74,670	66,270	57,570	49,680	42,720	35,535	28,065	
587601-001	587601	WEP	14,148	10,300	6,325	2,150	-	-	-	-	-	-	-	-	-	-	-	-	
587614-001	587614	WEP	13,894	10,075	6,175	2,100	-	-	-	-	-	-	-	-	-	-	-	-	
587622-001	587622	WEP	5,640	5,340	5,040	4,740	4,415	4,065	3,715	3,400	3,100	2,780	2,460	2,140	1,845	1,575	1,305	1,035	
587628-001	587628	WEP	7,520	7,120	6,720	6,295	5,845	5,395	4,945	4,520	4,120	3,720	3,300	2,860	2,475	2,130	1,770	1,395	
587629-001	587629	WEP	4,895	4,645	4,395	4,120	3,820	3,520	3,220	2,950	2,690	2,410	2,130	1,850	1,605	1,380	1,140	900	
587948-001	587948	WEP	53,755	50,945	48,045	45,045	41,945	38,745	35,445	32,390	29,570	26,650	23,630	20,510	17,700	15,210	12,645	9,990	
587960-001	587960	WEP	65,027	61,665	58,165	54,540	50,790	46,915	42,915	39,210	35,790	32,250	28,590	24,810	21,405	18,390	15,285	12,075	15,90
Total			852,925	794,925	735,175	673,300	613,675	556,425	497,175	442,250	391,850	342,350	293,650	243,250	197,850	157,650	124,425	98,325	129,37

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Exhibit E - General Obligation Bonds Schedule of Gross Interest Payments as of 12/31/18

