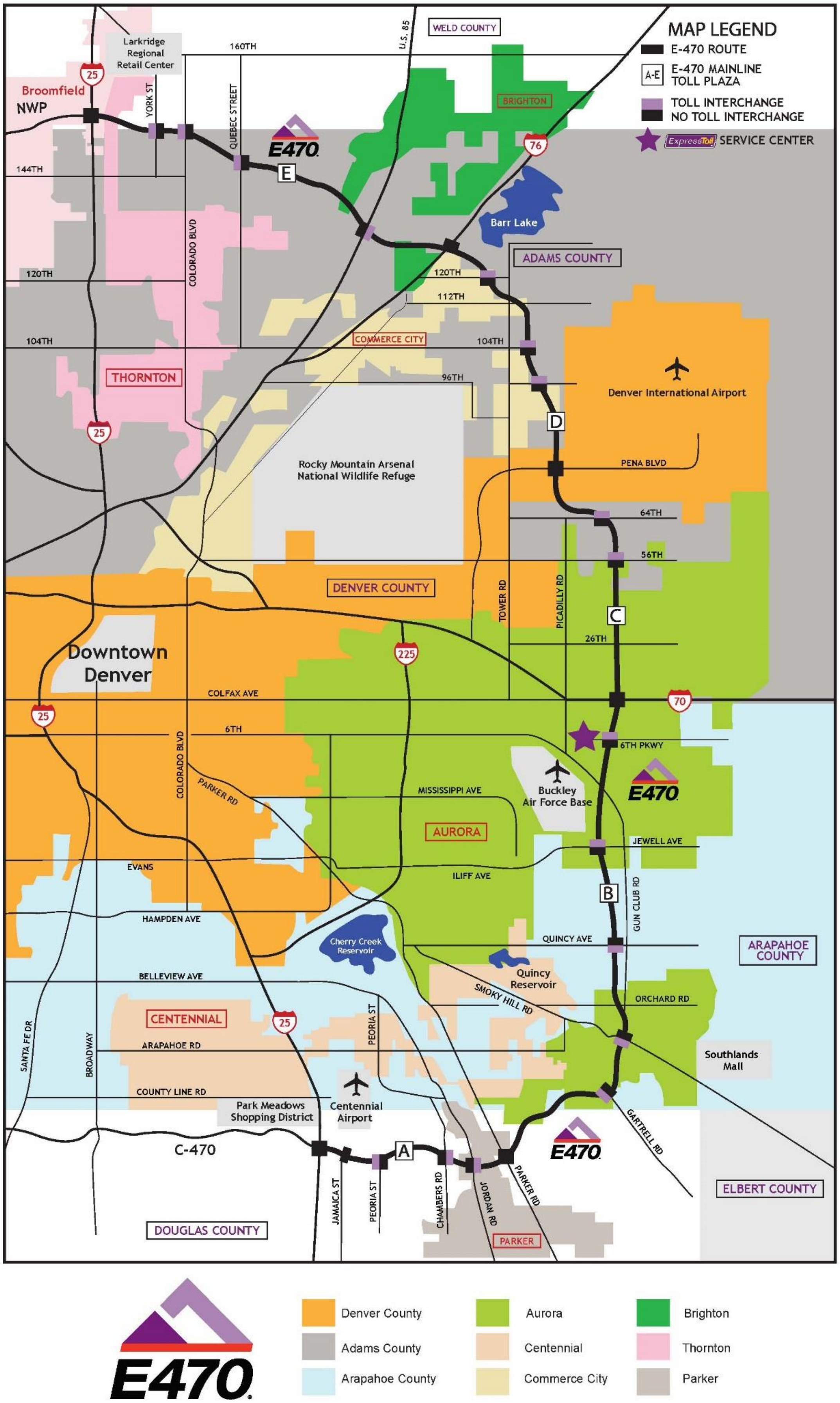
E-470 PUBLIC HIGHWAY AUTHORITY

2020 BASIC FINANCIAL STATEMENTS
DECEMBER 31, 2020 & 2019

(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
Larkridge Regional Retail Center
160TH
U.S. 85
Broomfield
NWP
25
YORK ST
QUEBEC STREET
BRIGHTON
E470
76
E
144TH
Barr Lake
COLORADO BLVD
ADAMS COUNTY
120TH
112TH
104TH
COMMERCE CITY
THORNTON
96TH
Denver International Airport
D
PENA BLVD
Rocky Mountain Arsenal National Wildlife Refuge
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
BELLEVIEW AVE
Quincy Reservoir
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
JAMAICA ST
CHAMBERS RD
JORDAN RD
ELBERT COUNTY
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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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, 2020 and 2019. 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 2020, 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), I-25 North Segments 2 and 3, and C-470. 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.

2020 Financial Highlights

- The outbreak of 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, led to adverse impacts on the U.S. and global economies and created a downturn of the Authority's toll transaction levels and related toll revenues throughout 2020. 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 alternative roads, which has been more limited as a result of the pandemic. Future impacts to the Authority's traffic levels and operations still remain uncertain. The pandemic has impacted and could further impact the operations of the Authority and its vendors and customers as a result of quarantines or stay-at-home orders, facility closures, travel and logistics restrictions, and other local, state or federal restrictions that began in March of 2020 and continue into 2021. Further, long-term work, school and business travel behaviors and patterns remain unknown as the fallout from the pandemic continues to unfold and will take months and years to return to a new normal. The disruption and uncertainty regarding its duration has caused significant changes on the Authority's 2020 financial results when compared to previous years. However, the Authority's management continuously analyzed trends and remained proactive throughout all of 2020 to successfully manage its operations, budget, capital projects, financial position, liquidity, and key financial metrics including debt service coverage and continues to do so into 2021.
- Due to the COVID-19 pandemic and the government lockdowns, mandates and restrictions imposed on the State and regional businesses and travelling public, transactions on the E-470 toll road experienced reduced traffic of 36% from 90.3 million transactions in 2019 to 58.1 million transactions in 2020. Traffic grew 3% from 87.3 million transactions in 2018 to 90.3 million transactions in 2019, which is the highest annual traffic on record and was the 10th straight year of traffic growth for the Authority prior to the pandemic in 2020.
- Following the decrease in transactions, operating revenues decreased 34% from 2019 to 2020 from $267.7 million to $176.6 million. Operating revenues increased 7% from 2018 to 2019 improving from $249.9 million to $267.7 million, the highest annual revenue on record.
- Offsetting and related to the operating revenue decline, operating expenses, before depreciation, decreased 5% from 2019 to 2020 from $57.4 million to $54.8 million. Operating expenses, before depreciation, increased 9% from 2018 to 2019 from $52.8 million to $57.4 million.
- Debt service coverage, a critical measurement of the Authority's annual operations, for fiscal year 2020 was 1.85 versus an original budgeted ratio of 1.96. Debt service coverage for fiscal year 2019 was 2.10 versus a budgeted 1.98 and was 2.11 versus a budgeted 1.94 in 2018. In response to the significant decrease in transactions and toll revenues as a result of the COVID-19 pandemic, the Authority paid approximately $36.2 million in 2020 from unrestricted funds to manage monthly cash flows during the early months of the pandemic with government lockdowns and stay-at-home orders, and to alleviate the annual debt service coverage by reducing the aggregate debt service due and paid from current year revenues in the calculation.

- In June 2020, the Authority successfully closed on the planned debt restructuring bond transaction, which included a cash contribution to partially pay off callable debt and refund the remaining portion to take advantage of very low interest rates and meet a long-standing debt management goal of lowering and leveling the future debt service profile. The Authority had approximately $252 million of debt callable on September 1, 2020. The Authority, as part of its debt management plan, contributed approximately $50 million to cash defease a portion of the callable debt, and refunded the remaining portion with fixed-rate debt. The bond sale was extremely positive being 26 times over-subscribed, which allowed the Authority to achieve improved savings and borrowing rates. The Authority was able to lock in an All-In True Interest Cost of 2.9% on the transaction, which is substantially lower than the previous rates on the refunded debt above 5.25%. The Authority also included future flexibility in the restructuring with additional call opportunities in 2024 and 2030, realizing an overall net present value economic gain of $79.5 million on the transaction and reduction of $129.5 million in future debt service amounts due at present value. This allowed the Authority flexibility in handling the impacts from the pandemic and related regional economic downturn in 2020 as well as cash flows for future capital projects, funding of debt call opportunities and toll rate-setting policies.
- In conjunction with the 2020 bond transaction, the Authority engaged its Traffic and Revenue Consultant to conduct an updated Investment Grade Traffic and Revenue study that revised future forecasts for the E-470 toll road from 2020 through 2050, considering regional updates, capital planning, economical updates, historic trends on E-470, future toll rate schedules, and impacts from the COVID-19 pandemic. The report was published in May 2020 near the beginning of the pandemic and resulting traffic downturn, and the Authority finished the year in line with these projections at 97% of revised 2020 transactions and 96% of revised 2020 net toll revenues.
- Also in conjunction with the 2020 bond transaction, the Authority's board approved an updated Debt Management and Derivative Policy in May of 2020. The updated policy includes new financial goals regarding, but not limited to, debt service coverage, capital funding, future debt management, and unrestricted fund balances. These new goals are used for future forecasting, planning, and budgeting to ensure the financial future and stability of the Authority.
- Additionally, the Authority completed two major solicitations in 2020 regarding 1) repurposing or redeveloping the vacant mainline toll plaza locations along the E-470 roadway and 2) implementation of next generation toll lane equipment and software along the E-470 toll road. For the redevelopment of certain of the existing toll plaza buildings, the Authority entered into a memorandum of understanding regarding redevelopment of certain parcels with Petrogas Group US, Inc. (Applegreen), effective January 28, 2021, to initially redevelop four toll plaza locations along the roadway to provide customers with additional convenience services and features like gasoline, food, beverage and rest areas, which will provide rental income to the Authority for these sites. Negotiations regarding final lease agreements are ongoing, and construction is anticipated to begin in late 2021 or 2022. For the next generation lane equipment project, the Authority selected and entered into an agreement for next generation lane toll system implementation and maintenance with Electronic Transaction Consultants Corporation (ETCC), and the project commenced in the second quarter of 2020. Planning, scoping and initial development continued through 2020.

