



# ANNUAL BUDGET 2020

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## New Jersey Turnpike Authority



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## Transmittal Letter



## New Jersey Turnpike Authority

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MICHAEL R. DuPONT, Treasurer  
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ULISES E. DIAZ, Commissioner  
JOHN D. MINELLA, Commissioner  
RAPHAEL SALERMO, Commissioner  
JOHN M. KELLER, Executive Director

October 22, 2019

To: The Board of Commissioners of the New Jersey Turnpike Authority:

We are pleased to submit for your review the New Jersey Turnpike Authority's (the Authority's) 2020 Annual Budget. The Authority's Turnpike Revenue Bond Resolution, Section 710, requires the Board of Commissioners to adopt, on or before January 15<sup>th</sup> of each fiscal year, an Annual Budget for that year, and promptly file the Annual Budget with the Trustee for inspection by the bondholders. The Annual Budget must include, at a minimum, appropriations for all anticipated Operating Expenses and Reserves therefor, and provisions for Maintenance Reserve Payments and Special Project Reserve Payments. The Annual Budget may set forth such additional material as the Authority may determine and shall contain a certificate of the Consulting Engineer approving such Annual Budget.

The 2020 Annual Budget has been prepared in accordance with the Authority's mission. This mission is to prudently manage the finances and operations of the New Jersey Turnpike Authority to provide its customers with a safe, efficient, innovative, and resilient toll road system which facilitates mobility in New Jersey and the Northeast United States of America. To this end, the 2020 Annual Budget includes an almost 25% increase in funding for roadway resurfacing, an approximate 30% increase in funding for the Passaic River Bridge Rehabilitation Program, and additional operating and capital funding for roadway lighting, drainage, line striping and roofing repairs. The 2020 Annual Budget includes funding to continue to support increased maintenance needs resulting from the additional lane miles added to the system over the past few years, enhanced customer outreach, and several initiatives intended to protect revenue. Also included in the 2020 Annual Budget is sufficient funding for State Police who patrol the roadways and protect our customers. Finally, the 2020 Annual Budget includes funding to cover debt service payments on both existing debt and the potential issuance of up to \$200 million of Turnpike Revenue Bonds assumed to occur in July 2020. The bonds would be issued to partially finance the 2019 Capital Improvement Program, approved in April 2019.

During 2020, the service area major renovation program will continue. In 2019, three service areas reopened after being closed for renovations. The two on the New Jersey Turnpike are the Thomas Edison and Alexander Hamilton Service Areas, and the one on the Garden State Parkway is the Monmouth Service Area. These three renovations are the first of many service areas to be improved over the next five years. The service areas include new restaurant brands, and have been a huge success since their reopening.

The 2020 Annual Budget provides for the necessary personnel and expenditures to operate and maintain the New Jersey Turnpike and Garden State Parkway, two of the nation's busiest and safest toll roads. In addition, the 2020 Annual Budget provides bond covenant coverage exceeding that required by the Turnpike Revenue Bond Resolution and the Authority's Financial Management Principles and Guidelines, as well as meets all contractual payment obligations.

John M. Keller  
Executive Director

Donna Manuelli  
Chief Financial Officer

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## Distinguished Budget Presentation Award



GOVERNMENT FINANCE OFFICERS ASSOCIATION

# *Distinguished Budget Presentation Award*

PRESENTED TO

**New Jersey Turnpike Authority**

**New Jersey**

For the Fiscal Year Beginning

**January 1, 2019**

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to the **New Jersey Turnpike Authority, New Jersey** for its annual budget for the fiscal year beginning **January 1, 2019**. In order to receive the award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communications device.

This award is valid for a period of one year only. We believe our current budget continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award.

## Vision Statement

To be the premier toll road agency in the United States of America

## Mission Statement

To prudently manage the finances and operations of the New Jersey Turnpike Authority to provide our customers with a safe, efficient, innovative, and resilient toll road system, which facilitates mobility in New Jersey and the Northeast United States of America.

## Core Values

The Authority's core values are a commitment to:

**Safety**  
**Diversity**  
**Innovation**  
**Transparency**  
**State of Good Repair**  
**Customer Satisfaction**  
**Resiliency & Sustainability**  
**Long Term Financial Stability**

The Great Egg Harbor Bridge on the Garden State Parkway



Figure 1: Great Egg Harbor Bridge Aerial View

## Background

The New Jersey Turnpike Authority (the “Authority”) is a body corporate and politic of the State of New Jersey (the “State”) organized and existing by virtue of the New Jersey Turnpike Act of 1948, constituting Chapter 454 of the Laws of New Jersey of 1948, as amended and supplemented (the “Act”). Pursuant to the Act, the Authority has owned and operated the New Jersey Turnpike (the “Turnpike”) since the time the Turnpike opened for traffic in 1951. In July 2003, the New Jersey Highway Authority (the “Highway Authority”) was abolished and the Authority assumed all of the powers, rights, obligations, assets, debts, liabilities and statutory responsibilities and duties of the Highway Authority, including the ownership and operation of the Garden State Parkway (the “Parkway” and, together with the Turnpike, the “Turnpike System”). As a result, the assets and liabilities of the Authority and the Highway Authority and the ongoing operations, expenses and revenues of the Turnpike and the Parkway are now combined under the ownership and operation of the Authority.

### The Turnpike

The Turnpike is a limited access toll road that serves as part of the I-95 corridor linking the major economic centers of the East Coast. Its connections to a major seaport in Newark and Elizabeth and a major airport in Newark make it an important route for both commercial and passenger vehicles. It also serves New Jersey commuters traveling to and from the major metropolitan areas surrounding Philadelphia and New York City and other employment centers in the State.

The Turnpike consists of a 122-mile mainline and two extensions. Originally, the mainline ran from Deepwater, Salem County, to US Route 46 in Ridgely Park, Bergen County, a distance of approximately 117.5 miles. In 1992, the Authority acquired the 4.4-mile section of Interstate 95 extending from the northern terminus of the Turnpike mainline to Fort Lee, Bergen County, at the crossing of Route 9W (Fletcher Avenue), a short distance west of the George Washington Bridge toll plaza (the “I-95 Extension”). Approximately three miles west of this location lies a full directional interchange with Interstate 80, a significant traffic generator for the Turnpike. At the southern terminus, the Turnpike connects, via a short section of US Route 40, with the Delaware Memorial Bridge.

The Newark Bay-Hudson County extension, which opened in 1956, is a four-lane, 8.3-mile spur that extends from Interchange 14 on the mainline Turnpike, near Newark Liberty Airport, to the Holland Tunnel plaza in Jersey City, Hudson County. It includes a high-level bridge over Newark Bay. There are three interchanges on the extension: Interchange 14A (Bayonne), Interchange 14B (Jersey City), and Interchange 14C (Holland Tunnel).

The Pearl Harbor Memorial Turnpike extension, which opened in 1956, is a 6.6-mile, six-lane spur that connects the Turnpike to the Pennsylvania Turnpike. The extension begins at a junction with the mainline Turnpike at Interchange 6 (Mansfield, Burlington County) and ends at the Delaware River. The bridge across the Delaware River at that point was bonded and constructed jointly by the Authority and the Pennsylvania Turnpike Commission. A full interchange connecting the extension to Route 130 in Florence Township, New Jersey, was opened in 1999.

The Turnpike roadway is two lanes in each direction from Interchange 1 (Deepwater) to Interchange 4 (Camden-Philadelphia) and three lanes in each direction from Interchange 4 to Interchange 6 (Pennsylvania Turnpike).

From Interchange 6 to north of Interchange 14 (Newark), the Turnpike is configured as a “dual/dual” highway; it has two distinct sets of roadways in each direction, an inner roadway and an outer roadway. Under normal operating conditions, truck, bus, and passenger car traffic is permitted on the outer roadways, but only passenger car traffic is permitted on the inner roadways. Ramps at the interchanges enable traffic to enter or exit the Turnpike from any of the four roadways.

Vehicles are prevented from crossing back and forth between the inner and outer roadways by a median with a guardrail. Crossovers have been provided on those medians to allow access to emergency and maintenance vehicles and to provide for the detouring of traffic under police control if an accident should block one of the



roadways. The northbound and southbound roadways are separated by a specially designed, crash-tested, heavy concrete barrier to prevent cross-over traffic. Grade-separated U-turn structures have been provided at appropriate locations so that police, maintenance, and other vehicles can change direction safely.

Between Interchanges 6 (Mansfield) and 11 (Woodbridge), there are 12 lanes total, three outer and three inner in each direction. And from Interchange 11 to Interchange 14 (Newark), there are 14 total lanes, four lanes in each direction on the outer roadways and three in each direction on the inner roadways.

North of Interchange 14, the inner and outer roadways of the Turnpike merge and divide through a complex configuration referred to as the “Southern Mixing Bowl” to follow two separate alignments, one west of the Hackensack River, the other, east of the Hackensack River. The Westerly Alignment is six lanes from north of the Southern Mixing Bowl to the NJ Route 3 crossing; it narrows to four lanes from north of this point to the point where it rejoins the Easterly Alignment just south of US Route 46. The Easterly Alignment is six lanes from the Southern Mixing Bowl to the confluence with the Westerly Alignment. North of northbound US Route 46, the roadway separates into dual express and local roadways leading to the George Washington Bridge.

The Authority launched a \$7 Billion Capital Improvement Program (CIP) in 2008. The Program was designed to relieve heavy and recurring congestion on sections of the Turnpike, improve operational and maintenance performance, and provide for the increased demand for capacity in the future. As a part of this Program, the Authority widened the Turnpike from Interchange 6 (Mansfield Township, Burlington County) to Interchange 9 (East Brunswick Township, Middlesex County), a linear distance of 35 miles. The construction added 170 lane miles to the roadway by widening it from six to 12 lanes from two miles south of Interchange 6 to Interchange 8A (South Brunswick Township, Middlesex County), a distance of approximately 25 miles, and from 10 lanes to 12 lanes between Interchange 8A and Interchange 9, a distance of 10 miles. The Program created a dual/dual roadway between Interchange 6 and Interchange 8A and expanded the outer roadway in each direction between Interchange 8A and Interchange 9. The work included improvements at Interchange 7A and the construction of a new toll plaza at Interchange 8. The Program was completed in the fall of 2014 with the opening of the northbound lanes on October 26, 2014, and the southbound lanes on November 2, 2014 at an estimated cost of \$2.2 billion.

## The Parkway

The Parkway is a 173-mile limited access toll road with connections in the south to Route 9 near Cape May, New Jersey, and in the north to the New York State Thruway at the New York-New Jersey border near Spring Valley, New York. The Parkway interchanges are numbered according to their distance from the southern terminus.

The northern section of the Parkway serves the metropolitan suburban areas in Bergen, Union, Essex, and Passaic Counties near Newark and New York City. In addition to being heavily used by commuters, the location of many businesses and industrial complexes in or near the Parkway corridor has resulted in significant local business traffic. The Parkway also is the principal highway route between metropolitan Newark-New York City and the New Jersey seashore. Heavy trucks are not allowed north of Interchange 105.

For approximately 135 miles, the Parkway is distinguished by a wide natural-area median separating northbound from southbound traffic. The purpose of the median is threefold: to prevent head-on collisions between traffic traveling in opposite directions, to prevent visual interference by opposing traffic, and to provide areas that allow extensive flexibility in road configuration. The wide natural-area median is a distinctive feature of the Parkway.

Three sections of the Parkway were constructed by NJDOT and maintained by that agency until June 30, 1987. On July 1, 1987, the Highway Authority took ownership of those sections together with all previous responsibilities and obligations. These sections total approximately 19 miles and include a 13-mile link between US Route 22 and US Route 9 in Union and Middlesex Counties, a two-mile link in Ocean County, and a four-mile link in Cape May County. These portions of the road are known collectively as the “State Sections.” The term “Parkway” as used herein includes the State Sections. No tolls are charged on the State Sections.

The Parkway is four lanes (two in each direction) from Cape May to milepost 35, six lanes to milepost 91, eight lanes to milepost 102, 10 lanes to milepost 117, 12 lanes to milepost 127, 10 lanes to milepost 140, eight lanes to milepost 145, six lanes to milepost 168, and four lanes to the New York border.

The \$7 Billion CIP funded the widening of the Parkway between milepost 35 and 80. This widening program was designed to relieve heavy traffic congestion and to improve motorist safety by the addition of one new lane in both the northbound and southbound directions and full-width shoulders. The widening was done in three phases. Phase I – Milepost 63 to 80, was completed and opened to the public in 2011. Phase II – Milepost 48 to 63 was completed and opened to the public in 2015. The last phase, Milepost 35 to 48 was completed and opened in the fall of 2018.

## Financial Policies Summary

The Authority has adopted four key financial policies that serve as the groundwork for how the Authority issues debt, makes investments, and manages its finances. Below is a brief description of these four policies. The policies were developed by staff in consultation with the Authority's Financial Advisors and approved by the Board of Commissioners. All financial policies are reviewed by the Authority's Chief Financial Officer no less than every two years. Any changes to the document will be presented to the Authority's Board of Commissioners for approval. The full versions of these policies are included in Appendix B of this document.

### Financial Management Principals and Guidelines

The Financial Management Principles and Guidelines are intended to serve as a management tool to enable the Authority to communicate the Authority's commitment to a sound financial decision-making process and affirm to investors and the credit rating agencies management's commitment to the long term financial viability of the Authority and repayment of its bonds. The Financial Management Principles and Guidelines are also intended to serve as guidance for management of the Authority with respect to:

- (i) the issuance and management of Authority debt in appropriate amounts and types with the goals of achieving the lowest possible costs of capital within prudent risk parameters and ensuring ongoing access to the capital markets; and
- (ii) compliance by the Authority with all provisions of its enabling legislation relating to bonds, notes or other obligations of the Authority, as well as all provisions of the Turnpike Revenue Bond Resolution.

Since inception, the policy has set targets for total debt service coverage, total requirements coverage, and the minimum General Reserve Fund balance. The debt service coverage target is 1.40 times, while the total requirements coverage target is 1.20 times, both above the levels required by the Authority's Turnpike Revenue Bond Resolution. Notably, in January 2017, The Authority's Board of Commissioners approved an amendment to the Financial Management Principles and Guidelines. This amendment increased the minimum General Reserve Fund targets from \$100 million as follows:

- \$125 million as of 12/31/17
- \$150 million as of 12/31/18
- \$175 million as of 12/31/19
- 10% of that year's budgeted annual revenue for 12/31/20 and each year thereafter.

### Debt Management Policy

The Debt Management Policy is intended to serve as a management tool to enable the Authority to identify circumstances and transactions under which the Authority can issue and manage its bonds, notes and other obligations in the most efficient manner and provide for the full and timely repayment thereof. The policy is also intended to serve as guidance for management of the Authority with respect to:

- (i) the issuance and incurrence of Authority debt in appropriate amounts and types with the goals of achieving the lowest possible costs of capital within prudent risk parameters and ensuring ongoing access to the capital markets;
- (ii) compliance by the Authority with all provisions of its enabling legislation relating to bonds, notes or other obligations of the Authority, as well as all provisions of the Turnpike Revenue Bond Resolution (as hereinafter defined);
- (iii) preservation of financial flexibility to maintain appropriate resources and funding capacity for present and future capital needs;

(iv) management of interest rate risk exposure to promote the appropriate diversification within the debt portfolio to balance risk and liquidity and promote and maintain an acceptable balance between interest rate risk and the long-term cost of capital; and

(v) securing of highly qualified professional services firms to assist with debt issuance in an open and competitive process.

### Interest Rate Swap Management Plan

The Interest Rate Swap Management Plan sets forth the manner of execution of interest rate swaps and related agreements, provides for security and payment provisions, and sets forth certain other provisions related to interest rate swap agreements between the Authority and qualified swap counterparties. The Interest Rate Swap Management Plan also outlines procedures to be followed to insure compliance with all applicable federal and state laws.

### Investment Policy

The purpose of the Investment Policy is to define guidelines and operational factors governing the investment of all funds held by the Authority or its bond trustees. The Investment Policy is intended to show compliance with all provisions of the Authority's enabling legislation relating to the investment of funds of the Authority, as well as provisions of the Turnpike Revenue Bond Resolution.



## Financial Plan

### Financial Plan Key Highlights

The Authority's current financial plan includes projected revenues, expenses, deposits to reserve funds and financial covenant calculations through December 31, 2024. Key highlights of the plan are as follows:

#### Revenue

- Toll revenue is projected by the Authority's traffic engineering consultant, CDM Smith. CDM Smith prepared an Investment Grade Traffic and Revenue Study dated September 21, 2018. Toll revenue for 2019 – 2024 has come from the September 21, 2018 study. System-wide toll revenue is expected to increase on average 1.5% over the forecast period.
- E-ZPass Fees are projected to increase by about 2.0% per year based on historical growth.
- Federal Subsidy for Series 2009F and 2010 Bonds (Build America Bonds) is projected to remain constant at current levels, which represents about 33% of the interest payable on the bonds.
- Concession revenue will be impacted by the closure and rebuilding of the Service Areas in the next seven years, assuming the adjoining Service Areas do not pick up the volumes lost during closure.
- Other Revenue (investment, miscellaneous, Arts Center) is projected to decline by approximately \$14.1 million in 2020 as compared to 2019 estimated actual results, as 2019 included several non-recurring income items. In addition, investment income is projected to decline due to lower expected short-term interest rates. Other revenue is expected to grow by about 2.0% per year thereafter based on historical growth.

#### Operating Expenses

- Operating Expenses are projected to increase by 2.9% from 2019 to 2020, primarily driven by increased maintenance costs for line striping, drainage, lighting, and roofing repairs on the roadways, additional funds to support the Authority's revenue protection efforts, anticipated contractual wage increases and due to increases in pension and health benefits cost. Operating expenses are projected to increase by 2% thereafter.

#### Net Debt Service

- Projected Net Debt Service includes the expected new money borrowing of \$200 million in July 2020 to fund the 2019 CIP with assumed interest costs of 5%. Debt service also reflects the savings from the fixed rate bond refunding completed in 2017. Thereafter, net debt service is projected to increase following a \$284 million borrowing in 2021 to also fund the 2019 CIP.

#### Maintenance Reserve Fund and the Special Project Reserve Fund

- Deposits to both the Maintenance Reserve Fund and the Special Project Reserve Fund are projected by the Authority's General Consulting Engineer, HNTB, as contained in their Consulting Engineer's Report dated January 11, 2019. Deposits are expected to increase by 3% each year.

#### State Payments

- Transportation Trust Fund Payments, Feeder Road Maintenance Agreement, and State Transportation Projects Funding Agreement (2016-2021) payments are based on existing agreements between the Authority and the State of New Jersey, with all payments subordinate to debt service payments to bondholders. Projections include the recently approved amendment to the agreement which provides annual \$25,000,000 payments to the state if and when federal funding for the Portal North Bridge Project (NJ Transit) is approved. Projections assume a successor State Transportation Projects Funding Agreement will be entered into effective 7/1/21.

The Authority's Financial Plan through 2024 projects the Authority to be in compliance with its General Bond Resolution Financial covenants, which require debt service coverage of at least 1.20 times and total requirements coverage of at least 1.0 times. In addition, the Authority is projected to be in compliance with its Board approved policies that target debt service coverage of at least 1.40 times, total requirements coverage of 1.20 times, and a minimum unencumbered General Reserve Fund balance of \$175 million as of December 31, 2019 and 10% of total annual revenue as of December 31, 2020 and each December 31st thereafter (\$186.5 million as of December 31, 2020).