Issue Number	Departments	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035 - 2045
592676-001	592676 IT																	
Total		1,580,988	1,580,930	1,580,850	1,503,400	1,328,125	1,152,500	994,750	833,125	669,625	524,875	419,100	321,950	228,600	140,625	45,875		
850																		
535039-001	535039 Transportation	336,957	324,679	307,154	289,029	270,454	251,429	231,854	211,729	193,134	176,134	158,694	142,979	129,149	114,689	99,210	82,992	153,649
535044-001	535044 Transportation	39,663	38,178	36,078	33,953	31,778	29,553	27,253	24,878	22,698	20,698	18,638	16,803	15,183	13,483	11,665	9,764	18,114
535153-001	535153 Transportation	2,864	2,733	2,533	2,333	2,133	1,908	1,658	1,408	1,183	983	783	608	458	289	98	-	-
535166-001	535166 Transportation	695	663	613	563	513	463	413	363	318	278	238	203	158	96	33	-	-
535167-001	535167 Transportation	897	863	813	763	713	663	613	538	448	368	288	218	158	96	33	-	-
535169-001	535169 Transportation	403	386	361	336	311	286	261	236	214	184	144	109	79	48	16	-	-
535191-001	535191 Transportation	2,731	2,601	2,401	2,201	2,001	1,801	1,601	1,376	1,151	951	751	576	426	273	98	-	-
535186-001	535186 Transportation	850	816	766	703	628	553	478	403	336	276	216	163	118	72	24	-	-
535187-001	535187 Transportation	850	816	766	703	628	553	478	403	336	276	216	163	118	72	24	-	-
535189-001	535189 Transportation	633	601	551	501	451	401	351	301	256	216	176	141	111	81	33	-	-
535190-001	535190 Transportation	850	816	766	703	628	553	478	403	336	276	216	163	118	72	24	-	-
535263-001	535263 Transportation	10,519	10,028	9,278	8,503	7,691	6,866	6,028	5,166	4,368	3,638	2,888	2,216	1,623	1,003	341	-	-
535359-001	535359 Transportation	129,229	123,272	114,022	104,434	94,584	84,534	74,159	63,509	53,699	44,729	35,529	27,262	19,987	12,313	4,168	-	-
535459-001	535459 Transportation	10,519	10,028	9,278	8,503	7,691	6,866	6,028	5,166	4,368	3,638	2,888	2,216	1,623	1,003	341	-	-
535489-001	535489 Transportation	1,407	1,341	1,241	1,141	1,041	941	841	741	651	551	431	326	236	144	49	-	-
512590-001	512590 Facilities	23,546	22,660	21,408	20,133	18,833	17,508	16,133	14,708	13,403	12,223	11,003	9,903	8,928	7,917	6,849	5,728	10,583
512591-001	512591 Facilities	47,007	45,315	42,890	40,340	37,740	35,090	32,365	29,565	26,960	24,580	22,140	19,940	18,005	15,983	13,815	11,540	21,306
512594-001	512594 Facilities	1,222	1,190	1,134	1,059	984	909	834	759	692	632	572	519	474	428	373	308	555
512596-001	512596 Facilities	81,366	77,497	71,447	65,222	58,834	53,559	49,384	45,084	41,152	37,532	33,792	30,469	27,544	24,450	21,143	17,698	32,826
512597-001	512597 Facilities	47,582	45,809	43,309	40,759	38,134	35,459	32,709	29,859	27,229	24,829	22,369	20,169	18,219	16,166	13,966	11,659	21,494
512598-001	512598 Facilities	54,840	52,813	49,938	46,988	43,963	40,863	37,663	34,388	31,378	28,638	25,818	23,268	21,018	18,659	16,140	13,508	24,984
512599-001	512599 Facilities	5,948	5,733	5,433	5,133	4,808	4,458	4,108	3,758	3,423	3,103	2,783	2,503	2,263	2,018	1,746	1,454	2,708
512602-001	512602 Facilities	178,379	171,944	162,781	153,281	143,419	133,194	122,744	112,069	102,229	93,249	84,029	75,749	68,444	60,723	52,450	43,854	81,070
591743-001	591743 General Fund	18,200	15,875	11,500	7,000	2,375	-	-	-	-	-	-	-	-	-	-	-	-
522722-001	522722 Parks	12,012	11,280	10,080	8,880	7,555	6,105	4,655	3,205	1,900	660	-	-	-	-	-	-	-
552330-001	552330 Hillbrook	4,823	4,495	3,945	3,395	2,845	2,295	1,745	1,195	700	240	-	-	-	-	-	-	-
