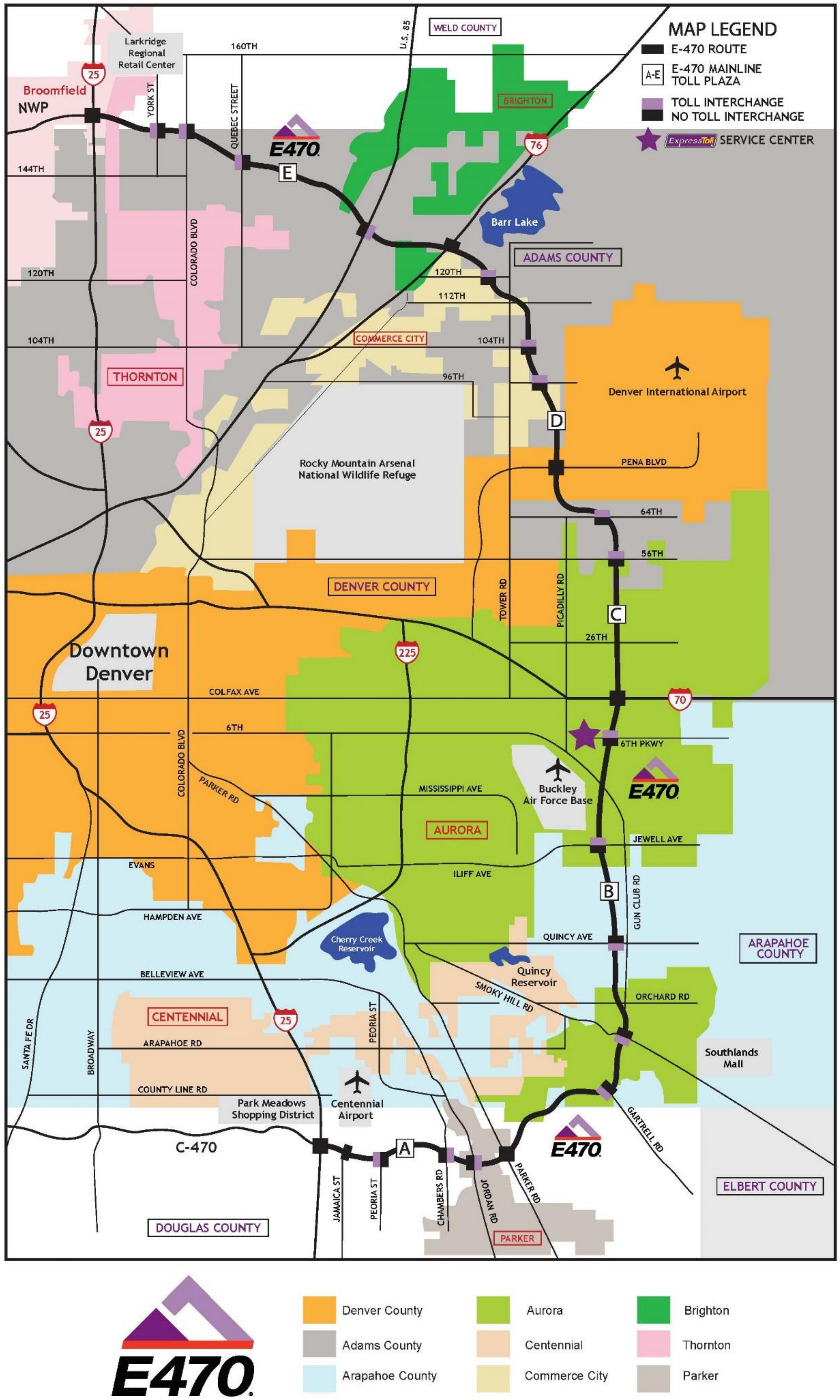
E-470 PUBLIC HIGHWAY AUTHORITY

2019 BASIC FINANCIAL STATEMENTS

DECEMBER 31, 2019 & 2018

(WITH INDEPENDENT AUDITORS' REPORT THEREON)


MAP LEGEND
E-470 ROUTE
A-E
E-470 MAINLINE TOLL PLAZA
TOLL INTERCHANGE
NO TOLL INTERCHANGE
ExpressToll SERVICE CENTER
WELD COUNTY
U.S. 85
160TH
Larkridge Regional Retail Center
Broomfield
NWP
25
YORK ST
QUEBEC STREET
E470
BRIGHTON
76
144TH
E
Barr Lake
ADAMS COUNTY
COLORADO BLVD
120TH
112TH
104TH
COMMERCE CITY
THORNTON
96TH
Denver International Airport
D
Rocky Mountain Arsenal National Wildlife Refuge
PENA BLVD
64TH
56TH
DENVER COUNTY
TOWER RD
PICADILLY RD
C
26TH
Downtown Denver
225
COLFAX AVE
70
6TH
6TH PKWY
PARKER RD
MISSISSIPPI AVE
Buckley Air Force Base
AURORA
JEWELL AVE
EVANS
ILIFF AVE
B
GUN CLUB RD
HAMPDEN AVE
Cherry Creek Reservoir
QUINCY AVE
ARAPAHOE COUNTY
Quincy Reservoir
BELLEVIEW AVE
SMOKY HILL RD
ORCHARD RD
CENTENNIAL
PEORIA ST
SANTA FE DR
BROADWAY
ARAPAHOE RD
Southlands Mall
COUNTY LINE RD
Park Meadows Shopping District
Centennial Airport
GARTRELL RD
C-470
A
ELBERT COUNTY
JAMAICA ST
CHAMBERS RD
JORDAN RD
DOUGLAS COUNTY
PARKER
Denver County
Aurora
Brighton
Adams County
Centennial
Thornton
Arapahoe County
Commerce City
Parker

E-470 PUBLIC HIGHWAY AUTHORITY

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E-470 PUBLIC HIGHWAY AUTHORITY

Management's Discussion and Analysis

December 31, 2019 and 2018

The following is management's discussion and analysis of the financial performance and activity of the E-470 Public Highway Authority (the Authority or E-470) and is designed to provide an introduction and overview that may be used to interpret the basic financial statements as of and for the years ended December 31, 2019 and 2018. This discussion has been prepared by management covering complete data for a three-year period and should be read in conjunction with the basic financial statements and notes thereto, which immediately follow this section.

Authority Overview

E-470 is a toll road that forms a semicircular beltway along the eastern perimeter of the Denver metropolitan area. The 75 mile-per-hour toll road extends 47 miles from State Highway C-470 at I-25, to I-25 at Northwest Parkway, a toll road managed by a separate highway authority. The toll road travels through three counties and five municipalities and provides easy access to Denver International Airport.

The toll road has been financed, constructed, operated, and governed by the Authority, which is a body corporate and political subdivision of the State of Colorado, established in January 1988 with all the powers, duties, and privileges permitted by the Public Highway Authority Law of the State, part 5 of article 4 of title 43, Colorado Revised Statutes, as amended (Public Highway Act). Under the Public Highway Act, the Authority has the power without voter approval, unless limited by the contract creating such authority, to construct, finance, operate, or maintain beltways and other transportation improvements; take private property by condemnation; establish and collect tolls on any highway provided by the Authority; establish and collect a highway expansion fee from persons developing property within the boundaries of the Authority; and issue bonds and pledge its revenue to payment of bonds along with other powers as specified within the Public Highway Act.

The toll road was constructed and opened in segments from 1991 to 2003. Segment I of the toll road, I-25 South to Parker Road, was opened to traffic in June 1991. The northern portion of Segment II, 56th Avenue to 120th Avenue, and the southern portion of Segment III, Parker Road to Smoky Hill Road, opened to traffic in July 1998. In May 1999, the remaining portions of Segments II and III, Smoky Hill Road to 56th Avenue, were opened to link the already operational north and south sections of the E-470 toll road. Segment IV, the final segment of the E-470 toll road, was opened in two sections. The first, from 120th Avenue to U.S. Highway 85, opened in August 2002; the second, from U.S. Highway 85 to I-25 North, opened in January 2003. The four-lane toll road (with five miles consisting of six lanes) has been designed to accommodate future widening up to eight lanes and to allow for the addition of continuous recreation paths and future median mass transit.

The Authority consists of eight member jurisdictions, each of which has an elected official representative that sits on the Authority's board of directors as voting members (the board): Adams, Arapahoe, and Douglas counties, and the municipalities of Aurora, Brighton, Commerce City, Parker, and Thornton. The Authority also has nine nonvoting members including the cities of Arvada, Lone Tree, and Greeley, City and County of Broomfield, Weld County, Denver Regional Council of Governments (DRCOG), Regional Transportation District (RTD), Regional Air Quality Council (RAQC), and the Colorado Department of Transportation (CDOT). Appointments to the board are made annually for both voting and nonvoting members, and are made by the individual jurisdictions.

The Authority provides two options for toll payments – ExpressToll and License Plate Toll (LPT).

ExpressToll is a state-of-the-art electronic system that allows drivers to pass through mainline tolling points and ramps on any Colorado toll facility without stopping or slowing below the prevailing speed limit. ExpressToll customers paid 37% to 39% less in tolls on E-470 in 2019, depending on location, compared to License Plate Toll customers due to a toll differential. ExpressToll currently operates with either the older Title 21 hardcase transponder, the windshield 6c sticker tag, or the newer switchable High Occupancy Vehicle (HOV) transponder that allows tolls to be automatically deducted from a customer's prepaid account as the customer uses a toll facility.

LPT customers are all customers that do not have an ExpressToll account. LPT customers are generally billed on a monthly basis for all accumulated toll transactions through any tolling points (mainline and ramps) on any Colorado toll facility (except Northwest Parkway). Cameras photograph the front and rear license plates of all vehicles and, if the vehicle does not have an ExpressToll account, a statement (bill) is sent to the registered owner of the vehicle. No advance registration is required. LPT customers may also set up a managed account online to prepay tolls, leave a credit card on file, receive statements via email, or pay for tolls prior to a statement being generated.

The Authority provides various back office tolling services to the Northwest Parkway (NWP); High Performance Transportation Enterprise (HPTE), a division of CDOT; and HPTE's concessionaire, Plenary Roads Denver, LLC (Plenary) for their tolled facilities in Colorado. There are managed lane facilities on US-36, I-25 Central, I-70 Mountain Express Lane (MEXL), and I-25 North Segment 2. E-470's tolling back office, labeled and marketed with the ExpressToll+ logo, serves all customers on managed toll facilities (HOV and Express lanes), allowing customers to manage only one account and ensuring a seamless customer experience, regardless of which Colorado toll facility is used. The Authority has provided several other services to HPTE and Plenary, including, but not limited to, integrating and installing toll equipment, toll collection system enhancements and modifications, and system testing and go-live support. The Authority has been providing back office services to CDOT since 2006 and to the Northwest Parkway since 2004.

2019 Financial Highlights

- Transactions on the E-470 toll road experienced growth of 3% from 87.3 million transactions in 2018 to 90.3 million transactions in 2019. This was the highest annual traffic on record and was the 10th straight year of traffic growth for the Authority. Traffic grew 5% from 83.2 million transactions in 2017 to 87.3 million transactions in 2018.
- Operating revenues increased 7% from 2018 to 2019 improving from $249.9 million to $267.7 million, the highest annual revenue on record. Operating revenues grew from $228.2 million to $249.9 million, or 9.5% from 2017 to 2018, respectively.
- Operating expenses, before depreciation, increased 9% from 2018 to 2019 from $52.8 million to $57.4 million. Operating expenses, before depreciation, increased 4% from 2017 to 2018 from $50.6 million to $52.8 million.
- Debt service coverage, a critical measurement of the Authority's annual operations, for fiscal year 2019 was 2.10 versus an original budgeted ratio of 1.98. Debt service coverage for fiscal year 2018 was 2.11 versus a budgeted 1.94 and was 2.12 versus a budgeted 1.75 in 2017.
- In March 2019, the Authority refinanced approximately $72.5 million related to the 2017A LIBOR Index Term Rate bonds. The 2017A bonds were subject to optional early redemption on or after March 1, 2019 with a mandatory tender and remarketing date of September 1, 2019, and the Authority exercised the early redemption option to take advantage of lower interest rates and debt service savings. The successful refunding resulted in the Series 2019A LIBOR Index Term Rate bonds of $72.5 million with no change to the principal amounts or maturities. The issuance of the Series 2019A LIBOR Index bonds saved the Authority over 48 basis points (bps) in monthly interest costs. In conjunction with the bond transaction, the Authority received reaffirmed ratings from both S&P and Moody's at A and A2, respectively. Moody's moved to a positive outlook. The Authority officially dropped the Fitch rating, as it is not required, but subsequently received a two notch rating upgrade to A from Fitch later in 2019.
- Also in conjunction with the bond transaction, the Authority removed the swap insurance on the two interest rate swaps that have been insured by MBIA – administered by National Public Finance Guarantee (NPFG) since 2007 and paid the swap counterparties a total of $974 thousand to terminate the policies. This was done in part due to negotiations with NPFG and based on the insurer rights within the swap and bond documents and will benefit the Authority in the future with greater flexibility for any swap changes.
- During 2019, the Authority began construction of the significant multiyear widening project to expand E-470 from two lanes to three lanes in each direction from Quincy Avenue to I-70. Construction is on schedule to be completed in 2020 with a total budgeted project cost of $98.3 million over a three-year period. The Capital Improvements Fund of the General Surplus account will fund all costs of the widening project along with the Authority's entire five-year capital budget program.
- E-470's back office toll collection system processed approximately 28.3 million and 27.7 million tolled transactions on other roadways in 2019 and 2018, respectively. There were no new toll facilities opened in 2019 for which E-470 provides back office services. Toll collection or system costs originally incurred by the Authority for services provided to other entities are charged to the applicable entity (CDOT, HPTE, Plenary, or NWP). Tolling services revenues to recover these costs in 2019 and 2018 totaled approximately $7.5 million and $7.1 million, respectively.

- The Authority's board of directors voted in November 2018 to reaffirm the Authority's existing toll rate structure for 2019, which continued to freeze ExpressToll rates at 2017 levels and modified the LPT premium to approximately 58% over ExpressToll. The forecasts with the 2019 toll rate structure support the Authority's debt management plan to achieve level debt service in the near future and projected capital funding needs, and the toll rate structure is subject to annual board affirmation.

  The 2019 ExpressToll rate for a two-axle vehicle was $2.70 at mainline toll plazas A and C and $2.95 at mainline toll plazas B, D, and E. ExpressToll rates increase incrementally at the mainline toll plazas if the vehicle has more than two axles. All ramp tolling points charged a rate of $1.25 (regardless of axle count) for ExpressToll accounts. The 2019 LPT toll rate for a two-axle vehicle was $4.30 at mainline toll plazas A and C and $4.65 at mainline toll plazas B, D, and E. LPT toll rates also increase incrementally at the mainline toll plazas if the vehicle has more than two axles. All ramp tolling points charged a rate of $2.05 (regardless of axles) for LPT accounts.

Summary of Operations

The Authority's operating revenues, which include toll revenues, other toll-related fees, and tolling services revenues, for 2019 were $267.7 million, a 7% increase over the $249.9 million in 2018. Toll revenues, net of related bad debts, were $249.0 million and $233.1 million of total operating revenues in 2019 and 2018, respectively. This increase is primarily due to increased overall toll transactions of 3% from 2018 and an incremental toll increase for LPT customers beginning on January 1, 2019 for all tolling points. Toll revenues, net of related bad debts, for fiscal year 2019 were $0.4 million above the $248.6 million 2019 operating budget. Traffic on E-470 during 2019 combined for 90.3 million transactions, with approximately 73% of the corresponding toll revenues coming from ExpressToll accounts. Operating revenues for 2018 were $249.9 million, a 9.5% increase over the $228.2 million in 2017. This increase is primarily due to increased overall toll transactions of 5% from 2017 and an incremental toll increase for LPT customers beginning on January 1, 2018 for all tolling points. Operating revenues for 2017 were $228.2 million, an 11% increase over 2016, which was also due to increased overall toll transactions and an incremental toll increase beginning on January 1, 2017.

Total operating expenses, before depreciation, for 2019 were $57.4 million, a 9% increase over the $52.8 million in 2018. The increase is primarily due to higher toll collection costs from the 3% increase in E-470 toll transaction volume in 2019, coupled with a 2% increase in tolled transactions incurred on other Colorado toll facilities. Costs incurred for other toll facilities are recovered and recorded as tolling services revenue. Costs such as call center and administrative law court labor, operations support labor, registered vehicle owner information retrieval, credit card fees, snow plows and snow removal materials, and law enforcement, offset by a decrease in image processing labor and printing and postage on bills and notices, accounted for $3.3 million of the overall $4.6 million increase from prior year. There were no other individually significant fluctuations. Total operating expenses, before depreciation, for 2018 were $52.8 million, a 4% increase over the $50.6 million in 2017. The increase is primarily due to higher toll collection costs from the 5% increase in E-470 toll transaction volume in 2018, coupled with a 15% increase in tolled transactions incurred on other Colorado toll facilities. Costs incurred for other toll facilities are recovered and recorded as tolling services revenue. Costs such as call center and administrative law court labor, printing and postage on bills and notices, registered vehicle owner information retrieval, credit card fees, and law enforcement, offset by a decrease in image processing labor, accounted for $1.7 million of the overall $2.2 million increase from prior year. There were no other individually significant fluctuations.

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Senior Revenue Bond principal and interest payments from the senior debt service fund during 2019 and 2018 were $108.8 million and $101.7 million, respectively, on the Series 1997, 2000, 2007, 2010, 2015, 2017, and 2019 bonds, and includes the interest rate swap differentials. In 2019 and 2018, $0 and approximately $1.5 million in principal and interest was due and separately paid on the Series 2009 Vehicle Registration Fee (VRF) bonds, respectively. In 2018, all principal and interest was paid from the VRF Bonds Debt Service account, which was funded from current year VRF revenues as specified in the Master and Supplemental Bond Resolutions (the Bond Resolutions). The VRF bonds matured on September 1, 2018. The Authority's board of directors voted in April 2018 to discontinue collection of the $10 annual vehicle registration fee, effective August 1, 2018, which was assessed on certain areas within Adams, Arapahoe, and Douglas counties and pledged to the VRF bonds. Debt service coverage for 2019 was 2.10, compared to 2.11 in 2018 and 2.12 in 2017. The Bond Resolutions require producing net revenues of at least 1.30 times the aggregate senior debt service due for the year.