- In 2020, the Authority substantially completed the large widening project from two lanes to three lanes in each direction between Quincy Avenue and I-70. This multi-year project was designed in 2018, was under construction from 2019 through 2020, and opened to traffic in December 2020 with a total project cost of $90.1 million funded from the Authority's Capital Improvements Fund of the General Surplus account. The project included construction and completion of the Quincy Avenue ramps redesign totaling approximately $5.7 million. The Authority has budgeted and anticipates approximately $2.3 million to be expended in 2021 to complete the project, including completion of signage and landscaping and completion of the multi-use High Plains Trail, which runs parallel to the tollway.
- Regarding tolling services, the Authority continued to provide back office services on other tolled facilities in the State of Colorado for NWP, HPTE, and Plenary in 2020. HPTE, in partnership with the Authority, opened two new tolled facilities in 2020 including I-25 North Segment 3, extending the current managed lanes north from 120th Avenue to E-470/Northwest Parkway, which opened in June 2020, and C-470, from I-25 to Wadsworth Boulevard, which opened in August 2020. The Authority's back office toll collection system processed approximately 16.4 million and 28.3 million tolled transactions on other roadways in 2020 and 2019, respectively, with all roadways seeing a reduction in toll transactions and revenues from the ongoing COVID-19 pandemic. 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 2020 and 2019 totaled approximately $6.7 million and $7.5 million, respectively.
- 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 6% 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. The forecasts with the 2020 toll rate structure support the Authority's debt management plan and financial goals in the near future and projected capital funding needs, and the toll rate structure is subject to annual board affirmation.

(C o n t i n u e d)

Summary of Operations

The Authority's operating revenues, which include toll revenues, other toll-related fees, and tolling services revenues, for 2020 were $176.6 million, a 34% decrease over the $267.7 million in 2019. Toll revenues, net of related bad debts, were $155.8 million and $249.0 million of total operating revenues in 2020 and 2019, respectively. This decrease is primarily due to decreased overall toll transactions of 36% from 2019 as a result of the COVID-19 pandemic and the government lockdowns, mandates and restrictions imposed on the State and regional businesses and travelling public. Toll revenues, net of related bad debts, for fiscal year 2020 were $99.2 million below the $255.0 million 2020 operating budget. Traffic on E-470 during 2020 combined for 58.1 million transactions, with approximately 75% of the corresponding toll revenues coming from ExpressToll accounts. Operating revenues for 2019 were $267.7 million, a 7% increase over the $249.9 million in 2018. 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. Operating revenues for 2018 were $249.9 million, a 9.5% increase over 2017, which was also due to increased overall toll transactions and an incremental toll increase beginning on January 1, 2018.

Total operating expenses, before depreciation, for 2020 were $54.8 million, a 5% decrease over the $57.4 million in 2019. The decrease is primarily due to lower toll collection costs from the 36% decrease in E-470 toll transaction volume in 2020, coupled with a 42% decrease 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 image processing labor, registered vehicle owner information retrieval, credit card fees, printing and postage on bills and notices, offset by an increase in advanced account advisors labor and IT-related projects expensed during the year accounted for $1.8 million of the overall $2.6 million decrease from prior year. There were no other individually significant fluctuations. 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 Senior Revenue Bond principal and interest payments from the senior debt service fund during 2020 and 2019 were $111.0 million and $108.8 million, respectively, on the Series 1997, 2000, 2010, 2015, 2017, and 2019 bonds, and includes the interest rate swap differentials. In response to the significant decrease in transactions and toll revenues as a result of the pandemic and local, state and federal lockdowns and restrictions from March through December 2020, the Authority specifically funded the $36.2 million due on the Series 2000 bonds in 2020 from the unrestricted Senior Bonds Defeasance Fund of the General Surplus account. This amount was reduced from the aggregate senior debt service due for the 2020 debt service coverage ratio and resulted in net Senior Revenue Bond principal and interest payments from the senior debt service fund of $74.8 million in 2020. Debt service coverage for 2020 was 1.85, compared to 2.10 in 2019 and 2.11 in 2018. The Bond Resolutions require producing net revenues of at least 1.30 times the aggregate senior debt service due for the year.

(C o n t i n u e d)

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. If liabilities and deferred inflows of resources that relate to specific restricted assets exceed those assets, no restricted component of net position is reported under GASB, and the net negative amount reduces unrestricted net position.
- *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. If liabilities and deferred inflows of resources that relate to specific restricted assets exceed those assets, no restricted component of net position is reported under GASB, and the net negative amount reduces unrestricted net position.

Financial Results and Analysis

Summary of Net Position

	2020	2019	2018
Current assets:			
Current unrestricted assets	$ 219,194,320	325,447,095	227,185,589
Current restricted assets	52,905,615	68,701,055	60,908,939
Total current assets	272,099,935	394,148,150	288,094,528
Noncurrent assets:			
Capital assets, net of accumulated depreciation	607,430,765	587,788,716	587,620,002
Other noncurrent assets	280,761,400	246,820,262	266,027,527
Total noncurrent assets	888,192,165	834,608,978	853,647,529
Total assets	1,160,292,100	1,228,757,128	1,141,742,057
Deferred outflows of resources	54,099,716	60,577,101	68,823,204
Total assets and deferred outflows of resources	1,214,391,816	1,289,334,229	1,210,565,261
Current liabilities:			
Current liabilities payable from unrestricted assets	50,369,122	53,290,607	42,610,193
Current liabilities payable from restricted assets	87,540,596	103,883,264	98,888,765
Total current liabilities	137,909,718	157,173,871	141,498,958
Noncurrent liabilities	1,332,937,957	1,387,732,751	1,408,119,215
Total liabilities	1,470,847,675	1,544,906,622	1,549,618,173
Deferred inflows of resources	3,017,684	—	—
Total net position	(259,473,543)	(255,572,393)	(339,052,912)
Total liabilities and deferred inflows of resources and net position	$ 1,214,391,816	1,289,334,229	1,210,565,261

(Continued)

The largest portion of the Authority's assets is noncurrent. Approximately 52% and 48% of the total assets are capital assets (e.g., infrastructure, buildings, equipment, and other), net of accumulated depreciation as of December 31, 2020 and 2019, 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 several years being financed with unrestricted funds. Approximately $490.6 million, or 42%, and $565.0 million, or 46%, of the total assets are cash equivalents and investments as of December 31, 2020 and 2019, respectively. Of these amounts, approximately $301.3 million and $374.8 million are within the General Surplus accounts as of December 31, 2020 and 2019, respectively, which have specific purposes, such as fully funding the Authority's future capital budget and bond defeasances. Noncurrent bonds payable was approximately 95% and 96% of total noncurrent liabilities in 2020 and 2019, respectively. Total current liabilities were $137.9 million and $157.2 million at the end of 2020 and 2019, respectively. Of the total current liabilities, $87.5 million (63%) and $104.1 million (66%) for 2020 and 2019, 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 $1,247 million in 2019 to $1,298 million in 2020. Accumulated depreciation reduced the year-end capital asset balances to $607.4 million in 2020 and $587.8 million in 2019. During 2020, the Authority expended approximately $69.1 million on capital projects and successfully completed capital projects totaling $83.7 million, which were closed from construction in progress to their respective capital asset accounts. The major projects completed include the major widening project from two lanes to three lanes in each direction between Quincy Avenue and I-70, the expansion of storage facilities at Maintenance Support Site A for additional snow removal material and plow storage, and various enhancements to the Authority's toll collection system and technical environment. 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.

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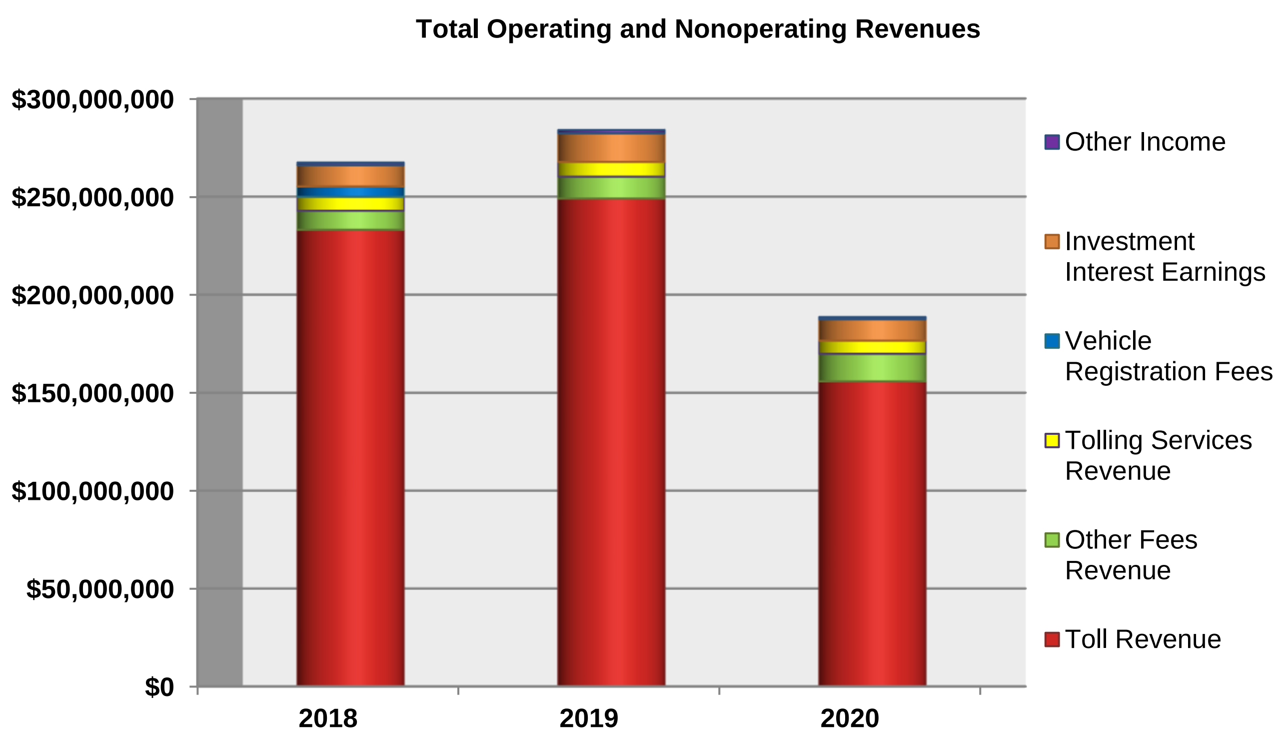
Summary of Revenue, Expenses, and Changes in Net Position