522735-001	522735 Parks	27,472	26,182	24,195	22,170	20,120	17,995	15,795	13,545	11,455	9,555	7,595	5,830	4,270	2,631	894	-	-
522737-001	522737 Parks	61,460	58,511	53,963	49,413	44,788	40,013	35,088	30,063	25,438	21,198	16,838	12,923	9,488	5,873	1,999	-	-
522739-001	522739 Parks	26,522	25,280	23,379	21,429	19,429	17,379	15,254	13,079	11,059	9,219	7,339	5,644	4,144	2,551	861	-	-
522741-001	522741 Parks	42,076	40,089	37,039	33,939	30,739	27,439	24,064	20,639	17,474	14,554	11,554	8,879	6,524	4,027	1,365	-	-
522742-001	522742 Parks	25,278	22,025	19,975	9,725	3,275	-	-	-	-	-	-	-	-	-	-	-	-
551529-001	551529 E911	11,996	11,589	10,989	10,339	9,689	9,014	8,314	7,589	6,914	6,314	5,694	5,134	4,639	4,118	3,560	2,975	5,483
551571-001	551571 Corrections	12,904	12,413	11,713	11,013	10,313	9,588	8,888	8,063	7,343	6,703	6,043	5,448	4,923	4,371	3,781	3,164	5,883
561875-001	561875 OCC	31,708	30,535	28,860	27,135	25,385	23,610	21,785	19,910	18,180	16,600	14,960	13,475	12,170	10,807	9,340	7,796	14,401
575090-001	575090 Metro Water Board	114	109	102	97	92	87	82	77	73	69	63	56	50	44	37	31	56
575104-001	575104 Metro Water Board	79,250	76,434	72,366	68,121	63,751	59,256	54,636	49,891	45,521	41,525	37,431	33,763	30,544	27,103	23,444	19,632	36,294
587592-001	587592 WEP	4,833	4,655	4,405	4,155	3,905	3,630	3,330	3,030	2,760	2,520	2,055	1,845	1,631	1,408	1,180	2,203	-
587598-001	587598 WEP	178,309	171,750	162,500	153,025	143,300	133,275	122,950	112,275	102,400	93,460	84,240	75,930	68,580	60,922	52,711	44,099	81,617
587601-001	587601 WEP	15,259	14,716	13,941	13,116	12,266	11,391	10,491	9,591	8,761	7,981	7,181	6,466	5,836	5,178	4,476	3,745	6,976
587605-001	587605 WEP	3,961	3,818	3,618	3,418	3,218	2,993	2,743	2,493	2,268	2,068	1,868	1,693	1,528	1,344	1,153	958	1,788
587612-001	587612 WEP	118,941	114,089	108,184	95,334	88,634	81,759	74,684	68,124	62,144	56,004	50,484	45,609	40,493	35,025	29,305	24,305	54,165
587614-001	587614 WEP	108,523	104,580	99,005	93,205	87,155	80,955	74,580	68,055	62,080	56,580	50,920	45,870	41,430	36,758	31,769	26,553	49,187
587622-001	587622 WEP	35,681	34,389	32,539	30,614	28,639	26,614	24,539	22,414	20,459	18,659	16,799	15,139	13,684	12,152	10,510	8,788	16,239
587627-001	587627 WEP	99,100	95,486	90,336	85,011	79,536	73,936	68,186	62,261	56,781	51,781	46,661	42,051	37,971	33,698	29,139	24,345	44,953
587632-001	587632 WEP	5,958	5,743	5,443	5,118	4,768	4,418	4,068	3,718	3,403	3,103	2,783	2,503	2,263	2,018	1,746	1,454	2,708
587948-001	587948 WEP	40,025	38,568	36,476	34,326	32,126	29,851	27,526	25,151	22,951	20,931	18,851	16,981	15,346	13,631	11,781	9,848	18,181
587959-001	587959 WEP	25,535	24,586	23,243	21,868	20,468	19,043	17,568	16,043	14,628	13,328	11,988	10,798	9,763	8,675	7,511	6,293	11,676
587960-001	587960 WEP	60,324	58,061	54,861	51,636	48,336	44,936	41,436	37,836	34,511	31,471	28,351	25,556	23,096	20,508	17,734	14,841	27,464
587957-001	587957 WEP	14,724	14,063	13,063	12,063	10,938	9,688	8,438	7,188	6,063	5,063	4,063	3,188	2,363	1,444	488	-	-
587626-001	587626 WEP	5,157	4,425	3,125	1,875	625	-	-	-	-	-	-	-	-	-	-	-	-
514002-001	514002 Van Duyne	58,105	50,608	36,625	22,250	7,500												-
		2,107,206	2,015,550	1,876,425	1,733,425	1,586,425	1,450,550	1,326,300	1,198,800	1,081,200	973,700	864,100	766,525	680,500	590,053	493,369	403,506	746,559
Total All Issues		15,446,382	13,937,319	12,473,004	11,053,689	9,683,820	8,418,461	7,306,858	6,177,691	5,263,339	4,520,058	3,890,179	3,314,294	2,828,344	2,398,944	1,974,450	1,618,200	6,191,778