Overview of Basic Financial Statements

The Authority only engages in business-type activities. These activities are intended to recover all related costs through user fee charges (tolls) to external customers for services provided. The Authority reports its business-type activities in a single enterprise fund, meaning that its activities are operated and reported like a private-sector business. The Authority's basic financial statements include comparative statements of net position; statements of revenues, expenses, and changes in net position; and the statements of cash flows. Also included are the notes to the basic financial statements that provide more detailed information. These basic financial statements are prepared in accordance with accounting principles generally accepted in the United States of America as promulgated by the Governmental Accounting Standards Board (GASB).

The Authority's net position comprises the following components:

- *Net investment in capital assets* – Consists of the Authority's investment in capital assets (e.g., land, buildings, equipment, and infrastructure), net of accumulated depreciation, and deferred outflows of resources, reduced by the outstanding balances of bonds that are attributable to the acquisition, construction, or improvement of those assets. The Authority uses these capital assets to provide services to the public; consequently, these assets are not available for future spending.
- *Restricted for debt service* – Represents resources that are subject to external restrictions on how they may be used, and consists of restricted assets reduced by restricted liabilities whereby these restricted liabilities will generally be liquidated with the restricted assets reported.
- *Unrestricted* – Represents resources that may be used to meet the Authority's ongoing obligations to the public and creditors, and are not included in the determination of net investment in capital assets or restricted for debt service components of net position.

Financial Results and Analysis

Summary of Net Position

	2019	2018	2017
Current assets:			
Current unrestricted assets	$ 325,447,095	227,185,589	201,154,684
Current restricted assets	68,701,055	60,908,939	58,604,634
Total current assets	394,148,150	288,094,528	259,759,318
Noncurrent assets:			
Capital assets, net of accumulated depreciation	587,788,716	587,620,002	618,593,181
Other noncurrent assets	246,820,262	266,027,527	200,102,207
Total noncurrent assets	834,608,978	853,647,529	818,695,388
Total assets	1,228,757,128	1,141,742,057	1,078,454,706
Deferred outflows of resources	$ 60,577,101	68,823,204	78,298,009
Total assets and deferred outflows of resources	$ 1,289,334,229	1,210,565,261	1,156,752,715
Current liabilities:			
Current liabilities payable from unrestricted assets	$ 53,290,607	42,610,193	42,409,279
Current liabilities payable from restricted assets	103,883,264	98,888,765	92,487,793
Total current liabilities	157,173,871	141,498,958	134,897,072
Noncurrent liabilities	1,387,732,751	1,408,119,215	1,441,468,553
Total liabilities	1,544,906,622	1,549,618,173	1,576,365,625
Total net position	(255,572,393)	(339,052,912)	(419,612,910)
Total liabilities and net position	$ 1,289,334,229	1,210,565,261	1,156,752,715

The largest portion of the Authority's assets is noncurrent. Approximately 48% and 51% of the total assets are capital assets (e.g., infrastructure, buildings, equipment, and other), net of accumulated depreciation as of December 31, 2019 and 2018, respectively. The Authority uses these capital assets to provide services, and consequently, these assets are not available to liquidate liabilities or for other future spending. The acquisition of capital assets was primarily financed from revenue bond proceeds, with capital assets over the past 12 years being financed with unrestricted funds. Approximately $565.0 million, or 46%, and $488.4 million, or 43%, of the total assets are cash equivalents and investments as of December 31, 2019 and 2018, respectively. Of these amounts, approximately $374.8 million and $310.8 million are within the General Surplus accounts as of December 31, 2019 and 2018, respectively, which have specific purposes, such as fully funding the Authority's future capital budget and bond defeasances. Noncurrent bonds payable was approximately 96% and 97% of total noncurrent liabilities in 2019 and 2018, respectively. Total current liabilities were $157.2 million and

$141.5 million at the end of 2019 and 2018, respectively. Of the total current liabilities, $104.1 million (66%) and $99.1 million (70%) for 2019 and 2018, respectively, were current bonds payable, current notes payable, and related accrued interest payable. These liabilities are to be paid from current assets and the subsequent year's operating and nonoperating revenue as allowed under the Bond Resolutions.

Capital Assets

Total capital assets (gross), including construction in progress, increased from $1,206 million in 2018 to $1,247 million in 2019. Accumulated depreciation reduced the year-end capital asset balances to $587.8 million in 2019 and $587.6 million in 2018. During 2019, the Authority expended approximately $43.2 million on capital projects and successfully completed capital projects totaling $16.4 million, which were closed from construction in progress to their respective capital asset accounts. The major projects completed include a three-mile section of the widening project comprising one southbound lane from Jewell Avenue to Quincy Avenue, the purchase of temporary concrete barriers for use in the current and future widening projects, replacement of rooftop heating, ventilation, and air conditioning (HVAC) units at the Authority's headquarters building, and various enhancements to the Authority's toll collection system and technical environment. During 2018, the Authority expended approximately $10.6 million on capital projects and successfully completed capital projects totaling $10.5 million, which were closed from construction in progress to their respective capital asset accounts. The major projects completed include the remaining wrap-up work related to the multiyear widening project from Parker Road to Quincy Avenue, upgrades to fire sprinklers and computer room air conditioning units, and various enhancements to the Authority's toll collection system and technical environment. During 2017, the Authority expended approximately $62.7 million on capital projects and successfully completed capital projects totaling $87.4 million, when including completed multiyear projects, which were closed from construction in progress to their respective capital asset accounts. The major projects completed include the remaining sections of the multiyear widening project, comprising one additional southbound lane from Quincy Avenue to Gartrell Road and one additional northbound lane from Parker Road to Quincy Avenue, a parking lot expansion at the Authority's headquarters building, new variable message signs, and various enhancements to the Authority's toll collection system and technical environment.

Summary of Revenue, Expenses, and Changes in Net Position

		2019	2018	2017
Operating revenues	$	267,666,532	249,856,733	228,211,743
Operating expenses before depreciation		(57,361,364)	(52,765,319)	(50,592,826)
Depreciation		(42,057,059)	(41,395,965)	(37,831,366)
Operating income		168,248,109	155,695,449	139,787,551
Nonoperating revenues (expenses):				
Vehicle registration fees		—	5,310,264	10,510,715
Interest expenses		(92,648,504)	(92,788,811)	(96,378,233)
Investment revenues, net		5,107,228	14,027,150	5,978,982
Intergovernmental revenue		1,109,107	—	—
Other income		1,664,579	1,338,546	4,720,552
Total nonoperating expenses		(84,767,590)	(72,112,851)	(75,167,984)
Loss before intergovernmental expense		83,480,519	83,582,598	64,619,567
Intergovernmental expense		—	(3,022,600)	—
Change in net position		83,480,519	80,559,998	64,619,567
Net position, beginning of year		(339,052,912)	(419,612,910)	(484,232,477)
Net position, end of year	$	(255,572,393)	(339,052,912)	(419,612,910)

Operating revenues (which include tolls, other toll-related fees, and tolling services revenues) in 2019 and 2018 were $267.7 million and $249.9 million, respectively, an increase of 7% over 2018. Operating expenses before depreciation increased by $4.6 million to $57.4 million in 2019. Depreciation expense increased by $0.7 million to $42.1 million in 2019. Overall, operating income increased by $12.5 million from 2018 to $168.2 million. Total net nonoperating expenses increased by $12.7 million to $84.8 million in 2019, which was attributed to changes in interest rates and the corresponding effect on the change in fair value of derivative instruments and investments of $12.7 million, an increase in interest earned on investments of $3.8 million, a decrease in interest expenses of $0.1 million, an increase in intergovernmental and other revenue of $1.4 million, offset by a decrease in vehicle registration fee revenues of $5.3 million, which were eliminated in August 2018. The overall increase in net position was $83.5 million in 2019, which is $2.9 million more than the increase in net position of $80.6 million in 2018.

Operating revenues in 2018 and 2017 were $249.9 million and $228.2 million, respectively, an increase of 9.5% over 2017. Operating expenses before depreciation increased by $2.2 million to $52.8 million in 2018. Depreciation expense increased by $3.6 million to $41.4 million in 2018. Overall, operating income increased by $15.9 million from 2017 to $155.7 million. Total net nonoperating expenses decreased by $3.1 million to $72.1 million in 2018, which was attributed to changes in interest rates and the corresponding effect on the change in fair value of derivative instruments and investments of $4.6 million, an increase in interest earned on investments of $3.4 million, a decrease in interest expenses of $3.6 million, offset by a decrease in vehicle

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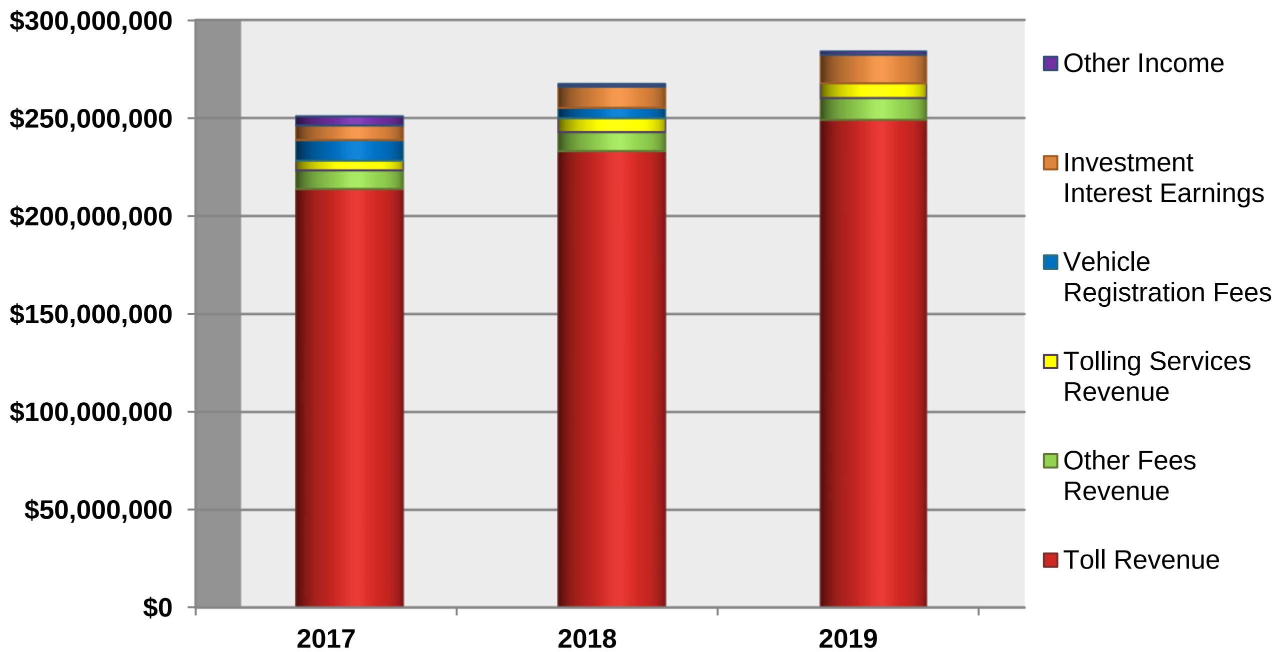
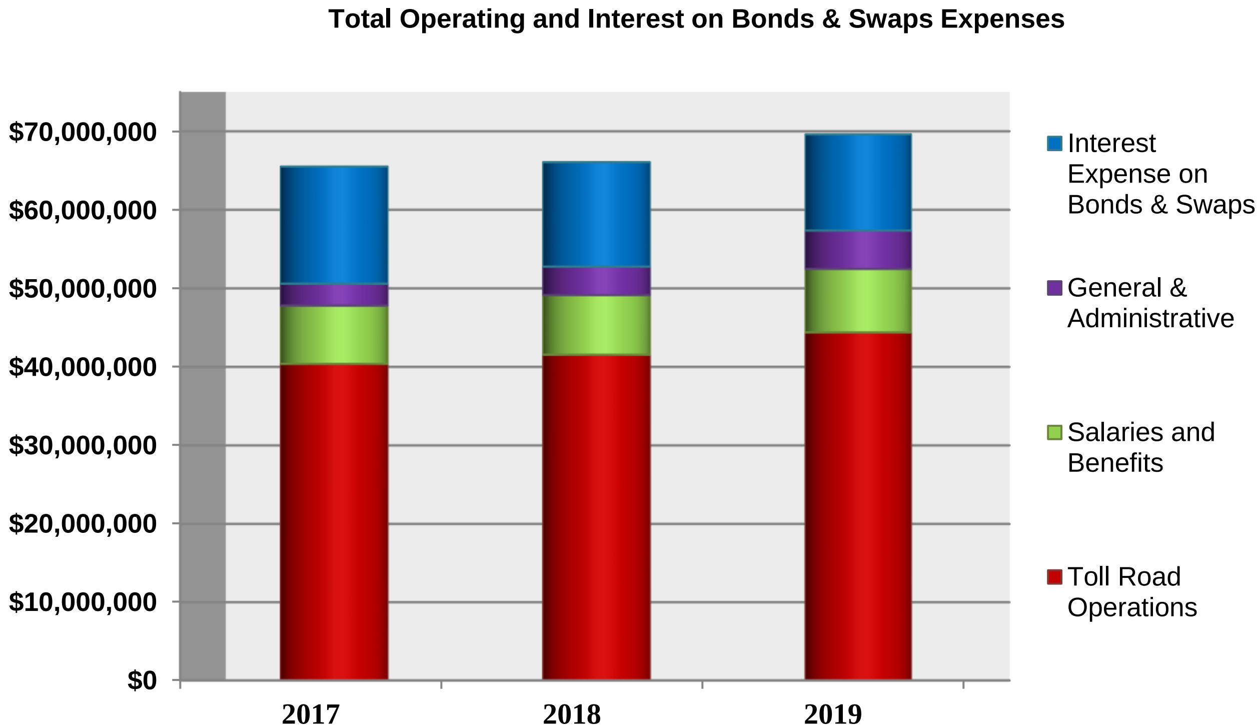
registration fee revenues, and other income of $8.5 million. The overall increase in net position was $80.6 million in 2018, which is $16.0 million more than the increase in net position of $64.6 million in 2017.

Total Operating and Nonoperating Revenues



Operating and nonoperating revenues included in the chart above for 2019, 2018, and 2017 were $283.9 million, $267.3 million, and $250.9 million, respectively.



Total operating expenses, before depreciation and including nonoperating interest expense on bonds and interest rate swaps for 2019 and 2018, were $69.6 million and $66.1 million, respectively. Toll road operations expenses increased by $2.9 million to $44.4 million in 2019 versus $41.5 million in 2018. The increase is primarily due to higher toll collection costs from the 3% increase in E-470 toll transaction volume in 2019, coupled with a 2% increase in tolled transactions incurred on other Colorado toll facilities. Costs incurred for other toll facilities are recovered and recorded as tolling services revenue. These increased costs include call center and administrative law court labor, operations support labor, registered vehicle owner information retrieval, credit card fees, snow plows and snow removal materials, and law enforcement, offset by a decrease in image processing labor and printing and postage on bills and notices. Nonoperating interest expenses on bonds and swaps decreased from $13.3 million in 2018 to $12.2 million in 2019 due primarily to interest savings resulting from lower interest rates achieved in conjunction with the 2019A bond transaction as well as scheduled principal payments made in September 2018 on various bond series.

Total operating expenses, before depreciation and including nonoperating interest expense on bonds and interest rate swaps for 2018 and 2017, were $66.1 million and $65.5 million, respectively. Toll road operations expenses increased by $1.1 million to $41.5 million in 2018 versus $40.4 million in 2017. The increase is primarily due to higher toll collection costs from the 5% increase in E-470 toll transaction volume in 2018, coupled with a 15% increase in tolled transactions incurred on other Colorado toll facilities. Costs incurred for other toll facilities are recovered and recorded as tolling services revenue. These increased costs include call center and administrative law court labor, printing and postage on bills and notices, registered vehicle owner information retrieval, credit card fees, and law enforcement, offset by a decrease in image processing labor. Nonoperating interest expenses on bonds and swaps decreased from $14.9 million in 2017 to $13.3 million in 2018 due primarily to interest savings resulting from scheduled principal payments made in September 2017 on various bond series.

Debt Administration and Debt Service

In 2019, principal and interest paid on Senior Bond debt from restricted debt service totaling $108.8 million consisted of $44.8 million in Series 1997 bonds, $33.1 million in Series 2000 bonds, $4.3 million in Series 2010 bonds, $20.2 million in Series 2015 bonds, $2.2 million in Series 2017 bonds, $1.0 million in series 2019 bonds, and $3.2 million on the two interest rate swaps settlement differential.

In 2018, principal and interest paid on Senior Bond debt from restricted debt service totaling $101.7 million consisted of $44.8 million in Series 1997 bonds, $31.1 million in Series 2000 bonds, $12.8 million in Series 2007 bonds, $4.3 million in Series 2010 bonds, $2.0 million in Series 2015 bonds, $3.2 million in Series 2017 bonds, and $3.5 million on the two interest rate swaps settlement differential. The Authority also paid approximately $1.5 million on the Series 2009 VRF bonds from the VRF Bonds Debt Service account, which was funded from current year VRF revenues as specified in the Bond Resolutions.

In 2017, principal and interest paid on Senior Bond debt from restricted debt service totaling $95.2 million consisted of $44.8 million in Series 1997 bonds, $15.8 million in Series 2004 bonds, $21.3 million in Series 2007 bonds, $4.4 million in Series 2010 bonds, $0.3 million in Series 2014 bonds, $2.5 million in Series 2015 bonds, $1.8 million in Series 2017 bonds, and $4.3 million on the two interest rate swaps settlement differential. The Authority also paid approximately $2.5 million on the Series 2009 VRF bonds of which approximately $1.4 million was funded from the from the restricted VRF account and approximately $1.1 million was paid from the VRF Bonds Debt Service account, which was funded from current year VRF revenues as specified in the Bond Resolutions.

Bonds payable includes current interest bonds (CIB), capital appreciation bonds (CAB), and LIBOR index bonds, consisting of both new issue and refunded bonds of the Authority.