## New Jersey Turnpike Authority Financial Plan

<i>Fiscal Year Ending 12/31 (In Thousands)</i>	<b>Actual 2018</b>	<b>Actual/Est 2019</b>	<b>Budget 2020</b>	<b>Projected 2021</b>	<b>Projected 2022</b>	<b>Projected 2023</b>	<b>Projected 2024</b>
Turnpike Tolls	\$ 1,179,324	\$ 1,177,380	\$ 1,192,889	\$ 1,209,177	\$ 1,228,761	\$ 1,248,638	\$ 1,271,835
Parkway Tolls	433,002	435,673	440,409	444,357	449,412	454,480	460,722
E-ZPass Fees	84,417	78,640	80,050	81,651	83,284	84,950	86,649
Federal Subsidy for Series 2009 F and Series 2010 A Bonds	76,439	76,725	76,847	76,847	76,847	76,847	76,847
Concession Revenue	36,192	33,096	35,557	35,884	35,669	37,732	38,487
Other Revenue	54,822	53,291	39,191	40,995	41,815	42,651	43,504
<b>Total Revenues</b>	<b>\$ 1,864,196</b>	<b>1,854,805</b>	<b>1,864,943</b>	<b>1,888,911</b>	<b>1,915,788</b>	<b>1,945,298</b>	<b>1,978,043</b>
Operating Expenses	(542,067)	(561,000)	(598,971)	(610,950)	(623,169)	(635,633)	(648,345)
<b>Total Revenues Available for Debt Service</b>	<b>\$ 1,322,129</b>	<b>1,293,805</b>	<b>1,265,972</b>	<b>1,277,961</b>	<b>1,292,619</b>	<b>1,309,665</b>	<b>1,329,698</b>
Future Debt Issuance			200,000	284,000			
Existing Debt Service	(788,478)	(824,449)	(837,699)	(857,080)	(855,603)	(858,528)	(896,395)
Proposed Debt Service on \$200M in 2020 & \$284M in 2021 Expected Future Debt Issuances			(5,000)	(17,100)	(24,200)	(24,200)	(24,200)
<b>Net Debt Service</b>	<b>(788,478)</b>	<b>(824,449)</b>	<b>(842,699)</b>	<b>(874,180)</b>	<b>(879,803)</b>	<b>(882,728)</b>	<b>(920,595)</b>
Total Revenues Available After Debt Service	533,651	469,356	423,273	403,781	412,816	426,937	409,103
Payments to Charges Fund							
<b>Cash Flow Available for Reserves</b>	<b>533,651</b>	<b>469,356</b>	<b>423,273</b>	<b>403,781</b>	<b>412,816</b>	<b>426,937</b>	<b>409,103</b>
Maintenance Reserve Fund	(119,086)	(131,468)	(134,097)	(136,779)	(139,515)	(142,305)	(152,305)
Special Project Reserve Fund	(40,490)	(41,300)	(41,300)	(42,126)	(42,969)	(43,828)	(44,705)
<b>Net Revenues Available for General Reserve Fund</b>	<b>374,075</b>	<b>296,588</b>	<b>247,876</b>	<b>224,876</b>	<b>230,332</b>	<b>240,804</b>	<b>212,093</b>
TTF Payments	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)
Feeder Road Maintenance Agreement	(4,500)	(3,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)
Existing State Transportation Funding Agreement (1)	(166,500)	(154,000)	(154,000)	(89,500)	(25,000)	(25,000)	(25,000)
Assumed Amounts for Additional State Transfers (2)				(64,500)	(129,000)	(129,000)	(129,000)
General Reserve Spending (3)	(114,999)	(102,800)	(72,845)	(32,295)	(32,295)	(32,295)	(32,295)
Transfer to Construction Fund Account - Net		(25,000)	(164,186)	(62,812)	(41,000)		
<b>Net Annual General Reserve Fund Increase (Decrease)</b>	<b>66,076</b>	<b>(10,712)</b>	<b>(167,655)</b>	<b>(48,731)</b>	<b>(21,463)</b>	<b>30,009</b>	<b>1,298</b>
<b>Ending General Reserve Fund Balance</b>	<b>414,339</b>	<b>403,627</b>	<b>235,972</b>	<b>187,241</b>	<b>165,777</b>	<b>195,786</b>	<b>197,084</b>
<b>Net Revenues to Debt Service Coverage Ratio</b>	<b>1.68</b>	<b>1.57</b>	<b>1.50</b>	<b>1.46</b>	<b>1.47</b>	<b>1.48</b>	<b>1.44</b>
<b>Net Revenues to Debt Service and Reserves Coverage Ratio</b>	<b>1.39</b>	<b>1.30</b>	<b>1.24</b>	<b>1.21</b>	<b>1.22</b>	<b>1.23</b>	<b>1.19</b>

(1) Includes \$129 annual payments through 6/30/2021 and potential \$25 million payment towards Portal North Bridge Project for 30 years

(2) Assumes \$129 million annual payments are made from 7/1/2021 forward

(3) Net of release of reserve (2019)

**Figure 2: NJTA Financial Plan**

## The Strategic Plan

The Authority's strategic planning process began in 2016. Through collaboration and expertise of a group of leaders in the fields of transportation planning and engineering, the Authority developed the New Jersey Turnpike Authority Strategic Plan 2020-2029. The Strategic Plan, through its incorporation of the Authority's vision, mission, and core values, provides clear direction and measurable goals for the next 10 years. The Strategic Plan was approved by the Authority's Board of Commissioners on August 27, 2019. The Authority will monitor its results as compared to its goals on a quarterly basis.

The strategic planning process involves the following seven steps process to set goals for the future of the Authority:

- Step 1 – Create a vision for the Future
- Step 2 – Identify Risk
- Step 3 – Develop Preliminary Goals
- Step 4 – Finalize Goals
- Step 5 – Produce Strategic Plan
- Step 6 – Implement Strategic Plan
- Step 7 – Monitor and Measure Success

The Strategic Plan includes performance measures for the key goals of the Authority as listed below:

### Safety

Safety is one of the core values of New Jersey Turnpike Authority and is a critical component of the mission statement. Ensuring safety for both customers and the Authority workforce is a focus of every project and initiative undertaken by the agency.

Performance Measures have been established in each of these areas:

- Crashes and Fatalities
- Toll Collection Personnel Incidents
- Maintenance and Contractor Personnel Incidents
- Service Area and Park & Ride Safety

### Financial Strength

Maintaining a strong financial position to fund operations, maintenance, and capital improvements adequately and efficiently supports the Authority's mission and vision for providing transportation services to the region.

Performance Measures have been established in each of these areas:

- Credit Strength
- Cost Effective Operations
- Capital Funding Approach
- Reserve Funding
- Debt Capacity

## Mobility

Customer satisfaction is a key best practice for any business, including the Authority. Maintaining and improving mobility for current and future customers on both the Turnpike and Parkway is critical to the organization's future success.

Performance Measures have been established in each of these areas:

- Vehicle Throughput
- Traffic Balancing
- Emerging Tolling and Vehicle Technologies
- Multi-Modal Connectivity through Regional Coordination

## State of Good Repair

Maintaining a state of good repair can increase the useful life of Authority's assets, resulting in cost savings over time and is vital in keeping traffic moving well. State of good repair cuts across all goals of the Authority's Strategic Plan.

Performance Measures have been established in each of these areas:

- Pavement Condition
- Pavement Markings
- Barrier and Guardrail
- Signage
- Lighting
- Drainage Systems
- Bridges
- Maintenance Equipment
- Facilities
- Technology
- Asset Management and Project Management

## People

The future success of the Authority depends on its ability to continue to serve and satisfy customers, which requires the agency to hire and retain a high-quality workforce. Qualified, motivated individuals across all levels of the organization are key to continued success which includes recruiting, motivating and retaining employees.

Performance Measures have been established in each of these areas:

- Customer Satisfaction
- Understanding Future Staffing Needs
- Retention of High Quality Staff
- Succession Planning
- Attracting and Hiring Qualified Talent

## New Jersey Turnpike Authority 2019 Accomplishments and 2020 Goals

The goals and achievements are based on the five Authority goals included in the Strategic Plan. The Strategic Plan outlines the performance measures that the Authority adheres to.

The summary below highlights major accomplishments in 2019 and goals for 2020 per selective Strategic Plan performance criteria as follows:

### Safety

#### 2019 Accomplishments

- While vehicle miles traveled has increased by 2% on the New Jersey Turnpike, crashes per vehicle miles traveled have decreased slightly, believed to be a direct result of the shoulder restoration and widening programs.

**Selected Performance Measure:** Crashes per million vehicle miles traveled

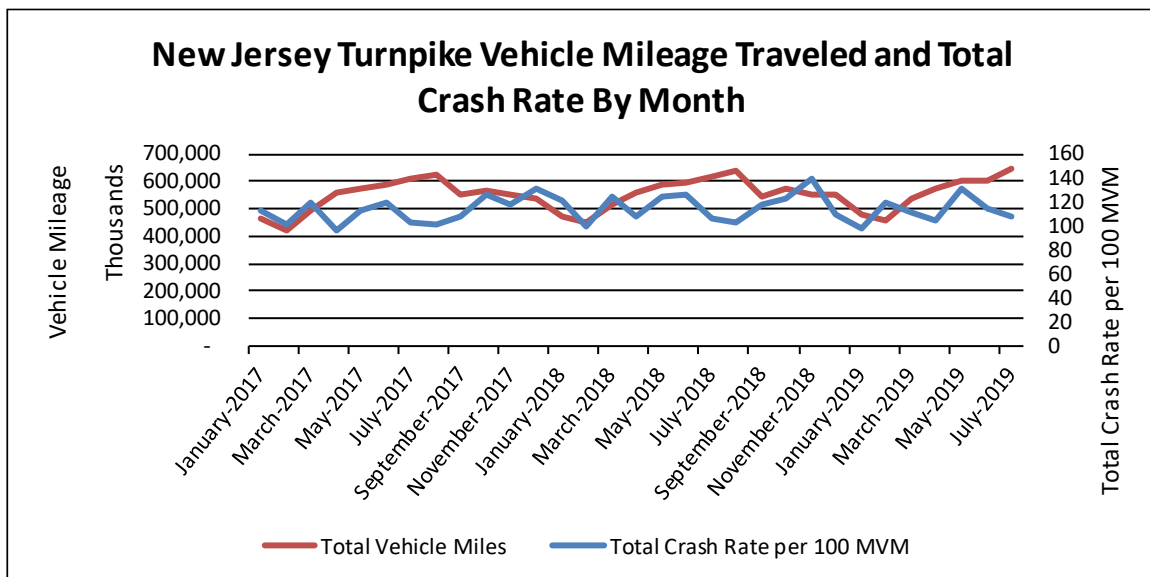


Figure 3: Vehicle Mileage Traveled and Total Crash Rate by Month (Turnpike)

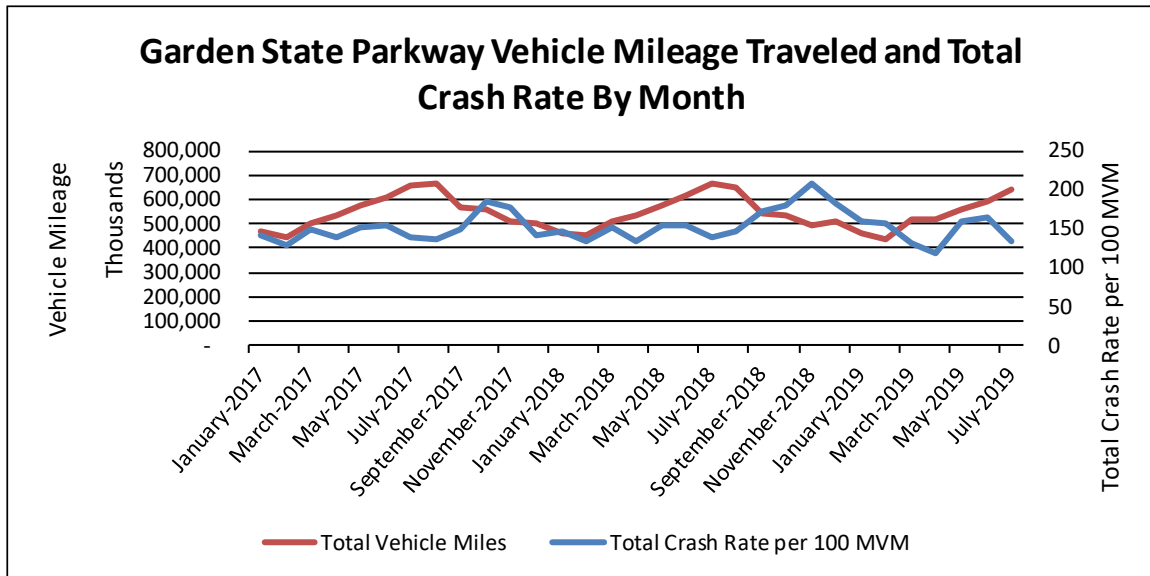


Figure 4: Vehicle Mileage Traveled and Total Crash Rate by Month (Parkway)

**Selected Performance Measure:** Injury and property-damage-only crashes by month

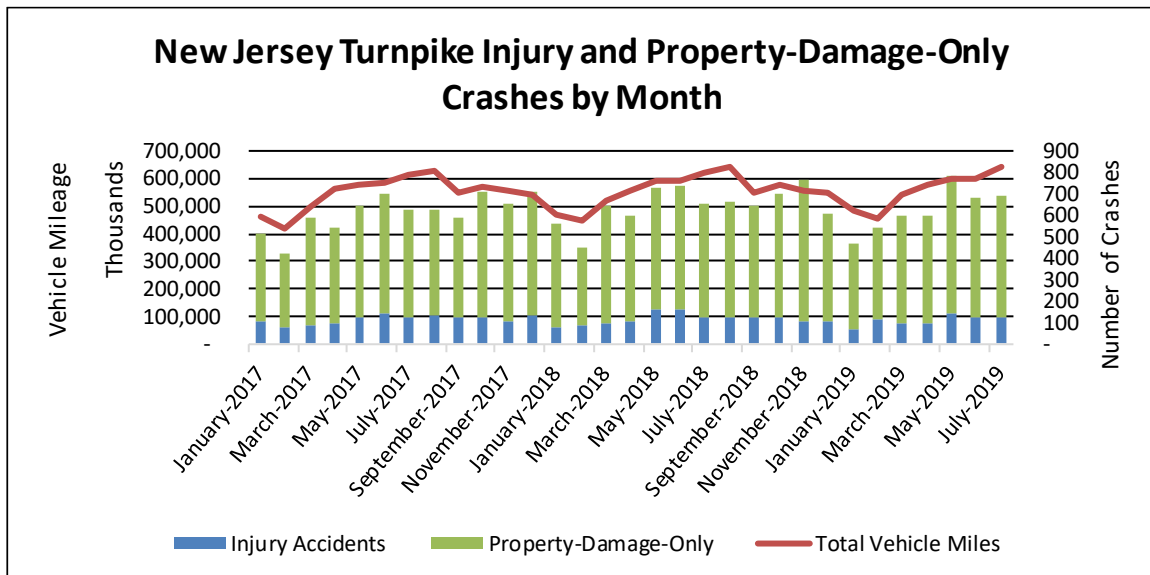


Figure 5: Injury and Property-Damage-Only Crashes by Month (Turnpike)

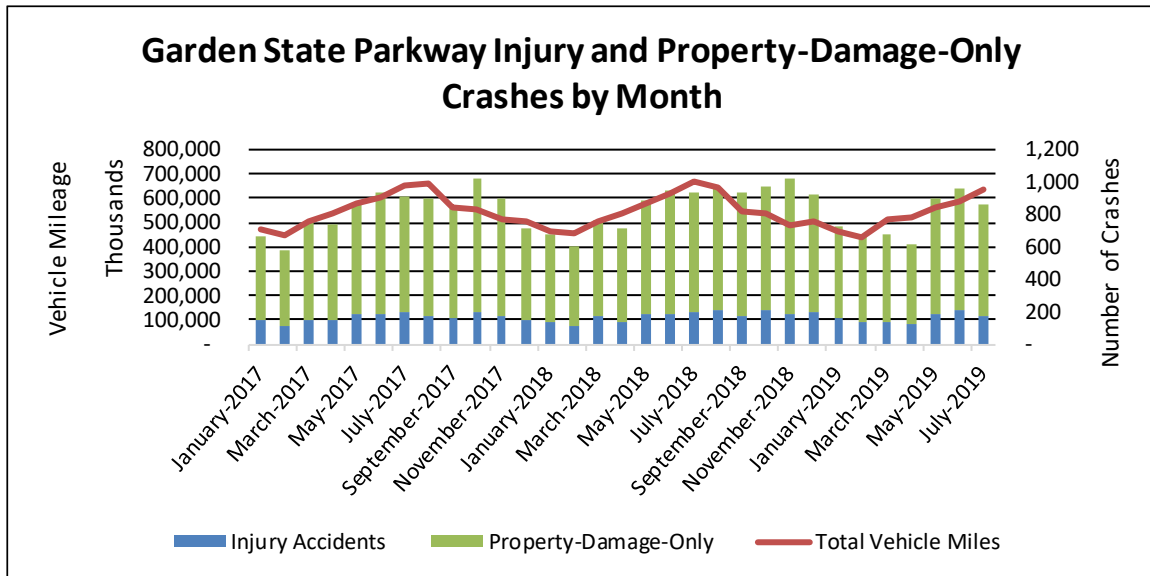


Figure 6: Injury and Property-Damage-Only Crashes by Month (Parkway)

### 2020 Goals

- Focus on maintaining a state of good repair on the roadways, roadside safety design, and technologies to provide the best conditions for safe travel.
- Improve and maintain public outreach.
- Reduce the response times of emergency vehicles, as well as incident clearing time.



## Financial Strength

### 2019 Accomplishments

- Issued \$449 million of new money bonds in February of 2019 to continue to fund the \$7 Billion CIP at a rate of under the budgeted 5%.
- Reached target of general reserve balance of \$175 million.
- Successfully automated financial statement preparation to improve efficiency and accuracy of financial reporting.
- Received a “positive outlook” from Fitch Ratings.

**Selected Performance Measure:** The Turnpike Authority’s credit rating comparisons by Moody’s, S&P, and Fitch

New Jersey Turnpike Authority Bond Ratings		
Credit Rating Agency	2018 Bond Ratings	2019 Bond Ratings
Moody's Investors Services Inc	A2	A2
S&P Global Ratings	A+	A+
Fitch Ratings	A	A (positive outlook)

Moody's Investors Services Inc	S&P Global Ratings	Fitch Ratings		
Aaa	AAA	AAA	Investment Grade	Minimal Credit Risk
Aa1	AA+	AA+		Very Low Credit Risk
Aa2	AA	AA		
Aa3	AA-	AA-		
A1	A+	A+		Low Credit Risk
A2	A	A		
A3	A-	A-		
Baa1	BBB+	BBB+		Moderate Credit Risk
Baa2	BBB	BBB		
Baa3	BBB-	BBB-		

**Figure 7: Turnpike Authority's Credit Rating**

The New Jersey Turnpike Authority’s investment grade bond ratings demonstrate a strong capacity to meet the Authority’s financial obligations, and represents a relatively low risk to investors.

### 2020 Goals

- Issue \$200 million of new money bonds in 2020 to fund the 2019 CIP approved in April 2019.
- As of December 31<sup>st</sup>, have a minimum general reserve balance of 10% of the 2020 budgeted revenue (\$186.5 million).
- Establish funding for Other-Post Employment Benefits (OPEB) Trust.
- Improve bond ratings to provide the lowest cost of capital.

## Mobility

### 2019 Accomplishments

- Expanded the pilot functionality of the Traffic Volume/Traffic Count Application to provide Parkway traffic volume integration, management and reporting to be made available to all departments
- Designed and implemented all traffic control for service area reopening of Monmouth and Thomas Edison.
- Designed and assisted in permanent traffic control for the new Interchange 19W at the American Dream commercial and entertainment facility.

**Selected Performance Measure:** Annual commercial transactions

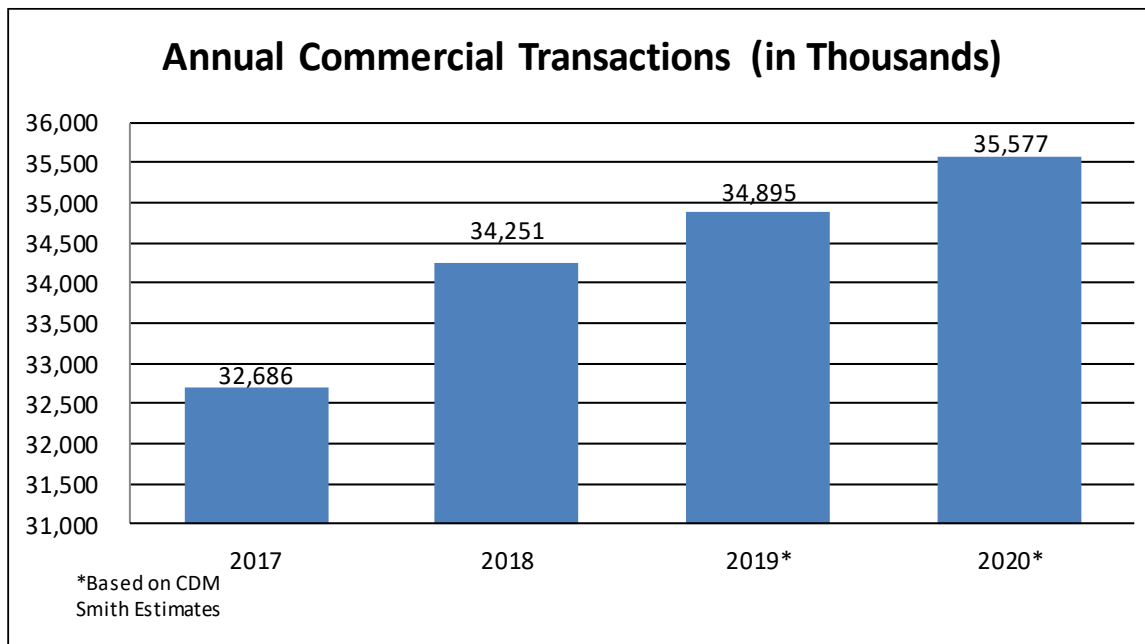


Figure 8: Annual Commercial Transactions

### 2020 Goals

- Continue to develop, plan, and increase capacity among roadway interchanges to allow for a more efficient traffic flow.
- Launch real-time mobile application for towing companies to reduce response times.
- Install new regulatory signing on the NJ Turnpike between Interchanges 9 and 15E to support New Jersey State Police enforcement requests.

## State of Good Repair

### 2019 Accomplishments

- Completed \$25 million in additional roadway resurfacing above what was originally planned.
- Continued installation of LED roadway lighting fixtures and maintenance of the roadway lighting system.
- Developed 17 new projects for the 2019 Capital Improvement Program.
- Updated devices at toll plazas to comply with 2019 Federal requirements.
- Implemented of the Authority's Roadside Weather Information System.

**Selected Performance Measure:** Budgeted resurfacing lane miles shows an upward trend with a 3.4% increase from 2018 to 2019, and a 44.8 % increase from 2019 to 2020. These increases reflect the Authority's commitment to maintain a state of good repair.

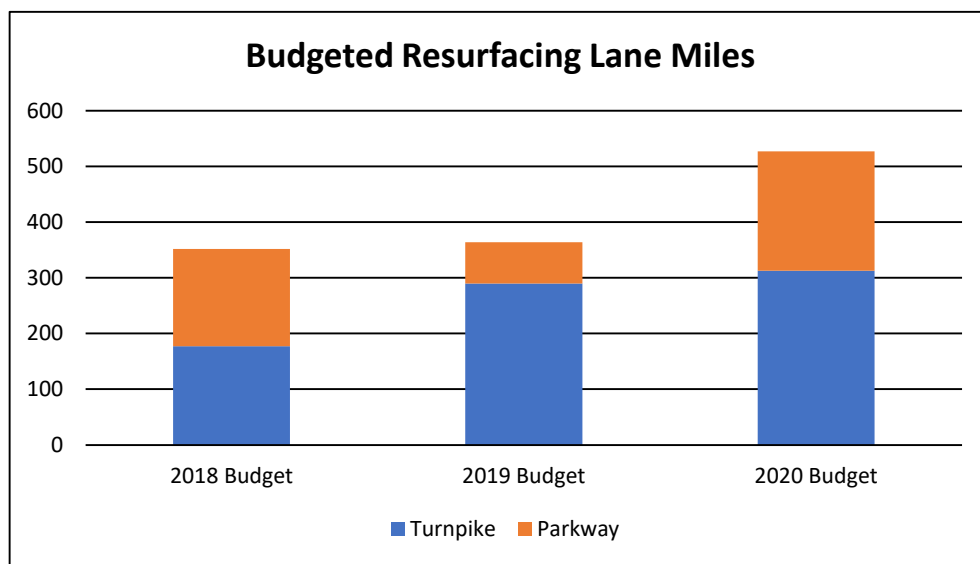


Figure 9: Budgeted Resurfacing Lane Miles

### 2020 Goals

- Continue updating roadway illumination levels while reducing energy usage through LED roadway lighting.
- Advertise contracts for the Maintenance Department's Drainage Management Program (DMP).
- Continue implementation and award of contracts in the 2019 Capital Improvement Program.
- Repair large drainage culverts, lighting and median barrier through the Maintenance Reserve Fund.
- Continue toll facilities upgrades.
- Complete over \$115 million of roadway resurfacing.