EXHIBIT F - EFC Bonds Principal Payments (and Bond Anticipation Notes) by Project as of 12/31/18

Project #	Project Name	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
587301	TRUNK SEWER IMP	356,700	365,400	374,100	391,500	400,200	421,950	435,000	448,050	461,100	487,200	-	-	-	-	-
587341	PUMP STATIONS IMP	53,300	54,600	55,900	58,500	59,800	63,050	65,000	66,950	68,900	72,800	-	-	-	-	-
587351	BREWERTON/ROT SL DRUM THICK	85,000	85,000	90,000	-	-	-	-	-	-	-	-	-	-	-	-
587354	OAK ORCHARD WWTP PHASE I IMP	305,000	310,000	-	-	-	-	-	-	-	-	-	-	-	-	-
587372	SYR & GEDDES CONV SYS IMP BR 1	245,000	250,000	255,000	260,000	-	-	-	-	-	-	-	-	-	-	-
587373	WETZEL RD WWTP UPGRADE BR 300	1,380,000	1,400,000	1,420,000	1,435,000	1,455,000	1,475,000	1,495,000	1,515,000	1,535,000	1,555,000	1,575,000	1,595,000	1,615,000	1,635,000	1,655,000
587383	ENVIRON LAB & FLOW CONTROL	295,000	300,000	305,000	315,000	320,000	325,000	-	-	-	-	-	-	-	-	-
587384	L'POOL PUMP STATIONS IMPROVEME	295,000	300,000	305,000	310,000	315,000	320,000	325,000	-	-	-	-	-	-	-	-
587398	ACJ BIOSOLIDS HANDLING IMP BR	770,000	785,000	800,000	815,000	835,000	850,000	865,000	880,000	890,000	-	-	-	-	-	-
587584	ELECTRONICS PARK TRUNK SEWER	90,000	90,000	90,000	90,000	90,000	95,000	95,000	95,000	95,000	95,000	95,000	100,000	100,000	100,000	100,000
587586	OAK ORCHARD	360,816	370,000	380,000	385,000	395,000	405,000	415,000	420,000	430,000	440,000	450,000	460,000	465,000	475,000	485,000
587592	LEY CREEK IMPROVEMENTS	175,330	180,000	185,000	190,000	195,000	200,000	200,000	205,000	210,000	215,000	220,000	225,000	230,000	230,000	235,000
587599	Metro WWTP-002 Bypass Treatmen	711,894	730,000	745,000	765,000	780,000	795,000	815,000	830,000	850,000	865,000	885,000	900,000	920,000	935,000	955,000
587605	MBL IMPROVEMENTS	389,332	390,000	400,000	410,000	420,000	430,000	440,000	450,000	460,000	470,000	475,000	485,000	495,000	505,000	515,000
587944	MCP-AERATION SYS ENG BR 61-98	60,000	60,000	-	-	-	-	-	-	-	-	-	-	-	-	-
587947	MCP-COMP BASED PROC CONTR SYS	15,000	15,000	15,000	-	-	-	-	-	-	-	-	-	-	-	-
587948	ACJ MIDLAND AVE CONV ENG	1,503,677	1,541,000	1,565,000	1,591,000	1,616,000	1,636,000	1,662,000	1,692,000	1,717,000	1,742,000	1,767,000	1,793,000	1,817,000	1,847,000	1,867,000
587949	ACJ MALTBIE ST/TEALL & HARBOR	30,000	30,000	25,000	25,000	20,000	-	-	-	-	-	-	-	-	-	-
587951	ACJ FRANKLIN ST FCF	61,180	65,884	65,884	-	-	-	-	-	-	-	-	-	-	-	-
587953	ACJ KIRKPATRICK ST PS	240,000	240,000	245,000	250,000	255,000	-	-	-	-	-	-	-	-	-	-
587954	ACJ METRO IMPR PH PHOS REM/CHE	45,000	45,000	45,000	-	-	-	-	-	-	-	-	-	-	-	-
587955	ACJ SIPHON CROSSINGS	5,000	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-
587956	ACJ WEST STREET SEWER SEPARATI	20,000	20,000	20,000	-	-	-	-	-	-	-	-	-	-	-	-
587958	ACJ ERIE BLVD STORAGE SYSTEM U	50,000	50,000	55,000	55,000	-	-	-	-	-	-	-	-	-	-	-
587959	ACJ HARBOR BROOK IN WATER TRMT	1,788,000	1,816,000	1,844,000	1,871,000	1,899,000	1,927,000	1,959,000	1,982,000	2,012,000	2,032,000	2,063,000	2,095,000	2,123,000	2,151,000	2,174,000
587960	ACJ CLINTON ST CONVEYANCES	2,686,000	2,733,000	2,781,000	2,823,000	2,880,000	2,927,000	2,964,000	3,011,000	3,066,000	3,106,000	3,155,000	3,212,000	3,255,000	3,292,000	2,384,000
587961	ACJ FULL SCALE AMMONIA/PHOS RE	955,000	970,000	990,000	1,010,000	1,025,000	1,045,000	-	-	-	-	-	-	-	-	-
587963	ACJ SEWER SEPARATION	535,000	565,000	575,000	580,000	595,000	610,000	620,000	635,000	475,000	490,000	395,000	400,000	240,000	245,000	-
587968	SANITARY DISTRICT IMP BR 18 2/	125,000	125,000	130,000	130,000	135,000	135,000	-	-	-	-	-	-	-	-	-
588510	HIAWATHA/SPRING ST CSO	155,000	160,000	-	-	-	-	-	-	-	-	-	-	-	-	-
588525	METRO ODOR CONTROL SYSTEM IMP	80,000	80,000	-	-	-	-	-	-	-	-	-	-	-	-	-
588609	J'VILLE PEN PUMP STA & CONV SY	95,000	100,000	100,000	100,000	105,000	105,000	-	-	-	-	-	-	-	-	-
Total		13,961,229	14,230,884	13,860,884	13,860,000	13,795,000	13,765,000	12,355,000	12,230,000	12,270,000	11,570,000	11,080,000	11,265,000	11,260,000	10,475,000	10,370,000