	2020	2019	2018
Operating revenues	$ 176,555,679	267,666,532	249,856,733
Operating expenses before depreciation	(54,790,481)	(57,361,364)	(52,765,319)
Depreciation	(42,018,206)	(42,057,059)	(41,395,965)
Operating income	79,746,992	168,248,109	155,695,449
Nonoperating revenues (expenses):			
Vehicle registration fees	—	—	5,310,264
Interest expenses	(88,903,625)	(92,648,504)	(92,788,811)
Investment revenues, net	1,756,426	5,107,228	14,027,150
Intergovernmental revenue	2,915,064	1,109,107	—
Other income	1,128,745	1,664,579	1,338,546
Total nonoperating expenses	(83,103,390)	(84,767,590)	(72,112,851)
Loss before intergovernmental expense	(3,356,398)	83,480,519	83,582,598
Intergovernmental expense	(544,752)	—	(3,022,600)
Change in net position	(3,901,150)	83,480,519	80,559,998
Net position, beginning of year	(255,572,393)	(339,052,912)	(419,612,910)
Net position, end of year	$ (259,473,543)	(255,572,393)	(339,052,912)

Operating revenues (which include tolls, other toll-related fees, and tolling services revenues) in 2020 and 2019 were $176.6 million and $267.7 million, respectively, a decrease of 34% over 2019. Operating expenses before depreciation decreased by $2.6 million to $54.8 million in 2020. Depreciation expense decreased by $0.1 million to $42.0 million in 2020. Overall, operating income decreased by $88.5 million from 2019 to $79.7 million, primarily due to the impacts of the pandemic and the government lockdowns, mandates and restrictions imposed on the State and regional businesses and travelling public. Total net nonoperating expenses decreased by $1.7 million to $83.1 million in 2020, which was attributed to changes in interest rates and the corresponding effect on the change in fair value of derivative instruments and investments of $0.4 million, a decrease in interest expenses of $3.7 million, and an increase in intergovernmental and other revenue of $1.3 million, offset by a decrease in interest earned on investments of $3.7 million. The overall decrease in net position was $3.9 million in 2020, which is $87.4 million less than the increase in net position of $83.5 million in 2019.

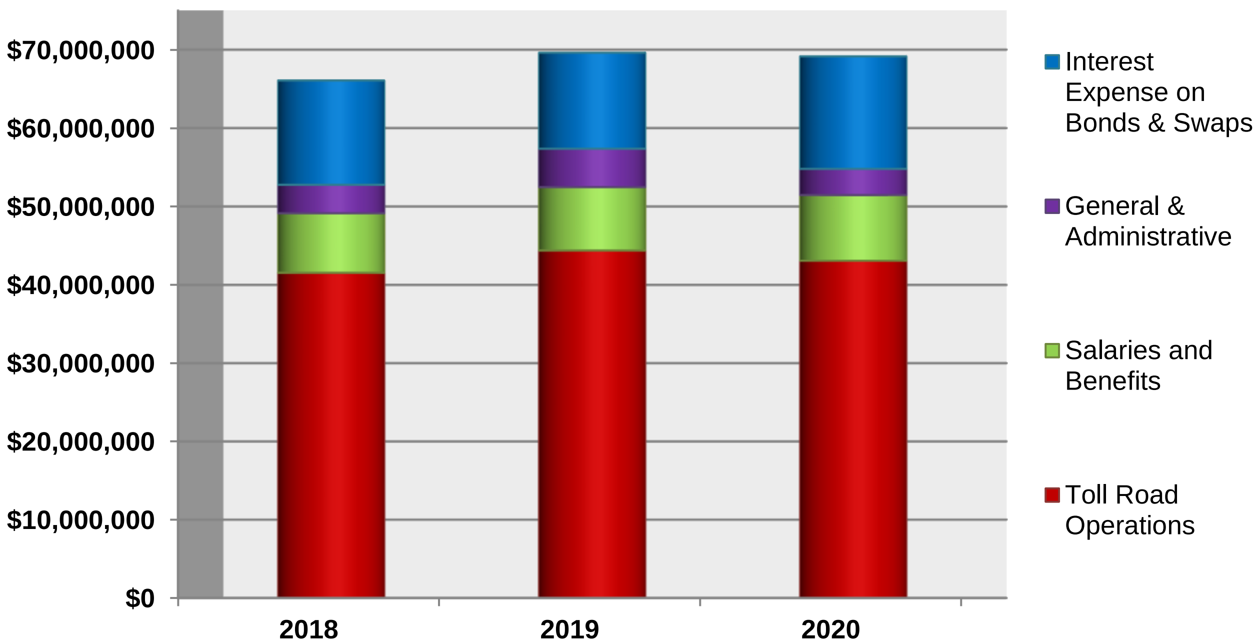
(Continued)

Operating 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 and nonoperating revenues included in the chart above for 2020, 2019, and 2018 were $188.6 million, $283.9 million, and $267.3 million, respectively.

Total Operating and Interest on Bonds & Swaps Expenses



Total operating expenses, before depreciation and including nonoperating interest expense on bonds and interest rate swaps for 2020 and 2019, were $69.1 million and $69.6 million, respectively. Toll road operations expenses decreased by $1.3 million to $43.1 million in 2020 versus $44.4 million in 2019. The decrease is primarily due to lower toll collection costs from the 36% decrease in E-470 toll transaction volume in 2020, coupled with a 42% decrease in tolled transactions incurred on other Colorado toll facilities. Costs incurred for other toll facilities are recovered and recorded as tolling services revenue. These decreased costs include call center and image processing labor, registered vehicle owner information retrieval, credit card fees, printing and postage on bills and notices, offset by an increase in advanced account advisors labor and IT-related projects expensed during the year. Nonoperating interest expenses on bonds and swaps increased from $12.2 million in 2019 to $14.4 million in 2020 due primarily to the June 2020 bond transaction and related interest on the new 2020A current interest bonds, net of the decrease in interest on the refunded 2010C current interest bonds. This difference reflects the refunded 2004B capital appreciation bonds which, prior to being refunded with the Series 2020A bonds, had annual expense reflected in the *Accretion on capital appreciation bonds* line, whereas the new expense on 2020A current interest bonds is accrued and reflected in the *Interest on bonds and interest rate swaps* line. Accretion expense decreased by $3.7 million from 2019 due to this bond expense change.

(Continued)

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.

Debt Administration and Debt Service

In 2020, the Authority paid principal and interest paid on Senior Bond debt totaling $111.0 million. Of this amount, payments of principal and interest from restricted debt service totaling $74.8 million consisted of $44.8 million in Series 1997 bonds, $2.2 million in Series 2010 bonds, $21.5 million in Series 2015 bonds, $1.0 million in Series 2017 bonds, $0.6 million in series 2019 bonds, and $4.7 million on the two interest rate swaps settlement differential. In response to the significant decrease in transactions and toll revenues as a result of the COVID-19 pandemic and local, state and federal lockdowns and restrictions from March to December 2020, the Authority specifically paid the $36.2 million due in 2020 on the Series 2000 bonds from the unrestricted Senior Bonds Defeasance Fund of the General Surplus account.

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.

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

	2020	2019
Series 1997 B Capital Appreciation	$ 227,217,286	258,395,800
Series 2000 B Capital Appreciation	443,229,952	451,311,822
Series 2004 A Capital Appreciation	179,643,115	170,322,082
Series 2004 B Capital Appreciation	—	164,117,722
Series 2006 B Capital Appreciation	116,413,438	110,725,706
Series 2010 A Capital Appreciation	44,505,818	41,499,938
Series 2010 C Current Interest	—	81,655,000
Series 2015 A Current Interest	—	20,590,000
Series 2017 B LIBOR Notes	66,075,000	66,075,000
Series 2019 A LIBOR Notes	72,565,000	72,565,000
Series 2020 A Current Interest	167,370,000	—
Premiums, net of discounts	36,202,534	244,707
Total	$ 1,353,222,143	1,437,502,777

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 2020 and 2019:

- In June 2020, the Authority successfully closed on the planned debt restructuring bond transaction, which included a cash contribution to partially pay off callable debt and refund the remaining portion to take advantage of very low interest rates and meet a long-standing debt management goal of lowering and leveling the future debt service profile. The Authority had approximately $252 million of debt callable on September 1, 2020 which included the Series 2004B and 2010C Bonds with coupon rates ranging between 5.25%–5.72%. The Authority, as part of its debt management plan, contributed approximately $50 million in cash from the unrestricted Senior Bonds Defeasance Fund of the General Surplus account to cash defease a portion of the callable debt and refunded the remaining portion at a par amount of $167.4 million along with a $39.0 million bond premium (not including the cost of issuance expense of $2.3 million). The bond sale was met with an extremely positive response from municipal bond investors, as the Authority was able to generate more than $4.5 billion in orders from more than 75 investor accounts. The overwhelming investor interest led to the sale being 26 times over-subscribed. This excess demand allowed the Authority to achieve improved savings and borrowing rates and was comparable to higher-rated credits recently in the market. The Authority was able to lock in an All-In True Interest Cost of 2.9% on the transaction, which is substantially lower than the previous rates. The Series 2020A Bonds have new annual principal amounts due between September 1, 2023 and September 1, 2040 ranging between $1.5 million and $50 million. The Authority also included future flexibility in the restructuring with additional call opportunities in 2024 totaling $50 million and in 2030 totaling $48.4 million. The refunding resulted in a net present value

(Continued)

economic gain of $79.5 million. The refunding, including the cash contribution of $50 million, reduced debt service amounts due from 2020 to 2040 by a present value of $129.5 million.

- 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, 2020 and 2019 with a net liability fair value of $60.5 million and $50.2 million, respectively, and derivative instruments investment loss of $10.3 million in 2020 and loss of $12.3 million in 2019. 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, 2020, the Authority maintains underlying senior bonds ratings from Moody's and Standard and Poor's. Standard and Poor's and Moody's both reaffirmed the Authority's underlying bond rating (i.e. no change from 2019) in conjunction with the 2020 bond transaction based on the financial strength, liquidity, proactive management and debt restructuring plans to reduce and level future debt service. These reaffirmations were in light of the financial downturn and COVID-19 pandemic that has significantly impacted the Authority's traffic and revenue levels when compared to previous periods. In April before the formal bond transaction rating, Standard and Poor's lowered the Authority's outlook from stable to negative along with the entire U.S. toll road sector as a result of the negative impacts from the pandemic. Moody's, as part of the formal bond transaction rating, reaffirmed the stable outlook of the Authority. The Authority did not request a Fitch rating in conjunction with the 2019 or 2020 bond transaction, however, Fitch did upgrade the Authority two notches in September of 2019, and reaffirmed the A rating and stable outlook in April 2020 despite the uncertainty caused by COVID-19. The Authority is not required to carry the Fitch rating and does not intend to request a Fitch rating on future bond transactions. No further rating actions have occurred since the bond transaction in June of 2020.