## People

### 2019 Accomplishments

- Completed adequate training on new vehicles for the automotive technicians, procured up-to-date diagnostic equipment, as well as sufficient training on this equipment for the technicians.
- Provided mandatory training (including sexual harassment) for all employees.
- Updated Toll Collector Training Manual to reflect new touch screen upgrades.
- Increased field training visits to collectors to ensure they are receiving constant training in policy and procedures.
- Rolled out group orientation for all new hires
- Implemented the Equal Pay Act

**Selected Performance Measure:** Budgeted positions shows a slight upward trend with a modest 1.35% increase from 2018 to 2019, and an estimated 1.14% increase for 2020. The majority of the increase is in maintenance positions.

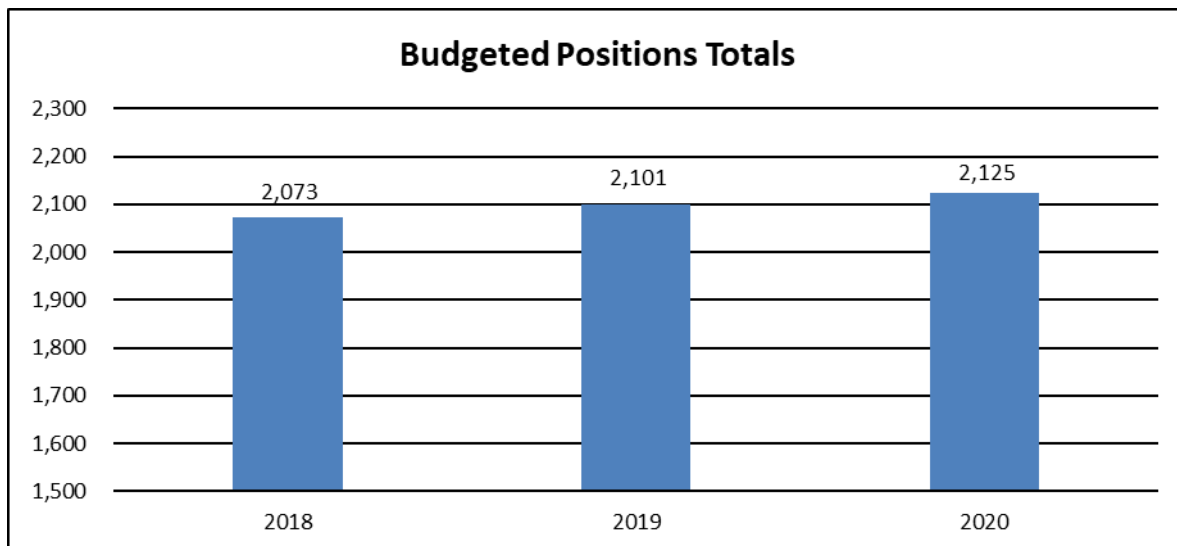


Figure 10: Budgeted Positions Totals

### 2020 Goals

- Update the Customer Service video for new collector training.
- In the Toll Collection Department, add a Training Manager position on Parkway to more efficiently ready new supervisors for their duties and to assist in collector training to better protect Authority assets. This program has been highly successful on the Turnpike side.
- Implement new deferred compensation plan and utilize services of an independent consultant.
- Increase training options for employees and enhanced delivery of training via e-learning.
- Issue new and revised policies and issue employee handbook.
- Begin succession planning as veteran employees are scheduled to retire in 2020 and 2021.

## Key Financial Metrics

### Toll Revenue as % of Operating Revenue

This ratio is calculated by dividing the Authority's toll revenue by the operating revenue. The ratio remains consistent over the period which indicates that the primary component of the Authority's operating revenue continues to be toll revenue.

Toll Revenue As % Of Operating Revenue			
(\$ In Thousands)	2018 Actual	2019 Budget	2020 Budget
Toll Revenue	\$ 1,612,326	\$ 1,605,900	\$ 1,633,298
Operating Revenue	1,752,384	1,728,402	1,760,695
<b>Toll Revenue As % Of Operating Revenue</b>	<b>92.01%</b>	<b>92.91%</b>	<b>92.76%</b>

Figure 11: Toll Revenue as % of Operating Revenue

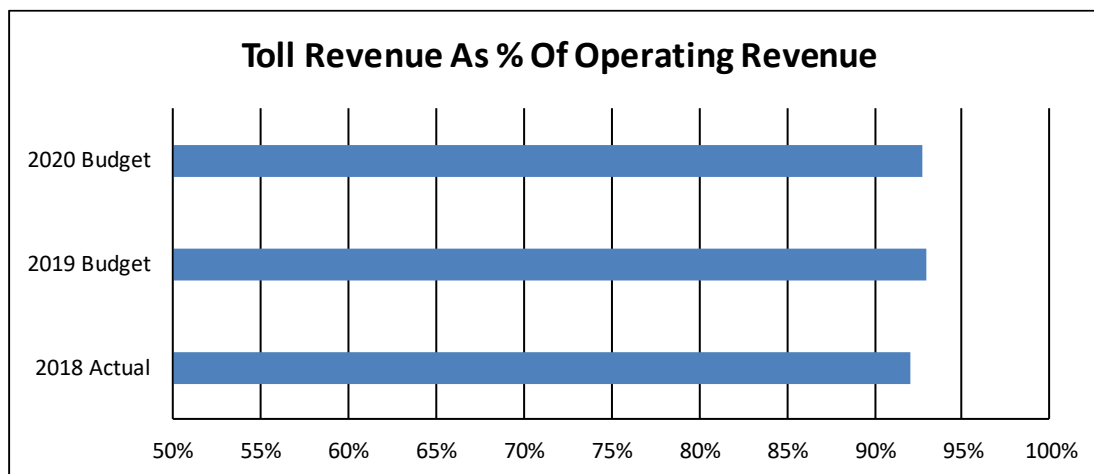


Figure 12: Toll Revenue as % of Operating Revenue Graph

## Operating Margin Ratio

This ratio is calculated by dividing the budgeted operating income by the budgeted operating revenue. This ratio demonstrates the Authority's operating efficiency and capacity to pay for its operating expenses. The ratio is budgeted to remain relatively constant in 2020 as compared to 2019.

<b>Operating Margin Ratio</b>			
<i>(\$ In Thousands)</i>	<b>2018 Actual</b>	<b>2019 Budget</b>	<b>2020 Budget</b>
Operating Revenue	\$ 1,752,384	\$ 1,728,402	\$ 1,760,695
Operating Expenses- Revenue Fund	(542,067)	(582,071)	(598,971)
<b>Operating Income</b>	<b>\$ 1,210,317</b>	<b>\$ 1,146,331</b>	<b>\$ 1,161,724</b>
<b>Operating Margin Ratio</b>	<b>0.69</b>	<b>0.66</b>	<b>0.66</b>

Figure 13: Operating Margin Ratio

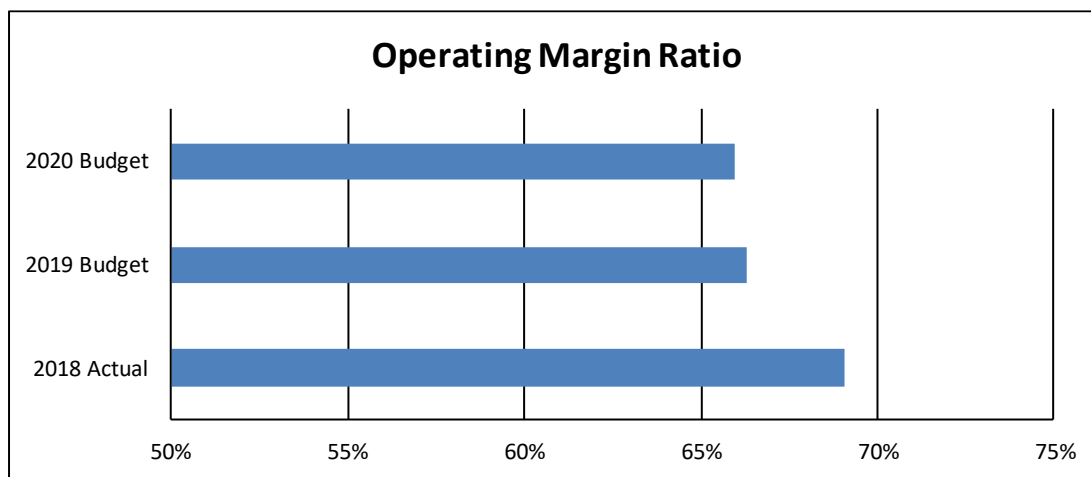


Figure 14: Operating Margin Ratio Graph

## Cost Recovery Ratio

This ratio is calculated by dividing the operating revenue by the total operating expenses. This ratio is a key indicator of the financial performance of the Authority. The Authority's ratio exceeds 100% which demonstrates that the Authority's operating revenue exceeds its operating expenses providing funds to cover debt service and other requirements.

<b>Cost Recovery Ratio</b>			
<i>(\$ In Thousands)</i>	<b>2018 Actual</b>	<b>2019 Budget</b>	<b>2020 Budget</b>
Operating Revenue	1,752,384	1,728,402	1,760,695
Operating Expenses - Revenue Fund	(542,067)	(582,071)	(598,971)
<b>Cost Recovery Ratio</b>	<b>3.23</b>	<b>2.97</b>	<b>2.94</b>

Figure 15: Cost Recovery Ratio

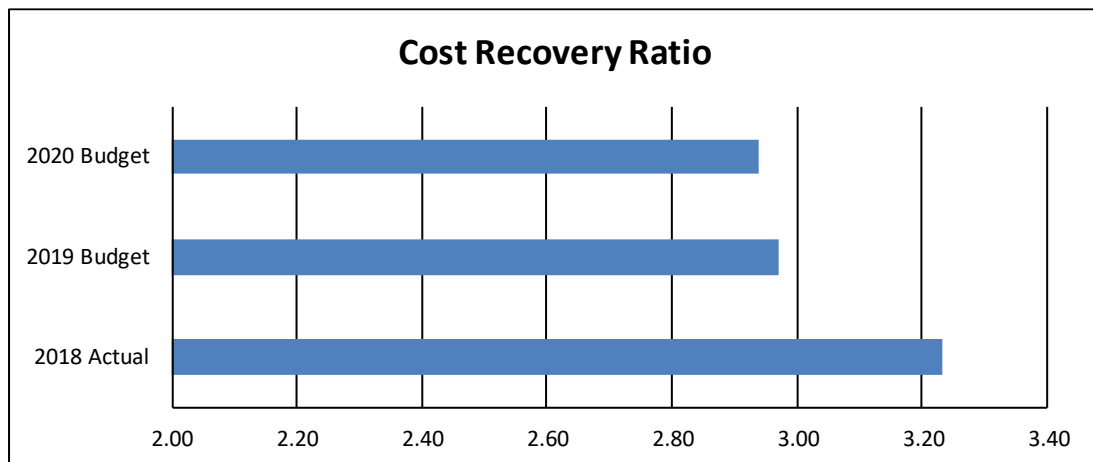


Figure 16: Cost Recovery Ratio Graph

### Average Toll/Transaction – Turnpike

This ratio is calculated by dividing the toll revenue generated by the total number of toll transactions on the Turnpike.

<b>Average Toll Per Transaction - Turnpike</b>			
<i>(\$ In Thousands)</i>	<b>2018 Actual</b>	<b>2019 Budget</b>	<b>2020 Budget</b>
Toll Revenue - Turnpike	\$ 1,179,324	\$ 1,171,737	\$ 1,192,889
Toll Transactions - Turnpike	264,748	261,108	265,837
<b>Average Toll Per Transaction - Turnpike</b>	<b>\$ 4.45</b>	<b>\$ 4.49</b>	<b>\$ 4.49</b>

Figure 17: Average Toll/ Transaction- Turnpike

### Average Toll/Transaction – Parkway

This ratio is calculated by dividing the toll revenue generated divided by the total number of toll transactions on the Turnpike.

<b>Average Toll Per Transaction - Parkway</b>			
<i>(\$ In Thousands)</i>	<b>2018 Actual</b>	<b>2019 Budget</b>	<b>2020 Budget</b>
Toll Revenue - Parkway	\$ 433,002	\$ 434,163	\$ 440,409
Toll Transactions - Parkway	389,791	384,049	389,421
<b>Average Toll Per Transaction - Parkway</b>	<b>\$ 1.11</b>	<b>\$ 1.13</b>	<b>\$ 1.13</b>

Figure 18: Average Toll/ Transaction- Parkway

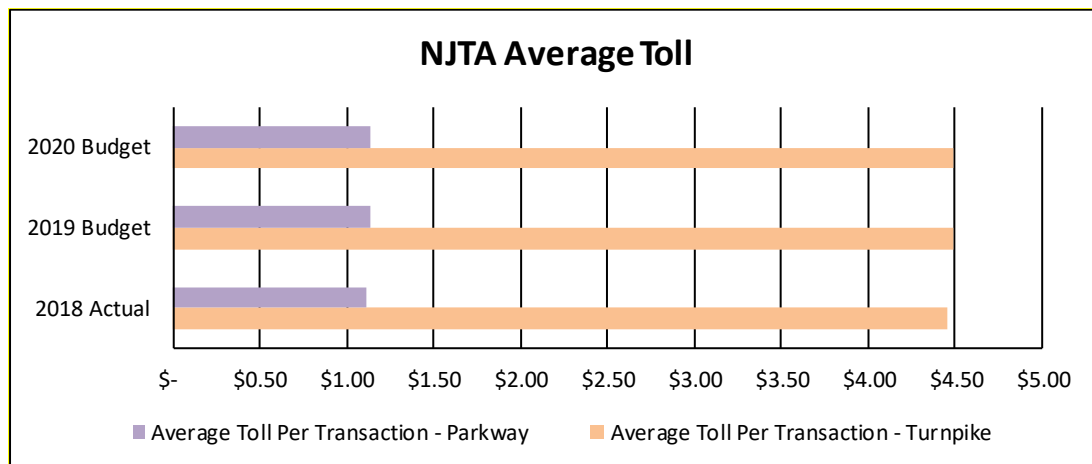


Figure 19: Average Toll/ Transaction- Turnpike/Parkway Graph



## Toll Revenue/Lane Mile

This ratio shows the toll revenue generated per lane mile for both roadways. This can be used to analyze the operating expenses per lane mile and the operating revenue per lane mile. Toll revenue per lane mile will increase with an increase in traffic, assuming there are no additional lane miles.

<b>Toll Revenue Per Lane Mile</b>			
<i>(\$ In Thousands)</i>	<b>2018 Actual</b>	<b>2019 Budget</b>	<b>2020 Budget</b>
Toll Revenue - Turnpike	\$ 1,179,324	\$ 1,171,737	\$ 1,192,889
Toll Revenue - Parkway	433,002	434,163	440,409
<b>Toll Revenue - Authority</b>	<b>1,612,326</b>	<b>1,605,900</b>	<b>1,633,298</b>
Lane Miles - Turnpike	2,423	2,428	2,427
Lane Miles - Parkway	2,041	2,038	2,050
<b>Lane Miles - Authority</b>	<b>4,464</b>	<b>4,466</b>	<b>4,477</b>
Revenue per Lane Mile - Turnpike	\$ 487	\$ 483	\$ 492
Revenue per Lane Mile - Parkway	212	213	215
<b>Revenue per Lane Mile - Authority</b>	<b>\$ 361</b>	<b>\$ 360</b>	<b>\$ 365</b>

Figure 20: Toll Revenue/Lane Mile

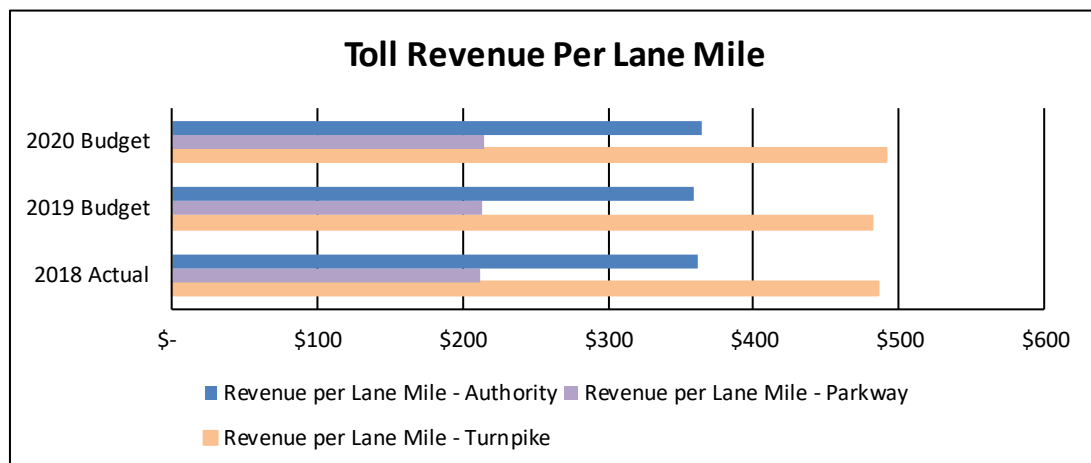


Figure 21: Toll Revenue/Lane Mile Graph

## Operating Cost/Lane Mile

This ratio indicates the operating expenses incurred per lane mile on both the roadways. This ratio can be used in comparison with the toll revenue per lane mile to analyze the Authority's spending efficiency. The 2019 and 2020 Budget assume full spending of the snow budget, funding all vacancies, and anticipated wage increases for all union contracts.

<b>Operating Cost Per Lane Mile</b>			
<i>(\$ In Thousands)</i>	<b>2018 Actual</b>	<b>2019 Budget</b>	<b>2020 Budget</b>
Operating Expenses - Revenue Fund	\$ 542,067	\$ 582,071	\$ 598,971
Lane Miles - Authority	4,464	4,466	4,477
<b>Operating Cost Per Lane Mile - Authority</b>	<b>\$ 121</b>	<b>\$ 130</b>	<b>\$ 134</b>

Figure 22: Operating Cost/Lane Mile

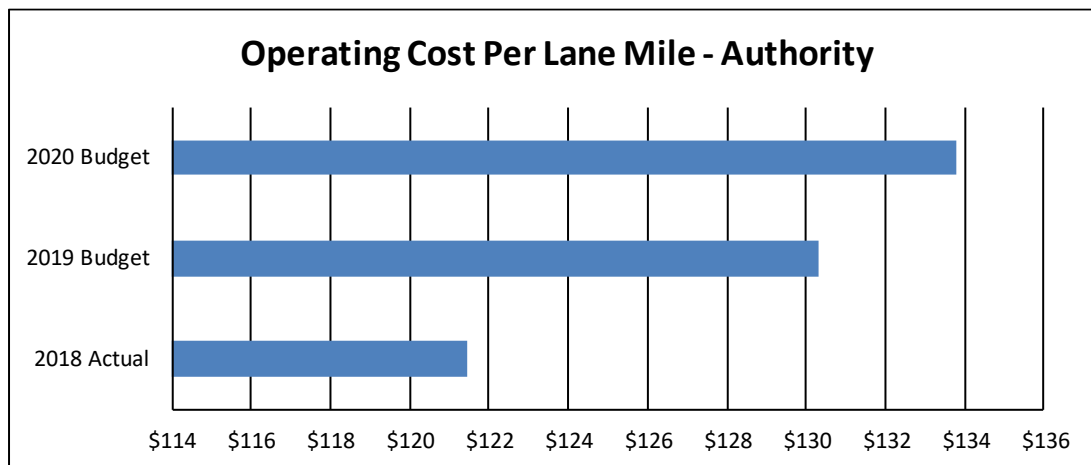


Figure 23: Operating Cost per Lane Mile

## Debt/Lane Mile

This ratio shows the Authority's bond indebtedness per lane mile as of 12/31 each year. Debt per lane mile is expected to decline in 2020, as principal payments are greater than new debt to be issued.