BOND ANTICIPATION NOTES

587601 Metro WWTP Phos Treat Sys Org

EXHIBIT F - EFC Bonds Principal Payments (and Bond Anticipation Notes) by Project as of 12/31/18

Project #	Project Name	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
587301	TRUNK SEWER IMP	-	-	-	-	-	-	-	-	-	-	-
587341	PUMP STATIONS IMP	-	-	-	-	-	-	-	-	-	-	-
587351	BREWERTON/ROT SL DRUM THICK	-	-	-	-	-	-	-	-	-	-	-
587354	OAK ORCHARD WWTP PHASE I IMP	-	-	-	-	-	-	-	-	-	-	-
587372	SYR & GEDDES CONV SYS IMP BR 1	-	-	-	-	-	-	-	-	-	-	-
587373	WETZEL RD WWTP UPGRADE BR 300	1,670,000	1,690,000	1,710,000	-	-	-	-	-	-	-	-
587383	ENVIRON LAB & FLOW CONTROL	-	-	-	-	-	-	-	-	-	-	-
587384	L'POOL PUMP STATIONS IMPROVEME	-	-	-	-	-	-	-	-	-	-	-
587398	ACJ BIOSOLIDS HANDLING IMP BR	-	-	-	-	-	-	-	-	-	-	-
587584	ELECTRONICS PARK TRUNK SEWER	105,000	105,000	105,000	110,000	110,000	110,000	115,000	120,000	120,000	120,000	120,000
587586	OAK ORCHARD	495,000	500,000	510,000	520,000	525,000	-	-	-	-	-	-
587592	LEY CREEK IMPROVEMENTS	240,000	245,000	250,000	255,000	255,000	-	-	-	-	-	-
587599	Metro WWTP-002 Bypass Treatmen	970,000	990,000	1,005,000	1,025,000	1,035,000	-	-	-	-	-	-
587605	MBL IMPROVEMENTS	525,000	535,000	545,000	550,000	555,000	-	-	-	-	-	-
587944	MCP-AERATION SYS ENG BR 61-98	-	-	-	-	-	-	-	-	-	-	-
587947	MCP-COMP BASED PROC CONTR SYS	-	-	-	-	-	-	-	-	-	-	-
587948	ACJ MIDLAND AVE CONV ENG	1,903,000	1,273,000	1,288,000	273,000	253,000	14,000	14,000	14,000	14,000	15,000	15,000
587949	ACJ MALTBIE ST/TEALL & HARBOR	-	-	-	-	-	-	-	-	-	-	-
587951	ACJ FRANKLIN ST FCF	-	-	-	-	-	-	-	-	-	-	-
587953	ACJ KIRKPATRICK ST PS	-	-	-	-	-	-	-	-	-	-	-
587954	ACJ METRO IMPR PH PHOS REM/CHE	-	-	-	-	-	-	-	-	-	-	-
587955	ACJ SIPHON CROSSINGS	-	-	-	-	-	-	-	-	-	-	-
587956	ACJ WEST STREET SEWER SEPARATI	-	-	-	-	-	-	-	-	-	-	-
587958	ACJ ERIE BLVD STORAGE SYSTEM U	-	-	-	-	-	-	-	-	-	-	-
587959	ACJ HARBOR BROOK IN WATER TRMT	2,201,000	2,232,000	2,264,000	2,292,000	2,320,000	2,347,000	2,390,000	2,418,000	2,451,000	2,473,000	2,501,000
587960	ACJ CLINTON ST CONVEYANCES	2,421,000	2,450,000	2,483,000	2,515,000	2,342,000	2,369,000	2,406,000	2,438,000	2,465,000	2,492,000	2,519,000
587961	ACJ FULL SCALE AMMONIA/PHOS RE	-	-	-	-	-	-	-	-	-	-	-
587963	ACJ SEWER SEPARATION	-	-	-	-	-	-	-	-	-	-	-
587968	SANITARY DISTRICT IMP BR 18 2/	-	-	-	-	-	-	-	-	-	-	-
588510	HIAWATHA/SPRING ST CSO	-	-	-	-	-	-	-	-	-	-	-
588525	METRO ODOR CONTROL SYSTEM IMP	-	-	-	-	-	-	-	-	-	-	-
588609	J'VILLE PEN PUMP STA & CONV SY	-	-	-	-	-	-	-	-	-	-	-
Total		10,530,000	10,020,000	10,160,000	7,540,000	7,395,000	4,840,000	4,925,000	4,990,000	5,050,000	5,100,000	5,155,000