(C o n t i n u e d)

Ratings and outlook as of December 31, 2020:

	Rating	Outlook
Rating agency:		
Moody's	A2	Stable
Standard and Poor's	A	Negative
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 were to be repaid in 10 equal payments (noninterest-bearing) beginning in 2011. The annual payment of $0.24 million was made from unrestricted funds, and the final scheduled payment occurred in January 2020.

		2020	2019	2018
Local member jurisdiction (Douglas County)	$	—	240,769	481,538

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 2020, 2019, and 2018. 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 underlying 2018 study, the Authority obtained an update letter dated December 2018 in conjunction with the 2019 bond transaction. Further, the Authority completed a full investment-grade traffic and revenue study in May of 2020 to update the Authority's forecasts in light of the current COVID-19 pandemic and economic downturn and in conjunction with the 2020 bond transaction. The 2020 forecast figures below are from the May 2020 report, while the 2019 forecast figures are from the bring down letter dated December 2018, and the 2018 forecast figures are from the toll rate report dated January 2018. 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.

(C o n t i n u e d)

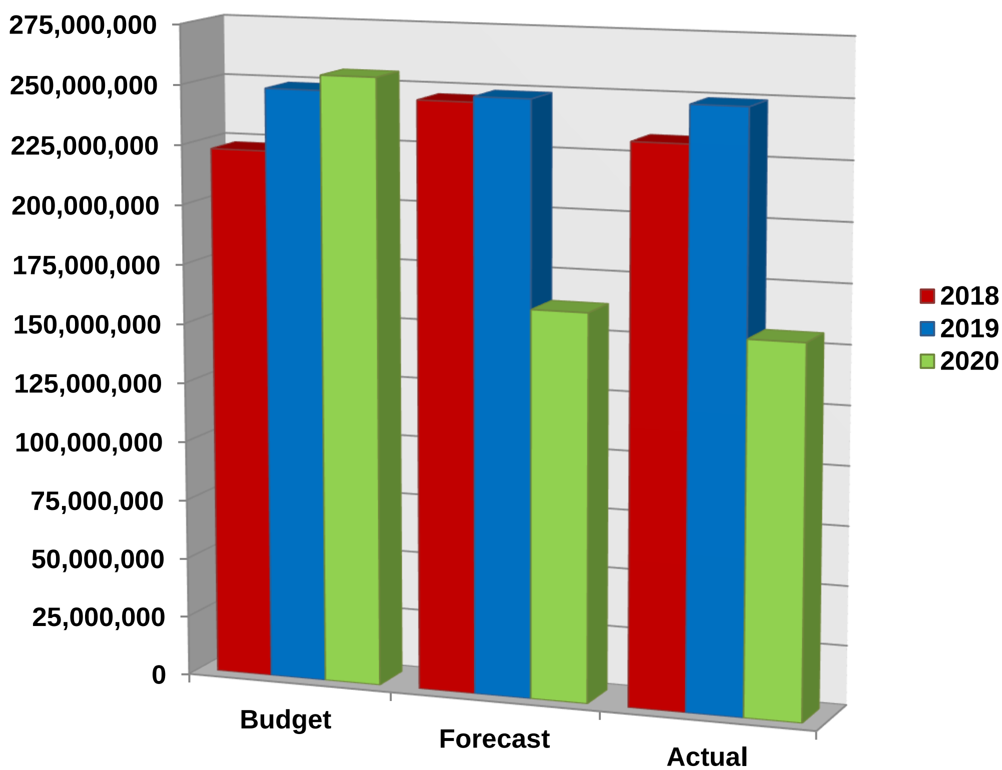
Transactions (Annual Total)

Year	ExpressToll	LPT	Total traffic	Forecast	Variance	Percentage variance
2020	42,010,116	16,060,073	58,070,189	59,905,000	(1,834,811)	(3.06)
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)

Toll Revenues, Net (Annual Total)

Year	ExpressToll	LPT	Total toll revenue	Forecast	Variance	Percentage variance
2020	116,915,752	38,882,099	155,797,851	162,727,000	(6,929,149)	(4.26)
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)

Operating Revenues - Tolls



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 2020 operating budget (which was prepared and approved by the board in December 2019, before the pandemic and related impacts) 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, 2020:

		2020 Budget	2020 Results	Variance	Percentage variance
Total revenue	$	284,920,000	189,030,648	(95,889,352)	(34)%
Total operating expenditures		(62,706,700)	(50,579,618)	12,127,082	(19)
Net revenue		222,213,300	138,451,030	(83,762,270)	(38)
Less VRF bonds debt service due		—	—	—	—
Senior debt service due, net		113,211,000	74,811,507	(38,399,493)	(34)
Debt service coverage ratio		1.96	1.85	(0.11)	(6)%
Capital and renewal and replacement costs	$	94,541,100	71,402,216	(23,138,884)	(24)%

During 2020, the original budget was the final approved budget and total budgeted operating revenues ended $95.9 million, or 34%, under budget. This is primarily due to net toll revenues ending under budget by $99.2 million from the lower than budgeted traffic during the year as a result of COVID-19 impacts, as well as toll fees ending over budget by $3.6 million as older unpaid transactions from the high traffic levels in 2019 aged through the billing process and were collected. Total operating expenses ended $12.1 million, or 19%, under budget, which is mainly attributable to lower than budgeted toll collection costs as a result of reduced traffic from COVID-19 impacts, such as call center and advanced account advisors labor, registered vehicle owner information retrieval, credit card fees, printing and postage on bills and notices, as well as discretionary general and administrative costs. These final budget results led to a debt service coverage ratio of 1.85 when factoring in the $36.2 million of debt service paid from unrestricted funds and excluded from the ratio calculation, which is lower than the original budgeted ratio of 1.96 for 2020.

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 $23.1 million, or 24% under budget. This variance is primarily due to the postponement of discretionary capital projects in 2020 in order to preserve cash flows necessitated by the lower than budgeted traffic during the year as a result of COVID-19 impacts. The postponed projects were not yet started and did not create deferred maintenance for the Authority as a result of the delay. The large widening project from Quincy Avenue to I-70 was not delayed and was substantially completed in 2020 on schedule.

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)

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, 2020 and 2019, 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. The COVID-19 pandemic impacted these roadways differently with an overall decrease of 38% from 2019 to 2020 in total transactions processed by the Authority. These tolling services revenues totaled $6.7 million and $7.5 million in 2020 and 2019, respectively.

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, has adversely impacted the Authority's 2020 operations and financial condition, and may continue into 2021. In December 2019, COVID-19 emerged in Wuhan, Hubei Province, China. While the outbreak was initially concentrated in China, 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.

(C o n t i n u e d)

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 2020 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 and the government lockdowns, mandates and restrictions imposed on the State and regional businesses and travelling public, the Authority's total toll transaction volume was down 35.7% in 2020 as compared to 2019 and was 61% of 2020 budgeted transactions. The Authority revised its 2020 projections during the spring of 2020, and finished the year at 97% of those updated transaction projections. The trend of depressed traffic continues into early 2021, with year-to-date transactions through March at 77% of YTD 2020, 70% of YTD 2019, and at 100% of 2021 YTD budgeted volumes.

While traffic volume has been negatively impacted since March 2020 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, if needed. Additionally, in response to and as a result of such decreased traffic volume, the Authority's operating expenses and budgeted capital spending were reduced in 2020 and 2021 (budget) based on revised projections. 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.

Future Management Plans

Regarding capital projects, the Authority will begin design work in 2021 on the next projected segment for widening from two lanes to three lanes in each direction between I-70 and 104th Avenue in Adams County. This project is planned to begin construction in 2022 and span three to four years with completion towards the end of 2024 or early 2025. The Authority has budgeted $1.5 million for design in 2021, and construction costs are projected to be approximately $150 million over the multiyear construction period. This significant project also contemplates interchange improvements to 64th Avenue and Pena Boulevard, and new interchanges at 38th Avenue and 88th Avenue. It will also include reconfiguration of the tolling points at toll plaza C and D, a multi-use trail extension and pavement overlay from 104th Avenue to 120th Avenue. The entire budgeted project cost is scheduled to be funded from the Authority's Capital Improvements Fund of the General Surplus account. Other major capital projects in 2021 include approximately $4.0 million for capital outlays related to a negotiated lease agreement with Applegreen to repurpose and redevelop four vacant mainline toll plaza buildings as customer convenience service stations; approximately $16.4 million for the next generation lane equipment and software integration project along E-470 (which will continue into 2022); and $2.5 million to continue preliminary design work on a multiyear project to modernize the Authority's toll collection system back office software. The impact of these capital projects on the Authority's overall operations or financial condition, if any, is not known at this time.

Regarding 2021 toll rates, in May 2020, the Authority's board of directors approved and adopted Resolution 20-01, "Regarding Extension of Resolution 19-03 Toll Rate Schedule," to reaffirm all 2020 rates in 2021 with no changes made to ExpressToll or LPT rates.

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. The Authority is working closely with HPTE and its new toll lane vendor to implement and integrate WB PPSL for tolling operations by the end of the third quarter of 2021. The Authority plans to continue services under the tolling services agreements with the various entities to provide a single back office to toll road users in the State of Colorado.

Regarding debt management, the Authority has an upcoming $138.6 million refinancing opportunity related to the Series 2017B and Series 2019A LIBOR Index Term Rate bonds of $66.1 million and $72.5 million, respectively. These bond series are subject to optional redemption on or after March 1, 2021 and September 1, 2020, respectively, and both have a mandatory tender and remarketing date of September 1, 2021. The Series 2017B bonds of $66.1 million pay interest each month based on 67% of one-month LIBOR plus 1.05%, while the Series 2019A bonds of $72.5 million pay interest each month based on 67% of one-month LIBOR plus 0.42%, with both series having principal maturities in 2026 and 2036 to 2039. The Authority's variable debt for these bonds are linked to the two outstanding interest rate swaps which are also based on 67% of one-month LIBOR and do not have basis risk. The one-month US LIBOR index will cease to be published by its administrator after June 30, 2023 and will require the Authority to restructure its debt and potentially the swaps to reference a new index rate, adhere to the new protocol for transition to SOFR, or refinance into a fixed-rate structure and partially terminate its swaps. The Authority plans to refund or remarket both series prior to September 1, 2021.