<b>Debt per Lane Mile</b>			
<i>(\$ In Thousands)</i>	<b>2018 Actual</b>	<b>2019 Budget</b>	<b>2020 Budget</b>
Bond Indebtedness, net	\$ 10,765,000	\$ 11,988,538	\$ 11,447,223
Lane Miles - Authority	4,464	4,466	4,477
<b>Debt per Lane Mile - Authority</b>	<b>\$ 2,412</b>	<b>\$ 2,684</b>	<b>\$ 2,557</b>

Figure 24: Debt/Lane Mile

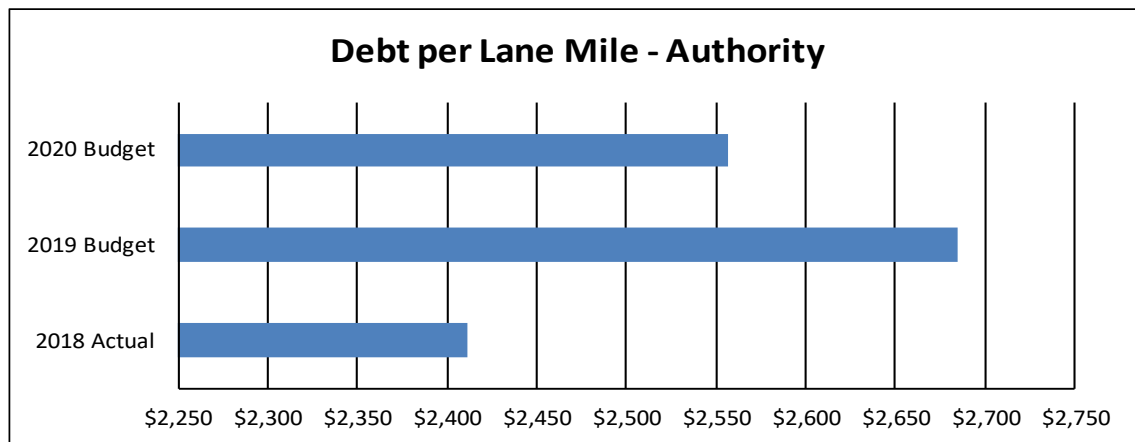


Figure 25: Debt/Lane Mile Graph

## Executive Summary

The Authority operates two well-established highways, one of which serves as a critical link along the I-95/Northeast Corridor and both of which allow for north-south travel in New Jersey. The roads serve a densely populated and extremely wealthy region. Most of the traffic is non-discretionary and the demand for the roads has proven to be inelastic.

In July 2003, the New Jersey Turnpike Authority and New Jersey Highway Authority were consolidated. Combining two major agencies -- each of which was operating a premier toll road, the New Jersey Turnpike and the Garden State Parkway -- into a single agency was no small order. But more than sixteen years later, the singular agency continues to be recognized as a first-class agency among peer public agencies in the transportation and tolling industries.

The Authority's \$7 Billion CIP, which started in 2009, is nearly 99% complete, and with the opening of the Turnpike Interchange 6 to 9 widening and the widening of the Parkway between mileposts 35 and 80, has added about 253 lane miles to the roadway system, an increase of nearly 8%. The 2020 Annual Budget is driven by the added operations and maintenance expenses generated by this additional capacity and the Authority's commitment to maintaining its assets in a state of good repair. Traffic and revenue is forecasted to increase in 2020 on both roadways due to normal growth and stable economic conditions. The toll revenue budget is based upon projections from a Toll Revenue Forecast study by CDM Smith dated September 27, 2018. Operating expense growth continues to be controlled, as the 2020 Operating Expense Budget will increase by 2.9%. When excluding pension and health benefit increases, the 2020 Operating Expense Budget is increasing by only 0.9%. The 2020 Annual Budget includes revenue funded capital projects which are contained in the Authority's Capital Budget. The 2020 Capital Budget includes project budgets totaling \$649 million, with 2020 spending plans totaling \$440 million. The 2020 spending plans will be fully funded as part of the 2020 Annual Budget. This being said, expected revenues are anticipated to be sufficient to meet the requirements of the Bond Resolution and all board adopted financial policies.

A summary of the 2020 Annual Budget is as follows:

<b>Revenue</b>			
In Thousands	2018 Actual	2019 Budget	2020 Budget
Toll Revenue	\$ 1,612,326	\$ 1,605,900	\$ 1,633,298
Other Revenue	251,870	227,505	231,645
<b>Total</b>	<b>\$ 1,864,196</b>	<b>\$ 1,833,405</b>	<b>\$ 1,864,943</b>

Figure 26: Annual Budget Revenue Summary (2018-2020)

### SIGNIFICANT REVENUE HIGHLIGHTS:

- Toll Revenue on the New Jersey Turnpike is expected to increase 1.8% compared to the 2019 budget and on the Garden State Parkway by 1.4% primarily reflecting normal growth, stable economic conditions and an additional leap year day. In 2019, year-to-date toll revenue has exceeded budget and when adjusting for actual results, the 2019 budget represents a 0.5% increase.
- E-ZPass fees are expected to increase by \$2.5 million or 3.3% as compared to the 2019 budget due to normal growth as New Jersey E-ZPass accounts continue to rise. In 2019, year-to-date fees have exceeded budget.
- Concession Revenue is budgeted to increase by \$1.6 million or 5%, as revenue from the newly built service areas is projected to offset the loss from current closures for reconstruction

- Miscellaneous revenue is expected to increase by about \$0.8 million primarily due to higher cell tower rental income from annual CPI increases.
- Interest income is expected to decrease by \$1.0 million or 4%. The 2020 budget assumes lower short-term interest rates compared to 2019 actuals. The 2019 actuals are expected to exceed budget.

<b>Expenses</b>			
	<b>2018 Actual</b>	<b>2019 Budget</b>	<b>2020 Budget</b>
Operating Expenses	\$ 542,067,000	\$ 582,071,000	\$ 598,971,000
Debt Service	788,523,000	832,823,000	842,699,000
General Reserve	237,193,000	231,845,000	251,345,000

<b>Capital Budget</b>			
	<b>2018 Actual</b>	<b>2019 Budget</b>	<b>2020 Budget</b>
Maintenance Reserve	\$ 96,835,000	\$ 185,025,000	\$ 255,942,000
Special Project Reserve	35,595,000	65,149,000	83,896,000
Supplemental Capital	61,694,000	126,520,000	176,683,000
Passaic River Bridges Rehabilitation	100,000,000	100,000,000	132,134,000

<b>Capital Improvement Program</b>			
	<b>Budget</b>	<b>Spent/Committed</b>	<b>%Complete</b>
\$7 Billion Capital Improvement Program	\$ 7,000,000,000	\$ 6,911,674,000	99%
2019 Capital Improvement Program	500,000,000	43,587,000	9%

Figure 27: Annual Budget Spending Summary (2018-2020)

#### SIGNIFICANT SPENDING HIGHLIGHTS/CHALLENGES

- The 2020 Operating Expense Budget is \$599 million. The budget continues to be driven by increased volumes of traffic on the roadways and an increase in capacity from the lane miles added as part of the \$7 Billion Capital Improvement Program (CIP). In addition, greater funds are needed to maintain ageing assets in a state of good repair, and to fulfill the Authority's commitment to provide a safe, efficient roadway for its patrons and protect revenue for its bondholders.
  - Additional funds are needed to cover increased maintenance costs for line striping, drainage, lighting, and roofing repairs on the roadways.
  - Additional funds are also needed to support the Authority's revenue protection efforts which include enhanced toll violation collection strategies and additional customer outreach as part of its "RightFare" campaign. While the 2020 Annual Budget includes certain costs for these initiatives, it does not include any additional revenue impact.
- The 2020 Operating Expense Budget provides \$38.1 million for snow and severe weather costs, which represents the budget level that has been maintained for the past five years. The number and severity of weather events is unpredictable, and could put pressure on the Operating Expense Budget. In addition, the budget includes assumptions on pension payments, health benefit costs and E-ZPass transaction and credit card processing fees, all of which are highly variable. Changes from the current budget assumptions in any of these areas could put pressure on the 2020 Operating Expense Budget.

- The 2020 Debt Service Budget is increasing by about \$10 million to \$843 million, or about 1.2%, as compared to the 2019 Debt Service Budget. Debt service is increasing primarily due to a half year of interest payments on the \$200 million new money Turnpike Revenue Bonds expected to be issued in July 2020, as well as higher principal payments on existing bonds. By the end of 2020, the Authority is expected to have \$11.4 billion of debt outstanding. Debt Service spending currently equals 45% of 2020 total budgeted revenue.
- The 2020 Maintenance Reserve Fund Project Budget is increasing by \$70.9 million, or 38%. The increase is to cover repaving as well as bridge re-decking, and is necessary to continue to keep the overall aging system in a state of good repair.
- The Special Project Reserve Fund Project Budget is \$83,896,000, representing an increase of \$18,747,000 from 2019 budgeted levels. Important new projects for 2020 include toll plaza safety improvements, roadside safety improvements at State Police and maintenance districts, and a Motorola console upgrade at the Traffic Management Center.
- The 2020 Supplemental Capital Program Project Budget includes higher funding for both roadway and facility improvements, Service Area and Arts Center Projects, as well as additional funding for the Interchange 14 Approach Pavement Repairs Project.
- The Passaic River Bridges Rehabilitation Program Budget is being amended by \$32,134,000 to reflect the full costs to completely repair the bridges. The additional funding will be provided through transfers of excess revenue from the General Reserve Fund. The Passaic River Bridges Rehabilitation Program covers major repair of the 3 bridges that cross the Passaic River.
- There are two active Capital Improvement Programs (CIPs) included in the 2020 Annual Budget. The two CIPs are 100% funded through bond proceeds. The \$7 Billion CIP, approved in December 2008, is 99% spent or committed and is nearing completion. The budget is being amended to reflect minor changes required between projects with no overall increase to the program budget. The second is the 2019 CIP, and no changes are required to either the individual project budgets or the total budget.

## REVENUE BUDGET

Total revenue in 2020 is budgeted at \$1,864,943,000, a 1.7% increase in comparison to the 2019 budgeted revenues, primarily due to a \$27,000,000 increase budgeted for toll revenue driven by increased traffic.

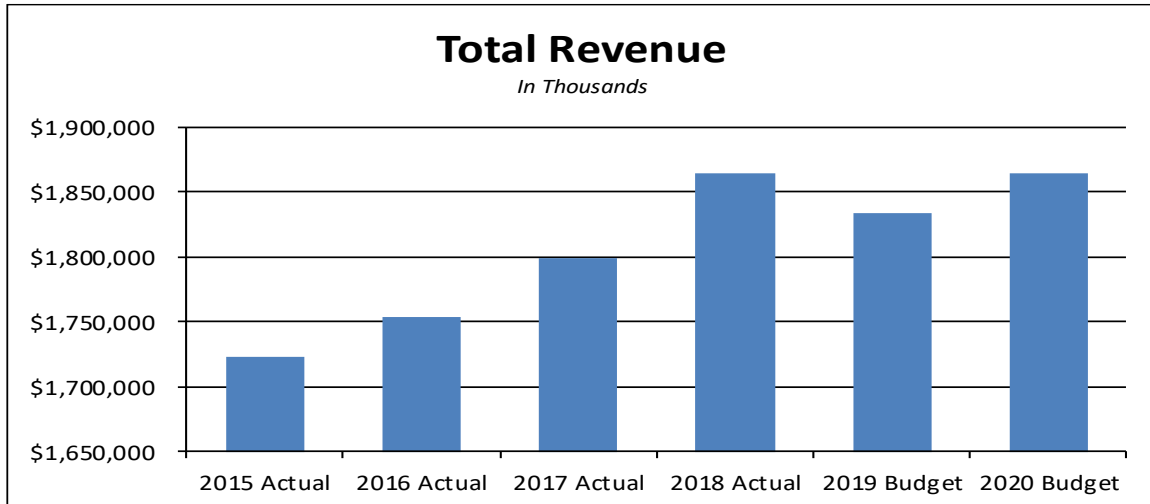


Figure 28: Total Annual Revenue (2015-2020)

Toll revenue comprises 87.6% of total revenue. Toll revenue in 2020 is budgeted at \$1,633,298,000, which represents an increase of 1.7% compared to the 2019 Budget. Turnpike toll revenue is expected to increase 1.8% and Parkway toll revenue is expected to increase by 1.4% primarily due to normal growth resulting from stable economic conditions and an additional leap year day. Traffic and revenue forecasts are contained in the September 27, 2018 report by CDM Smith, the Authority's Traffic Engineering Consultant. It should be noted that the Authority has exceeded its toll revenue budget through September 2019.

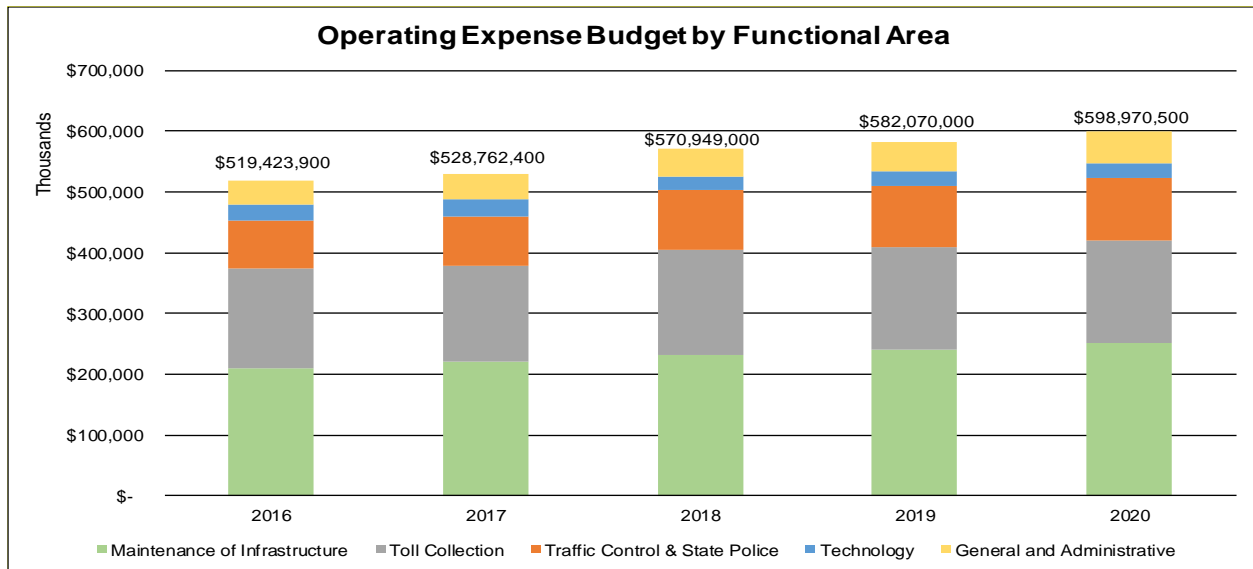
## OPERATING EXPENSE BUDGET

The 2020 Operating Expense Budget of \$598,971,000 is increasing by \$16,900,000, or 2.9%, compared to the 2019 Operating Expense Budget. Key cost factors in the 2020 Operating Expense Budget are as follows:

- Increased health benefit costs of \$10.8 million based upon estimated usage and medical inflation rates. Costs for 2019 have exceeded budget, and the 2020 budget does not include any savings resulting from plan design changes that are being actively negotiated with the Authority's unions.
- Increased salaries & wages of approximately \$2.9 million which reflects contractual step increases for union employees, potential contractual wage increases, and an additional 24 positions to be added in 2020. Authorized positions include 5 contingent positions which were not part of the 2019 budget.
- Increased roadway maintenance costs of \$1.9 million primarily for line striping, drainage, roofing, and lighting repairs on the roadways based on current maintenance repair cycles.
- Increased consulting services costs of \$1.3 million due to an increase in work related to health benefits audits by outside firms, a new technology audit, and a first-time deferred compensation consultant. In addition, document review services related to work required in the Bond Resolution has been moved from individual capital projects to the operating expense budget.
- Increased state police costs of \$1.8 million due to an increase in trooper health benefit and pension costs, as well as anticipated wage increases for troopers.

The proposed 2020 Operating Expense Budget is increasing by \$16.9 million, driven by the above key cost factors. This increase is slightly offset by savings in electric costs based on usage and greater collections from property damage recoveries. In addition, savings are expected from a change to a new credit card processor for New Jersey E-ZPass based on lower per transaction costs.

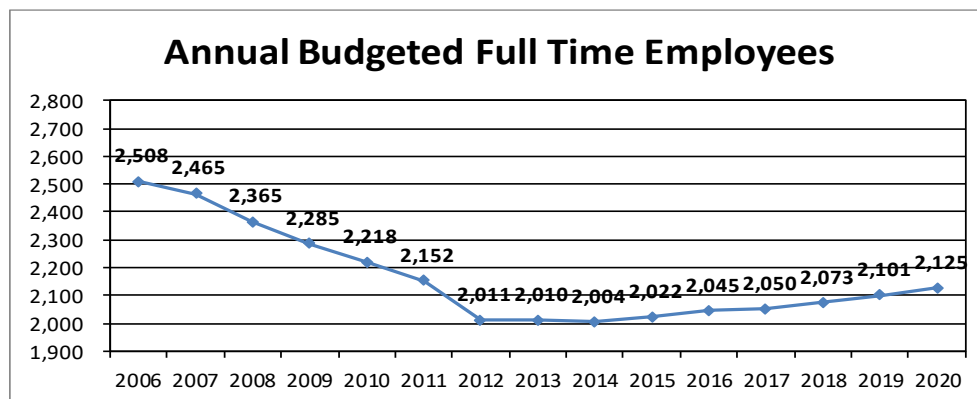
The operating expense budget increase of 2.9% for 2020 falls below the average annual increase of 3.7%. The category with the highest increase over 2019 is maintenance of infrastructure, mainly due to an increase in spending that relates to keeping both roadways in a state of good repair. Maintenance of infrastructure is followed by Traffic Control & State Police, which is driven by increased trooper wages and pension costs.



**Figure 29: Operating Expense Budget by Functional Area**

After eleven consecutive years of decline following the merger of the New Jersey Turnpike Authority and New Jersey Highway Authority, authorized positions are once again increasing slightly (24 positions) since the low in 2014 primarily due to the need to add maintenance personnel to handle the increased roadway capacity. Authorized positions for 2020 still remains more than 375 positions lower than 2006 authorized positions.

Authorized positions since 2006 is shown below:



**Figure 30: Authorized Positions (2006-2020)**

Snow and severe weather costs are budgeted based upon the highest amount either budgeted or actual over the previous five years. The snow and severe weather budget is remaining at the same level in 2020 as 2019, based



upon the high spending levels of 2014 and 2015. In fact, the levels budgeted in 2020 have been the same for the past five years.

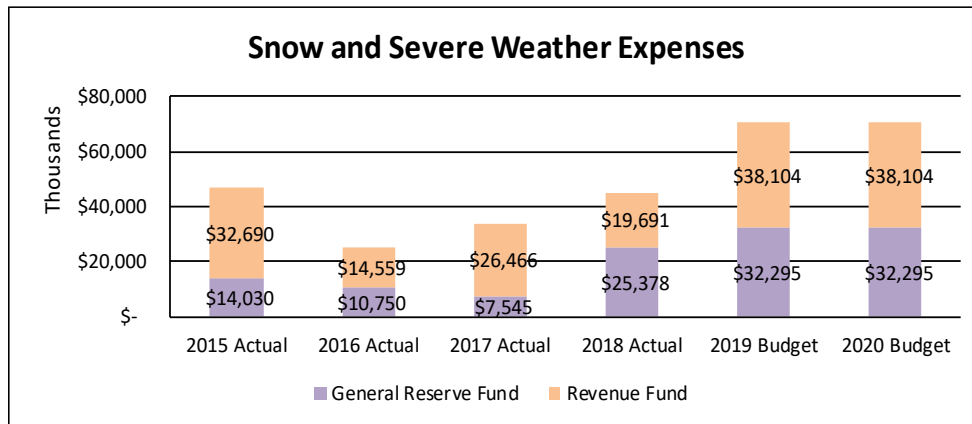
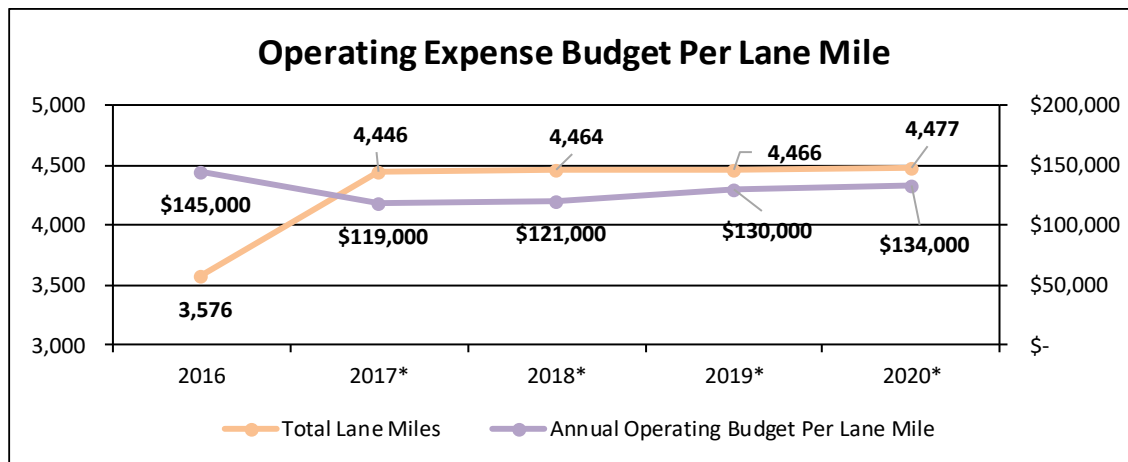


Figure 31: Snow and Severe Weather Expenses (2015-2020)

As mentioned, the Authority has increased roadway capacity in the past few years. The chart below indicates that the Authority continues to maintain safe and efficient roadways while controlling operating expense growth. Before inclusion of toll plaza lane miles in the calculation in 2017, the Authority's operating cost per lane mile was essentially flat between 2012 and 2016 at around \$145,000. With the added toll plaza lane miles, 2019 and 2020 costs are essentially flat at around \$132,000 per lane mile, but still lower than 2016.



\*2017 forward include toll plaza lane miles

Figure 32: Total Lane Miles and Operating Budget per Lane Mile (2014-2020)

## **DEBT SERVICE BUDGET**

Total Debt Service in 2020 is budgeted at \$842,699,000, which is a \$9,876,000 increase from the 2019 Debt Service Budget, mainly due to higher principal payments on existing bonds. The budget provides for a half year of interest payments on a potential \$200 million of new money bonds, to fund a portion of the 2019 CIP. By the end of 2020, the Authority is expected to have \$11.4 billion of debt outstanding. Debt Service equals 45% of the total budgeted revenue in 2020, and represents the single largest spending component of the 2020 Annual Budget.