BOND ANTICIPATION NOTES

587601 Metro WWTP Phos Treat Sys Org

TOTAL EFC Bonds Principal due Years 2019 - 2044

Bond Anticipation Notes Outstanding 12/31/18

262,052,997

5,885,480

TOTAL EFC Bonds Principal and Outstanding BANS 12/31/18

267,938,477

Exhibit G - EFC Bonds Gross Interest Payments by Project as of 12/31/18

Project #	Project Name	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
587301	TRUNK SEWER IMP	168,594	158,040	146,334	133,509	118,646	102,398	84,452	65,055	44,932	23,280	-	-	-	-	-
587341	PUMP STATIONS IMP	25,740	24,105	22,341	20,460	18,173	15,736	12,959	10,060	6,895	3,600	-	-	-	-	-
587351	BREWERTON/ROT SL DRUM THICK	7,067	4,441	1,539	-	-	-	-	-	-	-	-	-	-	-	-
587354	OAK ORCHARD WWTP PHASE I IMP	22,822	11,870	-	-	-	-	-	-	-	-	-	-	-	-	-
587372	SYR & GEDDES CONV SYS IMP BR 1	30,289	22,638	14,269	4,954	-	-	-	-	-	-	-	-	-	-	-
587373	WETZEL RD WWTP UPGRADE BR 300	1,294,552	1,231,082	1,166,030	1,099,614	1,031,929	962,941	892,625	821,001	748,128	674,068	598,475	521,428	443,409	364,418	284,454
587383	ENVIRON LAB & FLOW CONTROL	90,010	76,233	61,986	47,307	31,941	16,133	-	-	-	-	-	-	-	-	-
587384	L'POOL PUMP STATIONS IMPROVEMENT	78,979	67,691	56,077	44,149	31,901	19,347	6,498	-	-	-	-	-	-	-	-
587398	ACJ BIOSOLIDS HANDLING IMP BR	325,378	291,237	255,964	219,451	181,792	143,010	103,121	62,271	20,835	-	-	-	-	-	-
587584	ELECTRONICS PARK TRUNK SEWER	91,303	90,037	88,520	86,777	84,849	82,728	80,345	77,681	74,786	71,689	68,425	64,942	61,258	57,479	53,613
587586	OAK ORCHARD	222,499	218,779	214,557	209,841	204,486	198,478	191,832	184,524	176,581	168,020	157,865	146,201	133,349	119,580	104,860
587592	LEY CREEK IMPROVEMENTS	108,656	106,849	104,795	102,499	99,856	96,890	93,608	90,086	86,210	82,029	77,066	71,364	65,077	58,267	51,139
587599	Metro WWTP-002 Bypass Treatment	438,320	430,981	422,651	413,406	402,765	390,901	377,855	363,503	347,808	330,884	310,920	287,981	262,835	235,593	206,618
587605	MBL IMPROVEMENTS	236,428	232,414	227,964	223,000	217,297	210,909	203,852	196,104	187,594	178,436	167,588	155,276	141,725	127,068	111,418