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.

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, 2020 and 2019, 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, 2020 and 2019, 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.

KPMG

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 2–23 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 audit as of and for the year ended December 31, 2020 was 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 21, 2021

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E-470 PUBLIC HIGHWAY AUTHORITY

Statements of Net Position

December 31, 2020 and 2019

Assets		2020	2019
Current unrestricted assets:			
Cash and cash equivalents	$	120,337,266	89,553,135
Investments		63,766,382	198,887,137
Cash and cash equivalents limited for construction		8,539,570	752,855
Accrued interest receivable		2,388,055	3,025,190
Accounts receivable, net of allowance for uncollectibles		23,408,430	31,643,217
Notes receivable		487,541	1,582,966
Prepaid expenses and other current assets		267,076	2,595
Total current unrestricted assets		219,194,320	325,447,095
Current restricted assets:			
Cash and cash equivalents for debt service		38,219,571	48,813,468
Investments for debt service		14,633,284	19,707,418
Accrued interest receivable		52,760	180,169
Total current restricted assets		52,905,615	68,701,055
Total current assets		272,099,935	394,148,150
Noncurrent assets:			
Unrestricted investments		168,066,149	134,615,059
Restricted investments for debt service		97,932,378	97,081,894
Prepaid bond costs and other noncurrent assets		7,912,037	11,184,933
Notes receivable		6,850,836	3,938,376
Capital assets, net of accumulated depreciation		607,430,765	587,788,716
Total noncurrent assets		888,192,165	834,608,978
Total assets		1,160,292,100	1,228,757,128
Deferred outflows of resources:			
Loss on refundings of debt		54,099,716	60,577,101
Total assets and deferred outflows of resources	$	1,214,391,816	1,289,334,229

(C o n t i n u e d)

E-470 PUBLIC HIGHWAY AUTHORITY

Statements of Net Position

December 31, 2020 and 2019

Liabilities		2020	2019
Current liabilities payable from unrestricted assets:			
Accounts payable and accrued expenses	$	11,330,326	12,166,549
Unearned toll revenue		38,421,976	35,479,843
Notes payable		—	240,769
Intergovernmental liability		185,791	5,100,855
Derivative instruments – interest rate swaps		431,029	302,591
Total current liabilities payable from unrestricted assets		50,369,122	53,290,607
Current liabilities payable from restricted assets:			
Bonds payable (including accumulated accretion on capital appreciation bonds of $60,099,839 in 2020 and $57,670,428 in 2019)		82,495,000	101,590,000
Accrued interest payable		5,045,596	2,293,264
Total current liabilities payable from restricted assets		87,540,596	103,883,264
Total current liabilities		137,909,718	157,173,871
Noncurrent liabilities:			
Bonds payable (including accumulated accretion on capital appreciation bonds of $608,821,751 in 2020 and $702,579,241 in 2019)		1,270,727,143	1,335,912,777
Other restricted noncurrent liabilities		2,143,934	1,953,114
Derivative instruments – interest rate swaps		60,066,880	49,866,860
Total noncurrent liabilities		1,332,937,957	1,387,732,751
Total liabilities		1,470,847,675	1,544,906,622
Deferred inflows of resources:			
Related to gain on sale of asset		3,017,684	—
Net position:			
Net investment in capital assets		70,882,052	76,336,471
Restricted for debt service		—	8,300,950
Unrestricted deficit		(330,355,595)	(340,209,814)
Total net position		(259,473,543)	(255,572,393)
Commitments and contingencies (notes 9, 10, 14, 15, 16, and 17)			
Total liabilities and deferred inflows of resources and net position	$	1,214,391,816	1,289,334,229

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, 2020 and 2019

	2020	2019
Operating revenues:		
Tolls	$ 155,797,851	249,013,096
Other fees	14,036,226	11,134,335
Tolling services	6,721,602	7,519,101
Total operating revenues	176,555,679	267,666,532
Operating expenses:		
Toll road operations	43,080,038	44,385,288
Salaries and benefits	8,375,712	8,080,092
General and administrative	3,334,731	4,895,984
Total operating expenses before depreciation	54,790,481	57,361,364
Depreciation	42,018,206	42,057,059
Total operating expenses	96,808,687	99,418,423
Operating income	79,746,992	168,248,109
Nonoperating revenue (expenses):		
Interest expenses:		
Interest on bonds and interest rate swaps	(14,353,205)	(12,248,511)
Accretion on capital appreciation bonds	(65,986,742)	(69,695,717)
Other bond amortization expenses	(8,563,678)	(10,704,276)
Investment revenues (expenses):		
Interest earned on investments	10,873,905	14,599,361
Net change in the fair value of investments	1,210,979	2,846,695
Net change in the fair value of derivative instruments	(10,328,458)	(12,338,828)
Intergovernmental revenue	2,915,064	1,109,107
Other income	1,128,745	1,664,579
Total nonoperating expenses	(83,103,390)	(84,767,590)
Income before intergovernmental expense	(3,356,398)	83,480,519
Intergovernmental expense	(544,752)	—
Change in net position	(3,901,150)	83,480,519
Net position, beginning of year	(255,572,393)	(339,052,912)
Net position, end of year	$ (259,473,543)	(255,572,393)

See accompanying notes to basic financial statements.

E-470 PUBLIC HIGHWAY AUTHORITY

Statements of Cash Flows

Years ended December 31, 2020 and 2019

		2020	2019
Cash flows from operating activities:			
Receipts of authority vehicle tolls and toll fees	$	182,521,621	258,603,272
Receipts from third parties for tolling services		5,548,017	7,448,417
Payments to employees		(8,238,661)	(7,981,267)
Payments to suppliers		(47,612,498)	(44,990,037)
Net cash provided by operating activities		132,218,479	213,080,385
Cash flows from capital and related financing activities:			
Payment of other noncurrent liabilities		(68,913)	(42,837)
Payment of notes payable		(240,769)	(240,769)
Purchase and construction of capital assets		(66,729,176)	(42,760,114)
Receipts from third parties for capital assets		218,727	—
Proceeds from sale of capital assets		2,021,705	55,027
Interest paid		(11,600,873)	(12,549,013)
Principal payments on bonds from restricted debt service funds		(65,390,000)	(96,295,000)
Principal payments on bonds from unrestricted general surplus funds		(36,200,000)	—
Proceeds from refunded bond series		206,405,272	72,565,000
Payment of cash from bond proceeds to refund related bond series		(202,005,203)	(72,565,000)
Payment of unrestricted cash to defease related callable bond series		(50,000,000)	—
Interest received on escrow deposit for related bond series		83,540	—
Payment of bond issuance costs for related bond series		(1,974,382)	(1,239,871)
Payment of swap insurance termination		—	(974,000)
Receipt of other intergovernmental contributions for capital assets		1,400,000	2,509,962
Net cash used in capital and related financing activities		(224,080,072)	(151,536,615)
Cash flows from noncapital financing activities:			
Receipts of non-Authority third party vehicle tolls and toll fees		35,951,824	53,055,105
Remittance to third parties for non-Authority vehicle tolls and toll fees		(36,289,998)	(52,797,742)
Purchases of equipment and support services for third parties		(685,910)	(179,366)
Receipts from third parties for equipment and support services		745,035	188,274
Other receipts and disbursements		1,898,644	2,395,656
Payment of other noncapital intergovernmental obligations		(544,752)	—
Net cash provided by noncapital financing activities		1,074,843	2,661,927
Cash flows from investing activities:			
Proceeds from sales of investments		252,126,330	193,402,465
Purchases of investments		(144,616,507)	(243,782,449)
Interest received		11,025,376	12,512,358
Receipts of scheduled principal and interest on loans		228,500	226,789
Net cash provided by (used in) investing activities		118,763,699	(37,640,837)
Net increase in cash and cash equivalents		27,976,949	26,564,860
Cash and cash equivalents, beginning of year		139,119,458	112,554,598
Cash and cash equivalents, end of year	$	167,096,407	139,119,458
Reconciliation of cash and cash equivalents to the statements of net position:			
Cash and cash equivalents – current – unrestricted	$	120,337,266	89,553,135
Cash and cash equivalents – current – restricted for debt service		38,219,571	48,813,468
Cash and cash equivalents – current – unrestricted limited for construction		8,539,570	752,855
Cash and cash equivalents, end of year	$	167,096,407	139,119,458

(Continued)

E-470 PUBLIC HIGHWAY AUTHORITY

Statements of Cash Flows

Years ended December 31, 2020 and 2019

		2020	2019
Reconciliation of operating income to net cash provided by operating activities:			
Operating income	$	79,746,992	168,248,109
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation		42,018,206	42,057,059
Changes in assets and liabilities:			
Accounts receivable, net (tolls, late fees, and tolling services)		8,273,678	(2,775,154)
Prepaid expenses and other current assets		(264,481)	284,855
Accounts payable and accrued expenses		(796,185)	4,104,435
Unearned toll revenue		3,240,269	1,161,081
Net cash provided by operating activities	$	132,218,479	213,080,385
Noncash transactions:			
Interest expense recorded due to bond accretion	$	65,986,742	69,695,717
Interest expense recorded due to amortization of deferred outflows of resources		8,301,315	8,246,103
Interest expense recorded due to amortization of prepaid bond costs and other assets		1,388,856	1,169,925
Interest expense recorded due to amortization of net bond premiums		3,017,335	608,023
Increase (decrease) in fair value of derivative instruments – interest rate swaps		(10,328,458)	(12,338,828)
Investment loss recorded due to amortization of net investment discounts		(405,529)	(1,478,603)
Investment loss recorded due to amortization of other restricted noncurrent liabilities		(467,277)	(324,844)
Increase (decrease) in fair value of investments		1,210,979	2,846,695
Net loss on disposal of capital assets		(664,900)	(479,314)
Decrease in other restricted noncurrent liabilities		207,544	207,544
Net loss due to refundings of debt on related bond series transaction		(1,823,930)	—
Noncash sale of capital asset facilities with leaseback provision		(2,382,316)	—
Intergovernmental liability		4,915,064	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.