## **GENERAL RESERVE FUND**

The total 2020 spending budget for the General Reserve Fund is \$251,345,000, which is an increase of \$19,500,000 from the 2019 Budget. The 2020 General Reserve Fund Budget includes \$32 million for state of emergency events, and \$30 million in reserves for Other Post-Employment Benefits (OPEB), self-insured liability and Owner Controlled Insurance Program (OCIP) claims. All contractual and contingent state payment obligations are also included as well as a \$4.5 million budget to fund a new State Police class.

In addition to the above spending, the 2020 General Reserve Fund Budget includes \$164,186,000 in net transfers to the Construction Fund to cover the 2020 budgeted spending plans for the 2020 Supplemental Capital Program and Passaic River Bridges Program.

## **CAPITAL BUDGET (REVENUE FUNDED)**

The 2020 Capital Budget includes the Maintenance Reserve Fund, the Special Projects Reserve Fund, the Supplemental Capital Program and the Passaic River Bridges Rehabilitation Program. The Capital Budget primarily supports the spending for the maintenance of both the roadways and bridges, scheduled fleet augmentation, several multi-year capital program projects such as pavement repairs, service area improvements and repairs, replacement of toll collection equipment etc. It also includes a program to rehabilitate 3 bridges crossing the Passaic River. The work in the Maintenance Reserve Fund and Special Projects Reserve Fund is funded from the Authority's revenue after paying for the operating expenses and debt service. These two funds are separate funds established by the Authority's Bond Resolution. The work in the Supplemental Capital Program and the Passaic River Bridges Rehabilitation Program is funded by the transfers from the General Reserve Fund. These programs are separate accounts in the Construction Fund. The Construction Fund is established by the Authority's Bond Resolution.

### **1. MAINTENANCE RESERVE FUND BUDGET**

The 2020 Maintenance Reserve Fund Project Budget totals \$255,942,000, which primarily supports spending for the maintenance and resurfacing of roadway and bridges on the Turnpike and Parkway. These projects have a combined budgeted spending plan for 2020 of \$195,851,000, with the remainder budgeted to be spent in 2021. The budgeted spending plan for 2020 is increasing by about 6% compared to 2019, and includes additional funding for resurfacing as well as roadway lighting, drainage structure and concrete barrier repairs. It should be noted that roadway resurfacing funding from the Maintenance Reserve Fund is increasing in 2019 by 42% to more than \$96,500,000. The increase is necessary to keep the assets in a state of good repair according to maintenance cycles recommended by the Authority's General Consulting Engineer, HNTB Corporation ("HNTB").

### **2. SPECIAL PROJECT RESERVE FUND BUDGET**

The 2020 Special Project Reserve Fund Project Budget totals \$83,896,000, with a budgeted 2020 spending plan of about \$73,079,000 with the remainder to be spent in 2021. The budgeted spending plan for 2020 is increasing by about 12% compared to 2019. The 2020 Special Project Reserve Fund Project Budget provides spending for the Authority's scheduled major fleet

augmentation, which is the Authority's existing scheduled fleet replacement program, as well as funds for bridge and structure inspections and facility improvements, among other necessary projects.

### **3. SUPPLEMENTAL CAPITAL PROGRAM PROJECT BUDGET (CONSTRUCTION FUND – REVENUE FUNDED)**

The 2020 Supplemental Capital Program Project Budget totals \$176,683,000, with a 2020 spending plan budget of \$143,936,000 with the remainder to be spent in 2021. The budgeted spending plan for 2020 is increasing by about 14% compared to 2019. This budget includes all estimated 2019 carry-over projects, and provides about \$28,000,000 for new projects. The 2020 Supplemental Capital Program Project Budget includes funding to continue several necessary multi-year projects including the replacement of the toll collection equipment on both roadways, the pavement repair on the New Jersey Turnpike Interchange 14 approach, improvements to the Garden State Arts Center, and the repairs and improvements to the Service Area parking lots and outside areas.

### **4. PASSAIC RIVER BRIDGES REHABILITATION PROGRAM (CONSTRUCTION FUND – REVENUE FUNDED)**

The 2020 Amended Passaic River Bridge Rehabilitation Program Project Budget totals \$132,135,000, an increase from the original budget authorized in 2017 of \$100,000,000. The budget is being amended to reflect complete estimated costs for all necessary work to repair the 3 bridges that cross the Passaic River. The original budget was set equal to the available funding at the time which was from debt service savings. The increase in the budget will be funded by future revenue transfers from the General Reserve Fund. The 2020 budgeted spending plan is approximately \$27,000,000.

## **CAPITAL IMPROVEMENT PROGRAMS (CONSTRUCTION FUND – BOND FUNDED)**

The 2020 budget includes the budget for the bond funded accounts within the Construction Fund. The Construction Fund currently includes the \$7 Billion Capital Improvement Program approved in 2008 and the 2019 \$500 million Capital Improvement Program, approved in April 2019. Both these programs are funded through bond proceeds derived from the issuance of Turnpike Revenue Bonds.

### **1. \$7 BILLION CAPITAL IMPROVEMENT PROGRAM**

This 10-year program was approved by the Board of Commissioners in October 2008. In September 2018, this program was amended to extend the end date to December 31, 2020. It includes projects focused on roadway widening, bridge construction and improvements, roadway improvements, interchange improvements and facilities improvements.

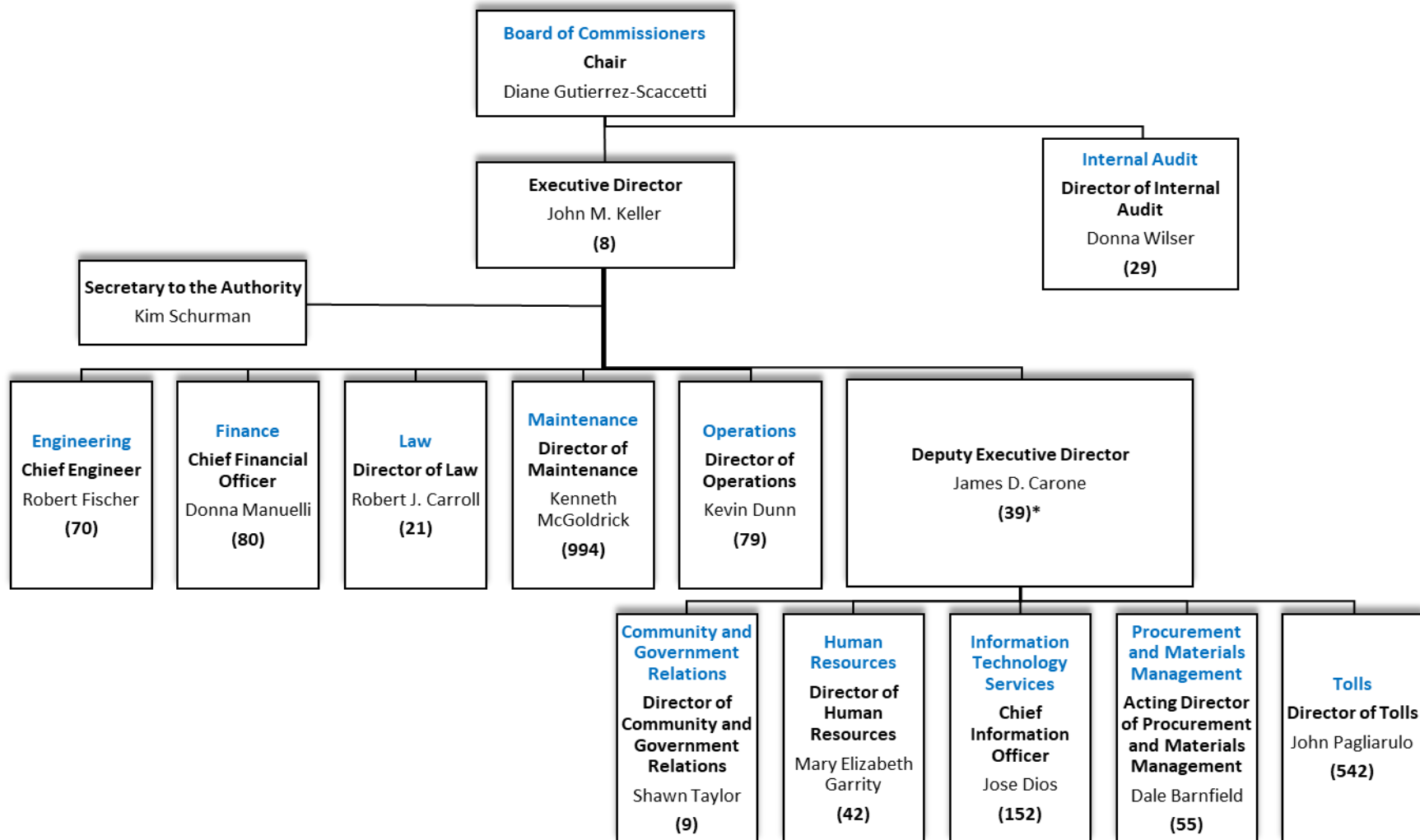
### **2. 2019 \$500 MILLION CAPITAL IMPROVEMENT PROGRAM**

This program was approved by the Board of Commissioners in April 2019 and includes capital improvement projects focusing on bridge deck improvements, shoulder widening and replacement of hybrid changeable message signs.

## **SUMMARY**

The 2020 Annual Budget provides the necessary funds to operate and maintain the additional capacity created by the Turnpike and Parkway widening projects. In addition, funds are provided to meet all debt service obligations to bondholders and all contractual payment obligations. The 2020 Annual Budget indicates that the Authority will exceed all required debt coverage covenants contained in its Bond Resolution, as well as exceed all targets established in its Guidelines, including maintaining a minimum general reserve balance of 10% of the 2020 budgeted revenue (\$186.5 million).

## Organization Chart



Departmental full-time employee count is shown in parenthesis.

-In addition to the above position count, there are 5 contingency positions budgeted for.

\* The 8 full-time employees in the Patron Services Department, the 11 full-time employees in the State Police department, and the 20 full time employees in the Automotive Services section of the Maintenance Department report directly to the DED. These 3 departments are not shown in the above organization chart.

Figure 33: Organization Chart

## Fund Structure

### Description of Funds

For financial statement purposes, the Authority's activities are accounted for using the flow of economic resources measurement focus and the accrual basis of accounting. All assets, liabilities, net position, revenues and expenses are accounted for as an enterprise fund with revenue recorded when earned and expenses recorded at the time liabilities are incurred. NCGAS 1 defines the purpose of enterprise funds as, "to account for operations (a) that are financed and operated in a manner similar to private business enterprises – where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through users charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes."

However, the Authority's Bond Resolution established the following funds, and the activities of the funds are reported in schedules included in the Authority's financial statements.

**Revenue Fund** – is the general operating fund of the Authority. The fund is used to account for all pledged revenues and operating expenses. Pledged Revenue includes, among other things, all tolls, revenues, fees, rents, charges and other income and receipts derived from the operation of the Turnpike System. Operating expenses are for operation, maintenance, repairs, ordinary replacement and ordinary reconstruction of the Turnpike System and ordinary acquisition of equipment for the Turnpike System.

**Debt Service Fund** - accumulates the amounts required for payment of interest, maturing principal amounts and sinking fund installments on all outstanding bonds and for amounts due and payable under Interest Rate Swap Agreements.

**Debt Reserve Fund** – holds an amount equal to the greatest amount of interest accruing on all outstanding bonds in any calendar year.

**Charges Fund** – used to pay fees for any variable rate bond liquidity agreement, remarketing fees and tender agent fees (currently not used).

**Maintenance Reserve Fund** – used to pay for the cost of major resurfacing, replacement or reconstruction of the Turnpike System and major or extraordinary repairs, renewals or replacements of the Turnpike System necessary to restore or prevent physical damage to the Turnpike System, for the safe and efficient operation of the Turnpike System or to prevent loss of Pledged Revenues.

**Special Project Reserve Fund** – used to pay for any major resurfacing, renewals or replacements of the Turnpike System and for studies, surveys, estimates and investigations.

**General Reserve Fund** – used to make payments under any agreements with the State of New Jersey or for any other corporate purpose.

**Construction Fund** – used to fund the cost of construction of any Project as defined under the Bond Resolution. The Projects may be funded through bond proceeds or from transfers from the General Reserve Fund.

[Flow of Funds table referenced on page 161](#)

## Revenue Requirement

The Revenue Requirement under section 713(b) of the Bond Resolution states that in each calendar year Net Revenue shall at least equal the Net Revenue Requirement for such year. Under Section 101 of the Bond Resolution, Net Revenue is defined as "... for any calendar year or other period of time, the Pledged Revenue during such year or period less the amounts of the Operating Expenses for such year or period." The Net Revenue Requirement is defined as, "an amount equal to the greater of:

- (i) The Sum of the Aggregate Debt Service, Maintenance Reserve Payments, Special Project Reserve Payments, and payments, if any, to the Charges Fund for such period; or
- (ii) 1.20 times the Aggregate Debt Service for such period (excluding, for purposes of clause (ii) only, any payment due and payable by the Authority under a Qualified Swap upon an early termination thereof)."

On or before December 1 in each year, the Authority will review its financial condition in order to estimate whether the Net Revenue for such year and for the next succeeding year will be sufficient to comply with the toll covenant. The required calculations are shown below.

<b>Net Revenue Requirement</b>			
<i>(In Thousands)</i>	<b>2018 Actual</b>	<b>2019 Est/Act</b>	<b>2020 Budget</b>
(i) Revenue	\$ 1,864,196	\$ 1,854,805	\$ 1,864,943
Operating Expenses	(542,067)	(561,000)	(598,971)
<b>Net Revenue</b>	<b>1,322,129</b>	<b>1,293,805</b>	<b>1,265,972</b>
Debt Service Requirements	(788,478)	(824,449)	(842,699)
Maintenance Reserve Payments	(119,086)	(131,468)	(134,097)
Special Project Reserve Payments	(40,490)	(41,300)	(41,300)
<b>Total Requirements</b>	<b>\$ (948,054)</b>	<b>\$ (997,217)</b>	<b>\$ (1,018,096)</b>
<b>Excess Revenue</b>	<b>\$ 374,075</b>	<b>\$ 296,588</b>	<b>\$ 247,876</b>
(ii) Net Revenue	\$ 1,322,129	\$ 1,293,805	\$ 1,265,972
1.2X Debt Service	(946,174)	(989,339)	(1,011,239)
<b>Excess Revenue at 1.2X Debt Service</b>	<b>\$ 375,955</b>	<b>\$ 304,466</b>	<b>\$ 254,733</b>
<b>Debt Service Coverage</b>	<b>1.68</b>	<b>1.57</b>	<b>1.50</b>

Figure 34: Net Revenue Requirement (2018-2020)

Based on the above review, Net Revenue for 2019 and 2020 will be sufficient to meet the Net Revenue Requirement.

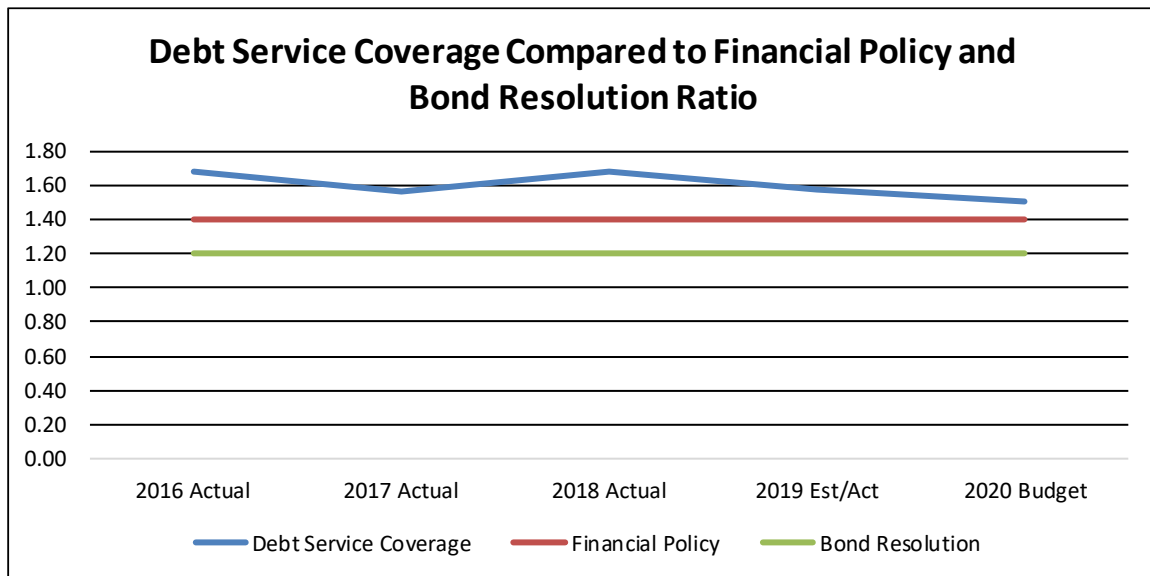


Figure 35: Debt Service Coverage Ratio Chart (2018-2020)

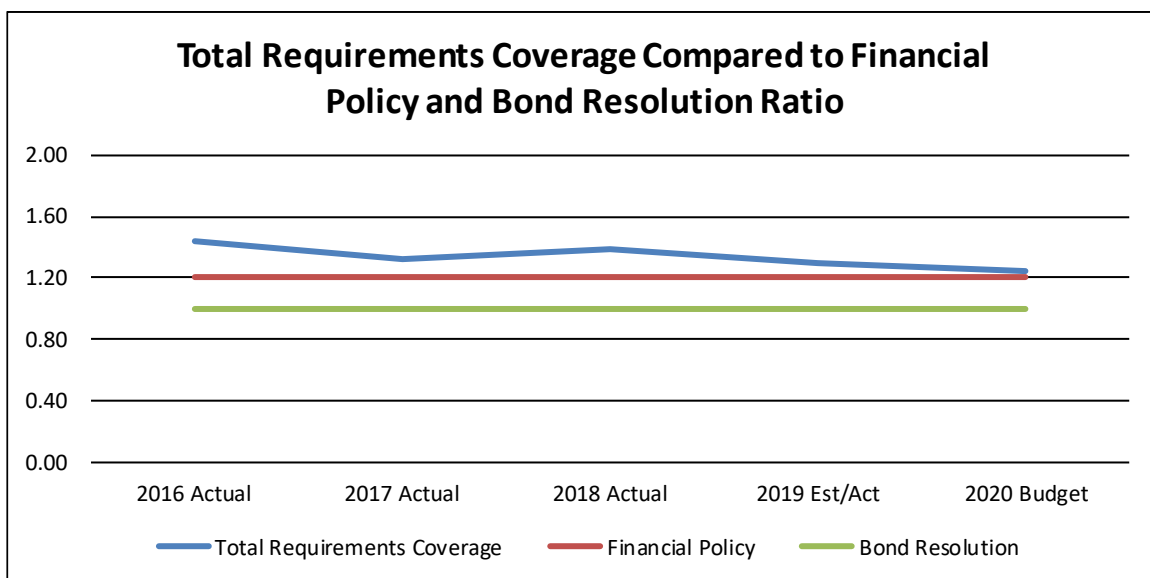


Figure 36: Total Requirements Ratio Chart (2018-2020)

## Basis of Budgeting

The Authority's Annual Budget is prepared on the accrual basis of accounting; accordingly, revenues are recognized in the accounting period they are earned and become measurable and expenses are recognized in the accounting period in which the liability is incurred. This is consistent with the Authority's audited year-end financial statements, with the exception of the following non-cash items which are not budgeted:

- Depreciation and Amortization
- Accretion
- Change in Fair Market Value of Investments
- GASB 53 Interest Rate Swap Adjustments
- OPEB Annual Required Contribution (except for current pay retiree benefits and reserves for OPEB which are budgeted)
- GASB 48 Pollution Remediation Liability Reserve

The Authority's Annual Budget provides the basis for expenditures during the year. The Authority operates on a calendar-year basis. No fewer than 40 days before the end of the year, the Authority must submit a Preliminary Budget of operating expenses and reserves to the Trustee as required by the Bond Resolution. The budget is subject to the Trustee's examination, and the Authority is required to comply with all reasonable requests from the Trustee for classifications and clarifications. The Bond Resolution also specifies that each Annual Budget must include funding for operating expenses and reserves and provisions for deposits to the Maintenance Reserve Fund and the Special Project Reserve Fund. Capital Projects are budgeted life to date. Included in this 2020 Annual budget are funds in future years for these projects. The Preliminary Budget and the Annual Budget may provide additional information, as the Authority may determine, and each shall contain a certificate of the Consulting Engineer approving the Preliminary Budget and the Annual Budget, as the case may be.

The Annual Budget must be adopted by the Commissioners of the Authority by January 15<sup>th</sup> of each fiscal year and made a part of the Authority's minutes. In the event that the Authority does not adopt an Annual Budget by January 15<sup>th</sup> of the fiscal year or the Governor vetoes the adopted budget, the preceding year's budget remains in effect until such adoption and approval. The minutes of all meetings are subject to a 10-day review and veto period by the Governor of the State of New Jersey prior to final approval. The adoption and approval of the Annual Budget does not in itself authorize any specific expenditure. Specific expenditures must be submitted, adopted and approved under the Authority's adopted procedure and must be consistent with the statutory, contractual and other commitments of the Authority, including agreements with the holders of its obligations, including bonds. Adoption and approval of the Annual Budget does not limit or preclude the Authority from submitting an amended budget to the Commissioners for adoption. Copies of the Annual Budget and all amendments must be filed promptly with the Trustee. If at any time the Annual Budget and amendments thereto exceed the Preliminary Budget by 10% or more, the Authority must file a detailed report with the Trustee, stating specifically the reason for the increase, and hold a public hearing thereon.

Although the Authority is restricted from expending funds in excess of the Annual Budget allocation for operating expenses (other than through amendment to the Annual Budget), the Authority may allocate additional funds for operating expenses if such funds are obtained from sources other than Pledged Revenues.