E-470 Revenue Bonds Outstanding Principal

	2019	2018
Series 1997 B Capital Appreciation	$ 258,395,800	287,937,434
Series 2000 B Capital Appreciation	451,311,822	455,968,493
Series 2004 A Capital Appreciation	170,322,082	161,484,709
Series 2004 B Capital Appreciation	164,117,722	155,174,007
Series 2006 B Capital Appreciation	110,725,706	105,315,920
Series 2010 A Capital Appreciation	41,499,938	38,696,790
Series 2010 C Current Interest	81,655,000	81,655,000
Series 2015 A Current Interest	20,590,000	38,985,000
Series 2017 A LIBOR Notes	—	72,565,000
Series 2017 B LIBOR Notes	66,075,000	66,075,000
Series 2019 A LIBOR Notes	72,565,000	—
Premiums, net of discounts	244,707	852,730
Total	$ 1,437,502,777	1,464,710,083

The Authority actively manages its debt based on the current debt profile and market opportunities as they relate to the overall operating condition of the Authority. Below is a summary of the significant debt management activities in 2019 and 2018:

- In March 2019, the Authority refinanced approximately $72.5 million related to the 2017A LIBOR Index Term Rate bonds, as this series was subject to optional early redemption on or after March 1, 2019 with a mandatory tender and remarketing date of September 1, 2019. The Authority exercised the early redemption option to take advantage of low interest rates and debt service savings. The successful refunding resulted in the Series 2019A LIBOR Index Term Rate bonds with no change to the principal amounts or maturities. The Series 2017A bonds of $72.5 million paid interest each month based on the previous period's final calculated LIBOR market pricing plus 90 basis points (0.90%), which was refunded with the new Series 2019A LIBOR Index bonds plus 42 basis points (0.42%) over a two and a half year term, saving the Authority over 0.48% in monthly interest costs. Lastly, in February 2019 and related to this transaction, the Authority removed the swap insurance on the two interest rate swaps that have been insured by MBIA – administered by National Public Finance Guarantee (NPFG) since 2007 and paid the swap counterparties a total of $974 thousand to terminate the policies. This was done in part due to negotiations with NPFG and based on the insurer rights within the swap and bond documents and will benefit the Authority in the future with greater flexibility for any swap changes. The Authority retained the 67% of one-month LIBOR convention on the bonds to match the associated index of the interest rate swaps and eliminate basis risk.
- The provisions of GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, are applicable to the Authority due to the two remaining 2007 pay-fixed interest rate swaps. The notional amounts on the two swaps in total correspond with specific maturities of the Series 2017 and 2019 bonds.

The swaps were determined to be investment derivatives as of December 31, 2019 and 2018 with a net liability fair value of $50.2 million and $37.8 million, respectively, and derivative instruments investment loss of $12.3 million in 2019 and gain of $5.7 million in 2018. The Authority values the interest rate swap derivatives at fair value in accordance with GASB Statement No. 72, *Fair Value Measurement and Application.*

As of December 31, 2019, the Authority maintains underlying senior bonds ratings from Moody's and Standard and Poor's. Standard and Poor's and Moody's reaffirmed the Authority's rating in conjunction with the 2019 bond transaction based on the continued financial strength, positive traffic and revenue trends, liquidity, and upcoming debt restructuring opportunities to achieve level annual debt service. Standard and Poor's kept the Authority at a stable outlook, while Moody's moved the Authority to a positive outlook at December 31, 2019. The Authority did not request a Fitch rating in conjunction with the 2019 bond transaction. Fitch subsequently upgraded the Authority two notches in 2019, though the Authority is not required to carry the Fitch rating and does not intend to request a Fitch rating on future bond transactions.

Ratings and outlook as of December 31, 2019:

	Rating	Outlook
Rating agency:		
Moody's	A2	Stable
Standard and Poor's	A	Positive
Fitch	A	Stable

Notes Payable

The Authority entered into an intergovernmental agreement with Douglas County in 2003 to receive contributed funds for costs of the Jamaica Road interchange ramp construction. Based on this agreement, the remaining contributed funds as of 2008 of $2.4 million are to be repaid in 10 equal payments (noninterest-bearing) beginning in 2011. The annual payment of $0.24 million is made from unrestricted funds, and the final scheduled payment occurs in January 2020.

	2019	2018	2017
Local member jurisdiction (Douglas County)	$ 240,769	481,538	722,308

Economic Factors

Estimates by the Authority's traffic and revenue consultant are shown against actual toll revenue, net of uncollectible amounts for the fiscal years ended 2019, 2018, and 2017. The Authority has engaged a traffic and revenue consultant to conduct investment-grade traffic and revenue studies and updated reviews over the years based on current economic conditions of surrounding areas and bond refunding transactions. The Authority conducted a toll rate study during 2017, which was finalized and published in January 2018. The 2018 study refined future traffic and revenue forecasts from the previous 2017 update letter by considering the new toll rate structure, actual historical growth, current economic conditions, future transportation forecasts, and development plans for the Authority, local jurisdictions, and the state in the surrounding area. Based on this

(Continued)

underlying 2018 study, the Authority obtained an update letter dated December 2018 in conjunction with the 2019 bond transaction. The 2019 forecast figure below is from the bring down letter dated December 2018, while the 2018 forecast figure is from the toll rate report dated January 2018, and the 2017 forecast figure is from the 2017 update letter. The toll forecasts may differ from the Authority's budget, and only includes the toll revenue, net of estimated bad debts, and excludes the Authority's other toll-related fees that are included in operating revenues during the reporting period.

Transactions (Annual Total)

Year	ExpressToll	LPT	Total traffic	Forecast	Variance	Percentage variance
2019	65,832,535	24,447,035	90,279,570	92,311,000	(2,031,430)	(2.20)
2018	64,198,257	23,140,543	87,338,800	90,836,000	(3,497,200)	(3.85)
2017	59,466,183	23,708,987	83,175,170	84,118,000	(942,830)	(1.12)

Toll Revenues, Net (Annual Total)

Year	ExpressToll	LPT	Total toll revenue	Forecast	Variance	Percentage variance
2019	182,952,082	66,061,014	249,013,096	248,626,000	387,096	0.16
2018	171,031,824	62,056,503	233,088,327	246,318,000	(13,229,673)	(5.37)
2017	159,127,687	54,637,962	213,765,649	207,935,000	5,830,649	2.80

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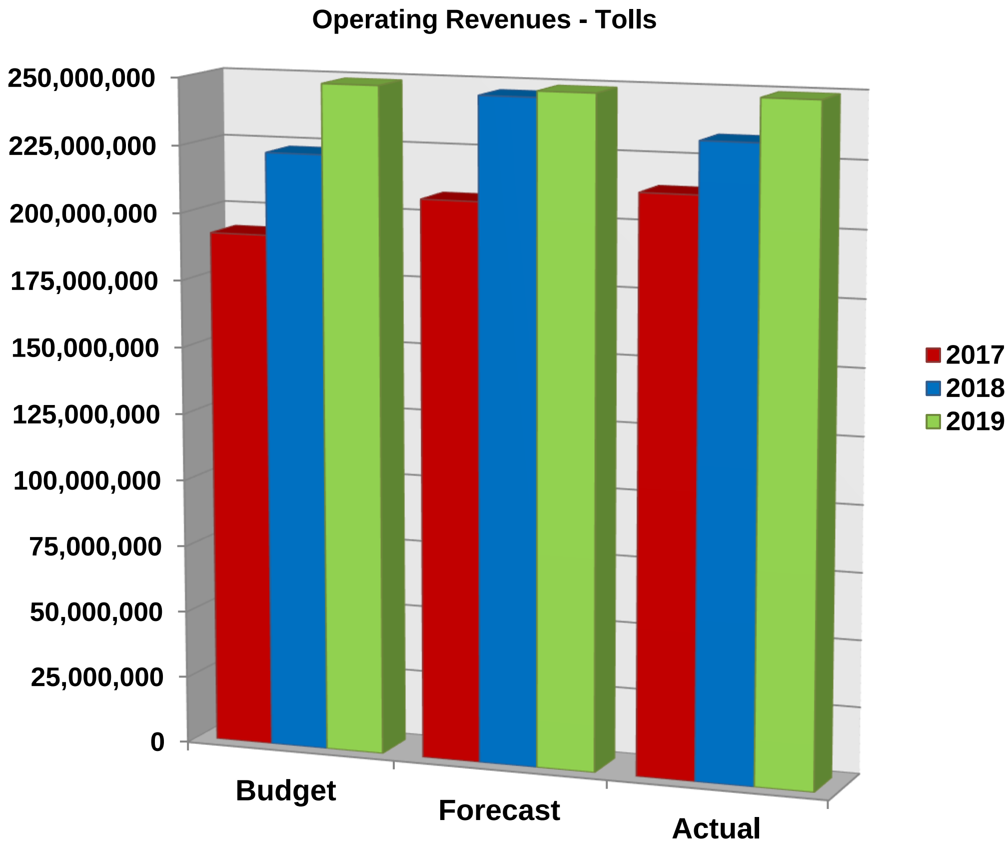

Budget Results

The Authority is required under state law and board resolutions to prepare an annual budget of operating and capital outlays as well as debt service due in the upcoming year. The annual budget is approved by the Authority's board of directors before the budget (calendar) year begins. Appropriations generally do not carry over to future periods, and overall net outlay overages, or budget amendments, require additional approval by the board. The original approved budget by the board is generally considered the final budget. The budget is recorded on the Authority's budget basis and conforms to the Bond Resolutions Revenue Covenant calculation. Refer to the Supplementary Information – Revenue Covenant section for reconciliation to the basic financial statements for operating balances and senior debt service due. Further, toll revenue amounts budgeted by management may differ from the traffic and revenue consultant's forecasts.

The following is a summary of the Authority's 2019 operating budget compared to the actual results, as well as the capital budget compared to the actual results as of and for the year ended December 31, 2019:

		2019 Budget	2019 Results	Variance	Percentage variance
Total revenue	$	275,015,500	282,408,836	7,393,336	3 %
Total operating expenditures		(58,059,900)	(54,333,954)	3,725,946	(6)
Net revenue		216,955,600	228,074,882	11,119,282	5
Less VRF bonds debt service due				—	
Senior debt service due		109,500,000	108,844,013	(655,987)	(1)
Debt service coverage ratio		1.98	2.10	0.12	6 %
Capital and renewal and replacement costs	$	70,724,100	46,051,150	(24,672,950)	(35)%

During 2019, the original budget was the final approved budget and total budgeted operating revenues ended $7.4 million, or 3%, over budget. This is primarily due to unrestricted investment income ending over budget by $4.8 million, as well as net toll revenues and toll fees ending over budget by $0.4 million and $1.2 million, respectively, from the higher than budgeted traffic during the year, coupled with the new LPT toll rates implemented on January 1, 2019. Total operating expenses ended $3.7 million, or 6%, under budget, which is mainly attributable to lower than expected snow removal costs due to a drier than average winter and lower than budgeted customer service and image review labor costs. These final budget results led to a debt service coverage ratio of 2.10, which is greater than the original budgeted ratio of 1.98 for 2019.

Capital and renewal and replacement costs, which are excluded from the debt service coverage ratio as specified in the Bond Resolutions and fully paid from unrestricted funds, were $24.7 million, or 35%, under budget. This variance is due to overall capital projects coming in under budget for items, such as roadway and facility maintenance; technology upgrades and enhancements; and construction projects, such as interchange improvements, where budgeted projects were either completed under budget or postponed until future years and will be grouped with larger capital projects to achieve economies of scale.

(Continued)

The following is a summary of the Authority's 2018 operating budget compared to the actual results, as well as the capital budget compared to the actual results as of and for the year ended December 31, 2018:

		2018 Budget	2018 Results	Variance	Percentage variance
Total revenue	$	251,587,000	266,108,940	14,521,940	6 %
Total operating expenditures		(54,745,700)	(49,809,319)	4,936,381	(9)
Net revenue		196,841,300	216,299,621	19,458,321	10
Less VRF bonds debt service due		—	(1,464,750)	(1,464,750)	100
Senior debt service due		101,684,600	101,729,596	44,996	—
Debt service coverage ratio		1.94	2.11	0.17	9 %
Capital and renewal and replacement costs	$	48,260,800	18,759,305	(29,501,495)	(61)%

During 2018, the original budget was the final approved budget and total budgeted operating revenues ended $14.5 million, or 6%, over budget. This is primarily due to net toll revenues and toll fees ending over budget by $10.5 million and $1.7 million, respectively, from the higher than budgeted traffic during the year, as the 2018 budget was based on the CDM Smith 2017 bring down letter, coupled with the new LPT toll rates implemented on January 1, 2018. Total operating expenses ended $4.9 million, or 9%, under budget, which is mainly attributable to lower than expected snow removal costs due to a drier than average winter and lower than budgeted customer service and image review labor costs. These final budget results led to a debt service coverage ratio of 2.11, which is greater than the original budgeted ratio of 1.94 for 2018.

Capital and renewal and replacement costs, which are excluded from the debt service coverage ratio as specified in the Bond Resolutions and fully paid from unrestricted funds, were $29.5 million, or 61%, under budget. This variance is due to overall capital projects coming in under budget for items, such as roadway and facility maintenance; technology upgrades and enhancements; and construction projects, such as interchange improvements and pavement resurfacing, where budgeted projects were either completed under budget or postponed until future years and will be grouped with larger projects to achieve economies of scale.

Reserves Management

Pursuant to the Bond Resolutions, the Authority is required to maintain reserve accounts, including the Senior Bonds Debt Service Reserve Fund and an Operating Reserve Fund. In addition, a General Surplus account is maintained in accordance with the Bond Resolutions. The General Surplus account is unrestricted and is currently divided into three subaccount funds for administrative purposes: the Senior Bonds Defeasance Fund, the Capital Improvements Fund, and the Rainy Day Fund. At December 31, 2019 and 2018, all required and restricted reserves were fully funded as specified by the Bond Resolutions.

Tolling Services Agreements

The Authority entered into a tolling services agreement with HPTE for tolled facilities on I-25 North and I-70 Mountain Express Lanes, a tolling services agreement with HPTE and its concessionaire, Plenary, for tolled facilities on US-36 and I-25 Central, as well as a tolling services agreement with NWP to provide certain electronic toll collection back office services. Back office services occur after toll commencement on each toll facility and include major items, such as maintenance of the toll system and website, toll billing and collections, license plate image review, and provision of the customer service center. These agreements provide economies of scale for toll collection costs and seamless interoperability for customers on Colorado toll facilities, allowing them to maintain and manage one toll account. As part of the agreements, the Authority collects electronic tolls for the other tolling facilities and transfers the funds daily to NWP (ExpressToll only) and to HPTE/Plenary (ExpressToll and LPT) for transactions that occurred and were collected on their toll facilities. The tolls collected and remitted on behalf of other entities are not included in the basic financial statements of the Authority. Costs incurred are recovered by tolling services revenues charged to NWP, HPTE, and Plenary for their share of toll collection costs that are included in operating expenses on the statements of revenues, expenses, and changes in net position. These revenues totaled $7.5 million and $7.1 million in 2019 and 2018, respectively.

Future Management Plans

In 2018, the Authority began design work on the next projected segment for widening from two lanes to three lanes in each direction between Quincy Avenue and I-70. This multiyear project began construction in 2019 and is scheduled to be completed in 2020 with a total budgeted project cost of $98.3 million to be funded from the Authority's Capital Improvements Fund of the General Surplus account. The Authority has budgeted and anticipated approximately $63 million to be expended in 2020 to complete the project, which includes construction and completion of the Quincy Avenue ramps redesign totaling approximately $9 million. Other major projects planned in 2020 include expansion of a new storage facility at Maintenance Support Site A, totaling $4.6 million for additional snow removal material and plow storage, as well as beginning a system-wide modernization of tolling lane equipment. A consultant was employed to help the Authority solicit proposals for implementation of next generation toll lane software and equipment along the E-470 toll road. The Authority conducted an RFQ in 2018 and 2019 and shortlisted the respondents to four qualified companies. The evaluation is underway to determine if new toll lane software and equipment should be installed at all tolling points along the corridor. The RFP responses were received in October 2019 and the Authority's staff has selected a preferred vendor, Electronic Transaction Consultants Corporation (ETCC), a Texas Corporation, and commenced negotiations during the first quarter of 2020 that will likely go into the second quarter. The Authority's board will ultimately approve the final contract assuming successful contract negotiations. At this time, the impact on the Authority operations or financial status, if any, is not known.

Additionally, a consultant has been employed to help the Authority solicit proposals from development entities interested in repurposing or redeveloping the abandoned mainline toll plaza locations along the E-470 roadway. There are four toll plazas under consideration comprising all locations except Toll Plaza C, just north of I-70, with both northbound and southbound locations eligible for potential development as part of the RFP. This may include service stations (food, fuel, rest areas, etc.), office space, or other uses that would benefit the Authority, and rent would be charged under a master lease agreement. The RFP responses were received in December 2019 and the procurement process is ongoing. The current schedule anticipates finalizing the lease(s) and/or

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agreement(s) by the end of 2020 with development starting thereafter. At this time, the impact on Authority operations or financial status, if any, is unknown.

Regarding 2020 toll rates, in November 2019, the Authority's board of directors approved and adopted Resolution 19-03, "Regarding the Adoption of a Toll Rate Schedule," to adjust and restructure the toll rates for 2020 for commercial vehicles and LPT customers. For commercial vehicles classified as three+ axles, which represents approximately 4% of total transactions on the E-470 toll road, the Authority enacted a two-year pilot program to encourage commercial vehicles to use the roadway during non-peak hours between 9:00 a.m. and 12:00 p.m. daily. The pilot program provides for an overall approximate 5% discount from the ExpressToll base rate for three+ axle vehicles, and provides a reduction for multi-axle vehicles of 25% from the ExpressToll base rate for each additional axle during the hours of 12:00 p.m. to 9:00 a.m. daily. The board also approved a freeze of the LPT toll rates to remain at the 2019 level. The 2020 ExpressToll rate for a two-axle vehicle is $2.70 at mainline toll plazas A and C; $2.95 at mainline toll plazas B, D, and E; and $1.25 at all ramp tolling points, which remain flat with 2017 through 2019 rates. ExpressToll rates increase incrementally at the mainline toll plazas if the vehicle has more than two axles. The 2020 LPT toll rate for a two-axle vehicle is $4.30 at mainline toll plazas A and C; $4.65 at mainline toll plazas B, D, and E; and $2.05 at all ramp tolling points.

Regarding tolling services, the Authority will continue to provide back office services on other tolled facilities in the State of Colorado for NWP, HPTE, and Plenary. Other future toll facilities scheduled to become operational by HPTE in the next few years include C-470 from I-25 to Wadsworth Boulevard, and I-25 North Segment 3 extending the current managed lanes north from 120th Avenue to E-470/Northwest Parkway. The Authority plans to continue services under the separate agreements for these facilities, including integration and installation of toll equipment, toll collection system enhancements and modifications, system testing, analysis and go-live support, and will begin back office toll collection services when tolling commences.