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) Deferred Inflows of Resources

Deferred inflows of resources represent a consumption of net assets that applies to a future period and will not be recognized as an inflow of resources (revenue) until that time. The deferral balances are from gain on sale of assets with a leaseback provision that is amortized as a component of other income using the straight-line method over the related operating lease term.

(j) 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 interest expense, investment revenues, including interest earned on investments and change in derivative instruments, and other miscellaneous revenues and expenses.

(k) 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. If liabilities and deferred inflows of resources that relate to specific restricted assets exceed those assets, no restricted component of net position is reported under GASB, and the net negative amount reduces unrestricted net position. 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, 2020 and 2019, the Authority had a total net deficit of approximately $259.5 million and $255.6 million, respectively. The Authority primarily plans to fund this net deficit with increased annual growth in toll operations revenues and other nonoperating revenues.

(l) 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.

(C o n t i n u e d)

(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, 2020 or 2019, 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.

(C o n t i n u e d)

The Authority has the following recurring fair value measurements as of December 31, 2020:

		Fair value measurement using		
	Total 2020	**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	$ 263,351,611	—	263,351,611	—
U.S. Treasury securities	72,575,309	—	72,575,309	—
Total investments measured at fair value	335,926,920	—	335,926,920	—
Cash Equivalents (CE) and investments measured at cost:				
Money market mutual funds	146,178,770			
Investment agreement	8,471,273			
Total CE and investments measured at cost	154,650,043			
Total CE and investments held by the authority	$ 490,576,963			
Liability type:				
Derivative instruments – interest rate swaps	$ (60,497,909)	—	(60,497,909)	—
Total liabilities measured at fair value	$ (60,497,909)	—	(60,497,909)	—

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)	—

(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, 2020 and 2019, the Authority's cash deposits had a book balance of $20.9 million and $24.4 million, respectively, and a corresponding bank balance of $21.0 million and $24.9 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, 2020 and 2019, the Authority's book balances are classified as follows:

	2020		
	Deposits	Cash equivalents and investments	Total
Restricted cash and cash equivalents by trustee under the Bond Resolutions	$ —	38,219,571	38,219,571
Unrestricted cash and cash equivalents – undesignated	20,917,637	107,959,199	128,876,836
Restricted investments by trustee under the Bond Resolutions	—	112,565,662	112,565,662
Unrestricted investments – undesignated	—	231,832,531	231,832,531
	$ 20,917,637	490,576,963	511,494,600

	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

The following is a summary of the Authority's cash equivalents and investments by type at December 31, 2020 and 2019, at fair value, including the money market mutual funds and investment agreement using a cost-based measurement:

	2020	2019
U.S. government agency	$ 263,351,611	295,197,899
Money market mutual funds	146,178,770	109,672,549
U.S. Treasury securities	72,575,309	121,962,279
Investment agreement	8,471,273	8,471,273
Commercial paper	—	29,657,383
	$ 490,576,963	564,961,383

(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, 2020 with credit ratings based on the Standard & Poor's and Moody's ratings scales:

	2020	
	Fair value	**Rating**
U.S. government agency:		
Federal Farm Credit Banks (FFCB)	$ 60,541,267	AA+/Aaa
Federal Home Loan Banks (FHLB)	56,259,682	AA+/Aaa
Federal Home Loan Mortgage Corporation (FHLMC)	43,260,696	AA+/Aaa
Federal National Mortgage Association (FNMA)	49,743,633	AA+/Aaa
International Bank for Reconstruction and Development	44,709,667	AAA/Aaa
Student Loan Marketing Association Discount Note	8,836,666	Not rated
Total U.S. government agency	263,351,611	
U.S. Treasury securities:		
U.S. Treasury notes	67,346,740	Not applicable
U.S. Treasury bills	5,228,569	Not applicable
Total U.S. Treasury securities	72,575,309	
Money market mutual funds:		
Federated Government Obligations Fund	91,962,950	AAAm/Aaa-mf
Federated Treasury Obligations Fund	33,738,016	AAAm/Aaa-mf
PFM Funds Government Select Series	12,475,733	AAAm/Not rated
COLOTRUST PLUS+ Fund	8,002,071	AAAm/Not rated
Total money market mutual funds	146,178,770	
Investment agreement:		
Societe Generale	8,471,273	A/A2
Total cash equivalents and investments	$ 490,576,963	

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

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.

(C o n t i n u e d)

(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, 95% and 86% of the cash equivalents and investments have maturities of three years or less at December 31, 2020 and 2019, respectively.

As of December 31, 2020, 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	$ 263,351,611	51,858,238	81,953,703	114,434,295	15,105,375
U.S. Treasury securities	72,575,309	26,541,428	35,297,692	10,736,189	—
Investment agreement	8,471,273	—	—	—	8,471,273
Total investments	344,398,193	78,399,666	117,251,395	125,170,484	23,576,648
Money market mutual funds	146,178,770	146,178,770	—	—	—
Total cash equivalents and investments	$ 490,576,963	224,578,436	117,251,395	125,170,484	23,576,648

Because the money market mutual funds have a weighted average maturity less than three months as of December 31, 2020, the funds are presented as cash equivalents with maturities of less than one year.

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.

(Continued)

(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, 2020 and 2019, approximately 54% and 52%, 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, 2020 and 2019 are restricted as follows:

		2020	2019
Senior Bonds Debt Service Reserve Fund	$	95,351,267	95,565,193
Senior Bonds Debt Service Account		33,070,008	40,766,684
Trust Revenue Fund		12,558,437	18,508,765
Operating Reserve Fund		9,805,521	10,762,138
	$	150,785,233	165,602,780

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, 2020 and 2019 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, 2020 and 2019, the Senior Bonds Debt Service Reserve Fund requirement was $118.0 million, and the account was fully funded at December 31, 2020 and 2019, with balances of $120.4 million and $120.6 million, respectively. The change in year-end balances is due to fair value fluctuations. These balances include cash and cash equivalents and investments of

$95.4 million and $95.6 million at December 31, 2020 and 2019, 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, 2020 and 2019, 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 $4.1 million as of December 31, 2020 and $4.7 million as of December 31, 2019 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, 2020 and 2019, $9.8 million and $10.8 million, respectively, were on deposit in the Operating Reserve Fund, which exceeded the required balance of $9.3 million and $10.5 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, 2020 and 2019, the Authority held $360.7 million and $423.8 million, respectively, in total unrestricted funds, including cash and cash equivalents and investments. Approximately $301.3 and $374.8 million were within the General Surplus accounts as of December 31, 2020 and 2019, respectively, which have specific purposes, such as fully funding the Authority's future capital budget and bond defeasances, and assisted with current year debt service due to manage the economic downturn due to the COVID-19 pandemic in 2020.

(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 $12.1 million in 2020 and total investment gain of $17.4 million in 2019, excluding the net change in fair value of derivative instruments. Restricted interest earned on investments was $0.2 million in 2020 and $0.8 million in 2019 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, 2020 and 2019:

		2020	2019
Tolls receivable (billed)	$	17,423,847	28,779,708
Accrued toll revenue – transactions still processing		5,434,159	7,867,259
Accounts receivable		2,671,953	1,479,372
Unbilled toll revenue		2,473,340	2,677,552
Late fee receivable		1,371,260	1,959,236
Total accounts receivable		29,374,559	42,763,127
Allowance for uncollectible tolls receivable		(5,440,388)	(10,348,368)
Allowance for uncollectible late fee receivable		(525,741)	(771,542)
Total accounts receivable, net of allowance for uncollectibles	$	23,408,430	31,643,217

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, 2020. Based on the outstanding tolls and related late fees in fiscal years 2020 and 2019, the Authority has approximately $6.0 million and $11.1 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, 2020 and 2019, which includes elements from three separate IGA agreements summarized below:

	Balance at January 1, 2020	Additions	Reductions	Balance at December 31, 2020	Due within one year
Other intergovernmental agreements	$ 5,521,342	5,400,000	3,582,965	7,338,377	487,541

	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

(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, 2020 and 2019, the current notes receivable balance was $0.2 million, respectively. At December 31, 2020 and 2019, the noncurrent notes receivable balance was $1.5 million and $1.6 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 was substantially 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 and received $1.4 million from the County in 2020. As of December 31, 2020, the revised total project costs were approximately $6.0 million versus the original estimate of $9.0 million, resulting in a total project savings of $3.0 million. As such, the Authority allocated one-third of the total project savings to each entity and reduced the balance of notes receivable due from SARIA and the County, along with the corresponding intergovernmental liability, by $1.0 million each, or $2.0 million total, as of December 31, 2020. The remaining unpaid balance due from SARIA as of December 31, 2020 is $0. The remaining unpaid balance due from the County as of December 31, 2020 is $0.3 million, scheduled to be paid in 2021. The unpaid balances do not accrue interest.

(c) Purchase and Sale Agreement with Aurora Highlands, LLC regarding Sale and Leaseback of land and facilities located at Toll Plaza C and Central Maintenance Facility

The Authority entered into a purchase and sale agreement in 2020 with Aurora Highlands, LLC (Aurora Highlands), a developer and Nevada limited liability company, to sell the Authority's land and building facilities located at Toll Plaza C and Central Maintenance Facility, in order for Aurora Highlands to construct a large residential development in the area. Facilities at this site include two administrative buildings and a maintenance yard containing a salt barn for snow removal material storage and a vehicle storage bay. The agreement contains a leaseback provision allowing E-470 to retain the facilities for operational purposes for up to 4 years, until October 12, 2024 or such earlier date upon which E-470 voluntarily vacates the premises. The total sales price for assets sold was $7.4 million, delivered as $2.0 million in cash upon closing in October 2020 and $5.4 million in notes receivable, to be paid in installments of $4.32 million payable when the Authority executes a construction contract for replacement facilities, which is estimated to occur during Q1 2022, and the final $1.08 million payable to the Authority when it provides written notice that it has vacated the leased premises, which is estimated to be Q3 of 2024 but no later than October 12, 2024. The total $5.4 million is presented as noncurrent notes receivable at December 31, 2020. See also notes 13 and 14 for further discussion of financial statement impacts related to this agreement as they pertain to deferred inflows of resources and commitments and contingencies.