587944	MCP-AERATION SYS ENG BR 61-98	4,452	2,297	-	-	-	-	-	-	-	-	-	-	-	-	-
587947	MCP-COMP BASED PROC CONTR SYS	1,217	754	257	-	-	-	-	-	-	-	-	-	-	-	-
587948	ACJ MIDLAND AVE CONV ENG	1,165,083	1,118,984	1,070,333	1,018,713	964,098	906,484	846,256	783,305	718,033	650,803	582,062	512,473	440,880	367,338	289,573
587949	ACJ MALTBIE ST/TEALL & HARBOR	5,095	3,795	2,581	1,463	450	-	-	-	-	-	-	-	-	-	-
587951	ACJ FRANKLIN ST FCF	9,550	6,545	3,282	-	-	-	-	-	-	-	-	-	-	-	-
587953	ACJ KIRKPATRICK ST PS	48,757	38,544	27,988	17,043	5,738	-	-	-	-	-	-	-	-	-	-
587954	ACJ METRO IMPR PH PHOS REM/CHE	6,681	4,470	2,242	-	-	-	-	-	-	-	-	-	-	-	-
587955	ACJ SIPHON CROSSINGS	371	191	-	-	-	-	-	-	-	-	-	-	-	-	-
587956	ACJ WEST STREET SEWER SEPARATOR	1,623	1,005	342	-	-	-	-	-	-	-	-	-	-	-	-
587958	ACJ ERIE BLVD STORAGE SYSTEM U	8,519	6,276	3,865	1,296	-	-	-	-	-	-	-	-	-	-	-
587959	ACJ HARBOR BROOK IN WATER TRMT	1,914,659	1,889,292	1,858,413	1,822,426	1,782,042	1,738,200	1,689,423	1,634,148	1,573,266	1,507,334	1,436,957	1,362,711	1,285,007	1,204,244	1,120,650
587960	ACJ CLINTON ST CONVEYANCES	2,391,173	2,345,517	2,292,086	2,230,539	2,161,164	2,085,526	2,002,698	1,911,788	1,813,046	1,706,530	1,593,510	1,474,611	1,352,084	1,246,487	1,156,915
587961	ACJ FULL SCALE AMMONIA/PHOS RE	234,750	195,653	154,955	112,252	68,253	22,985	-	-	-	-	-	-	-	-	-
587963	ACJ SEWER SEPARATION	240,963	225,511	208,225	189,812	170,335	149,260	127,061	103,728	81,668	64,231	45,798	31,091	16,013	7,519	-
587968	SANITARY DISTRICT IMP BR 18 2/	37,742	31,905	25,969	19,712	13,370	6,701	-	-	-	-	-	-	-	-	-
588510	HIAWATHA/SPRING ST CSO	11,692	6,126	-	-	-	-	-	-	-	-	-	-	-	-	-
588525	METRO ODOR CONTROL SYSTEM IMP	4,500	1,532	-	-	-	-	-	-	-	-	-	-	-	-	-
588609	J'VILLE PEN PUMP STA & CONV SY	29,276	24,839	20,090	15,277	10,399	5,212	-	-	-	-	-	-	-	-	-
Total		9,256,740	8,869,633	8,453,653	8,033,499	7,599,485	7,153,840	6,712,584	6,303,254	5,879,781	5,460,903	5,038,666	4,628,077	4,201,638	3,787,994	3,379,241