Regarding debt management, the Authority has approximately $252 million of callable debt on September 1, 2020 that has been strategically planned and managed by the Authority for several years. The callable debt comprises approximately $170 million of the Series 2004B capital appreciation bonds, representing the estimated accreted value to the call date plus principal value, with yields ranging from 5.600 to 5.720%; and approximately $81.7 million of the Series 2010C fixed-rate current interest bonds with interest rates ranging from 5.250 to 5.375%. These callable principal amounts provide the Authority with the ability to manage annual debt service and maturity levels for the years 2025 through 2034 and 2036, and the Authority plans to contribute unrestricted funds from the Senior Bonds Defeasance Fund of the General Surplus Account to pay off maturities early and refund the remaining amounts at lower fixed interest rates to manage the debt service structure and achieve a more level debt profile. The Authority may close on the refunding transaction as early as June 2020 and put amounts in escrow to exercise the call on September 1, 2020, but the exact timing and contributed amount from the General Surplus Account are unknown at this time. In conjunction with this anticipated transaction, the Authority has engaged its Traffic and Revenue Consultant to conduct an updated Investment Grade Traffic and Revenue study that will include revised future forecasts for the E-470 toll road from 2020 through 2050. Included in this report will be a new future toll rate schedule, as the current policy approved by the board expires the end of 2020. Based on the planned reduction and leveling of annual debt service due following the 2020 bond transaction, toll rates may remain frozen or even decrease in future periods, but specific board decisions are unknown at this time. Finally, the Authority plans to update its Debt Management and Derivative Policy with board approval in conjunction with the 2020 bond transaction to include

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new financial goals regarding, but not limited to, debt service coverage, capital funding, future debt management, and unrestricted fund balances. These new goals will consider the updated toll revenue forecasts from the new study for the planning, budgeting, and financial future and stability of the Authority.

Business Risks

Current events concerning the novel coronavirus disease (COVID-19), caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and declared a pandemic by the World Health Organization in March 2020, could adversely impact the Authority's 2020 operations and financial condition. In December 2019, COVID-19 emerged in Wuhan, Hubei Province, China. While the outbreak was initially concentrated in China and caused significant disruptions to the economy there, infections have spread globally, including to the United States. The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that is causing broad negative effects on global and local economies. These adverse impacts are evident and continue to evolve daily within the United States, the State of Colorado, and the Authority's service area.

Highway tolls are the predominant source of revenue available to the Authority to pay debt service on its outstanding bonds. The ultimate use of the E-470 toll road by motorists and the level of toll revenues to be generated through such use are influenced by numerous factors. The COVID-19 pandemic has had, and is likely to continue to have, an adverse impact on travel. This has resulted in decreased traffic volume generally on all Colorado roads. Such decreased traffic volume has impacted the levels of the traffic on the E-470 toll road generally, and also the use of the toll road by motorists to achieve time savings due to congestion on alternative roads. The level of toll revenues has been negatively impacted by such decreased traffic levels, but the degree and duration of the impact is extremely difficult to predict at this time.

The Authority has been closely monitoring traffic volume on the E-470 toll road as a result of these recent developments. Before noticeable traffic impacts to the E-470 toll road, the Authority's year to date transactions through February were 3.8% above toll transaction levels when compared to the same period in 2019. However, due to the recent significant events caused by COVID-19, the Authority's toll transaction volume in March 2020 is down 32.1% when compared to March of 2019; is down 8.9% cumulatively year to date through March 2020 when compared to the same period in 2019; and is 85.6% of forecasted 2020 transactions through March 31, 2020.

While traffic volume has been negatively impacted in March and will likely remain impacted for the immediate future, the Authority currently has unrestricted funds within the General Surplus Account which could be available to pay debt service when due. Additionally, in response to and as a result of such decreased traffic volume, the Authority's operating expenses and budgeted capital spending are expected to be reduced. The Authority believes, although there is no certainty, that such unrestricted funds together with future net toll revenues will be sufficient to pay debt service when due. However, the extent to which the COVID-19 pandemic impacts the Authority's operations and its financial condition will depend on future developments, which are highly uncertain and cannot be fully determined at this time, including the duration and severity of the COVID-19 outbreak and further directives of federal, State and local officials.

We note that multiple rating agencies issued negative outlook reports in March for the U.S. toll road sector as a result of the pandemic. Furthermore, S&P has assigned a "negative outlook" to the Authority's rated debt, along with the entire toll road sector. On the other hand, Fitch reaffirmed the Authority's current rating and outlook (A – Stable) in April 2020 despite the uncertainty caused by COVID-19.

Contacting E-470's Financial Management

This financial report is designed to provide overview information to the Authority's bondholders, customers, and other interested parties. Should you have any questions about this report, contact the E-470 Public Highway Authority's Director of Finance at 22470 E. Stephen D. Hogan Parkway, Suite 100, Aurora, Colorado 80018.

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KPMG LLP
Suite 800
1225 17th Street
Denver, CO 80202-5598

Independent Auditors' Report

To the Board of Directors
E-470 Public Highway Authority:

We have audited the accompanying financial statements of the E-470 Public Highway Authority (the Authority) as of and for the years ended December 31, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements for the years then ended as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the E-470 Public Highway Authority as of December 31, 2019 and 2018, and the changes in its financial position and its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 2–22 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The accompanying supplementary information relating to the revenue covenant is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The accompanying supplementary information relating to the revenue covenant has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

KPMG LLP

Denver, Colorado
April 17, 2020

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E-470 PUBLIC HIGHWAY AUTHORITY

Statements of Net Position

December 31, 2019 and 2018

Assets	**2019**	**2018**
Current unrestricted assets:		
Cash and cash equivalents	$ 89,553,135	70,926,380
Investments	198,887,137	124,199,058
Cash and cash equivalents limited for construction	752,855	—
Accrued interest receivable	3,025,190	2,742,180
Accounts receivable, net of allowance for uncollectibles	31,643,217	28,852,021
Notes receivable	1,582,966	178,500
Prepaid expenses and other current assets	2,595	287,450
Total current unrestricted assets	325,447,095	227,185,589
Current restricted assets:		
Cash and cash equivalents for debt service	48,813,468	41,628,218
Investments for debt service	19,707,418	19,216,774
Accrued interest receivable	180,169	63,947
Total current restricted assets	68,701,055	60,908,939
Total current assets	394,148,150	288,094,528
Noncurrent assets:		
Unrestricted investments	134,615,059	155,707,939
Restricted investments for debt service	97,081,894	96,460,831
Prepaid bond costs and other noncurrent assets	11,184,933	12,037,257
Notes receivable	3,938,376	1,821,500
Capital assets, net of accumulated depreciation	587,788,716	587,620,002
Total noncurrent assets	834,608,978	853,647,529
Total assets	1,228,757,128	1,141,742,057
Deferred outflows of resources:		
Loss on refundings of debt	60,577,101	68,823,204
Total assets and deferred outflows of resources	$ 1,289,334,229	1,210,565,261

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E-470 PUBLIC HIGHWAY AUTHORITY

Statements of Net Position

December 31, 2019 and 2018

Liabilities		2019	2018
Current liabilities payable from unrestricted assets:			
Accounts payable and accrued expenses	$	12,166,549	7,958,177
Unearned toll revenue		35,479,843	34,165,336
Notes payable		240,769	240,769
Intergovernmental liability		5,100,855	—
Derivative instruments – interest rate swaps		302,591	245,911
Total current liabilities payable from unrestricted assets		53,290,607	42,610,193
Current liabilities payable from restricted assets:			
Bonds payable (including accumulated accretion on capital appreciation bonds of $57,670,428 in 2019 and $54,021,868 in 2018)		101,590,000	96,295,000
Accrued interest payable		2,293,264	2,593,765
Total current liabilities payable from restricted assets		103,883,264	98,888,765
Total current liabilities		157,173,871	141,498,958
Noncurrent liabilities:			
Bonds payable (including accumulated accretion on capital appreciation bonds of $702,579,241 in 2019 and $690,553,952 in 2018)		1,335,912,777	1,368,415,083
Notes payable		—	240,769
Other restricted noncurrent liabilities		1,953,114	1,878,651
Derivative instruments – interest rate swaps		49,866,860	37,584,712
Total noncurrent liabilities		1,387,732,751	1,408,119,215
Total liabilities		1,544,906,622	1,549,618,173
Net position:			
Net investment in capital assets		76,336,471	43,136,596
Restricted for debt service		8,300,950	3,603,554
Unrestricted deficit		(340,209,814)	(385,793,062)
Total net position		(255,572,393)	(339,052,912)
Commitments and contingencies (notes 9, 10, 13, 14, 15, and 16)			
Total liabilities and net position	$	1,289,334,229	1,210,565,261

See accompanying notes to basic financial statements.

E-470 PUBLIC HIGHWAY AUTHORITY

Statements of Revenues, Expenses, and Changes in Net Position

Years ended December 31, 2019 and 2018

	2019	2018
Operating revenues:		
Tolls	$ 249,013,096	233,088,327
Other fees	11,134,335	9,696,174
Tolling services	7,519,101	7,072,232
Total operating revenues	267,666,532	249,856,733
Operating expenses:		
Toll road operations	44,385,288	41,541,170
Salaries and benefits	8,080,092	7,596,234
General and administrative	4,895,984	3,627,915
Total operating expenses before depreciation	57,361,364	52,765,319
Depreciation	42,057,059	41,395,965
Total operating expenses	99,418,423	94,161,284
Operating income	168,248,109	155,695,449
Nonoperating revenue (expenses):		
Vehicle registration fees	—	5,310,264
Interest expenses:		
Interest on bonds and interest rate swaps	(12,248,511)	(13,300,319)
Accretion on capital appreciation bonds	(69,695,717)	(70,002,810)
Other bond amortization expenses	(10,704,276)	(9,485,682)
Investment revenues (expenses):		
Interest earned on investments	14,599,361	10,816,457
Net change in the fair value of investments	2,846,695	(2,501,995)
Net change in the fair value of derivative instruments	(12,338,828)	5,712,688
Intergovernmental revenue	1,109,107	—
Other income	1,664,579	1,338,546
Total nonoperating expenses	(84,767,590)	(72,112,851)
Income before intergovernmental expense	83,480,519	83,582,598
Intergovernmental expense	—	(3,022,600)
Change in net position	83,480,519	80,559,998
Net position, beginning of year	(339,052,912)	(419,612,910)
Net position, end of year	$ (255,572,393)	(339,052,912)

See accompanying notes to basic financial statements.

E-470 PUBLIC HIGHWAY AUTHORITY

Statements of Cash Flows

Years ended December 31, 2019 and 2018

		2019	2018
Cash flows from operating activities:			
Receipts of authority vehicle tolls and toll fees	$	258,603,272	246,161,277
Receipts from third parties for tolling services		7,448,417	6,989,561
Payments to employees		(7,981,267)	(7,622,646)
Payments to suppliers		(44,990,037)	(48,109,316)
Net cash provided by operating activities		213,080,385	197,418,876
Cash flows from capital and related financing activities:			
Payment of other noncurrent liabilities		(42,837)	—
Payment of notes payable		(240,769)	(240,770)
Purchase and construction of capital assets		(42,760,114)	(10,538,482)
Proceeds from sale of capital assets		55,027	6,500
Interest paid		(12,549,013)	(13,564,347)
Principal payments on bonds		(96,295,000)	(89,630,000)
Proceeds from refunded bond series		72,565,000	—
Payment of cash from bond proceeds to refund related bond series		(72,565,000)	—
Payment of bond issuance costs for related bond series		(1,239,871)	(46,978)
Payment of swap insurance termination		(974,000)	—
Receipt of other intergovernmental contributions for capital assets		2,509,962	—
Net cash used in capital and related financing activities		(151,536,615)	(114,014,077)
Cash flows from noncapital financing activities:			
Receipts of vehicle registration fees		—	6,077,579
Receipts of non-Authority third party vehicle tolls and toll fees		53,055,105	49,039,324
Remittance to third parties for non-Authority vehicle tolls and toll fees		(52,797,742)	(49,114,564)
Purchases of equipment and support services for third parties		(179,366)	(268,438)
Receipts from third parties for equipment and support services		188,274	185,232
Other receipts and disbursements		2,395,656	5,837,211
Payment of other noncapital intergovernmental obligations		—	(6,230,300)
Net cash provided by noncapital financing activities		2,661,927	5,526,044
Cash flows from investing activities:			
Proceeds from sales of investments		193,402,465	173,201,161
Purchases of investments		(243,782,449)	(262,844,217)
Interest received		12,512,358	8,987,542
Loan disbursements		—	(2,000,000)
Receipts of scheduled principal and interest on loans		226,789	—
Net cash used in investing activities		(37,640,837)	(82,655,514)
Net increase in cash and cash equivalents		26,564,860	6,275,329
Cash and cash equivalents, beginning of year		112,554,598	106,279,269
Cash and cash equivalents, end of year	$	139,119,458	112,554,598
Reconciliation of cash and cash equivalents to the statements of net position:			
Cash and cash equivalents – current – unrestricted	$	89,553,135	70,926,380
Cash and cash equivalents – current – restricted for debt service		48,813,468	41,628,218
Cash and cash equivalents – current – restricted for construction		752,855	—
Cash and cash equivalents, end of year	$	139,119,458	112,554,598

(Continued)

E-470 PUBLIC HIGHWAY AUTHORITY

Statements of Cash Flows

Years ended December 31, 2019 and 2018

		2019	2018
Reconciliation of operating income to net cash provided by operating activities:			
Operating income	$	168,248,109	155,695,449
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation		42,057,059	41,395,965
Changes in assets and liabilities:			
Accounts receivable, net (tolls, late fees, and tolling services)		(2,775,154)	(3,221,207)
Prepaid expenses and other current assets		284,855	2,850
Accounts payable and accrued expenses		4,104,435	(2,968,946)
Unearned toll revenue		1,161,081	6,514,765
Net cash provided by operating activities	$	213,080,385	197,418,876
Noncash transactions:			
Interest expense recorded due to bond accretion	$	69,695,717	70,002,810
Interest expense recorded due to amortization of deferred outflows of resources		8,246,103	9,474,805
Interest expense recorded due to amortization of prepaid bond costs and other assets		1,169,925	1,158,977
Interest expense recorded due to amortization of net bond premiums		608,023	1,148,100
Increase (decrease) in fair value of derivative instruments – interest rate swaps		(12,338,828)	5,712,688
Investment loss recorded due to amortization of net investment discounts		(1,478,603)	(952,838)
Investment loss recorded due to amortization of other restricted noncurrent liabilities		(324,844)	(189,989)
Increase (decrease) in fair value of investments		2,846,695	(2,501,995)
Net loss on disposal of capital assets		(479,314)	(109,196)
Increase in other restricted noncurrent liabilities		207,544	207,544
Intergovernmental liability		899,145	—

See accompanying notes to basic financial statements.

(1) Financial Reporting Entity

The E-470 Authority (the First Authority) is a separate legal entity, created in February 1985, by an intergovernmental agreement among Adams County, Arapahoe County, Douglas County, and the City of Aurora. The purpose of the agreement was to plan, design, and construct the E-470 Highway (the Project). The First Authority did not have the power to incur debt; therefore, Arapahoe County (the County) issued bonds to finance the Project.

In January 1988, the E-470 Public Highway Authority (the Authority) was created by the original members of the First Authority pursuant to Colorado Revised Statutes Title 43, Article 4, Part 5. The Town of Parker, City of Thornton, City of Brighton, and City of Commerce City became participants in the Authority in 1989, 1990, 1991, and 1995, respectively. In February 1989, all rights, privileges, obligations, and liabilities of the First Authority were assigned to the Authority. In the event the Authority is ever dissolved, all rights, privileges, obligations, and liabilities will transfer back to the First Authority. As required by accounting principles generally accepted in the United States of America, the accompanying basic financial statements present the Authority and its component unit, an entity for which the Authority is considered to be financially accountable, as discussed below. The blended component unit, although a legally separate entity, is, in substance, part of the Authority's operations, and therefore, data from this component unit is combined with data of the primary government.

The First Authority is a blended component unit of the Authority; however, it currently has no assets, liabilities, or operations.

In an opinion dated May 15, 1995, the Colorado Supreme Court held that the County had relinquished any control it had over the 1986 Bonds and the alignment of the Project in February 1989 when it executed the Delegation and Substitution Agreement and amendments to the Establishing Contract to that effect. Therefore, the Authority is not a component unit of the County.

Intergovernmental Agreements with Arapahoe County, Colorado

Since its creation, the First Authority was not legally empowered to issue debt; therefore, the County authorized issuance of $722,010,000 of Capital Improvement Trust Fund Highway Revenue Bonds Series 1986A-M. The ultimate objective of this issuance was to remit the proceeds to the Authority for the construction of the Project. In the contract establishing the Authority, the County assigned to the Authority all of the County's rights and privileges with respect to the bonds, and the Authority assumed all of the County's obligations with respect to the bonds. The proceeds of the bond issue were invested and held in trust for the benefit of the owners of the bonds (until the releases, as described below). The bonds were generally remarketed every six months.

In February 1989, the Authority released from escrow the Series D bonds in the amount of $63,260,000 to complete construction on the first phase of the toll road (Segment I). In consideration of the obligations assumed by the Authority and to assist the Project, the County granted to the Authority all the County's rights to the excess investment earnings for all bond series. In addition, the Authority agreed to pay all bond administration costs with no financial obligation to the County.

At the August 31, 1995 remarketing of the bonds, the funds remaining were released from escrow to finance the costs associated with the design, acquisition of property, and construction of Segments II and III of the Project. Any bonds that were not remarketed were redeemed on August 31, 1995.

(Continued)

Due to the interrelationship between the County and the Authority in this financing arrangement, all the transactions incurred by the County relating to this financing are included in the accompanying basic financial statements as if they were incurred by the Authority.

Tolling Services Agreements

The Authority provides various services to the Northwest Parkway (NWP); High Performance Transportation Enterprise (HPTE), a division of Colorado Department of Transportation (CDOT); and HPTE's concessionaire, Plenary Roads Denver, LLC (Plenary), including, but not limited to, integrating and installing toll equipment, toll collection system enhancements and modifications, system testing and go-live support, and back office toll collection services. E-470's tolling back office process allows customers to have a single account to manage and ensures a seamless customer experience regardless of which Colorado tolled facility is used. Toll collection or system costs originally incurred by the Authority for services provided to other entities are charged to the applicable entity (CDOT, HPTE, Plenary, or NWP).

(2) Summary of Significant Accounting Policies

(a) Basis of Accounting

The operations of the Authority are accounted for as an enterprise fund. Enterprise funds are accounted for on the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, revenue is recorded when earned, and expenses are recorded at the time liabilities are incurred. Enterprise funds are used to account for those operations for which the pricing policies of the entity establish fees and charges designed to recover its costs, including capital costs, such as depreciation and debt service. The basis of accounting also incorporates Governmental Accounting Standards Board (GASB) Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*.