(7) Capital Assets

A summary of changes in capital assets for the year ended December 31, 2020 is as follows:

	Balance at January 1, 2020	Increases	Decreases	Transfers	Balance at December 31, 2020
Capital assets not being depreciated:					
Land	$ 111,567,711	—	(1,226,978)	—	110,340,733
Construction in progress	27,736,671	69,061,968	(2,332,792)	(83,661,829)	10,804,018
Total capital assets not being depreciated	139,304,382	69,061,968	(3,559,770)	(83,661,829)	121,144,751
Depreciable capital assets:					
Infrastructure	1,002,233,129	75,234,756	(11,131,522)	—	1,066,336,363
Buildings	24,681,841	3,613,370	(1,590,611)	—	26,704,600
Equipment	38,088,708	2,272,568	(1,605,413)	—	38,755,863
Software, fixtures, improvements, and other assets	42,586,953	2,541,135	(37,504)	—	45,090,584
Total depreciable capital assets	1,107,590,631	83,661,829	(14,365,050)	—	1,176,887,410
Less accumulated depreciation for:					
Infrastructure	(585,969,323)	(33,287,502)	8,112,912	—	(611,143,913)
Buildings	(11,671,700)	(863,922)	899,838	—	(11,635,784)
Equipment	(29,532,173)	(2,179,362)	1,472,853	—	(30,238,682)
Software, fixtures, improvements, and other assets	(31,933,101)	(5,687,420)	37,504	—	(37,583,017)
Total accumulated depreciation	(659,106,297)	(42,018,206)	10,523,107	—	(690,601,396)
Depreciable capital assets, net	448,484,334	41,643,623	(3,841,943)	—	486,286,014
Total capital assets, net	$ 587,788,716	110,705,591	(7,401,713)	(83,661,829)	607,430,765

(C o n t i n u e d)

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

(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 $54.1 million and $60.6 million as of December 31, 2020 and 2019, 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, 2020 and 2019 is as follows:

		2020	2019
Deferred refunding 1997	$	11,312,017	13,313,002
Deferred refunding 2004		8,422,233	17,637,613
Deferred refunding 2006		4,723,071	5,045,098
Deferred refunding 2008		8,706,263	9,557,389
Deferred refunding 2010		2,144,186	7,327,774
Deferred refunding 2015		—	1,394,618
Deferred refunding 2017		2,405,466	2,829,960
Deferred refunding 2019		2,952,157	3,471,647
Deferred refunding 2020		13,434,323	—
	$	54,099,716	60,577,101

(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. The interest rates on outstanding current interest bonds at December 31, 2020 was 5.00%. The average outstanding coupon (interest) rate on all outstanding current interest bonds was 5.00% and 4.49% for the years ended December 31, 2020 and 2019, respectively. Yields on outstanding capital appreciation bonds at December 31, 2020 and 2019 ranged from 5.06% to 7.13%. The average outstanding yield rate on all outstanding capital appreciation bonds was 5.95% and 5.90% for the years ended December 31, 2020 and 2019, 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, 2020 and 2019, the Authority exceeded the required debt service coverage ratio of 1.30. Refer to the Supplementary Information – Revenue Covenant section for the 2020 debt service coverage calculation and reconciliation to the basic financial statements for operating balances and senior debt service due.

The following is a summary of the bonds payable by bond series and type as of December 31, 2020:

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	2021 – 2026	5.50% – 5.52%	$ 44,795,000 – 44,800,000
Series 2000 B CAB	252,848,750	—	2021 – 2033	6.22% – 6.35%	37,700,000 – 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 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 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
Series 2020 A CIB	167,370,000	2004 B CAB & 2010 C CIB	2023 – 2040	5.00%	1,500,000 – 50,000,000

(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 2020A Bonds – On June 18, 2020, the Authority successfully closed on the major debt restructuring bond transaction, which included a cash contribution to partially pay off callable debt and refund the remaining portion to take advantage of very low interest rates and meet a long-standing debt management goal of lowering and leveling the future debt service profile. The Authority had a $252 million call opportunity for approximately $170.4 million of the Series 2004B Capital Appreciation Bonds (including the original par value of $70.7 million) and approximately $81.7 million of the Series 2010C Current Interest Bonds. Both series had a call date of September 1, 2020, and it was permissible to price and close the transaction 90 days prior to the call date. The callable maturities ranged between 2027 and 2036 for the Series 2004B Bonds at a coupon rate of 5.60–5.72%, and ranged between 2025 and 2026 for the Series 2010C Bonds at a coupon rate of 5.25–5.375%. The Authority, as part of its debt management plan, contributed approximately $50 million in cash from the unrestricted Senior Bonds Defeasance Fund of the General Surplus account to cash defease a portion of the callable debt, and refunded the remaining portion at a par amount of $167.4 million along with a $39.0 million bond premium (not including the cost of issuance expense of $2.3 million).

The Series 2020A Bonds have new annual principal amounts due between September 1, 2023 and September 1, 2040 ranging between $1.5 million and $50 million. The coupon rate on the new maturities is 5.00%, with yields to maturity ranging between 0.58% on the short-term end to 4.04% on the long-term end. The All-In True Interest Cost achieved was 2.9% on the Series 2020A Bonds, which is lower than the rates being accrued and paid on the refunded bonds. The Authority also included future flexibility in the restructuring with additional call opportunities in 2024 on the 2040 principal maturity of the Series 2020A Bonds totaling $50 million, and in 2030 on the 2034 to 2036 principal maturities totaling $48.4 million. The Authority will evaluate these opportunities as the call dates get closer. The related liabilities for the applicable portions of the 2004B and 2010C refunded bonds were removed from the Authority’s statements of net position. The transaction reduced and leveled the future debt service profile and provided initial debt service relief in the near-term periods to assist with the on-going COVID-19 pandemic and impact on toll revenues and customer usage of the toll road.

The refunding resulted in a difference between the reacquisition price and the net carrying amount of the old debt of $14.7 million. This difference, reported in the accompanying basic financial statements as a component of deferred outflows of resources within the 2020 deferred refunding balance, is 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 $79.5 million. The refunding, including the cash contribution of $50 million, reduced debt service amounts due from 2020 to 2040 by a present value of $129.5 million.

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 in the prior year of $3.9 million 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, 2020:

	Balance at January 1, 2020	Additions	Reductions	Balance at December 31, 2020	Due within one year
Series 1997B CAB (Principal)	$ 76,638,775	—	12,854,016	63,784,759	12,173,937
Series 1997B CAB (Accretion)	181,757,025	13,621,486	31,945,984	163,432,527	32,621,063
Series 2000B CAB (Principal)	133,526,723	—	10,475,556	123,051,167	10,221,224
Series 2000B CAB (Accretion)	317,785,099	28,118,130	25,724,444	320,178,785	27,478,776
Series 2004A CAB (Principal)	76,484,624	—	—	76,484,624	—
Series 2004A CAB (Accretion)	93,837,458	9,321,033	—	103,158,491	—
Series 2004B CAB (Principal)	70,705,810	—	70,705,810	—	—
Series 2004B CAB (Accretion)	93,411,912	6,232,481	99,644,393	—	—
Premium Series 2004	371,427	—	201,141	170,286	—
Series 2006B CAB (Principal)	56,932,723	—	—	56,932,723	—
Series 2006B CAB (Accretion)	53,792,983	5,687,732	—	59,480,715	—
Series 2010A CAB (Principal)	21,834,746	—	—	21,834,746	—
Series 2010A CAB (Accretion)	19,665,192	3,005,880	—	22,671,072	—
Series 2010C CIB	81,655,000	—	81,655,000	—	—
Discount 2010C CIB	(126,720)	126,720	—	—	—
Series 2015A CIB	20,590,000	—	20,590,000	—	—
Series 2017B LIBOR Notes	66,075,000	—	—	66,075,000	—
Series 2019A LIBOR Notes	72,565,000	—	—	72,565,000	—
Series 2020A CIB	—	167,370,000	—	167,370,000	—
Premium 2020A CIB	—	39,035,272	3,003,024	36,032,248	—
Total	$ 1,437,502,777	272,518,734	356,799,368	1,353,222,143	82,495,000

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

At December 31, 2020, 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:				
2021	$	82,495,000	16,518,874	99,013,874
2022		84,200,000	15,311,219	99,511,219
2023		87,395,000	15,311,219	102,706,219
2024		91,940,000	15,238,362	107,178,362
2025		92,185,000	15,023,969	107,208,969
2026 – 2030		491,200,000	60,483,524	551,683,524
2031 – 2035		506,245,000	53,261,423	559,506,423
2036 – 2040		562,615,000	30,409,510	593,024,510
2041		52,385,000	—	52,385,000
		2,050,660,000	221,558,100	2,272,218,100
Add premiums, net of discounts		36,202,534	—	36,202,534
Total scheduled payments		2,086,862,534	221,558,100	2,308,420,634
Less future years' accretion		(733,640,391)	—	(733,640,391)
Total bonds payable	$	1,353,222,143	221,558,100	1,574,780,243

Included in the above principal payment schedule is $734 million of expected future year interest accretion on the Senior CAB 1997B bond series, Senior CAB 2000B bond series, Senior CAB 2004A 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, 2020 and 2019.

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, 2020 and 2019.

During 2020 and 2019, the Authority recognized, on the accrual basis, swap settlements on the 2007 pay-fixed swaps (MS-1 and JP-1) of $4.8 million and $3.2 million, respectively.

The following table provides a summary of the Authority's investment derivative interest rate swaps as of December 31, 2020 and 2019:

Swap	Counterparty	Effective date	Maturity date	Terms	Original notional amount	2020 and 2019 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, 2020, 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:

	2020 Changes in fair value		Fair value at December 31, 2020	
	Classification	**Amount**	**Classification**	**Amount**
Investment derivative instruments:				
JP-1 Pay-fixed interest rate swap	Derivative loss	$ (5,161,650)	Derivative instruments	$ (30,248,984)
MS-1 Pay-fixed interest rate swap	Derivative loss	(5,166,808)	Derivative instruments	(30,248,925)
	Investment revenues: Derivative loss	$ (10,328,458)	Derivative instruments	$ (60,497,909)

(Continued)

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)

(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, 2020 and 2019, 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, 2020, 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	A2	BBB+	A

On January 27, 2021, Morgan Stanley was upgraded to A1 from Moody’s.

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.