According to the Authority's capitalization policy, the cost to construct, acquire or replace an existing asset (or otherwise prolong the useful life of an existing asset) is capitalized. The capitalization threshold is \$50,000 and includes equipment valued over \$50,000 or any purchase related to a capital project whose project value exceeds \$50,000. Based on this policy, there are no capitalized assets included in the 2020 Operating Expense Budget, Debt Service Fund, Debt Reserve Fund, and the General Reserve Fund budgets. The Maintenance Reserve Fund, Special Project Reserve Fund, and Construction Fund (including both revenue and bond funded accounts) may contain capitalized projects. The budget for these funds groups projects into expense projects and capitalized projects in accordance with the Authority's capitalization policy.



It should be noted that the Authority's financial statements are presented as an enterprise fund with the activity of the Bond Resolution Funds shown on schedules to the financial statements. The Authority's Annual Budget is prepared based upon the Bond Resolution Funds.

A schedule is added in Appendix B of this book to include the non-cash items such as depreciation and amortization to match with the Authority's financial statements. Over the past several years the Authority has implemented several GASB pronouncements which has resulted in non-cash accounting entries to follow the Generally Accepted Accounting Principles (GAAP). This schedule presents an estimated non-cash impact of these GASB implementations on the 2020 Budget.

In addition to the Annual Budget required by the Bond Resolution, NJSA 27:23-3.2 requires the Authority to submit, before the close of each of its fiscal years, a complete and detailed report of its operating and capital construction budget. The report must include receipts and disbursements or revenue and expense, for the prior fiscal year and estimated amounts for the current and succeeding fiscal year.

## Budget Procedure

The Annual Budget process begins in June of each year with a review of the Authority's financial projections, current results compared to budget, and a preliminary estimated budget for the next calendar year. The review is completed by the Authority's Chief Financial Officer, Deputy Executive Director and the Executive Director. Based on this review, as well as the Authority's strategic directives, financial policies and bond covenants, overall and specific departmental guidelines for the upcoming budget year are established. The Finance Department, through its Chief Financial Officer, communicates the budget guidelines to each department, as well as a call for capital projects. Departments must submit a detailed operating budget with spending justification, departmental organization, accomplishments for the current year, and goals for the next year. Departments must also submit all capital project requests, including total costs by year and justifications for each project. Based on these requests, a detailed preliminary operating and capital budget is prepared by the Finance Department, and approved by the Deputy Executive Director, the Executive Director, and the Authority's General Engineering Consultant. The budgets are then reviewed with the Authority's Commissioners at committee meetings. Once approved by the board committees, the Annual Budget is presented to the Board of Commissioners in public session for adoption at the October Board of Commissioners meeting.

A summary of the 2020 Annual Budget calendar is as follows:

Action	Date
Executive Budget Planning Meeting	6/10/2019
2020 Annual Budget Preparation Kickoff	6/11/2019
Distribution of Capital Budget Documents to Departments	Week of 6/17/2019
Distribution of Operating Budget Documents to Departments	Week of 6/24/2019
Individual Department Budget Meetings with Finance Department	Week of 7/15/2019
Response from Departments for Capital Budget	7/19/2019
Capital Budget Departmental Review with Finance	Week of 7/22/2019
Response from Departments for Operating Budget	7/26/2019
Capital Budget Request Inter-Department Review with Departments, Finance, & Executive	Week of 7/29/2019
Operating Budget Request Review with Individual Departments, Finance, & Executive	Week of 8/12/2019
Capital Budget Finalization Meeting	Week of 9/9/2019
Operating Budget Finalization Meeting	Week of 9/16/2019
Executive Budget Final Review Meeting	Week of 9/23/2019
Budget Presentation at Board Committee Meeting	10/8/2019
Budget Approved at Meeting of Board of Commissioners	10/22/2019
Governor's 10-day veto period expires without Governor exercising said power	(estimated) 11/7/2019

Figure 37: 2020 Annual Budget Calendar

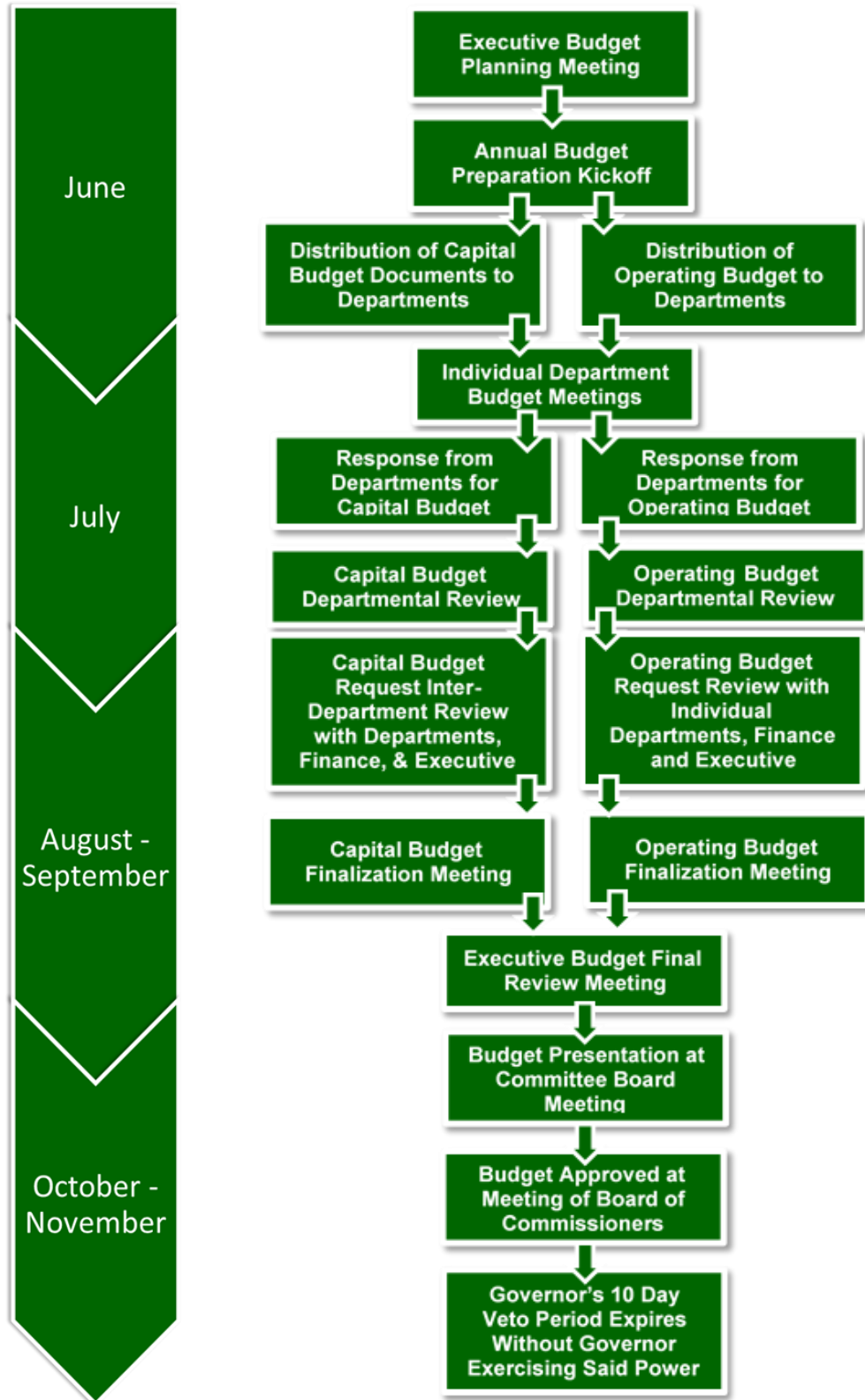


Figure 38: Budget Procedure Flow

## Summary of Major Revenues and Expenses

### Sources of Revenue

Sources of Revenue					
(In Thousands)	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Turnpike Toll Revenue	\$ 1,179,324	\$ 1,171,737	\$ 1,192,889	\$ 21,152	1.8%
Parkway Toll Revenue	433,002	\$ 434,163	440,409	6,246	1.4%
Other Operating Revenue	140,058	122,502	127,397	4,895	4.0%
Non-Operating Revenue	111,812	105,003	104,248	(755)	-0.7%
<b>Total Revenue</b>	<b>\$ 1,864,196</b>	<b>\$ 1,833,405</b>	<b>\$ 1,864,943</b>	<b>\$ 31,538</b>	<b>1.7%</b>

Figure 39: Sources of Revenue (2018-2020)

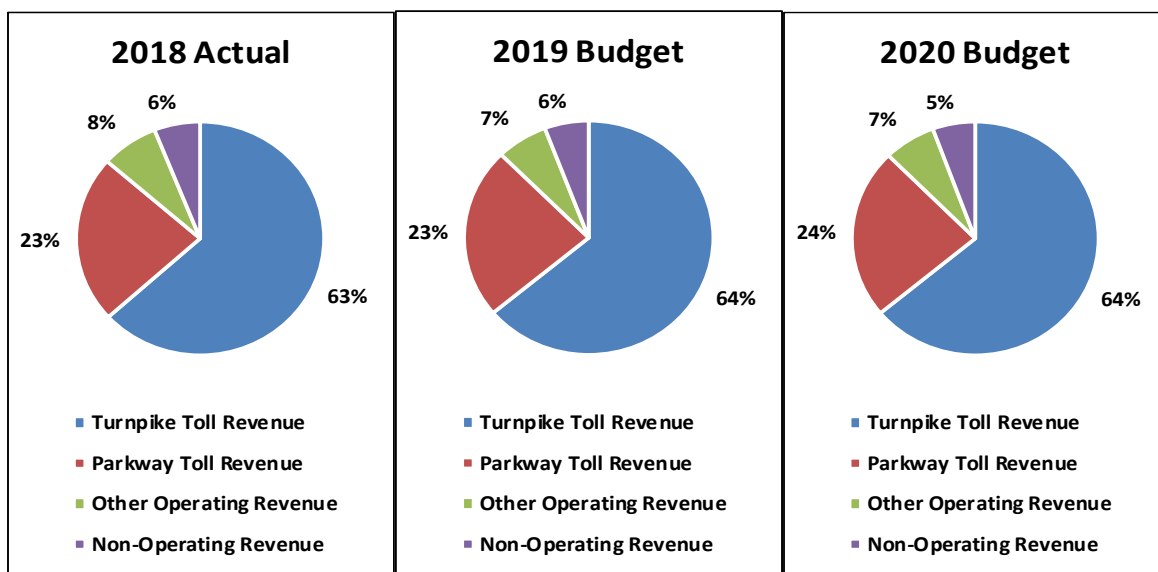


Figure 40: Sources of Revenue Percentages (2018-2020)

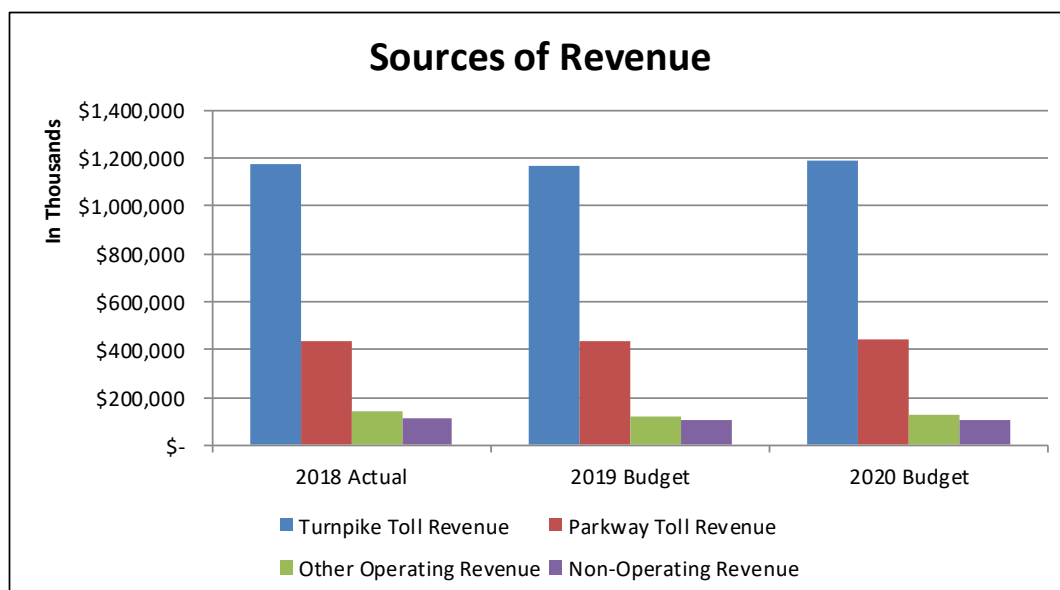


Figure 41: Sources of Revenue Graph (2018-2020)

## Allocation of Revenue

Allocation of Revenue					
(In Thousands)	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Operating Expenses	\$ 542,067	\$ 582,071	\$ 598,971	\$ 16,900	2.9%
Debt Service & Charges	788,478	832,823	842,699	9,876	1.2%
Maintenance Reserve Fund	119,086	131,468	134,097	2,629	2.0%
Special Project Reserve Fund	40,490	41,300	41,300	-	-
General Reserve Fund	374,075	245,743	247,876	2,133	0.9%
<b>Total Allocation of Revenue</b>	<b>\$ 1,864,196</b>	<b>\$ 1,833,405</b>	<b>\$ 1,864,943</b>	<b>\$ 31,538</b>	<b>1.7%</b>

Figure 42: Allocation of Revenue (2018-2020)

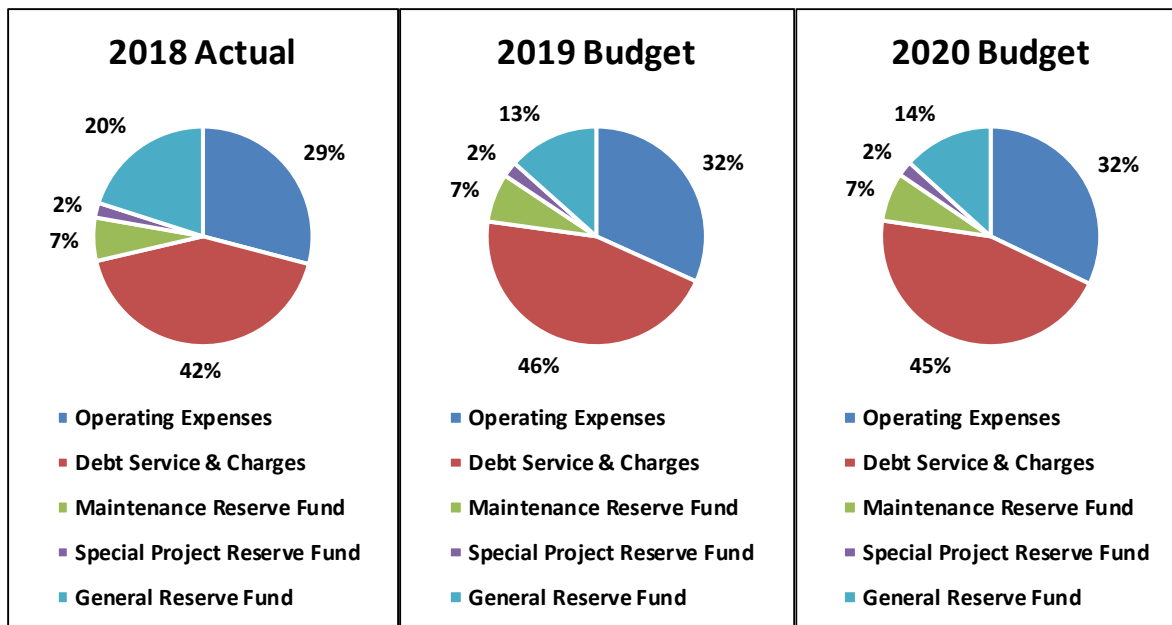


Figure 43: Allocation of Revenue Percentages (2018-2020)

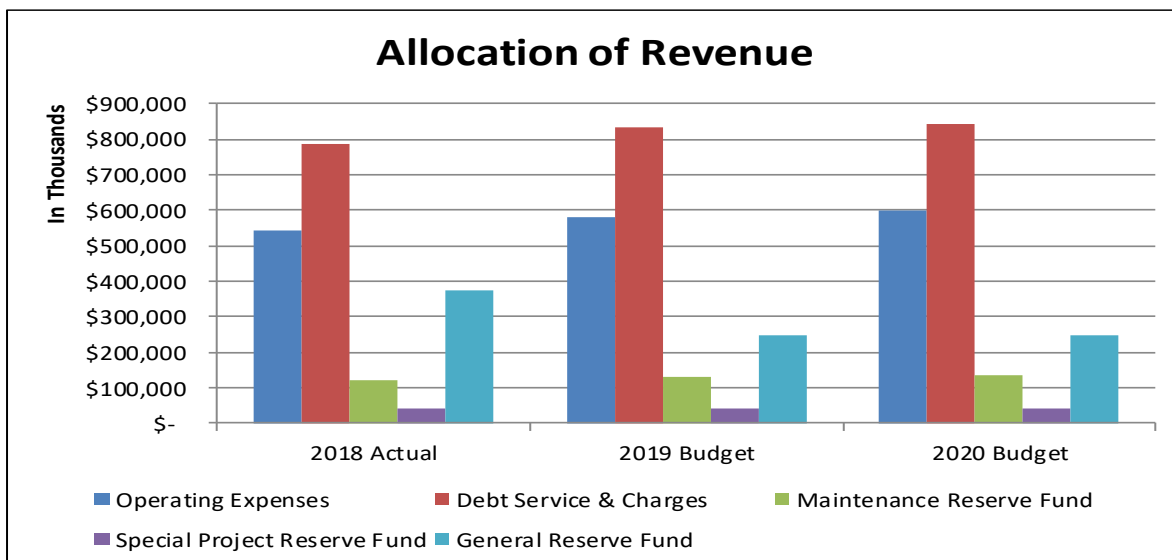


Figure 44: Allocation of Revenue Graph (2018-2020)

## Revenue

### 2020 Revenue Budget

Revenue Budget					
(In Thousands)	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Turnpike Toll Revenue	\$ 1,179,324	\$ 1,171,737	\$ 1,192,889	\$ 21,152	1.8%
Parkway Toll Revenue	433,002	434,163	440,409	6,246	1.4%
E-ZPass Fees	84,417	77,500	80,050	2,550	3.3%
Concessions Revenue	36,192	34,000	35,557	1,557	4.6%
Miscellaneous Revenue	19,449	11,002	11,790	788	7.2%
<b>Total Operating Revenue</b>	<b>1,752,384</b>	<b>1,728,402</b>	<b>1,760,695</b>	<b>32,293</b>	<b>1.9%</b>
Federal Subsidy for Build America Bonds	76,439	76,602	76,847	245	0.3%
Interest Income	30,920	25,000	24,000	(1,000)	-4.0%
Arts Center Revenues	4,453	3,401	3,401	-	-
<b>Total Non-Operating Revenue</b>	<b>111,812</b>	<b>105,003</b>	<b>104,248</b>	<b>(755)</b>	<b>-0.7%</b>
<b>Total Revenues</b>	<b>\$ 1,864,196</b>	<b>\$ 1,833,405</b>	<b>\$ 1,864,943</b>	<b>\$ 31,538</b>	<b>1.7%</b>

Figure 45: Revenue Budget (2018-2020)

#### Key Assumptions:

- Toll Revenue is expected to increase by 1.8% on the New Jersey Turnpike and by 1.4% on the Garden State Parkway in 2020 as compared to the 2019 Budget. The increases are due to normal growth, stable economic conditions and gas prices, and an additional leap year day.
- E-ZPass Fees are expected to increase reflecting normal growth as New Jersey E-ZPass accounts continue to rise. To date in 2019, actual E-ZPass Fees are above budget.
- Concession revenue is expected to increase as revenue from the rebuilt service areas is projected to offset the loss from current closures.
- Interest Income is expected to decrease in 2020. The 2020 budget assumes a decrease in interest rates compared to 2019 actuals. 2019 actuals are expected to exceed budget.
- Miscellaneous revenue is projected to increase primarily due to higher cell tower rental income from annual CPI increases.

Revenue Fund Balance					
(In Thousands)	2018 Actuals	2019 Est/Act	2020 Budget	2019 to 2020 \$ Change	2019 to 2020 % Change
Beginning Balance	\$ 52,876	\$ 52,876	\$ 52,876	-	-
Revenues	1,864,196	1,854,805	1,864,943	10,138	0.5%
Expenses	(542,067)	(561,000)	(598,971)	(37,971)	6.8%
Transfers to Funds	(1,322,129)	(1,293,805)	(1,265,972)	27,833	-2.2%
<b>Ending Balance</b>	<b>\$ 52,876</b>	<b>\$ 52,876</b>	<b>\$ 52,876</b>	<b>-</b>	<b>-</b>

Figure 46: Revenue Fund Balance (2018-2020)

## Toll Statistics

### Toll Transactions by Vehicle Type and Roadway

<b>Toll Transactions by Vehicle Type and Roadway</b>					
<i>(In Thousands)</i>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019*</b>	<b>2020*</b>
New Jersey Turnpike Passenger	\$ 223,634	\$ 227,979	\$ 230,497	\$ 226,213	\$ 230,260
New Jersey Turnpike Commercial	31,860	32,686	34,251	34,895	35,577
<b>New Jersey Turnpike Total</b>	<b>255,494</b>	<b>260,665</b>	<b>264,748</b>	<b>261,108</b>	<b>265,837</b>
<b>Garden State Parkway</b>	<b>389,609</b>	<b>392,895</b>	<b>389,791</b>	<b>384,049</b>	<b>389,421</b>
<b>Total Authority Toll Transactions</b>	<b>\$ 645,103</b>	<b>\$ 653,560</b>	<b>\$ 654,539</b>	<b>\$ 645,157</b>	<b>\$ 655,258</b>

<b>Toll Transactions Growth Rate</b>					
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019*</b>	<b>2020*</b>
New Jersey Turnpike Passenger	3.8%	1.9%	1.1%	-1.9%	1.8%
New Jersey Turnpike Commercial	2.0%	2.6%	4.8%	1.9%	2.0%
<b>New Jersey Turnpike Total</b>	<b>3.6%</b>	<b>2.0%</b>	<b>1.6%</b>	<b>-1.4%</b>	<b>1.8%</b>
<b>Garden State Parkway</b>	<b>2.7%</b>	<b>0.8%</b>	<b>-0.8%</b>	<b>-1.5%</b>	<b>1.4%</b>
<b>Total Authority Toll Transactions</b>	<b>3.1%</b>	<b>1.3%</b>	<b>0.1%</b>	<b>-1.4%</b>	<b>1.6%</b>

Figure 47: Toll Transactions by Vehicle Type and Roadway (2016-2020)

\*Projected Traffic is based on the CDM Smith Toll Revenue Forecast study dated September 27, 2018.