(b) Use of Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America involves the use of management's estimates. These estimates are based upon management's best judgments, after considering past and current events and assumptions about future events. Actual results could differ from those estimates.

(c) Cash and Cash Equivalents

The Authority considers all highly liquid instruments purchased with an original maturity of three months or less to be cash equivalents, which may include authorized money market mutual funds, local government investment pools, commercial paper, or repurchase agreements. Cash and cash equivalents may be restricted by the Trustee under the Master and Supplemental Bond Resolutions (Bond Resolutions) or other externally imposed restrictions. The basic financial statements include statements of cash flows showing cash and cash equivalents provided by and used in operating, noncapital and capital financing, and investing activities.

(d) Investments

The Authority invests its funds in accordance with the Authority's Bond Resolutions and Colorado statutes (CRS 24-75-601). The Authority's authorized investments may consist of U.S. government agency securities, U.S. Treasury securities, commercial paper, municipal bonds, and an investment agreement. Investments may be restricted by the Trustee under the Bond Resolutions. Investments are reported in the financial statements at fair value, with the exception of the following assets, which are recorded using a cost-based measure in accordance with GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools,* and GASB Statement No. 72, *Fair Value Measurement and Application*:

- Money market investments that have a remaining maturity at time of purchase of one year or less. These money market accounts are held with Securities and Exchange Commission registered investment companies under Rule 2a-7 of the Investment Company Act of 1940, as amended, and are reported at amortized cost.
- Nonparticipating investment agreement with Societe Generale, as it cannot be traded and its value is not affected by market interest rate changes.

(e) Accounts Receivable

Accounts receivable represents amounts due for customer tolls (License Plate Toll (LPT) and ExpressToll) and any assessed late fees, net of the estimated uncollectible toll and fee receivables, and other miscellaneous receivables from third parties. The Authority accrues the related revenue when earned. An allowance for estimated uncollectible toll receivables is recognized to reduce the gross amount of receivables to its net realizable value. The allowance for customer tolls is estimated based on historical collection information by revenue type.

(f) Capital Assets

Capital assets have an estimated useful life in excess of one year and an initial cost greater than $5,000 for software, fixtures, and equipment; $50,000 for land improvements; $100,000 for buildings; and $500,000 for infrastructure (roadway, bridges, and ramps).

Capital assets are recorded at historical cost. Costs include not only purchase price or construction cost, but also ancillary charges necessary to place the asset in its intended location and condition for use. Ancillary charges include, but are not limited to, costs, such as freight and transportation charges, site preparation expenditures, professional fees, and legal expenses directly attributable to asset acquisition. Donations of capital assets represent facilities, or cash payments for facilities, received from property owners, governmental agencies, and customers. Donated capital assets are recorded at estimated fair value at the date of transfer.

Capital assets are depreciated using the straight-line method over their estimated useful lives. Those capital assets subject to depreciation have the following useful lives:

Assets	Years
Software	3
Fixtures and equipment	5–10
Land and building improvements	20
Buildings	40
Infrastructure	30

Ongoing construction costs associated with the Authority's toll road are capitalized as construction in progress (CIP). As construction is not yet complete, depreciation is not recorded on these CIP costs. The Authority recognizes interest costs on the tax-exempt debt used to finance the assets under construction (if applicable) as an expense in the period in which the cost is incurred.

(g) Prepaid Bond Costs and Premiums and Discounts

Prepaid bond costs and other noncurrent assets as well as bond premiums and discounts are deferred and amortized as a component of interest expense – other bond amortization expenses using the effective-interest method over the life of the related bonds.

(h) Deferred Outflows of Resources

Deferred outflows of resources represent a consumption of net assets that applies to a future period and will not be recognized as an outflow of resources (expense) until that time. The deferral balances are from losses on refundings of debt that are amortized as a component of interest expense – other bond amortization expenses using the straight-line method over the remaining life of the old (refunded) debt or the life of the new debt, whichever is shorter.

(i) Revenue and Expenses

The Authority's statements of revenue, expenses, and changes in net position distinguish between operating and nonoperating revenue and expenses. Operating revenues consist of vehicle tolls and other toll-related fees assessed (late fees, civil penalties, or other fines and fees) associated with the operation of the Authority's toll road, net of estimated bad debts. The Authority recognizes toll operating revenues when earned. Advance payments received for toll operating revenues are deferred as unearned toll revenue on the statements of net position and are recognized as revenue as the customers use the Authority's toll road. Advance payments used as customers drive on non-Authority facilities in Colorado are remitted to the appropriate agency and are not recognized as revenue on the Authority's statements of revenues, expenses, and changes in net position. Operating revenues also include revenues for providing tolling services to other entities, and is recognized as an exchange transaction. Any amounts collected and remitted to external entities for tolls incurred on other tolled facilities are not included in the basic financial statements of the Authority. Operating expenses include costs incurred to provide for maintenance and administration of the toll road.

Nonoperating revenue and expenses consist of vehicle registration fees, interest expense, investment revenues, including interest earned on investments and change in derivative instruments, and other miscellaneous revenues and expenses. Vehicle registration fees were assessed by Adams, Arapahoe, and Douglas counties based on enabling legislation and remitted to the Authority on a monthly basis net of related administrative costs; however, collection of these fees was discontinued as of August 1, 2018.

(j) Net Position Amounts

Net position amounts reported in the Authority's statements of net position consist of three categories: net investment in capital assets; restricted for debt service; and unrestricted. The Authority's board of directors, along with any state statutes, has official authorization to assign funds for a specific purpose. Net investment in capital assets consists of the Authority's investment in capital assets (e.g., land, buildings, equipment, and infrastructure), net of accumulated depreciation, and deferred outflows of resources, reduced by the outstanding balances of bonds that are attributable to the acquisition, construction, or improvement of those assets. Restricted for debt service represents resources that are subject to external restrictions on how they may be used, and consists of restricted assets reduced by restricted liabilities where the restricted liability will generally be liquidated with the restricted assets reported. Unrestricted net position represents resources that may be used to meet the Authority's ongoing obligations to the public and creditors and are not included in the determination of net investment in capital assets or restricted for debt service components of net position. This balance includes any noncurrent accreted portions of revenue bonds payable. These net position amounts are available to fund any obligation of the Authority. When an expense is incurred for purposes for which both restricted and unrestricted net position is available, the Authority generally uses unrestricted funds first, then restricted as needed.

As of December 31, 2019 and 2018, the Authority had a total net deficit of approximately $255.6 million and $339.1 million, respectively. The Authority primarily plans to fund this net deficit with increased annual growth in toll operations revenues and other nonoperating revenues.

(k) Income Taxes

The income derived by the Authority is exempt from federal income tax under the provisions of Internal Revenue Code Section 115 and as a governmental entity that is not a college or university, the Authority is not subject to any unrelated business income tax under Internal Revenue Code Section 511. Accordingly, no provision for the payment or refund of income taxes has been made in the accompanying basic financial statements.

(3) Fair Value Measurements

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. Under GASB Statement No. 72, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. GASB Statement No. 72 establishes a hierarchy of three levels of inputs that may be used to measure fair value:

- Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities, accessible at the measurement date. Observable markets include exchanges markets, dealer markets, brokered markets, and principal-to-principal markets.

- Level 2 – Inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly or indirectly. Level 2 inputs include quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in inactive markets; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities, such as interest rates and yield curves observable at commonly quoted intervals, implied volatilities, credit spreads, and market-corroborated inputs.
- Level 3 – Unobservable inputs for an asset or liability.

Investments

Where quoted market prices for identical assets are available in an active market, securities are classified within Level 1 of the hierarchy. If quoted market prices for identical assets are not available, then fair values are estimated by using quoted prices of securities with similar characteristics or independent asset pricing services and pricing models, the inputs of which are market-based or independently sourced market parameters, including, but not limited to, yield curves, interest rates, reported trades of comparable securities, spreads off benchmark yields, and issuer spreads. Such securities are classified in Level 2 of the valuation hierarchy. In certain cases where Level 1 or Level 2 inputs are not available, securities would be classified within Level 3 of the hierarchy. The Authority has no Level 3 securities as of December 31, 2019 or 2018, respectively.

Interest Rate Swap Agreements

The fair values are based on the notional amounts outstanding and estimated using forward-looking interest rate curves (swap reference rate), discounted future cash flows, and credit spreads that are observable or can be corroborated by observable market data and, therefore, are classified within Level 2 of the hierarchy.

The Authority has the following recurring fair value measurements as of December 31, 2019:

		Fair value measurement using		
	Total 2019	**Quoted prices in active markets for identical assets (Level 1)**	**Significant other observable inputs (Level 2)**	**Significant unobservable inputs (Level 3)**
Investment type:				
U.S. government agency	$ 295,197,899	—	295,197,899	—
U.S. Treasury securities	121,962,279	—	121,962,279	—
Commercial paper	29,657,383	—	29,657,383	—
Total investments measured at fair value	446,817,561	—	446,817,561	—
Cash Equivalents (CE) and investments measured at cost:				
Money market mutual funds	109,672,549			
Investment agreement	8,471,273			
Total CE and investments measured at cost	118,143,822			
Total CE and investments held by the authority	$ 564,961,383			
Liability type:				
Derivative instruments – interest rate swaps	$ (50,169,451)	—	(50,169,451)	—
Total liabilities measured at fair value	$ (50,169,451)	—	(50,169,451)	—

The Authority has the following recurring fair value measurements as of December 31, 2018:

		Fair value measurement using		
	Total 2018	**Quoted prices in active markets for identical assets (Level 1)**	**Significant other observable inputs (Level 2)**	**Significant unobservable inputs (Level 3)**
Investment type:				
U.S. government agency	$ 261,814,785	—	261,814,785	—
U.S. Treasury securities	100,685,788	—	100,685,788	—
Commercial paper	24,612,756	—	24,612,756	—
Total investments measured at fair value	387,113,329	$ —	387,113,329	—
Cash Equivalents (CE) and investments measured at cost:				
Money market mutual funds	92,822,109			
Investment agreement	8,471,273			
Total CE and investments measured at cost	101,293,382			
Total CE and investments held by the authority	$ 488,406,711			
Liability type:				
Derivative instruments – interest rate swaps	$ (37,830,623)	—	(37,830,623)	—
Total liabilities measured at fair value	$ (37,830,623)	—	(37,830,623)	—

(4) Cash, Cash Equivalents, and Investments

The Colorado Public Deposit Protection Act (PDPA) requires that all units of local government deposit cash in eligible public depositories. Eligibility is determined by state regulators. Amounts on deposit in excess of federal insurance levels (currently, $250,000 by the Federal Deposit Insurance Corporation (FDIC)) must be collateralized. The eligible collateral is specified by the PDPA. The PDPA allows the institution to create a single collateral pool for all public funds, and the pool is to be maintained by another institution or held in trust for all the uninsured public deposits as a group. The State Regulatory Commission for banks and savings and loan associations is required by statute to monitor the naming of eligible depositories and reporting of the uninsured deposits and assets maintained in the collateral pools. At December 31, 2019 and 2018, the Authority's cash deposits had a book balance of $24.4 million and $19.7 million, respectively, and a corresponding bank balance of $24.9 million and $19.8 million, respectively. The difference between the book and bank balances is due to outstanding checks and deposits not yet processed by the banks.

As of December 31, 2019 and 2018, the Authority's book balances are classified as follows:

	2019		
	Deposits	**Cash equivalents and investments**	**Total**
Restricted cash and cash equivalents by trustee under the Bond Resolutions	$ —	48,813,468	48,813,468
Unrestricted cash and cash equivalents – undesignated	24,449,583	65,856,407	90,305,990
Restricted investments by trustee under the Bond Resolutions	—	116,789,312	116,789,312
Unrestricted investments – undesignated	—	333,502,196	333,502,196
	$ 24,449,583	564,961,383	589,410,966

	2018		
	Deposits	**Cash equivalents and investments**	**Total**
Restricted cash and cash equivalents by trustee under the Bond Resolutions	$ —	41,628,218	41,628,218
Unrestricted cash and cash equivalents – undesignated	19,732,489	51,193,891	70,926,380
Restricted investments by trustee under the Bond Resolutions	—	115,677,605	115,677,605
Unrestricted investments – undesignated	—	279,906,997	279,906,997
	$ 19,732,489	488,406,711	508,139,200

The following is a summary of the Authority's cash equivalents and investments by type at December 31, 2019 and 2018, at fair value, including the money market mutual funds and investment agreement using a cost-based measurement:

	2019	**2018**
U.S. government agency	$ 295,197,899	261,814,785
U.S. Treasury securities	121,962,279	100,685,788
Money market mutual funds	109,672,549	92,822,109
Commercial paper	29,657,383	24,612,756
Investment agreement	8,471,273	8,471,273
	$ 564,961,383	488,406,711

(a) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Authority's policies regarding credit risk comply with Colorado statutes (CRS 24-75-601, as amended) and the Bond Resolutions. Colorado statutes specify the following investment instruments that meet defined rating and risk criteria in which local government entities may invest:

- Obligations of the United States and certain U.S. government agency securities
- Bonds of certain government entities
- Bankers' acceptances of certain banks
- Commercial paper with a certain rating
- Repurchase agreements
- Certain money market mutual funds
- Local government investment pools
- Certain investment agreements

The Authority may invest or deposit any funds in the manner provided by law for political subdivisions of the state. In addition, the Authority may direct a corporate trustee, which holds funds of the Authority, to invest or deposit such funds in investments or deposits other than those specified by law for political subdivisions of the state if the board of directors determines, by resolution, that (1) such investment or deposit meets the standard established in the Colorado Revised Statutes; (2) the income is at least comparable to income available on investments or deposits specified by law for political subdivisions of the state; and (3) such investments will assist the Authority in the financing, construction, maintenance, or operation of public highways.

The following is a summary of the Authority's cash equivalents and investments at December 31, 2019 with credit ratings based on the Standard & Poor's and Moody's ratings scales:

		2019	
		Fair value	**Rating**
U.S. government agency:			
Federal Farm Credit Banks (FFCB)	$	75,827,935	AA+/Aaa
FFCB Discount Note		596,780	A-1+/P-1
Federal Home Loan Banks (FHLB)		79,220,714	AA+/Aaa
FHLB Discount Note		13,818,152	A-1+/P-1
Federal Home Loan Mortgage Corporation (FHLMC)		27,132,222	AA+/Aaa
Federal National Mortgage Association (FNMA)		44,571,619	AA+/Aaa
International Bank for Reconstruction and Development		45,654,062	AAA/Aaa
Student Loan Marketing Association Discount Note		8,376,415	Not rated/Aaa
Total U.S. government agency		295,197,899	
U.S. Treasury securities:			
U.S. Treasury notes		100,247,262	Not applicable
U.S. Treasury bills		21,715,017	Not applicable
Total U.S. Treasury securities		121,962,279	
Money market mutual funds:			
Federated Government Obligations Fund		91,947,824	AAAm/Aaa-mf
PFM Funds Government Select Series		17,724,725	AAAm/Not rated
Total money market mutual funds		109,672,549	
Investment agreement:			
Societe Generale		8,471,273	A/A2
Commercial paper:			
American Honda Finance Corporation		2,499,125	A-1/P-1
JP Morgan Securities LLC		5,487,285	A-1/P-1
MUFG Bank Ltd/NY		7,364,170	A-1/P-1
Paccar Financial		2,498,202	A-1/P-1
Rabobank Nederland NV NY		2,983,504	A-1/P-1
Toyota Motor Credit Corporation		8,825,097	A-1+/P-1
Total commercial paper		29,657,383	
Total cash equivalents and investments	$	564,961,383	

U.S. Treasury notes are guaranteed by the U.S. federal government and are, therefore, not subject to credit risk.

(Continued)

The following is a summary of the Authority's cash equivalents and investments at December 31, 2018 with credit ratings based on the Standard & Poor's and Moody's ratings scales:

	2018	
	Fair value	**Rating**
U.S. government agency:		
Federal Farm Credit Banks (FFCB)	$ 51,783,848	AA+/Aaa
Federal Home Loan Banks (FHLB)	71,636,097	AA+/Aaa
Federal Home Loan Mortgage Corporation (FHLMC)	38,102,636	AA+/Aaa
Federal National Mortgage Association (FNMA)	46,233,211	AA+/Aaa
International Bank for Reconstruction and Development	46,112,458	AAA/Aaa
Student Loan Marketing Association Discount Note	7,946,535	Not rated/Aaa
Total U.S. government agency	261,814,785	
U.S. Treasury securities:		
U.S. Treasury notes	100,685,788	Not applicable
Money market mutual funds:		
Federated Government Obligations Fund	74,327,278	AAAm/Aaa-mf
PFM Funds Government Select Series	18,494,831	AAAm/Not rated
Total money market mutual funds	92,822,109	
Investment agreement:		
Societe Generale	8,471,273	A/A2
Commercial paper:		
American Honda Finance Corporation	3,727,722	A-1/P-1
JP Morgan Securities LLC	4,846,680	A-1/P-1
MUFG Bank Ltd/NY	4,795,850	A-1/P-1
Rabobank Nederland NV NY	4,844,673	A-1/P-1
Toyota Motor Credit Corporation	6,397,831	A-1+/P-1
Total commercial paper	24,612,756	
Total cash equivalents and investments	$ 488,406,711	

U.S. Treasury notes are guaranteed by the U.S. federal government and are, therefore, not subject to credit risk.

(Continued)

(b) Interest Rate Risk

Interest rate risk is the risk that an investment's value will change due to change in the level of interest rates. The Authority currently employs one professional investment management firm to manage its investments. The funds are all "laddered" so that investments do not mature all at once and are in compliance with the Colorado statutes and Bond Resolutions. Additionally, 86% and 83% of the cash equivalents and investments have maturities of three years or less at December 31, 2019 and 2018, respectively.

As of December 31, 2019, the Authority held the following cash equivalents and investments:

	Fair value	Less than one year	Between one and two years	Between two and three years	Greater than three years
U.S. government agency	$ 295,197,899	110,382,873	51,972,581	65,528,565	67,313,880
U.S. Treasury securities	121,962,279	83,551,625	12,295,870	21,077,551	5,037,233
Investment agreement	8,471,273	—	—	—	8,471,273
Commercial paper	29,657,383	29,657,383	—	—	
Total investments	455,288,834	223,591,881	64,268,451	86,606,116	80,822,386
Money market mutual funds	109,672,549	109,672,549	—	—	—
Total cash equivalents and investments	$ 564,961,383	333,264,430	64,268,451	86,606,116	80,822,386

Because the money market mutual funds have a weighted average maturity less than three months as of December 31, 2019, the funds are presented as cash equivalents with maturities of less than one year.