Exhibit G - EFC Bonds Gross Interest Payments by Project as of 12/31/18

Project #	Project Name	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
587301	TRUNK SEWER IMP	-	-	-	-	-	-	-	-	-	-	-
587341	PUMP STATIONS IMP	-	-	-	-	-	-	-	-	-	-	-
587351	BREWERTON/ROT SL DRUM THICK	-	-	-	-	-	-	-	-	-	-	-
587354	OAK ORCHARD WWTP PHASE I IMP	-	-	-	-	-	-	-	-	-	-	-
587372	SYR & GEDDES CONV SYS IMP BR 1	-	-	-	-	-	-	-	-	-	-	-
587373	WETZEL RD WWTP UPGRADE BR 300	203,640	121,976	40,450	-	-	-	-	-	-	-	-
587383	ENVIRON LAB & FLOW CONTROL	-	-	-	-	-	-	-	-	-	-	-
587384	L'POOL PUMP STATIONS IMPROVEME	-	-	-	-	-	-	-	-	-	-	-
587398	ACJ BIOSOLIDS HANDLING IMP BR	-	-	-	-	-	-	-	-	-	-	-
587584	ELECTRONICS PARK TRUNK SEWER	49,796	45,815	41,554	37,097	32,475	27,852	23,072	18,029	12,878	7,726	2,575
587586	OAK ORCHARD	89,209	72,700	55,575	37,695	19,115	-	-	-	-	-	-
587592	LEY CREEK IMPROVEMENTS	43,556	35,552	27,161	18,396	9,285	-	-	-	-	-	-
587599	Metro WWTP-002 Bypass Treatmen	175,800	143,450	109,543	74,308	37,684	-	-	-	-	-	-
587605	MBL IMPROVEMENTS	94,799	77,291	58,967	39,859	20,208	-	-	-	-	-	-
587944	MCP-AERATION SYS ENG BR 61-98	-	-	-	-	-	-	-	-	-	-	-
587947	MCP-COMP BASED PROC CONTR SYS	-	-	-	-	-	-	-	-	-	-	-
587948	ACJ MIDLAND AVE CONV ENG	207,583	137,734	80,349	22,097	12,649	3,344	2,760	2,157	1,548	933	312
587949	ACJ MALTBIE ST/TEALL & HARBOR	-	-	-	-	-	-	-	-	-	-	-
587951	ACJ FRANKLIN ST FCF	-	-	-	-	-	-	-	-	-	-	-
587953	ACJ KIRKPATRICK ST PS	-	-	-	-	-	-	-	-	-	-	-
587954	ACJ METRO IMPR PH PHOS REM/CHE	-	-	-	-	-	-	-	-	-	-	-
587955	ACJ SIPHON CROSSINGS	-	-	-	-	-	-	-	-	-	-	-
587956	ACJ WEST STREET SEWER SEPARATI	-	-	-	-	-	-	-	-	-	-	-
587958	ACJ ERIE BLVD STORAGE SYSTEM U	-	-	-	-	-	-	-	-	-	-	-
587959	ACJ HARBOR BROOK IN WATER TRMT	1,039,108	955,049	863,813	769,402	672,502	574,440	473,815	370,617	266,123	160,441	53,678
587960	ACJ CLINTON ST CONVEYANCES	1,068,944	978,154	880,049	778,593	677,627	578,633	477,218	373,262	268,033	161,636	54,073
587961	ACJ FULL SCALE AMMONIA/PHOS RE	-	-	-	-	-	-	-	-	-	-	-
587963	ACJ SEWER SEPARATION	-	-	-	-	-	-	-	-	-	-	-
587968	SANITARY DISTRICT IMP BR 18 2/	-	-	-	-	-	-	-	-	-	-	-
588510	HIAWATHA/SPRING ST CSO	-	-	-	-	-	-	-	-	-	-	-
588525	METRO ODOOR CONTROL SYSTEM IMP	-	-	-	-	-	-	-	-	-	-	-
588609	J'VILLE PEN PUMP STA & CONV SY	-	-	-	-	-	-	-	-	-	-	-
Total		2,972,435	2,567,721	2,157,461	1,777,446	1,481,544	1,184,269	976,866	764,065	548,581	330,737	110,639

TOTAL EFC Bonds Gross Interest due Years 2019 - 2044

109,630,751