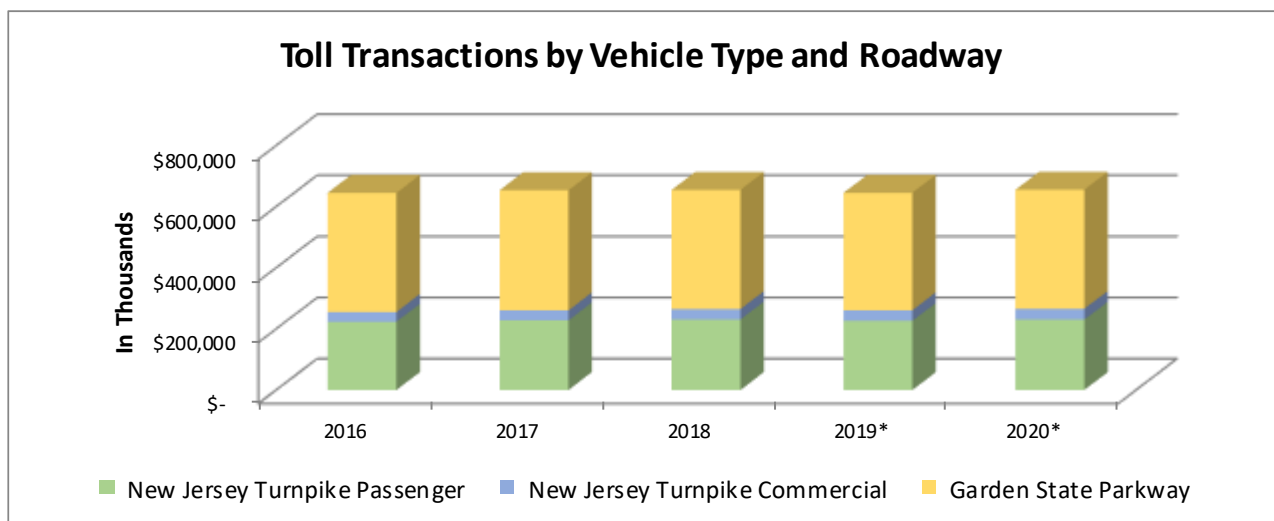


Figure 48: Total Toll Transactions (2016-2020)

\*Projected Traffic is based on the CDM Smith Toll Revenue Forecast study dated September 27, 2018.

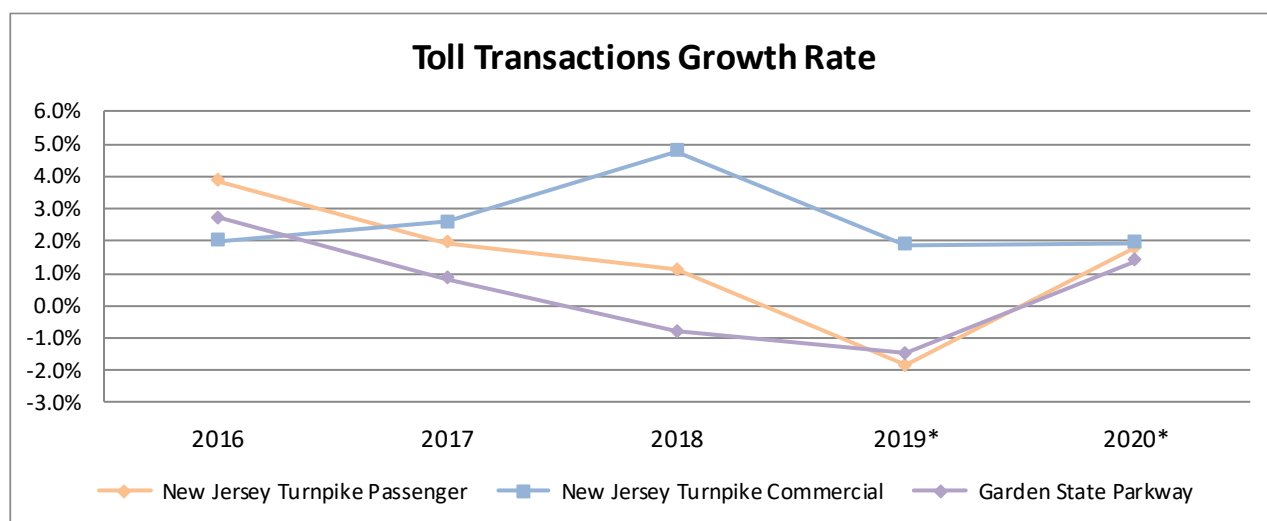


Figure 49: Toll Transactions Percent Change (2016-2020)

\*Projected Traffic is based on the CDM Smith Toll Revenue Forecast study dated September 27, 2018.

#### Toll Revenue by Vehicle Type and Roadway

Toll Revenue by Vehicle Type and Roadway					
(In Thousands)	2016	2017	2018	2019*	2020*
New Jersey Turnpike Passenger	\$ 776,337	\$ 780,182	\$ 808,960	\$ 794,819	\$ 808,837
New Jersey Turnpike Commercial	368,221	371,557	370,364	376,918	384,052
<b>New Jersey Turnpike Total</b>	<b>1,144,558</b>	<b>1,151,739</b>	<b>1,179,324</b>	<b>1,171,737</b>	<b>1,192,889</b>
<b>Garden State Parkway</b>	<b>426,104</b>	<b>428,157</b>	<b>433,002</b>	<b>434,163</b>	<b>440,409</b>
<b>Total Authority Toll Revenue</b>	<b>\$ 1,570,662</b>	<b>\$ 1,579,896</b>	<b>\$ 1,612,326</b>	<b>\$ 1,605,900</b>	<b>\$ 1,633,298</b>

Toll Revenue Growth Rate					
	2016	2017	2018	2019*	2020*
New Jersey Turnpike Passenger	4.2%	0.5%	3.7%	-1.7%	1.8%
New Jersey Turnpike Commercial	1.9%	0.9%	-0.3%	1.8%	1.9%
<b>New Jersey Turnpike Total</b>	<b>3.5%</b>	<b>0.6%</b>	<b>2.4%</b>	<b>-0.6%</b>	<b>1.8%</b>
<b>Garden State Parkway</b>	<b>2.2%</b>	<b>0.5%</b>	<b>1.1%</b>	<b>0.3%</b>	<b>1.4%</b>
<b>Total Authority Toll Revenue</b>	<b>3.1%</b>	<b>0.6%</b>	<b>2.1%</b>	<b>-0.4%</b>	<b>1.7%</b>

Figure 50: Toll Revenue by Vehicle Type and Roadway (2016-2020)

\*Projected Traffic is based on the CDM Smith Toll Revenue Forecast study dated September 27, 2018.



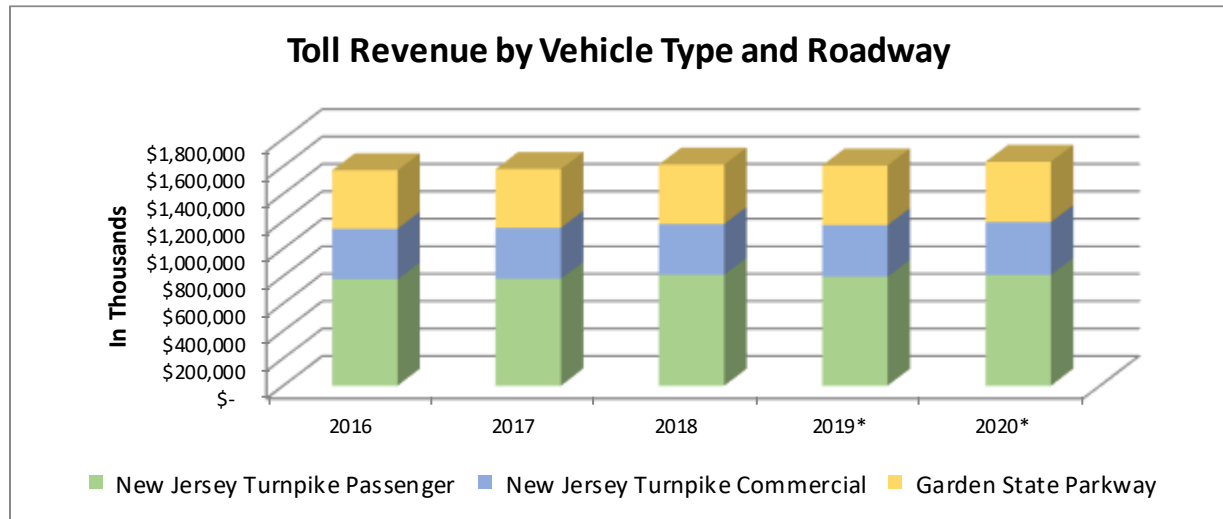


Figure 51: Total Toll Revenue (2016-2020)

\*Projected Traffic is based on the CDM Smith Toll Revenue Forecast study dated September 27, 2018.

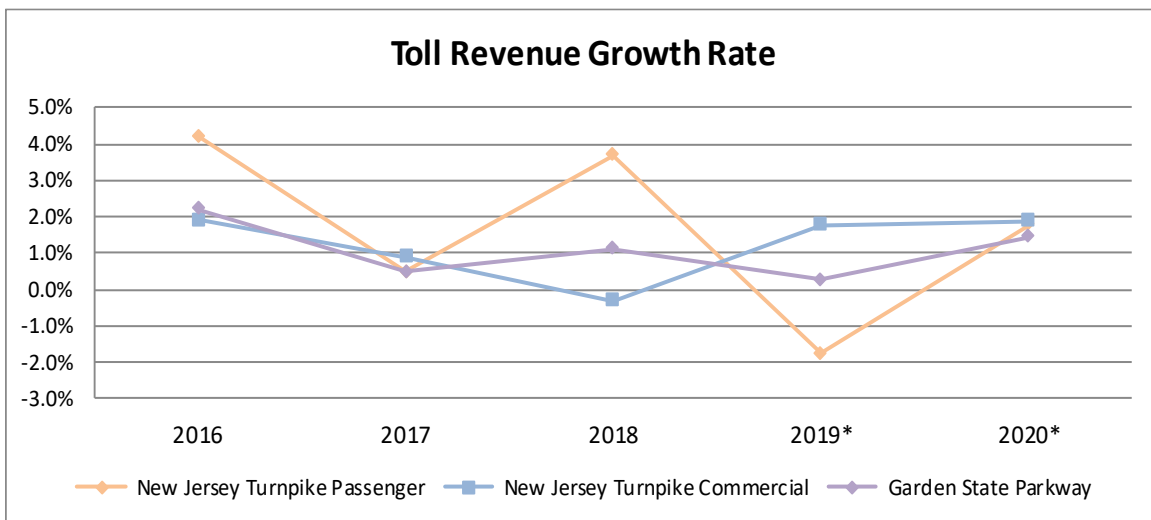


Figure 52: Toll Revenue Percent Change (2016-2020)

\*Projected Traffic is based on the CDM Smith Toll Revenue Forecast study dated September 27, 2018.

## 2020 Operating Budget

Operating Expense Budget by Functional Area					
	2018 Actuals	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Maintenance	\$ 212,188,900	\$ 230,098,100	\$ 240,163,300	\$ 10,065,200	4.4%
Engineering	9,042,900	10,821,700	10,412,700	(409,000)	-3.8%
<b>Total Maintenance of Infrastructure</b>	<b>221,231,800</b>	<b>240,919,800</b>	<b>250,576,000</b>	<b>9,656,200</b>	<b>4.0%</b>
Toll Collection	162,344,600	168,720,900	169,995,000	1,274,100	0.8%
<b>Total Toll Collection</b>	<b>162,344,600</b>	<b>168,720,900</b>	<b>169,995,000</b>	<b>1,274,100</b>	<b>0.8%</b>
Operations	13,501,300	12,292,600	13,811,200	1,518,600	12.4%
State Police	77,514,300	87,516,800	89,247,000	1,730,200	2.0%
<b>Total Traffic Control &amp; State Police</b>	<b>91,015,600</b>	<b>99,809,400</b>	<b>103,058,200</b>	<b>3,248,800</b>	<b>3.3%</b>
Information Technology Services	21,652,000	24,795,600	24,445,100	(350,500)	-1.4%
<b>Total Technology</b>	<b>21,652,000</b>	<b>24,795,600</b>	<b>24,445,100</b>	<b>(350,500)</b>	<b>-1.4%</b>
Executive Office	1,459,000	1,389,000	1,730,900	341,900	24.6%
Law & Insurance Services	8,219,600	11,164,900	10,911,000	(253,900)	-2.3%
Purchasing & Materials Management	9,567,800	7,914,500	8,505,500	591,000	7.5%
Human Resources & Office Services	6,102,900	6,397,200	6,876,000	478,800	7.5%
Finance	13,963,800	13,730,100	14,472,200	742,100	5.4%
Community & Patron Relations	2,360,600	2,574,500	2,822,100	247,600	9.6%
Internal Audit	4,149,900	4,653,900	5,578,500	924,600	19.9%
<b>Total General &amp; Administrative</b>	<b>45,823,600</b>	<b>47,824,100</b>	<b>50,896,200</b>	<b>3,072,100</b>	<b>6.4%</b>
<b>Total Operating Budget</b>	<b>\$ 542,068,000</b>	<b>\$ 582,071,000</b>	<b>\$ 598,970,500</b>	<b>\$ 16,899,500</b>	<b>2.9%</b>

Figure 53: Operating Budget (2018-2020)

- Key cost factors in the 2019 Operating Expense Budget are as follows:
  - Health Benefit costs are increasing by approximately \$10.8 million based upon estimated usage and medical inflation rates. Costs for 2019 have exceeded budget, and the 2020 budget **DOES NOT** include any savings resulting from plan design changes that are being actively negotiated with the Authority's unions.
  - Salaries and Wages are increasing by approximately \$2.9 million, which reflects contractual step increases for union employees, potential contractual wage increases, and an additional 24 positions to be added in 2020. Authorized positions include 5 contingent positions which were not part of the 2019 budget.
  - Roadway maintenance is increasing by approximately \$1.9 million primarily for line striping drainage, roofing, and lighting repairs on the roadways based on current maintenance repair cycles.

- Pension and FICA taxes are increasing by about \$1.8 million based upon projected pension contribution rates and covered salaries.
- Consulting services are increasing by approximately \$1.3 million mostly due to an increase in work related to health benefits audits by outside firms, a new technology audit, and a first-time deferred compensation consultant. In addition, document review services related to work required in the Bond Resolution has been moved from individual capital projects to the operating expense budget.
- State police costs are increasing by approximately \$1.8 million due to an increase in trooper health benefit and pension costs, as well as anticipated wage increases for troopers. The authorized trooper count is 408 for 2020.
- Electronic Toll Collection costs are increasing by about \$1.0 million based on increased volumes.
- Snow costs continue to be budgeted at \$38.1 million, a level consistent with the past 5 years.
- The proposed 2020 Operating Expense Budget is increasing by \$16.9 million, driven by the above key cost factors. This increase is slightly offset by savings in electric costs based on usage and greater collections from property damage recoveries and lower projected claims settlement costs. When excluding pension and health benefit increases, the Authority's Operating Expense Budget is only increasing by \$4,200,000, or 0.9%. In addition, savings are expected from a change to a new credit card processor for New Jersey E-ZPass based on lower per transaction costs.

## Budget by Functional Area

Operating Expense Budget by Functional Area Summary					
	2018 Actuals	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Maintenance of Infrastructure	\$ 221,231,800	\$ 240,919,800	\$ 250,576,000	\$ 9,656,200	4.0%
Toll Collection	162,344,600	168,720,900	169,995,000	1,274,100	0.8%
Traffic Control & State Police	91,015,600	99,809,400	103,058,200	3,248,800	3.3%
Technology	21,652,000	24,795,600	24,445,100	(350,500)	-1.4%
General & Administrative	45,823,600	47,824,100	50,896,200	3,072,100	6.4%
<b>Total Operating Budget</b>	<b>\$ 542,068,000</b>	<b>\$ 582,071,000</b>	<b>\$ 598,970,500</b>	<b>\$ 16,900,700</b>	<b>2.9%</b>

- 2018 amounts have been reclassified to match 2020 presentation
- Totals may not add due to rounding

Figure 54: Budget by Functional Area (2018-2020)

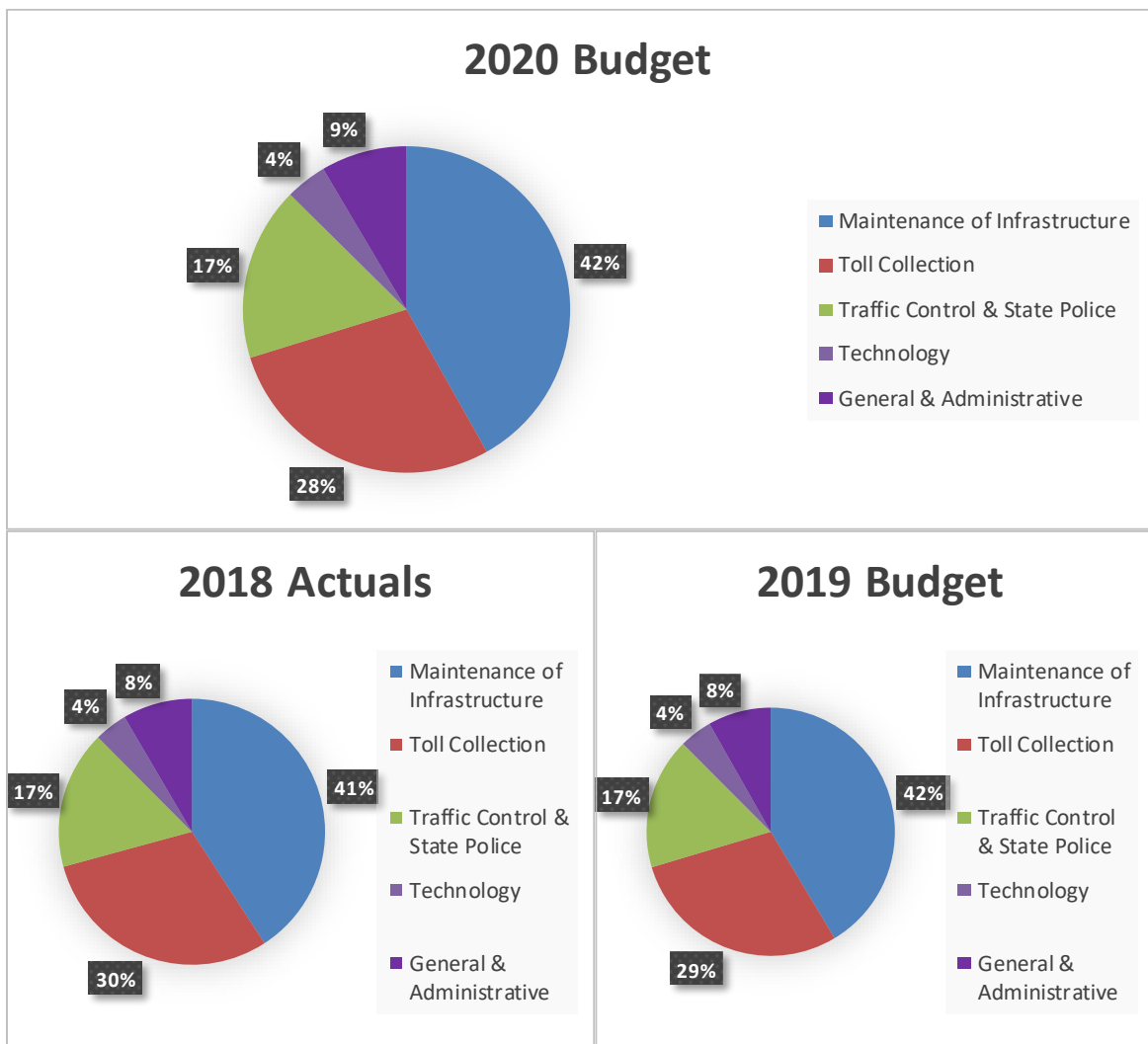


Figure 55: Budget by Functional Area Percentages (2018-2020)

## Budget by Expense Type

Operating Expense Budget by Expense Type					
	2018 Actuals	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Personnel Costs	\$ 290,791,000	\$ 289,806,700	\$ 305,398,400	\$ 15,591,700	5.4%
Materials & Supplies	35,543,600	50,763,600	47,257,700	(3,505,900)	-6.9%
Services	159,479,700	185,093,100	188,093,300	3,000,200	1.6%
Maintenance & Fixed Costs	39,271,000	39,786,900	42,438,700	2,651,800	6.7%
Equipment	16,982,300	16,619,500	15,782,400	(837,100)	-5.0%
<b>Total Operating Budget</b>	<b>\$ 542,068,000</b>	<b>\$ 582,071,000</b>	<b>\$ 598,970,500</b>	<b>\$ 16,900,700</b>	<b>2.9%</b>

- 2018 amounts have been reclassified to match 2020 presentation

- Totals may not add due to rounding

Figure 56: Budget by Expense Type (2018-2020)