As of December 31, 2018, the Authority held the following cash equivalents and investments:

	Fair value	Less than one year	Between one and two years	Between two and three years	Greater than three years
U.S. government agency	$ 261,814,785	71,117,952	86,371,254	34,072,304	70,253,275
U.S. Treasury securities	100,685,788	47,685,124	40,634,157	8,139,594	4,226,913
Investment agreement	8,471,273	—	—	—	8,471,273
Commercial paper	24,612,756	24,612,756	—	—	—
Total investments	395,584,602	143,415,832	127,005,411	42,211,898	82,951,461
Money market mutual funds	92,822,109	92,822,109	—	—	—
Total cash equivalents and investments	$ 488,406,711	236,237,941	127,005,411	42,211,898	82,951,461

Because the money market mutual funds have a weighted average maturity less than three months as of December 31, 2018, the funds are presented as cash equivalents with maturities of less than one year.

(c) Custodial Credit Risk

For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. The Authority has no custodial credit risk as all securities are registered in the name of the Authority and held by a third-party safekeeping agent. Investments in money market mutual funds are not exposed to custodial credit risk because their existence is not evidenced by securities that exist in physical or book entry form.

(d) Concentration of Credit Risk

The Authority does not have a limit on the amount that may be invested in any one issuer. As of December 31, 2019 and 2018, approximately 52% and 54%, respectively, of the Authority's cash equivalents and investments are in U.S. government agency investments that are not fully backed by the full faith and credit of the federal government. The investments include FFCB, FHLB, FHLMC, FNMA, International Bank for Reconstruction and Development, and Student Loan Marketing Association investments.

(e) Restricted Funds

The Authority maintains restricted accounts and funds as required per the Bond Resolutions or other externally imposed restrictions. Cash and cash equivalents and investments as of December 31, 2019 and 2018 are restricted as follows:

		2019	2018
Senior Bonds Debt Service Reserve Fund	$	95,565,193	95,271,932
Senior Bonds Debt Service Account		40,766,684	37,715,513
Trust Revenue Fund		18,508,765	14,410,992
Operating Reserve Fund		10,762,138	9,907,386
	$	165,602,780	157,305,823

The restricted funds and accounts have been established in accordance with the Bond Resolutions or other externally imposed restrictions. The Authority maintains other restricted accounts that do not have any funding requirements and thus have a $0 balance as of December 31, 2019 and 2018 and are not shown above. The Bond Resolutions provide, among other provisions, that certain accounting procedures be followed and certain funds and accounts be established to provide bondholders a degree of security against certain contingencies. Brief descriptions of these funds and accounts are as follows:

Senior Bonds Debt Service Reserve Fund – Pursuant to the Bond Resolutions, a Senior Bonds Debt Service Reserve Fund was established solely for the benefit of the holders of the Senior Bonds in the event amounts on deposit in the Senior Bonds Debt Service Account are insufficient to make required payments. As of December 31, 2019 and 2018, the Senior Bonds Debt Service Reserve Fund requirement was $118.0 million, and the account was fully funded at December 31, 2019 and 2018, with balances of $120.6 million and $120.3 million, respectively. The change in year-end balances is due to fair value fluctuations. These balances include cash and cash equivalents and investments of $95.6 million and $95.3 million at December 31, 2019 and 2018, respectively, combined with the $25 million available under a reserve fund surety bond provided by MBIA – administered by National Public Finance Guarantee (NPFG). Within the fund, the Authority holds numerous long-term investment securities, one of which is an investment agreement with Societe Generale. Under the agreement, among other provisions, Societe Generale pays the Authority 6.61% of the investment principal amount on a semiannual basis and must post collateral at a specified amount if their long-term unsecured credit rating is reduced below AA– by Standard and Poor's (S&P) or Aa3 by Moody's. Societe Generale was rated A by S&P and A2 by Moody's at December 31, 2019 and 2018, respectively, and thus has posted collateral in accordance with the agreement. The Authority may terminate the agreement at any time; however, Societe Generale may not terminate the agreement until final maturity in 2026.

Senior Bonds Debt Service Account – Pursuant to the Bond Resolutions, the Senior Bonds Debt Service account is funded from current year revenues in an amount equal to the aggregate senior bond debt service payable during the current fiscal year, including the monthly cash settlements paid on the Authority's interest rate swaps and London Interbank Offered Rate (LIBOR) Index Term Rate bonds. Other senior bond series' interest due is paid semiannually by the Trustee on March 1 and September 1, with outstanding senior bonds payable principal (including any accretion) due on September 1 for the applicable bond series.

Trust Revenue Fund – Except as otherwise provided in the Bond Resolutions, all revenues will be delivered to the Trustee immediately upon receipt by the Authority and will be deposited by the Trustee in the Trust Revenue Fund to be used by the Authority for the purposes of funding any other restricted accounts (including the Senior Bond Debt Service Account) and current year operating expenses. The Master Bond Resolutions allow the Authority to move surplus funds from the Trust Revenue Fund to the General Surplus account (or subaccounts therein) on a monthly basis but also must maintain a retained balance within the Trust Revenue Fund at month-end equal to one-half of the aggregate amount required to be transferred to the Senior Bonds Debt Service Account during such month. The required retained balance was $4.7 million as of December 31, 2019 and $4.6 million as of December 31, 2018 and was fully funded.

Operating Reserve Fund – Under the provisions of the Bond Resolutions, the Operating Reserve Fund is required to be maintained in an amount equal to one-sixth of annual budgeted operating expenses, as determined by the Authority. As of December 31, 2019 and 2018, $10.8 million and $9.9 million, respectively, were on deposit in the Operating Reserve Fund, which exceeded the required balance of $9.7 million and $9.1 million, respectively, during these periods.

Rebate Fund – Moneys will be deposited into the Rebate Fund pursuant to the Bond Resolutions and used solely for the purpose of paying amounts due to the United States of America pursuant to the Internal Revenue Code and arbitrage rebate regulations issued by the Internal Revenue Service (IRS). Funds within the Rebate Fund are only required when an arbitrage rebate liability is due. If the amount in the Rebate Fund is in excess of the amount required to be deposited based on the assessed arbitrage rebate liability, such excess will be transferred to the Authority.

(f) Unrestricted Funds

The General Surplus account is unrestricted and is currently divided into three subaccounts for administrative purposes: the Senior Bond Defeasance Fund, the Capital Improvements Fund, and the Rainy Day Fund. These unrestricted funds are available to fund any allowable obligations of the Authority; however, the Bond Resolutions include a requirement that the General Surplus account not be reduced below $20.0 million unless the Authority's bond issuer, MBIA – administered by NPFG, provides written consent to such a distribution below this level. As of December 31, 2019 and 2018, the Authority held $423.8 million and $350.8 million, respectively, in total unrestricted funds, including cash and cash equivalents and investments. Approximately $374.8 million and $310.8 million were within the General Surplus accounts as of December 31, 2019 and 2018, respectively, which have specific purposes, such as fully funding the Authority's future capital budget and bond defeasances.

(g) Investment Income

Investment income's interest earned on investments consists of restricted and unrestricted investment earnings, any associated premium or discounts, and any realized gains or losses on the investments. Also, included in total investment income is the change in the fair value of investments as of the end of the reporting period. The Authority recognized total investment gain of $17.4 million in 2019 and total investment gain of $8.3 million in 2018, excluding the net change in fair value of derivative instruments. Restricted interest earned on investments was $0.8 million in 2019 and $0.5 million in 2018 and is restricted by the Bond Resolutions or by other externally imposed restrictions. Unrestricted investment income may be earned within restricted investment accounts as long as those accounts are fully funded by year-end, as required by the Bond Resolutions.

(5) Accounts Receivable

The following is a summary of accounts and tolls receivable balances and related allowance as of December 31, 2019 and 2018:

		2019	2018
Tolls receivable (billed)	$	28,779,708	26,952,714
Accrued toll revenue – transactions still processing		7,867,259	4,196,557
Unbilled toll revenue		2,677,552	4,235,230
Late fee receivable		1,959,236	1,767,451
Accounts receivable		1,479,372	1,440,964
Total accounts receivable		42,763,127	38,592,916
Allowance for uncollectible tolls receivable		(10,348,368)	(9,121,050)
Allowance for uncollectible late fee receivable		(771,542)	(619,845)
Total accounts receivable, net of allowance for uncollectibles	$	31,643,217	28,852,021

With LPT tolls receivable, there are three stages accrued within the basic financial statements: accrued toll revenue (transactions in process for billing); unbilled toll revenue (transactions assigned to a customer account and are waiting to be billed); and tolls receivable (transactions that have been billed to a customer and are awaiting payment). Customers are generally billed each month for all toll activity incurred during the previous month and have 30 days to pay. If the first bill is unpaid, customers will be sent a second and third bill with a $5 late fee assessed on the second bill only and have an additional 60 days to pay the outstanding tolls and fee. If still unpaid, the tolls may be remitted to a collection law firm where additional collection fees, including civil penalties and adjudication fees, may be assessed with a possible hold being placed on the customer’s vehicle registration. ExpressToll customers with unpaid tolls may have their transponder deactivated, account converted to LPT, and may be remitted to the collection law firm where additional collection fees, including civil penalties and adjudication fees, may be assessed with a possible hold being placed on the customer’s vehicle registration. Once converted, future tolls on these accounts will be at the higher LPT rate. Further, tolls charged to customers for LPT versus ExpressToll vary based on the approved two-tiered toll rates, which were effective beginning January 1, 2019. Based on the outstanding tolls and related late fees in fiscal years 2019 and 2018, the Authority has approximately $11.1 million and $9.7 million, respectively, in outstanding tolls and late fee receivables at year-end that are not expected to be collected within the next fiscal year.

(6) Notes Receivable

The following is an analysis of changes in notes receivable for the year ended December 31, 2019:

		Balance at January 1, 2019	Additions	Reductions	Balance at December 31, 2019	Due within one year
Other intergovernmental agreements	$	2,000,000	3,700,000	178,658	5,521,342	1,582,966

		Balance at January 1, 2018	Additions	Reductions	Balance at December 31, 2018	Due within one year
Other intergovernmental agreements	$	—	2,000,000	—	2,000,000	178,500

(a) Intergovernmental Agreement with City of Aurora regarding Stephen D. Hogan Parkway

The Authority entered into an intergovernmental agreement in 2015 with the City of Aurora (the City) regarding the extension of 6th Avenue from its former terminus in an eastward direction from Buckley Air Force Base to East 6th Parkway and E-470. This extension, opened in 2019 as East Stephen D. Hogan Parkway, established a more direct route of travel, thereby filling a gap in the regional roadway network. In addition, the forecasted traffic and revenue on E-470 indicates that the extension will provide future revenue increases for the Authority. In consideration of the potential future revenue impacts, the Authority agreed to contribute $4.0 million toward the cost of construction in the form of a $2.0 million contribution and a $2.0 million loan, both of which were disbursed to the City on August 9, 2018 from the Capital Improvements Fund. The $2.0 million contribution was presented as an intergovernmental expense in 2018. The loan has a 10-year term beginning on August 9, 2018, the date the Authority's proceeds were disbursed to the City, and bears interest at a rate of 2.5% per annum. At December 31, 2019 and 2018, the current notes receivable balance was $0.2 million, respectively. At December 31, 2019 and 2018, the noncurrent notes receivable balance was $1.6 million and $1.8 million, respectively.

(b) Intergovernmental Agreement with South Aurora Regional Improvement Authority and Arapahoe County regarding E-470 Ramp Relocation at Quincy Avenue

The Authority entered into an intergovernmental agreement in 2019 with South Aurora Regional Improvement Authority (SARIA) and Arapahoe County (the County) regarding relocation of the northbound on and off-ramps at Quincy Avenue, including the installation of a new signalized intersection to assist with mitigation of traffic congestion. The County is improving the current intersection of Quincy Ave and Gun Club Road with a partial continuous flow intersection, and the proximity of the northbound on and off-ramps of E-470 at Quincy Avenue creates operational and safety concerns, which the relocation will alleviate. The Authority is responsible for facilitating, overseeing, and completing the project, which will be constructed in conjunction with the Quincy to I-70 widening project to achieve economies of scale and other efficiencies and cost savings and is expected to be completed in 2020. Under the agreement, SARIA and the County will each contribute one-third of the project costs, estimated at the time of the agreement to be $3.0 million each. E-470 received $2.0 million from SARIA and $0.3 million from the County in 2019. The remaining unpaid balance due from SARIA as of December 31, 2019 is $1.0 million and may be paid at any date prior to May 10, 2024, with the exact timing subject to funding availability. The remaining unpaid balance due from the County as of December 31, 2019 is $2.7 million, scheduled to be paid in installments of $1.4 million in 2020 and $1.3 million in 2021. The unpaid balances do not accrue interest.

(7) Capital Assets

A summary of changes in capital assets for the year ended December 31, 2019 is as follows:

	Balance at January 1, 2019	Increases	Decreases	Transfers	Balance at December 31, 2019
Capital assets not being depreciated:					
Land	$ 110,538,228	1,029,483	—	—	111,567,711
Construction in progress	2,364,746	42,150,613	(419,982)	(16,358,706)	27,736,671
Total capital assets not being depreciated	112,902,974	43,180,096	(419,982)	(16,358,706)	139,304,382
Depreciable capital assets:					
Infrastructure	994,265,586	8,127,266	(159,723)	—	1,002,233,129
Buildings	24,536,706	684,461	(539,326)	—	24,681,841
Equipment	36,532,439	2,955,452	(1,399,183)	—	38,088,708
Software, fixtures, improvements, and other assets	37,995,426	4,591,527	—	—	42,586,953
Total depreciable capital assets	1,093,330,157	16,358,706	(2,098,232)	—	1,107,590,631
Less accumulated depreciation for:					
Infrastructure	(553,019,389)	(33,053,896)	103,962	—	(585,969,323)
Buildings	(11,137,827)	(839,106)	305,233	—	(11,671,700)
Equipment	(28,138,157)	(2,548,712)	1,154,696	—	(29,532,173)
Software, fixtures, improvements, and other assets	(26,317,756)	(5,615,345)	—	—	(31,933,101)
Total accumulated depreciation	(618,613,129)	(42,057,059)	1,563,891	—	(659,106,297)
Depreciable capital assets, net	474,717,028	(25,698,353)	(534,341)	—	448,484,334
Total capital assets, net	$ 587,620,002	17,481,743	(954,323)	(16,358,706)	587,788,716

A summary of changes in capital assets for the year ended December 31, 2018 is as follows:

	Balance at January 1, 2018	Increases	Decreases	Transfers	Balance at December 31, 2018
Capital assets not being depreciated:					
Land	$ 110,538,228	—	—	—	110,538,228
Construction in progress	2,331,813	10,631,690	(93,207)	(10,505,550)	2,364,746
Total capital assets not being depreciated	112,870,041	10,631,690	(93,207)	(10,505,550)	112,902,974
Depreciable capital assets:					
Infrastructure	993,406,281	1,207,305	(348,000)	—	994,265,586
Buildings	24,238,282	298,424	—	—	24,536,706
Equipment	35,023,803	2,218,747	(710,111)	—	36,532,439
Software, fixtures, improvements, and other assets	31,567,733	6,781,074	(353,381)	—	37,995,426
Total depreciable capital assets	1,084,236,099	10,505,550	(1,411,492)	—	1,093,330,157
Less accumulated depreciation for:					
Infrastructure	(520,218,490)	(33,038,845)	237,946	—	(553,019,389)
Buildings	(10,327,537)	(810,290)	—	—	(11,137,827)
Equipment	(26,033,269)	(2,809,356)	704,468	—	(28,138,157)
Software, fixtures, improvements, and other assets	(21,933,663)	(4,737,474)	353,381	—	(26,317,756)
Total accumulated depreciation	(578,512,959)	(41,395,965)	1,295,795	—	(618,613,129)
Depreciable capital assets, net	505,723,140	(30,890,415)	(115,697)	—	474,717,028
Total capital assets, net	$ 618,593,181	(20,258,725)	(208,904)	(10,505,550)	587,620,002

(8) Deferred Outflows of Resources

The deferred outflows of resources represent the remaining unamortized deferral balances from losses on refundings of debt. The balances of $60.6 million and $68.8 million as of December 31, 2019 and 2018, respectively, are included within the net investment in capital assets component of net position.

A summary of deferred outflows of resources as of December 31, 2019 and 2018 is as follows:

		2019	2018
Deferred refunding 1997	$	13,313,002	15,313,987
Deferred refunding 2004		17,637,613	18,728,600
Deferred refunding 2006		5,045,098	5,367,125
Deferred refunding 2008		9,557,389	10,434,935
Deferred refunding 2010		7,327,774	8,429,161
Deferred refunding 2015		1,394,618	3,303,600
Deferred refunding 2017		2,829,960	7,245,796
Deferred refunding 2019		3,471,647	—
	$	60,577,101	68,823,204

(9) Bonds Payable

Bonds payable include current interest bonds (CIB), capital appreciation bonds (CAB), and LIBOR index bonds, consisting of both new issue and refunded bonds of the Authority. The Authority is committed to repay the bonds and related interest from its revenues and allowable restricted investments. Interest rates on outstanding current interest bonds at December 31, 2019 ranged from 2.35% to 5.375%. The average outstanding coupon (interest) rate on all outstanding current interest bonds was 4.49% and 4.20% for the years ended December 31, 2019 and 2018, respectively. Yields on outstanding capital appreciation bonds at December 31, 2019 and 2018 ranged from 5.06% to 7.13%. The average outstanding yield rate on all outstanding capital appreciation bonds was 5.90% and 5.89% for the years ended December 31, 2019 and 2018, respectively. Most bond series' interest due is paid semiannually on March 1 and September 1, with outstanding principal due on September 1 for the applicable bond series. Only the Series 2017 and Series 2019 LIBOR index term rate bonds accrue and pay interest monthly based on the variable 67% of one month LIBOR index plus 105 basis points (bps), or 1.05% on the 2017B bonds, and 42 basis points, or 0.42% on the 2019A bonds.

The Bond Resolutions require that the Authority maintain a Revenue Covenant (also referred to as the debt service coverage ratio) of at least 1.30 times the aggregate debt service due for the year. For the years ended December 31, 2019 and 2018, the Authority exceeded the required debt service coverage ratio of 1.30. Refer to the Supplementary Information – Revenue Covenant section for the 2019 debt service coverage calculation and reconciliation to the basic financial statements for operating balances and senior debt service due.