(C o n t i n u e d)

(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, 2020:

		Fair value at December 31, 2020	Interest rates up 25 basis points	Interest rates down 25 basis points
JP-1 Receive-variable (LIBOR) swap	$	(30,248,984)	(28,051,919)	(32,532,717)
MS-1 Receive-variable (LIBOR) swap		(30,248,925)	(28,051,856)	(32,532,663)
	$	(60,497,909)	(56,103,775)	(65,065,380)

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)

(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, 2020 or 2019. 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, 2020 and 2019, 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 $360.7 million and $423.8 million in total unrestricted funds at December 31, 2020 and 2019, 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, 2020 and 2019:

		Balance at January 1, 2020	Additions	Reductions	Balance at December 31, 2020	Due within one year
Other intergovernmental agreements	$	240,769	—	240,769	—	—

		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

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 occurred 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, 2020 and 2019:

	Balance at January 1, 2020	Additions	Reductions	Balance at December 31, 2020
$	1,378,439	—	207,544	1,170,895

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

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 $1.0 million as of December 31, 2020 and $0.6 million as of December 31, 2019. A rebate of $0.07 million related to the 2015A bonds was due and paid in 2020. A rebate of $0.04 million related to the 2015A bonds was due and paid in 2019.

(13) Deferred Inflows of Resources

The Authority entered into a purchase and sale agreement in 2020 with Aurora Highlands to sell the Authority's land and building facilities located at Toll Plaza C and Central Maintenance Facility, in order for Aurora Highlands to construct a large residential development in the area. Facilities at this site include two administrative buildings and a maintenance yard containing a salt barn for snow removal material storage and a vehicle storage bay. The agreement contains a leaseback provision allowing E-470 to retain the facilities for operational purposes for up to 4 years, until October 12, 2024 or such earlier date upon which E-470 voluntarily vacates the premises. The sale of assets resulted in a gain of approximately $3.2 million, which was recorded as a deferred inflow of resources and is amortized as a component of other income using the straight line method over the related operating lease term, which is 4 years beginning on October 12, 2020. Approximately $0.2 million was amortized as a component of other income as of December 31, 2020. The balance of $3.0 million as of December 31, 2020 is included within the unrestricted component of net position. There were no corresponding balances as of December 31, 2019. See also notes 6 and 14 for further discussion of financial statement impacts related to this agreement as they pertain to notes receivable and commitments and contingencies.

(14) 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, 2020 and 2019, 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) 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, 2020 and 2019, with an outstanding principal balance of \$1.6 million and \$1.8 million, respectively.

(d) 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 was substantially completed 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 dollars. Funds were placed in a designated and segregated E-470 account, the unspent portion of which is presented as cash and cash equivalent limited for construction on the statement of net position as of December 31, 2020 and will be released to Commerce City upon presentation and mutual approval of progress invoices for eligible expenses. The Authority released a total of \$0.2 million to Commerce City for eligible expenses in 2020. As of December 31, 2020, an additional \$0.3 million is included in accounts payable for eligible expenses incurred in December 2020 and were released to Commerce City in January 2021. The total \$0.5 million of eligible expenses in 2020 is presented as an intergovernmental expense below nonoperating revenue (expenses) due to the agreement's nature as a voluntary non-exchange transaction. Upon project close out, and after submission by Commerce City of all eligible expenses, any remaining funds in the designated and segregated E-470 account remain with the Authority and will be transferred back to the General Surplus fund.

(C o n t i n u e d)

(e) Purchase and Sale Agreement with Aurora Highlands, LLC regarding Sale and Leaseback of land and facilities located at Toll Plaza C and Central Maintenance Facility

The Authority entered into a purchase and sale agreement in 2020 with Aurora Highlands to sell the Authority's land and building facilities located at Toll Plaza C and Central Maintenance Facility, in order for Aurora Highlands to construct a large residential development in the area. Facilities at this site include two administrative buildings and a maintenance yard containing a salt barn for snow removal material storage and a vehicle storage bay. The agreement contains a leaseback provision allowing E-470 to retain the facilities for operational purposes for up to 4 years, until October 12, 2024 or such earlier date upon which E-470 voluntarily vacates the premises. The total sales price for assets sold was $7.4 million, delivered as $2.0 million in cash upon closing in October 2020 and $5.4 million in notes receivable, to be paid in installments of $4.32 million payable when the Authority executes a construction contract for replacement facilities, which is estimated to occur during Q1 2022, and the final $1.08 million payable to the Authority when it provides written notice that it has vacated the leased premises, which estimated to be Q3 of 2024 but no later than October 12, 2024. The replacement facilities will be located on an owned parcel of land adjacent to the Authority's administrative headquarters facility off of Stephen D. Hogan Parkway in Aurora and will include salt storage, magnesium chloride (MgCl) storage, fuel tank, mechanic bays, wash bays, truck storage, additional storage for supplies and materials, and office space for Authority and contractor employees. Design is planned to occur in 2021 with contracting and permitting in 2022, and construction beginning in late 2022 and continuing through mid-2024.

(f) Intergovernmental Agreement with 64th ARI Authority regarding E-470 and 64th Avenue Interchange Widening Funding and Design

E-470 entered into an intergovernmental agreement with 64th Ave. ARI Authority (64th AAA) in October 2020 regarding the design and funding of the 64th Avenue interchange widening project. Cost savings and efficiencies may be realized to the mutual benefit of both parties by planning and executing the construction of the interchange widening in connection with the 64th Avenue Regional Improvements Project. Accordingly, the Authority is agreeable to accelerating design and potentially construction of the project and to provide a contribution to 64th AAA to be used solely to fund capital costs for the interchange. Pursuant to this IGA, the Authority deposited $8 million in an UMB bank escrow account on October 20, 2020 to be used toward the 64th interchange project. No monies may be disbursed from the escrow account until a separate construction and maintenance intergovernmental agreement is negotiated and executed and provided to the escrow agent (UMB). If a separate construction and maintenance IGA is not executed on or before May 1, 2021, all monies in the escrow account and any earned interest is returned to the Authority within 5 business days of written notice provided to UMB by the Authority. As of March 2021, negotiations on a separate IGA with 64th ARI had not yet started, and it is unlikely to be complete by May 1, 2021. If the May 1, 2021 deadline is not met and the funds are returned to the Authority, the current agreement states that the funds are still to be held in a dedicated account for sole use toward the construction of the 64th Ave interchange, and the Authority would then construct the interchange as part of its upcoming widening project from two lanes to three lanes in each direction between I-70 and 104th Avenue to achieve economies of scale with the overall project. E-470 will own, operate and maintain the bridge, ramps and tolling infrastructure being funded by the $8 million contribution, and 64th AAA will own and maintain connecting facilities such as local roads, frontage roads, 64th Ave, etc. The $8 million escrow account is presented as current unrestricted cash and cash equivalents limited for construction on the statement of net position as of December 31, 2020.

(15) 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 was substantially 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 with project wrap-up costs in early 2021, the Authority accrued the liability as of December 31, 2020 and 2019 as a current intergovernmental liability for the ramp construction. Two-thirds, or $2.9 million, of the total project construction costs expended by the Authority in 2020 was recognized as intergovernmental revenue and a reduction of the intergovernmental liability. As of December 31, 2020, the revised total project costs were approximately $6.0 million versus the original estimate of $9.0 million, resulting in a total project savings of $3.0 million. As such, the Authority allocated one-third of the total project savings to each entity and reduced the balance of notes receivable due from SARIA and the County, along with the corresponding intergovernmental liability, by $1.0 million each, or $2.0 million total, as of December 31, 2020. The remaining current intergovernmental liability as of December 31, 2020 was $0.2 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, 2020, with an outstanding principal balance of $0 and $0.3 million, respectively.

(16) 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.

(17) 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 $137,700 in 2020 and $132,900 in 2019, for a maximum contribution of $8,537 for 2020 and $8,240 for 2019. 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 each of 2020 and 2019. 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 each of 2020 and 2019.

E-470 PUBLIC HIGHWAY AUTHORITY

Supplementary Information – Revenue Covenant

Year ended December 31, 2020

(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, 2020, the Authority exceeded the required debt service coverage ratio reporting an actual ratio of 1.85. Below is the calculation for the year ended December 31, 2020:

Revenue:		
Operating revenues	$	176,555,679
Unrestricted investment income		10,186,844
Other income		2,288,125
Total revenue		189,030,648
Less operating expenses before depreciation, net of renewal and replacement expenses		(50,579,618)
Net income available for senior debt service		138,451,030
Aggregate senior debt service due during the year, net	$	74,811,507
Senior debt service coverage ratio		1.85

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, 2020 to unrestricted investment income available for senior debt service:

Interest earned on investments per the basic financial statements	$	10,873,905
Less:		
Restricted investment income		(181,843)
Unamortized investment discount		(505,218)
Unrestricted investment income	$	10,186,844

The following is a reconciliation of other income reported in the audited basic financial statements of the Authority for the year ended December 31, 2020 to other income available for senior debt service:

Other income per the basic financial statements	$	1,128,745
Less:		
Loss on disposal of capital assets		664,900
Increase in arbitrage rebate		467,276
Add:		
Other nonoperating expenses		27,204
Other income	$	2,288,125

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.

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, 2020 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	$	54,790,481
Less renewal and replacement expenses		(4,210,863)
Operating expenses before depreciation expense, net of nonoperating fund expenses	$	50,579,618

(C o n t i n u e d)

E-470 PUBLIC HIGHWAY AUTHORITY

Supplementary Information – Revenue Covenant

Year ended December 31, 2020

(Unaudited)

Aggregate Senior Debt Service Due, Net: For the year ended December 31, 2020, 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, 2017B, and 2019A, as well as the paid settlement differential on the Authority's interest rate swaps during the year, net of any amounts paid from the unrestricted General Surplus account. In response to the significant decrease in transactions and toll revenues as a result of the pandemic and local, state and federal lockdowns and restrictions from March through December 2020, the Authority specifically paid the $36.2 million due on the Series 2000 bonds in 2020 from the unrestricted Senior Bonds Defeasance Fund of the General Surplus account. This amount was netted from the aggregate senior debt service due for the 2020 debt service coverage ratio.

The following is a reconciliation of aggregate senior debt service due for the year ended December 31, 2020, net of amounts paid from the unrestricted General Surplus account, included in the revenue covenant calculation:

Aggregate senior debt service due during the year	$	111,011,507
Less amount paid from unrestricted General Surplus fund		(36,200,000)
Aggregate senior debt service due during the year, net	$	74,811,507

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, net during the fiscal year.