(C o n t i n u e d)

The following is a summary of the bonds payable by bond series and type as of December 31, 2019:

Bonds outstanding	Original principal amount	Refunded series (if applicable)	Current maturity dates (1)	Current interest rate/yield ranges	Annual principal maturity due ranges
Series 1997 B CAB	$ 342,217,730	1986 Bonds	2020 – 2026	5.50% – 5.52%	$ $44,795,000 – 44,800,000
Series 2000 B CAB	252,848,750	—	2020 – 2033	6.20% – 6.35%	36,200,000 – 104,200,000
Series 2004 A CAB	76,484,624	2000 B CAB *	2027 – 2036	5.33% – 5.46%	78,425,000 – 78,500,000
Series 2004 B CAB	70,705,810	2000 B CAB *	2027 – 2036	5.60% – 5.72%	23,300,000 – 49,075,000
Series 2006 B CAB	56,932,723	2000 A CIB	2035 – 2039	5.06% – 5.08%	60,000,000 – 70,720,000
Series 2010 A CAB	21,834,746	1997B CAB *	2035 – 2041	7.08% – 7.13%	7,860,000 – 52,385,000
Series 2010 C CIB	81,655,000	2007A2–D2 *	2025 – 2026	5.25% – 5.375%	24,180,000 – 57,475,000
Series 2015 A CIB	41,550,000	2007 A1–D1 *	2020	2.35% – 5.00%	20,590,000
Series 2017 B LIBOR	66,075,000	2007 CD-2	2026 – 2039	67% LIBOR + 105 bps	5,115,000 – 22,210,000
Series 2019 A LIBOR	72,565,000	2017 A	2026 – 2039	67% LIBOR + 42 bps	13,515,000 – 22,250,000

(1) The current maturity dates include a range, but does not indicate that there are maturities every year within the range.

* The refunded bonds were partially refunded by the new series bonds.

Series 2019A Bonds – On March 7, 2019, The Authority successfully refunded the Series 2017A LIBOR Index Term Rate bonds with the Series 2019A LIBOR Index Term Rate bonds totaling approximately $72.5 million at par, with no change to the principal amounts or maturities. The Series 2017A bonds were subject to optional early redemption on or after March 1, 2019, with a mandatory tender and remarketing date of September 1, 2019. The Authority exercised the early redemption option on both series to take advantage of low interest rates and debt service savings. The Series 2017A bonds of $72.5 million paid interest each month based on the previous period's final calculated LIBOR market pricing plus 90 basis points (0.90%), which was refunded with the new Series 2019A LIBOR Index bonds plus 42 basis points (0.42%) over a two-and-a-half-year term (term date of September 1, 2021), saving the Authority over 0.48% in monthly interest costs. The proceeds totaling $72.5 million were used to defease the outstanding Series 2017A bonds, and the related liability for those bonds were removed from the Authority's statements of net position. The Authority used funds from the General Surplus account (Senior Bond Defeasance Fund) to pay all related underwriting fees and other issuance costs totaling approximately $969,000.

The principal portions of the Series 2019A bonds are payable in September 2026 and September 2037 to September 2039, with amounts ranging between $13.5 million and $22.3 million. These principal amounts due did not change from the refunded bonds principal debt service requirements. The Series 2019A bonds are subject to an optional redemption on or after September 1, 2020, with a mandatory tender and remarketing date of September 1, 2021. If the bonds are not converted (or refunded) by the mandatory redemption date, the bonds will reset to a failed remarketing rate during the first 90 days at the greater of (a) applicable LIBOR index rate plus 4.50% or (b) 7.00%; thereafter the failed remarketing rate is 9.00% based on the Bond Resolutions.

The refunding resulted in a difference between the reacquisition price and the net carrying amount of the old debt of $3.9 million in the prior year for the 2019A bonds. This difference, reported in the accompanying basic financial statements as a component of deferred outflows of resources within the 2019 deferred refunding balance, are being amortized as a component of interest expense over the shorter life of the old (including previous refunded debt) and the new debt, which is 2026. The refunding resulted in a net present value economic gain of $0.2 million, and the refunding reduces debt service payments in the years 2019 to and including 2039 by a total of $1.3 million. The Authority retained the 67% of one-month LIBOR convention on the bonds to match the associated index of the interest rate swaps and eliminate basis risk (note 10). Lastly, and related to this transaction, the Authority removed the swap insurance on the two interest rate swaps that have been insured by NPFG since 2007 and paid the swap counterparties a total of $974 thousand to terminate the policies. This was done in part due to negotiations with NPFG and based on the insurer rights within the swap and bond documents and will benefit the Authority in the future with greater flexibility for any swap changes. NPFG's financial strength and claims paying ability rating was reaffirmed and then subsequently withdrawn by S&P in December 2017 and was downgraded by Moody's to Ba3 in January 2018, which is lower than the Authority's stand-alone rating.

The following is an analysis of changes in bonds payable and associated bond premiums and discounts for the year ended December 31, 2019:

	Balance at January 1, 2019	Additions	Reductions	Balance at December 31, 2019	Due within one year
Series 1997B CAB (Principal)	$ 90,296,951	—	13,658,176	76,638,775	12,854,016
Series 1997B CAB (Accretion)	197,640,484	15,258,365	31,141,824	181,757,025	31,945,984
Series 2000B CAB (Principal)	143,746,679	—	10,219,956	133,526,723	10,475,556
Series 2000B CAB (Accretion)	312,221,814	28,443,329	22,880,044	317,785,099	25,724,444
Series 2004A CAB (Principal)	76,484,624	—	—	76,484,624	—
Series 2004A CAB (Accretion)	85,000,085	8,837,373	—	93,837,458	—
Series 2004B CAB (Principal)	70,705,810	—	—	70,705,810	—
Series 2004B CAB (Accretion)	84,468,197	8,943,715	—	93,411,912	—
Premium Series 2004	395,692	—	24,265	371,427	—
Series 2006B CAB (Principal)	56,932,723	—	—	56,932,723	—
Series 2006B CAB (Accretion)	48,383,198	5,409,785	—	53,792,983	—
Series 2010A CAB (Principal)	21,834,746	—	—	21,834,746	—
Series 2010A CAB (Accretion)	16,862,042	2,803,150	—	19,665,192	—
Series 2010C CIB	81,655,000	—	—	81,655,000	—
Discount 2010C CIB	(148,932)	22,212	—	(126,720)	—
Series 2015A CIB	38,985,000	—	18,395,000	20,590,000	20,590,000
Premium 2015A CIB	605,970	—	605,970	—	—
Series 2017A LIBOR Notes	72,565,000	—	72,565,000	—	—
Series 2017B LIBOR Notes	66,075,000	—	—	66,075,000	—
Series 2019A LIBOR Notes	—	72,565,000	—	72,565,000	—
Total	$ 1,464,710,083	142,282,929	169,490,235	1,437,502,777	101,590,000

The following is an analysis of changes in bonds payable and associated bond premiums and discounts for the year ended December 31, 2018:

	Balance at January 1, 2018	Additions	Reductions	Balance at December 31, 2018	Due within one year
Series 1997B CAB (Principal)	$ 104,712,695	—	14,415,744	90,296,951	13,658,176
Series 1997B CAB (Accretion)	211,219,843	16,804,897	30,384,256	197,640,484	31,141,824
Series 2000B CAB (Principal)	154,024,296	—	10,277,617	143,746,679	10,219,956
Series 2000B CAB (Accretion)	304,440,594	28,603,603	20,822,383	312,221,814	22,880,044
Series 2004A CAB (Principal)	76,484,624	—	—	76,484,624	—
Series 2004A CAB (Accretion)	76,621,428	8,378,657	—	85,000,085	—
Series 2004B CAB (Principal)	70,705,810	—	—	70,705,810	—
Series 2004B CAB (Accretion)	76,011,802	8,456,395	—	84,468,197	—
Premium Series 2004	418,672	—	22,980	395,692	—
Series 2006B CAB (Principal)	56,932,723	—	—	56,932,723	—
Series 2006B CAB (Accretion)	43,237,806	5,145,392	—	48,383,198	—
Series 2007 A-1 CIB	3,025,000	—	3,025,000	—	—
Series 2007 B-1 CIB	3,025,000	—	3,025,000	—	—
Series 2007 C-1 CIB	3,025,000	—	3,025,000	—	—
Series 2007 D-1 CIB	3,060,000	—	3,060,000	—	—
Series VRF 2009 CIB	1,395,000	—	1,395,000	—	—
Series 2010A CAB (Principal)	21,834,746	—	—	21,834,746	—
Series 2010A CAB (Accretion)	14,248,176	2,613,866	—	16,862,042	—
Series 2010C CIB	81,655,000	—	—	81,655,000	—
Discount 2010C CIB	(171,149)	22,217	—	(148,932)	—
Series 2015A CIB	39,185,000	—	200,000	38,985,000	18,395,000
Premium 2015A CIB	1,753,307	—	1,147,337	605,970	—
Series 2017A LIBOR Notes	72,565,000	—	—	72,565,000	—
Series 2017B LIBOR Notes	66,075,000	—	—	66,075,000	—
Total	$ 1,485,485,373	70,025,027	90,800,317	1,464,710,083	96,295,000

At December 31, 2019, scheduled payments for bonds payable over the next five years and thereafter are as follows:

		Principal	Swap and debt interest	Total
Year(s) ending December 31:				
2020	$	101,590,000	11,620,985	113,210,985
2021		82,495,000	10,812,159	93,307,159
2022		84,200,000	11,301,450	95,501,450
2023		85,895,000	11,301,450	97,196,450
2024		87,695,000	11,303,594	98,998,594
2025 – 2029		619,020,000	38,819,118	657,839,118
2030 – 2034		637,500,000	29,570,173	667,070,173
2035 – 2039		576,095,000	22,856,900	598,951,900
2040 – 2041		104,770,000	—	104,770,000
		2,379,260,000	147,585,829	2,526,845,829
Add premiums, net of discounts		244,707	—	244,707
Total scheduled payments		2,379,504,707	147,585,829	2,527,090,536
Less future years' accretion		(942,001,930)	—	(942,001,930)
Total bonds payable	$	1,437,502,777	147,585,829	1,585,088,606

Included in the above principal payment schedule is $942 million of expected future year interest accretion on the Senior CAB 1997B bond series, Senior CAB 2000B bond series, Senior CAB 2004A and 2004B bonds series, Senior 2006B bond series, and the Senior 2010A bond series.

(10) Derivative Instruments

The Authority has two outstanding interest rate swap agreements that are considered investment derivatives under GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, as of December 31, 2019 and 2018.

As a means to hedge its borrowing costs, when compared against fixed-rate bonds at the time of issuance of the Series 2007 auction-rate bonds in June 2007, the Authority originally entered into separate pay-fixed, receive-floating LIBOR interest rate swap agreements with Morgan Stanley (MS-1) and JP Morgan (JP-1) (formerly known as Bear Stearns). The intention of these two pay-fixed swaps was to effectively change the Authority's variable interest rate on the Series 2007 auction-rate bonds to a synthetic fixed rate of 3.832% until final maturity of the bonds in September 2039. The swaps and related Series 2007 bonds have since gone through a series of remarketings, refundings, and partial swap terminations since 2007 and are now associated only with the remaining 2017B and 2019A LIBOR Index Term Rate Bonds.

The 2007 pay-fixed MS-1 and JP-1 swaps have outstanding notional amounts from 2026 to 2039 related to the outstanding Series 2017B and 2019A bond maturities. The Authority pays variable interest on each month based on the previous months' final 67% of LIBOR index rate plus 105 basis points (1.05%) for the Series 2017B bonds, and pays 42 basis points (0.42%) for the Series 2019A bonds. These spreads plus the MS-1 and JP-1 pay-fixed interest rate of 3.832% leads to a synthetic interest rate of 4.882% and 4.252% on the outstanding Series 2017B and 2019A bonds, respectively, during the term-rate period, where the Authority has removed the basis risk (both the bonds and swaps are 67% of LIBOR based). However, the relationship between both the Series 2017B and 2019A bonds and the two swaps did not meet the requirements of a hedging derivative instrument; therefore, the related swap fair values are recorded as investment derivatives as of December 31, 2019 and 2018.

During 2019 and 2018, the Authority recognized, on the accrual basis, swap settlements on the 2007 pay-fixed swaps (MS-1 and JP-1) of $3.2 million and $3.4 million, respectively.

The following table provides a summary of the Authority's investment derivative interest rate swaps as of December 31, 2019 and 2018:

Swap	Counterparty	Effective date	Maturity date	Terms	Original notional amount	2019 and 2018 notional amount
JP-1	JP Morgan	June 14, 2007	September 1, 2039	Pay 3.832%; receive 67% one-month LIBOR	$ 155,252,500	69,320,000
MS-1	Morgan Stanley	June 14, 2007	September 1, 2039	Pay 3.832%; receive 67% one-month LIBOR	155,252,500	69,320,000
				Total notional amounts for pay-fixed swaps	$ 310,505,000	138,640,000

The Authority values the interest rate swap derivatives at fair value in accordance with generally accepted accounting principles (note 3) and has subscribed to an independent monitoring service to assist in the review of the monthly cash flows and fair market valuations.

The fair values of derivative instruments outstanding at December 31, 2019, classified by type, and changes in fair value of such derivative instruments for the year then ended, as reported in the basic financial statements, are as follows:

		2019 Changes in fair value			Fair value at December 31, 2019		
		Classification		**Amount**	**Classification**		**Amount**
Investment derivative instruments:							
JP-1	Pay-fixed interest rate swap	Derivative loss	$	(6,168,127)	Derivative instruments	$	(25,087,335)
MS-1	Pay-fixed interest rate swap	Derivative loss		(6,170,701)	Derivative instruments		(25,082,116)
		Investment revenues: Derivative loss	$	(12,338,828)	Derivative instruments	$	(50,169,451)

The fair values of derivative instruments outstanding at December 31, 2018, classified by type, and changes in fair value of such derivative instruments for the year then ended, as reported in the basic financial statements, are as follows:

		2018 Changes in fair value			Fair value at December 31, 2018		
		Classification		**Amount**	**Classification**		**Amount**
Investment derivative instruments:							
JP-1	Pay-fixed interest rate swap	Derivative gain	$	2,851,894	Derivative instruments	$	(18,919,208)
MS-1	Pay-fixed interest rate swap	Derivative gain		2,860,794	Derivative instruments		(18,911,415)
		Investment revenues: Derivative gain	$	5,712,688	Derivative instruments	$	(37,830,623)

(a) Credit Risk

Credit risk can be measured by actual market value exposure or theoretical exposure. When the fair value of any swap has a positive fair market value, the Authority is exposed to the actual risk that the counterparty will not fulfill its obligations. As of December 31, 2019 and 2018, the Authority did not have credit risk as the fair value on the two remaining swaps are liabilities to the Authority.

Under the current swap agreements, JP Morgan Chase Bank, N.A. is required to maintain credit quality ratings of “Aa3” by Moody’s or “AA–” by S&P, while Morgan Stanley Capital Services Inc. is required to maintain credit quality ratings of at least two of the following ratings, which is a “Baa2” from Moody’s, “BBB” from S&P, and “BBB” from Fitch. As of December 31, 2019, the swap counterparties had the following ratings from Moody’s, S&P, and Fitch:

Counterparty	Moody’s	S&P	Fitch
JP Morgan	Aa2	A+	AA
Morgan Stanley	A3	BBB+	A

Due to ratings adjustments with both swap counterparties over the past several years, the Authority entered into a separate credit support annex agreement with Morgan Stanley in 2010 during the time of the 2010 tender transaction and entered into a credit support annex agreement with JP Morgan in 2013 due to their S&P rating downgrade to A+. Under these agreements, the Authority can require the counterparty to post collateral at any time when the aggregate fair market value of the Morgan Stanley swaps or the separate JP Morgan swap is an asset to the Authority; however, these counterparty rating downgrades did not trigger a termination event. The Authority monitors its fair market value and the ratings on its counterparties regularly to determine if credit risk is a concern. The Authority has not calculated theoretical credit exposure on its swaps. There is no master netting agreement between the Authority and either counterparty.

(b) Interest Rate Risk

Interest rate risk exists if the investment derivative exposes the Authority to interest rate risk. Each of the investment derivatives exposes the Authority to interest rate risk because changes in interest rates will affect the fair market value of each of the investment derivatives. As variable LIBOR rates increase or decrease, the amount of each net settlement changes resulting in potentially dramatic changes in fair market value from period to period.

The following table shows the impact of a 25 basis point (0.25%) increase and decrease in related rates in a parallel yield curve shift for each outstanding investment derivative as of December 31, 2019:

		Fair value at December 31, 2019	Interest rates up 25 basis points	Interest rates down 25 basis points
JP-1 Receive-variable (LIBOR) swap	$	(25,087,335)	(23,459,893)	(26,716,166)
MS-1 Receive-variable (LIBOR) swap		(25,082,116)	(23,455,007)	(26,710,614)
	$	(50,169,451)	(46,914,900)	(53,426,780)

The following table shows the impact of a 25 basis point (0.25%) increase and decrease in related rates in a parallel yield curve shift for each outstanding investment derivative as of December 31, 2018:

		Fair value at December 31, 2018	Interest rates up 25 basis points	Interest rates down 25 basis points
JP-1 Receive-variable (LIBOR) swap	$	(18,919,208)	(17,009,936)	(20,906,249)
MS-1 Receive-variable (LIBOR) swap		(18,911,415)	(17,002,113)	(20,898,470)
	$	(37,830,623)	(34,012,049)	(41,804,719)

(c) Foreign Currency Risk

All of the interest rate swaps are denominated in U.S. dollars; therefore, the Authority is not exposed to foreign currency risk.

(d) Contingent Features

The Authority or counterparty may terminate the swap if the other party fails to perform under the terms of the swap contract or any credit support annex agreement. In such cases, the Authority may owe or be due a termination payment depending on the fair market value of the interest rate swap at that time. The termination payment due to the counterparty or from the counterparty may not be equal to the fair market value. A termination of any interest rate swap may automatically occur due to cross default, bankruptcy, merger, and other defined events found in the swap agreements. Termination risk is a contingent feature of the investment derivatives and is described below. The Authority is not required to post collateral under its swap agreements.

Termination Risk: The 2007 LIBOR interest rate swap agreements (JP-1 and MS-1) expire on September 1, 2039. Both swap agreements are subject to early termination by the parties in certain specified events. These events include events of default and other ratings of the Authority and swap counterparty falling below the specified ratings in the swap agreements. No additional early automatic termination events were triggered as of December 31, 2019 or 2018. The Authority's underlying senior bond rating would have to go below BBB– by S&P or Baa3 by Moody's to cause a termination event. As of December 31, 2019 and 2018, the Authority's underlying senior bond rating was A by S&P and A2 by Moody's. If the swap agreements had an unscheduled ending, any associated termination payments would not impact the Authority's asset/liability strategy as the Authority holds approximately $423.8 million and $350.8 million in total unrestricted funds at December 31, 2019 and 2018, respectively. In addition, the Authority has the ability to exercise, at its sole discretion, early termination of the swap agreements at a mutually agreed-upon price for any reason.

Further, related to the 2019A bond transaction, the Authority removed the swap insurance on the two interest rate swaps that have been insured by NPFG since 2007 and paid the swap counterparties a total of $974 thousand to terminate the policies. This was done in part due to negotiations with NPFG and based on the insurer rights within the swap and bond documents and will benefit the Authority in the future with greater flexibility for any swap changes. NPFG's financial strength and claims paying ability rating was reaffirmed and then subsequently withdrawn by S&P in December 2017 and was downgraded by Moody's to Ba3 in January 2018, which is lower than the Authority's stand-alone rating.

(11) Notes Payable

The following is an analysis of changes in notes payable for the years ended December 31, 2019 and 2018:

	Balance at January 1, 2019	Additions	Reductions	Balance at December 31, 2019	Due within one year
Other intergovernmental agreements	$ 481,538	—	240,769	240,769	240,769

	Balance at January 1, 2018	Additions	Reductions	Balance at December 31, 2018	Due within one year
Other intergovernmental agreements	$ 722,308	—	240,770	481,538	240,769

The Authority entered into an intergovernmental agreement with Douglas County in 2003 to receive contributed funds for costs of the Jamaica Road interchange ramp construction. Based on this agreement, the remaining contributed funds of $2.4 million as of 2008 are to be repaid in 10 equal payments (noninterest-bearing) beginning in 2011. The annual payment of $0.2 million is made from unrestricted funds, and the final scheduled payment occurs in January 2020.

(12) Other Restricted Noncurrent Liabilities

Other restricted noncurrent liabilities includes the remaining unamortized balance of the 1997 forward delivery agreement and any arbitrage rebate liability to the Authority, if applicable. The following is an analysis of changes in the unamortized balance of the 1997 forward delivery agreement for the years ended December 31, 2019 and 2018:

	Balance at January 1, 2019	Additions	Reductions	Balance at December 31, 2019
$	1,585,983	—	207,544	1,378,439

	Balance at January 1, 2018	Additions	Reductions	Balance at December 31, 2018
$	1,793,527	—	207,544	1,585,983

Under the Bond Resolutions, the Authority is required to make scheduled payments with respect to 1997 Senior Bonds by depositing certain moneys into the Senior Bonds Debt Service Account held by the Trustee. The Authority has deemed the reinvestment of these funds for a period prior to the required payment date to be desirable. To facilitate the reinvestment, the Authority entered into a Debt Service Forward Delivery Agreement in December 1997 with U.S. Bank National Association and Lehman Brothers Special Financing Inc. (LBSF). Under the terms of the original agreement in 1997, LBSF agreed to pay a facility fee of $11.3 million for the opportunity to use the funds to invest in qualified securities. The agreement provides for the appropriate amounts to be available as needed for scheduled debt service payments.

During 2007, 2008, and 2010, the Authority refunded, tendered, and redeemed a portion of the Series 1997A, 1997B, and 1997C bonds, respectively. By entering into these transactions on the Series 1997 bonds, the Authority no longer had a requirement to deposit interest and principal into the Senior Bonds Debt Service Account in the amount that was originally agreed upon when entering into the Debt Service Forward Delivery Agreement with LBSF. Partial termination payments were made to LBSF in 2007 ($6.5 million), 2008 ($0.3 million), and 2010 ($0.2 million). Due to bankruptcy of LBSF, the Authority entered into a novation agreement in 2013 to transfer the forward delivery agreement from LBSF to Deutsche Bank. No terms of the original agreement were changed, and the Authority did not incur any expenses from the novation. The remaining balance of the 1997 forward delivery agreement is being amortized over the life of the outstanding 1997 bonds, which reach final maturity in September 2026.

The Internal Revenue Code and arbitrage rebate regulations issued by the IRS require rebate to the federal government of excess investment earnings on tax-exempt debt proceeds if the yield on those earnings exceeds the effective yield on the related tax-exempt debt issued. Excess earnings must be rebated every five years or upon maturity of the debt, whichever is earlier. The Authority has an assessed arbitrage rebate liability of $0.6 million as of December 31, 2019 and $0.3 million as of December 31, 2018. A rebate of $0.04 million related to the 2015A bonds was due and paid in 2019. There were no amounts due or paid in 2018.

(13) Commitments and Contingencies

(a) Tax, Spending, and Debt Limitations

In November 1992, the voters of Colorado approved Amendment 1, referred to as the Taxpayers Bill of Rights (TABOR), which added a new Section 20 to Article X of the Colorado Constitution. TABOR contains tax, spending, revenue, and debt limitations that apply to the State of Colorado and all local governments. Enterprises, defined as government-owned businesses authorized to issue revenue bonds and receiving less than 10% of annual revenue in grants from all state and local governments combined, are excluded from the provisions of TABOR. The Authority's operations qualify for this exclusion.

(b) Risk Management

The Authority is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors or omissions; injuries to employees; and natural disasters. The Authority maintains commercial insurance for most risks of loss. Claims, expenses, and liabilities are reported when it is probable that a loss has occurred and the amount of that loss can be reasonably estimated. At December 31, 2019 and 2018, no amounts have been recorded for pending or future claims. Further, claims have not exceeded insurance limits for each of the past three years.

(c) Solar Equipment

The Authority entered into a solar power purchase agreement in July 2011 with Renewable Social Benefit Funds (RSBF), L3C, which provided RSBF the right to install solar power–generating facilities within the Authority's 16-mile Xcel Energy corridor. Generating facilities were installed at 18 ramp locations and four building locations within this corridor (Authority headquarters, toll plazas B and C, and the central maintenance facility) for an estimated generating capacity of 707 kilowatts. RSBF is responsible for all installation, operation and maintenance, and other associated costs of the entire generating system for a 20-year period. The solar power–generating facilities were fully operational in early 2012. However, the Authority has the right and option, but not the obligation, to purchase the generating system in its entirety on the anniversary of the sixth year of full operation at a mutually agreed-upon fair market value of the solar equipment. If the option is exercised by the Authority, the generating assets will be transferred to the Authority, and all responsibilities and aspects of the solar power purchase agreement will be terminated. The Authority did not exercise this option.

(d) Intergovernmental Agreement with City of Aurora regarding Stephen D. Hogan Parkway

The Authority entered into an intergovernmental agreement in 2015 with the City of Aurora (the City) regarding the extension of 6th Avenue from its former terminus in an eastward direction from Buckley Air Force Base to East 6th Parkway and E 470. This extension, opened in 2019 as East Stephen D. Hogan Parkway, established a more direct route of travel, thereby filling a gap in the regional roadway network. In addition, the forecasted traffic and revenue on E-470 indicates that the extension will provide future revenue increases for the Authority. In consideration of the potential future revenue impacts, the Authority agreed to contribute $4.0 million toward the cost of construction in the form of a $2.0 million contribution and a $2.0 million loan, which has a 10-year term beginning on August 9, 2018, the date the Authority's proceeds were disbursed to the City, and bears interest at a rate of 2.5% per annum. Both components of the Authority's contribution were conditioned upon all other funds being appropriated by the City of Aurora or otherwise irrevocably committed to the City of Aurora by third parties. The loan is presented as notes receivable on the statement of revenues, expenses, and changes in net position as of December 31, 2019 and 2018, with an outstanding principal balance of $1.8 million and $2.0 million, respectively. The $2.0 million contribution is presented as an intergovernmental expense and reflected as a special item on the statement of revenues, expenses, and changes in net position for the year ended December 31, 2018 due to its infrequent nature.

(e) Intergovernmental Agreement with City of Commerce City regarding 120th Avenue Traffic Signals

The Authority entered into an intergovernmental agreement in 2019 with the City of Commerce City (Commerce City) regarding the funding of traffic signals located on the northbound and southbound on and off-ramps at the intersection of E-470 and 120th Avenue. The traffic signals will benefit the travelling public in this area by way of increased safety and traffic control, and construction is expected to occur in 2020. Commerce City is responsible for project design and construction, as well as being solely responsible for operation and maintenance in perpetuity. The Authority shall provide funding for design, construction, and construction management in an amount not to exceed $750 thousand. Funds are placed in a designated and segregated E-470 account, which corresponds with the cash and cash equivalent limited for construction on the statement of net position as of December 31, 2019 and will be released to Commerce City upon presentation and mutual approval of progress invoices for eligible expenses. The Authority did not recognize an intergovernmental liability as of December 31, 2019, as no eligible expenses were incurred by Commerce City as of year-end.

(14) Intergovernmental Liability

(a) E-470 Ramp Relocation at Quincy Avenue

The Authority entered into an intergovernmental agreement in 2019 with South Aurora Regional Improvement Authority (SARIA) and Arapahoe County (the County) regarding relocation of the northbound on and off-ramps at Quincy Avenue, including the installation of a new signalized intersection to assist with mitigation of traffic congestion. The County is improving the current intersection of Quincy Ave and Gun Club Road with a partial continuous flow intersection, and the proximity of the northbound on and off-ramps of E-470 at Quincy Avenue creates operational and safety concerns, which the relocation will alleviate. The Authority is responsible for facilitating, overseeing, and completing the project, which will be constructed in conjunction with the Quincy to I-70 widening project to achieve economies of scale and other efficiencies and cost savings and is expected to be completed in 2020. Under the agreement, SARIA and the County will each contribute one-third of the project costs, estimated at the time of the agreement to be $3.0 million each, or $6.0 million in total. As the capital outlay is probable and expected to occur in 2020, the Authority accrued the liability as of December 31, 2019 as a current intergovernmental liability for the ramp construction. Two-thirds, or $0.9 million, of the project construction costs expended by the Authority in 2019 was recognized as intergovernmental revenue and a reduction of the intergovernmental liability. The remaining current intergovernmental liability as of December 31, 2019 is $5.1 million. The remaining unpaid amounts due from SARIA and the County are presented as notes receivable on the statement of net position as of December 31, 2019, with an outstanding principal balance of $1.0 million and $2.7 million, respectively.

(b) Ramp Financing

The Authority entered into an intergovernmental agreement in 1995 with the City of Commerce City regarding coordination of road improvements and operations. At that time, the Authority was seeking funding for design and construction of Segments II and III and entered into numerous agreements with local jurisdictions. The agreement with Commerce City included a provision for the Authority to fully finance and construct the west ramps of the Tower Road/Pena Boulevard interchange based on a mutually agreed-upon design if the west ramps had not been constructed by January 1, 2012. As of this date, only the southwest ramp has been designed or constructed, and all other provisions in the agreement have been satisfied. In April 2014, the Authority’s board of directors and Commerce City approved a new intergovernmental agreement regarding funding of the Tower Road/Pena Boulevard Interchange, and the board of directors approved the 2014 capital budget, including the outlay of $3.2 million to relieve the Authority of this infrequent obligation. Further, in February 2018, the Authority and Commerce City amended the 2014 IGA to add an additional $1.0 million in ramp funding to the liability, which was fully funded in 2018. The related intergovernmental expense of $1.0 million is reflected as a special item on the statement of revenues, expenses, and changes in net position for the year ended December 31, 2018 due to its infrequent nature, while the original $3.2 million was recognized in this manner on the statement of revenues, expenses, and changes in net position for the year ended December 31, 2013 when the original liability was established. Commerce City began construction on the project in January 2018, and the ramp opened to traffic in October 2018. In accordance with the provisions of the IGA, the Authority disbursed the full $4.2 million during 2018, which reduced the liability to $0 as of December 31, 2018.

(15) Litigation

The Authority is from time to time involved in various legal proceedings characterized as normally incidental to the business of the Authority. Management does not believe that the outcome of any legal proceedings will have a materially adverse impact on the financial position or results of operations of the Authority.

(16) Retirement Plans

In lieu of Social Security, the Authority contributes 6.2% of all compensation for regular employees to a retirement plan, up to the maximum Federal Insurance Contributions Act (FICA) base level of $132,900 in 2019 and $128,400 in 2018, for a maximum contribution of $8,240 for 2019 and $7,961 for 2018. Plan members are also required to contribute 6.2% of their annual covered salary. The plan is a defined-contribution plan administered by International City/County Management Association (ICMA) Retirement Corporation. Plan provisions and contribution requirements are established by and can be amended by the Authority’s board of directors. The Authority and its employees each contributed $0.4 million to this plan in 2019 and $0.3 million in 2018. Employees are immediately vested.

In addition, the Authority contributes to 401(a) Retirement Plan covering 10% of all compensation for regular employees. Employees are not allowed to make contributions to the plan. The plan is a defined-contribution plan administered by ICMA Retirement Corporation. Plan provisions and contribution requirements are established by and can be amended by the Authority’s board of directors. Employees are 50% vested at the date of hire and 100% vested after one year of service. The Authority also matches employee contributions to the available 457 deferred compensation retirement plan up to $3,000 per employee per year, and these employer contributions are deposited into the 401(a) Retirement Plan due to the IRS annual deferral limit for 457 plans. The Authority contributed $0.7 million to this plan in 2019 and $0.7 million in 2018.

(17) Subsequent Events

The recent outbreak of the novel coronavirus COVID-19, which was declared a pandemic by the World Health Organization on March 11, 2020, has led to adverse impacts on the U.S. and global economies and created uncertainty regarding potential impacts to the Authority's daily toll transaction levels and operations. The pandemic has impacted and could further impact the Authority's operations and the operations of the Authority's vendors and customers as a result of quarantines or stay-at-home orders, facility closures, and travel and logistics restrictions. While the disruption caused by the pandemic is currently expected to be temporary, there is uncertainty regarding its duration. Therefore, while management of the Authority expects the pandemic will have a certain level of impact on its results of operations, financial position, and liquidity, management cannot reasonably estimate the impact at this time.

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E-470 PUBLIC HIGHWAY AUTHORITY

Supplementary Information – Revenue Covenant

Year ended December 31, 2019

(Unaudited)

Section 7.18 of the Master and Supplemental Bond Resolutions (Bond Resolutions), titled “Revenue Covenant,” requires that there shall be sufficient revenues (as defined) collected, after the provision for the payment of operating expenses (as defined), to produce net income at least 1.30 times the aggregate senior debt service due for the year. The year ended December 31, 2002 was the first fiscal year the revenue covenant was applicable, and such covenant is applicable to all subsequent years through the payment of the Senior Bonds.

For the year ended December 31, 2019, the Authority exceeded the required debt service coverage ratio reporting an actual ratio of 2.10. Below is the calculation for the year ended December 31, 2019.

Revenue:		
Operating revenues	$	267,666,532
Unrestricted investment income		12,252,963
Other income		2,489,341
Total revenue		282,408,836
Less operating expenses before depreciation, net of renewal and replacement expenses		(54,333,954)
Net income available for senior debt service		228,074,882
Aggregate senior debt service due during the year	$	108,844,013
Senior debt service coverage ratio		2.10

E-470 PUBLIC HIGHWAY AUTHORITY

Supplementary Information – Revenue Covenant

Year ended December 31, 2019

(Unaudited)

The following is a summary description of key terminology of terms identified in the Bond Resolutions. Please refer to the Bond Resolutions for a complete description and additional clarification of the below terms.

Revenue: As defined by the Bond Resolutions, revenue comprises amounts received by the Authority from fees, tolls, rates, and charges for the privilege of traveling on the E-470 toll road. Revenues also include all other amounts derived from or in respect of the ownership or operation of the toll road, which constitute revenues in accordance with generally accepted accounting principles, including accrued toll revenues. Revenues also include other amounts derived from the E-470 toll road, as defined in the Bond Resolutions. Revenues do not include investment income that is externally restricted by credit agreements for purposes other than senior debt service. Revenues also do not include investment income that is noncash in nature, such as unrealized gains (losses), premiums, and discounts.

The following is a reconciliation of investment income reported in the audited basic financial statements of the Authority for the year ended December 31, 2019 to unrestricted investment income available for senior debt service:

Interest earned on investments per the basic financial statements	$	14,599,361
Less:		
Gain on investments		(1,624)
Restricted investment income		(837,299)
Unamortized investment discount		(1,507,475)
Unrestricted investment income	$	12,252,963

The following is a reconciliation of other income reported in the audited basic financial statements of the Authority for the year ended December 31, 2019 to other income available for senior debt service:

Other income per the basic financial statements	$	1,664,579
Less:		
Loss on disposal of capital assets		479,315
Increase in arbitrage rebate		324,843
Add:		
Other nonoperating expenses		20,604
Other income	$	2,489,341

Operating Expense: As defined by the Bond Resolutions, operating expenses are amounts expended for the operation, maintenance, repair, and any other current expenses or obligations required to be paid by the Authority directly attributable to the operation of the E-470 toll road. Operating expenses do not include depreciation expense, interest for debt service, or expenses associated with the renewal and replacement accounts established under the Bond Resolutions. Per the Bond Resolutions, renewal and replacement expenses are to be funded after senior debt service.

(Continued)

E-470 PUBLIC HIGHWAY AUTHORITY

Supplementary Information – Revenue Covenant

Year ended December 31, 2019

(Unaudited)

The following is a reconciliation of operating expenses before depreciation expense reported in the audited basic financial statements of the Authority for the year ended December 31, 2019 to operating expenses before depreciation expense, net of nonoperating fund expenses, included in the revenue covenant calculation:

Operating expenses before depreciation and interest per the audited basic financial statements	$	57,361,364
Less renewal and replacement expenses		(3,027,410)
Operating expenses before depreciation expense, net of nonoperating fund expenses	$	54,333,954

Aggregate Senior Debt Service Due: For the year ended December 31, 2019, aggregate senior debt service due is all principal and interest paid on outstanding senior bonds (cash basis), which includes Senior Bond Series 1997B, 2000B, 2010C, 2015A, 2017A, 2017B, and 2019A, as well as the paid settlement differential on the Authority's interest rate swaps during the year.

Senior Debt Service Coverage Ratio: Senior debt service coverage ratio is the ratio of net income available for senior debt service to aggregate debt service due during the fiscal year.