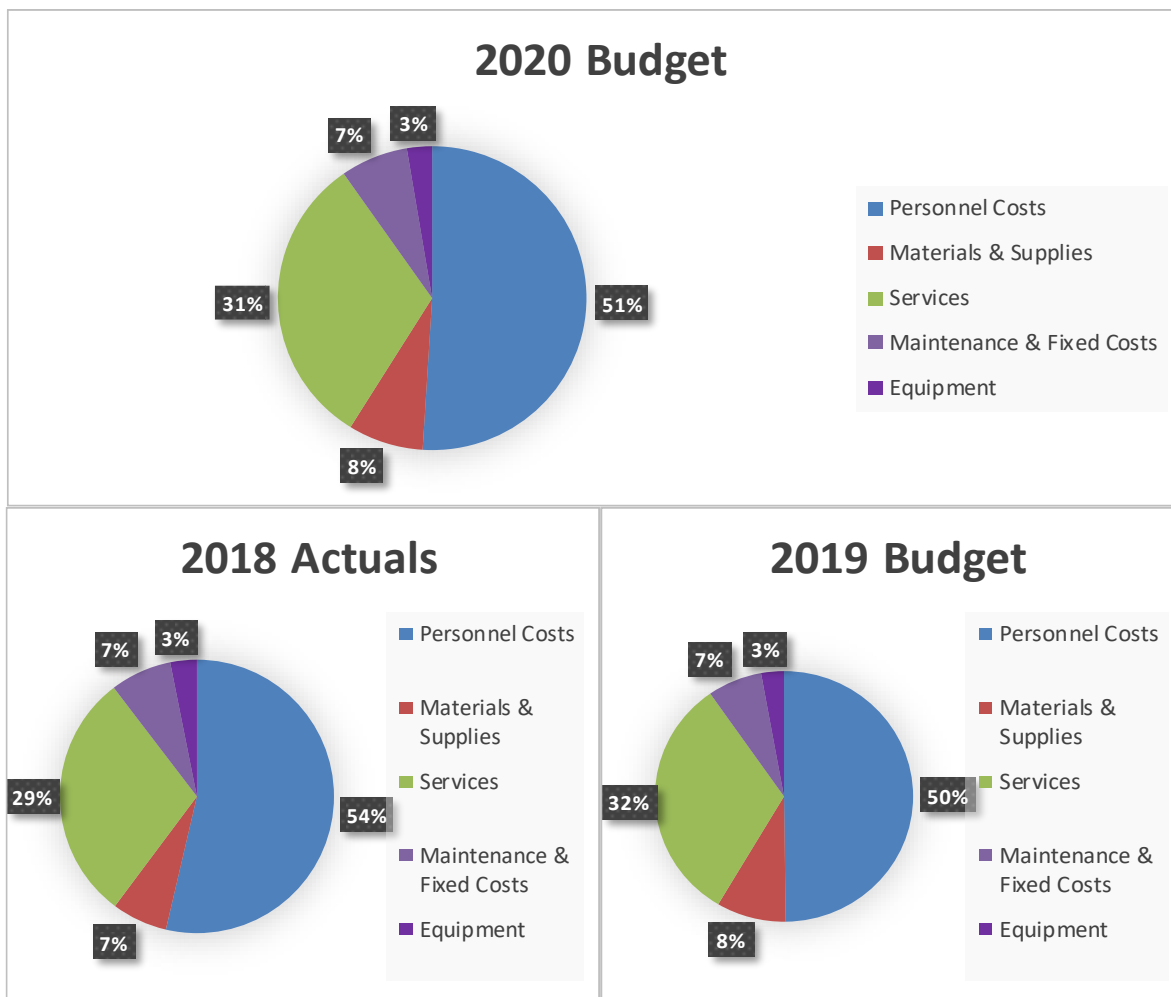


Figure 57: Budget by Expense Type Percentages (2018-2020)

## 2020 Operating Budget Summary by Line Item

Operating Expense Budget by Line Item					
	2018 Actuals	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Salaries	146,529,000	174,259,300	177,152,500	2,893,200	1.7%
Allowances	865,500	1,054,500	905,900	(148,600)	-14.1%
Pension & Taxes	71,017,200	32,453,400	34,259,400	1,806,000	5.6%
Employee Relations	-	37,000	37,000	-	-
Health Benefits	71,628,600	81,000,100	91,851,500	10,851,400	13.4%
Tuition	123,600	100,000	200,000	100,000	100.0%
Non-Overnight Travel	612,400	850,400	940,100	89,700	10.5%
Overnight Travel	14,700	52,000	52,000	-	-
<b>Total Personnel Costs</b>	<b>\$ 290,791,000</b>	<b>\$ 289,806,700</b>	<b>\$ 305,398,400</b>	<b>\$ 15,591,700</b>	<b>5.4%</b>
Printing & Office Supplies	409,500	491,700	525,400	33,700	6.9%
Vehicle Supplies	4,676,500	4,976,100	5,218,200	242,100	4.9%
Medical Supplies	32,100	78,700	79,700	1,000	1.3%
Operating Supplies	1,500,300	1,843,900	1,855,900	12,000	0.7%
Toll Tickets	289,100	316,200	316,200	-	-
Utilities	10,902,400	13,242,800	11,693,900	(1,548,900)	-11.7%
Snow/Ice	4,785,600	10,782,000	9,536,100	(1,245,900)	-11.6%
Software	2,729,400	5,630,500	5,640,600	10,100	0.2%
Other Materials	9,265,500	11,840,600	10,590,000	(1,250,600)	-10.6%
Landscape	112,400	139,000	140,000	1,000	0.7%
Roadway	295,500	290,000	475,000	185,000	63.8%
Electronics	225,400	903,000	903,000	-	-
Other Expenses	319,900	229,100	283,700	54,600	23.8%
<b>Total Materials &amp; Supplies</b>	<b>\$ 35,543,600</b>	<b>\$ 50,763,600</b>	<b>\$ 47,257,700</b>	<b>\$ (3,505,900)</b>	<b>-6.9%</b>
Banking Services	28,580,000	32,781,800	32,065,200	(716,600)	-2.2%
Insurance	9,438,600	12,040,000	11,656,800	(383,200)	-3.2%
Facilities Services	2,502,300	2,925,000	2,762,400	(162,600)	-5.6%
Law Services	998,200	1,538,700	1,569,900	31,200	2.0%
Consulting Services	2,064,900	3,025,600	4,374,400	1,348,800	44.6%
Other Professional Services	39,351,400	46,490,000	47,202,400	712,400	1.5%
Environmental Services	4,205,200	5,303,500	5,245,800	(57,700)	-1.1%
Other Services	350,400	346,300	732,400	386,100	111.5%
State Police Services	71,988,700	80,642,200	82,484,000	1,841,800	2.3%
<b>Total Services</b>	<b>\$ 159,479,700</b>	<b>\$ 185,093,100</b>	<b>\$ 188,093,300</b>	<b>\$ 3,000,200</b>	<b>1.6%</b>
Vehicle Maintenance	522,500	658,100	934,200	276,100	42.0%
Roadway Maintenance	20,345,200	31,908,600	33,832,300	1,923,700	6.0%
Bridge Maintenance	-	48,400	48,400	-	-
Building Maintenance	1,794,000	2,584,000	3,220,000	636,000	24.6%
Toll Booth Maintenance	64,400	76,200	76,200	-	-
Equipment Maintenance	16,254,200	4,069,100	3,892,100	(177,000)	-4.3%
Equipment Rental	240,100	340,800	331,700	(9,100)	-2.7%
Taxes	50,600	101,700	103,800	2,100	2.1%
<b>Total Maintenance &amp; Fixed Costs</b>	<b>\$ 39,271,000</b>	<b>\$ 39,786,900</b>	<b>\$ 42,438,700</b>	<b>\$ 2,651,800</b>	<b>6.7%</b>
Equipment	9,820,300	11,599,500	11,398,400	(201,100)	-1.7%
ETC Transponders	7,162,000	5,020,000	4,384,000	(636,000)	-12.7%
<b>Total Equipment</b>	<b>\$ 16,982,300</b>	<b>\$ 16,619,500</b>	<b>\$ 15,782,400</b>	<b>\$ (837,100)</b>	<b>-5.0%</b>
<b>Total Operating Budget by Line Item</b>	<b>\$ 542,068,000</b>	<b>\$ 582,071,000</b>	<b>\$ 598,970,500</b>	<b>\$ 16,900,700</b>	<b>2.9%</b>

Figure 58: Operating Budget by Line Item (2018-2020)

### Budgeted Full Time Employees

NJTA Budgeted Full-Time Employees				
Departments	2018	2019	2020	Change from 2019
Maintenance	993	1,007	1,014	7
Engineering	73	72	70	(2)
Toll Collection	535	542	542	-
Operations	74	75	79	4
State Police	7	8	11	3
Information Technology Services	151	152	152	-
Executive Office	5	6	8	2
Law & Insurance Services	22	19	21	2
Procurement & Materials Management	63	55	55	-
Human Resources & Office Services	37	42	42	-
Finance	80	80	80	-
Community & Patron Relations	11	16	17	1
Internal Audit	22	27	29	2
<b>Subtotal</b>	<b>2,073</b>	<b>2,101</b>	<b>2,120</b>	<b>19</b>
Contingency	-	-	5	5
<b>NJTA Department Total</b>	<b>2,073</b>	<b>2,101</b>	<b>2,125</b>	<b>24</b>

Figure 59: Budgeted Full Time Employees (2018-2020)

- The 2020 Authorized Positions include a continued commitment to increase maintenance staff to handle the added capacity of both the Turnpike and Parkway after the significant widening projects. The Maintenance Department is adding 4 more nightshift crew staff on the Turnpike to aid in completing repairs and perform roadway cleaning during night lane closings, in addition to increasing positions in Automotive. In addition to maintenance staff:
  - Operations is adding Emergency Services staff
  - Executive Office is adding 2 staff members to further extend media relations
  - Law and Finance are adding positions to establish a toll violator function
  - Internal Audit is adding 1 staff member for enhanced safety/security
  - Human Resources is adding an employee benefits position
  - 5 contingency positions were added to account for any staffing needs that may arise during the year. Without the contingency positions, authorized positions are rising by only 19 positions.

## Department Budgets

### Maintenance

#### Department Description:

The Maintenance Department is responsible for overseeing the maintenance and care of the Turnpike and Parkway roadways and infrastructure as well as Authority buildings and facilities. Specifically, the Maintenance Department is responsible for: the inspection, maintenance and repair of the Authority's maintenance vehicle fleet and equipment; maintenance and repair of approximately 500 facility locations and critical utilities along 321 miles of roadway; HVAC maintenance, inspection and repair; line striping; construction of small structures and facilities; coordination and implementation of snow and ice removal operations; roadway litter and debris removal, and maintenance and care of all roadway vegetation.

#### Department Organization:



Figure 60: Maintenance Department Organization Chart

#### Senior Staff:

Director of Maintenance: Kenneth McGoldrick

Deputy Director of Maintenance: William Perna

#### 2019 Accomplishments:

- Implementation and build out of the Authority's Roadside Weather Information System
- Installation of electronic equipment accountability systems at each facility as more sites are constructed and completed
- Expansion of field access to Authority's eGIS system with implementation of field devices
- Completed adequate training on new vehicles for the technicians, up to date diagnostic equipment for the departments, as well as sufficient training on this equipment for the technicians
- Continued installation of LED roadway lighting fixtures and maintenance of the roadway lighting system

#### 2020 Goals:

- Implement First Phase of Enterprise Asset Management (EAM) implementation and begin effort on subsequent phases
- Continue validation of automotive fleet with respect to equipment lifecycle cost and with a concentration on light duty vehicles (State of Good Repair)
- Expand process of identifying infrastructure within the Authority's eGIS system (State of Good Repair)
- Advertise contracts for the Maintenance Department's Drainage Management Program (DMP) (People)
- Continue restoration of roadway illumination levels (State of Good Repair)



- Continue Toll facilities upgrades (State of Good Repair)

<b>Maintenance Department Operating Budget</b>					
	<b>2018 Actuals</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>\$ Change from 2019 Budget</b>	<b>% Change from 2019 Budget</b>
Salaries	\$ 75,872,100	\$ 86,434,100	\$ 88,596,000	\$ 2,161,900	2.5%
Allowances	610,700	814,800	838,400	23,600	2.9%
Pension & Taxes	34,795,200	15,254,700	16,916,300	1,661,600	10.9%
Health Benefits	36,278,200	38,074,100	43,611,700	5,537,600	14.5%
Non-Overnight Travel	67,700	134,200	131,200	(3,000)	-2.2%
Printing & Office Supplies	70,400	72,200	79,300	7,100	9.8%
Vehicle Supplies	4,676,500	4,964,100	5,218,200	254,100	5.1%
Operating Supplies	1,223,700	1,393,300	1,441,000	47,700	3.4%
Utilities	10,902,400	13,242,800	11,693,900	(1,548,900)	-11.7%
Snow/Ice	4,785,600	10,782,000	9,536,100	(1,245,900)	-11.6%
Software	14,700	18,700	18,800	100	0.5%
Other Materials	8,066,800	9,848,300	9,497,800	(350,500)	-3.6%
Landscape	112,400	139,000	140,000	1,000	0.7%
Roadway	295,500	290,000	475,000	185,000	63.8%
Electronics	225,400	903,000	903,000	-	-
Insurance	5,165,000	5,644,000	6,208,400	564,400	10.0%
Facilities Services	79,800	82,900	83,500	600	0.7%
Consulting Services	56,500	225,600	50,000	(175,600)	-77.8%
Other Professional Services	28,300	-	100,000	100,000	-
Environmental Services	781,500	1,200,000	1,200,000	-	-
Other Services	120,000	108,800	108,800	-	-
Vehicle Maintenance	397,100	407,800	633,900	226,100	55.4%
Roadway Maintenance	20,317,100	31,908,500	33,832,200	1,923,700	6.0%
Bridge Maintenance	-	48,400	48,400	-	-
Building Maintenance	1,720,100	2,500,000	3,125,000	625,000	25.0%
Equipment Maintenance	106,100	106,000	188,000	82,000	77.4%
Equipment Rental	94,000	145,800	145,800	-	-
Equipment	5,038,000	5,138,200	5,121,500	(16,700)	-0.3%
Other Expenses	288,100	216,800	221,100	4,300	2.0%
<b>Total Operating Budget</b>	<b>\$ 212,188,900</b>	<b>\$ 230,098,100</b>	<b>\$ 240,163,300</b>	<b>\$ 10,065,200</b>	<b>4.4%</b>

Figure 61: Maintenance Department Operating Budget (2018-2020)

#### 2020 Budget Highlights:

- Salaries are increasing to fund an additional 7 positions, to cover the cost of anticipated contractual wage increases, and to fully fund vacant positions
- Maintenance comprises 48% of Authority salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Roadway maintenance is increasing by approximately \$1.9 million primarily for line striping, drainage, roofing, and lighting repairs on the roadways based on current maintenance repair cycles
- Utilities are decreasing by approximately \$1.5 million due to savings in electric costs resulting primarily from energy efficiency programs initiated by the Authority

Maintenance Department Budgeted Positions				
	2018	2019	2020	Change from 2019
Administrative Assistant - Division	2	2	2	-
Administrative Project Supervisor	-	-	1	1
Administrative Secretary - Maintenance	1	1	1	-
Apprentice	6	5	6	1
Assistant Budget Coordinator - Maintenance	-	1	-	(1)
Assistant Building Maintenance Manager	1	1	1	-
Assistant Foreman	31	31	29	(2)
Assistant Foreman - Janitorial	1	3	3	-
Assistant Landscape Specialist	1	1	1	-
Assistant Maintenance Admin Manager	-	1	1	-
Assistant Maintenance Engineer	1	1	1	-
Assistant Project Supervisor	1	1	1	-
Assistant to Manager, Inventory Quality Assurance	-	-	1	1
Automotive Craftsperson I	1	1	1	-
Automotive Foreman	3	3	3	-
Automotive Services Coordinator	1	1	1	-
Automotive Services Manager	1	1	1	-
Automotive Technician	42	41	47	6
Automotive Training Manager	1	1	1	-
Body Repairperson	3	3	3	-
Budget Coordinator	-	-	1	1
Building Craftsperson 3	3	2	3	1
Building Maintenance Coordinator	1	-	-	-
Building Maintenance Foreman	3	3	3	-
Building Maintenance Mechanic	13	12	13	1
Buildings Division Coordinator	1	-	-	-
Building Maint Manager	1	1	1	-
Carpenter	12	13	13	-
Carpenter/Paint Foreman	2	2	2	-
Confidential Secretary	1	-	-	-
CDL Training Coordinator	-	-	1	1
Construction Manager Maintenance	-	1	1	-
Construction Supervisor Maintenance	1	1	1	-
Coordinator - Bargaining (8 hr)	-	-	1	1
Craftsperson Assistant - Auto	2	2	2	-
Craftsperson Field Supervisor	6	7	7	-
Craftsperson 2 - Auto	12	13	13	-
Crew Manager	6	7	7	-
Crew Supervisor	42	42	41	(1)
Deputy Director of Maintenance	1	1	1	-
Director of Maintenance	1	1	1	-
District Equipment Manager	3	3	3	-
District Manager	3	3	3	-
Electrical Craftsperson 2	16	15	16	1
Electrical Engineer	1	1	1	-
Electrician -Tpk	20	20	19	(1)

Equipment Manager	1	-	-	-
Equipment Trainer	3	3	3	-
Executive Secretary 2	2	2	2	-
Facilities Manager	1	1	-	(1)
Facility Craftsperson	4	4	4	-
Facility Manager	1	1	2	1
Field Engineer	-	1	4	3
General Foreman	6	7	6	(1)
General Foreman-Automotive	1	2	2	-
Heavy Equipment Operator	25	27	27	-
Inventory Quality Assurance Manager & Materials Expert	1	1	1	-
Janitor	9	11	11	-
Janitorial Foreman	1	1	1	-
Janitorial Manager	1	1	1	-
Landscape Manager	1	1	1	-
Landscaper	7	7	7	-
Landscaping Foreman	2	2	2	-
Line Striper	2	-	-	-
Maintenance Assistant	-	1	1	-
Maintenance Automotive Manager	1	1	1	-
Maintenance Coordinator	1	-	-	-
Maintenance District Coordinator	2	2	2	-
Maintenance Engineer	4	2	2	-
Maintenance Financial & Office Manager	1	1	1	-
Maintenance Fleet Admin	1	1	1	-
Maintenance Office Assistant	1	1	1	-
Maintenance Person	222	216	223	7
Maintenance Person 1	215	223	216	(7)
Maintenance Person 2	15	15	15	-
Maintenance Person 3	3	4	5	1
Maintenance Person 4	10	10	12	2
Maintenance Person General	33	35	33	(2)
Maintenance Records Clerk	20	20	20	-
Maintenance Roadway Special	2	2	2	-
Maintenance Special-Landscape	4	4	4	-
Mason	4	5	5	-
Mechanic	-	4	1	(3)
Mechanic I	37	37	37	-
Mechanic Special	2	2	2	-
Mechanical Craftsperson 2	16	17	17	-
One Call Coordinator	1	1	1	-
Painter	4	4	3	(1)
Power Electric Foreman	5	5	4	(1)
Procedure Analyst	1	1	1	-
Project Analyst-GIS	1	1	1	-
Project Coordinator	-	1	-	(1)
Project Engineer Maintenance	-	1	1	-
Project Manager - Environmental	-	-	1	1
Project Supervisor Parkway	11	8	8	-
Property Inspector	1	-	-	-

Roadway Foreman	16	17	16	(1)
Roadway Superintendent	4	4	4	-
Senior Administrative Assistant - Division	1	1	1	-
Senior Clerk 80	18	18	18	-
Senior Confidential Secretary	-	1	1	-
Senior Maintenance Budget Supervisor	1	-	-	-
Senior Maintenance Engineer	1	1	1	-
Senior Maintenance Lighting Specialist	1	1	1	-
Senior Sign Shop Manager	-	1	1	-
Sign Fabricator 1	8	8	8	-
Specialist - Sign Fabricator	1	1	2	1
Sign Shop Manager	1	-	-	-
Superintendent of Snow Operations	1	1	-	(1)
Supervising Engineer	-	1	1	-
Training Equipment Supervisor	1	1	1	-
Welder	5	5	5	-
<b>Total</b>	<b>993</b>	<b>1,007</b>	<b>1,014</b>	<b>7</b>

Figure 62: Maintenance Department Positions (2018-2020)

## Engineering

### Department Description:

The Engineering Department's mission is focused on the preservation and improvement of the Authority's roadways, structures, buildings and other facilities. Responsibilities include planning, design, and construction management. In-house staff is supplemented by engineers from outside consulting engineering firms who work under direct Authority supervision. The department is comprised of two main divisions -- Design Division and Construction Division.

The Design division is organized into four (4) Sections, Structures, Highways, Planning/Facilities and Contracts. The focus of the Design Division is on the completion of the \$7 billion Capital Improvement Program, which included widening, bridge, roadway, interchange, and facility improvement projects. In addition, the design division played a major role in the development of the \$500 million 2019 Capital Improvement Program, by identifying those projects where the design was nearly complete and ready to go to construction. In addition to the above-mentioned activities, the design Division is also responsible for the design of various major annual maintenance projects, including, pavement resurfacing, lighting, drainage, median barrier as well as bridge deck repairs. The Contracts Section is responsible for transitioning construction contracts from design to construction through the public bid process, maintaining the Authority's standard specifications and providing current supplemental specifications, and prequalifying all contractors interested in bidding on Authority construction contracts.

The Construction Division is organized into three (3) sections; Highways, Structures and Environmental. The Highways and Structures Section are responsible for ensuring that the Authority's roadway and structural repair/improvement construction contracts are constructed in accordance with the contract's plans and specifications. The Environmental Section is responsible for maintaining underground storage tank compliance in accordance with NJDEP regulations, as well as monitoring groundwater remediation systems.

### Department Organization:

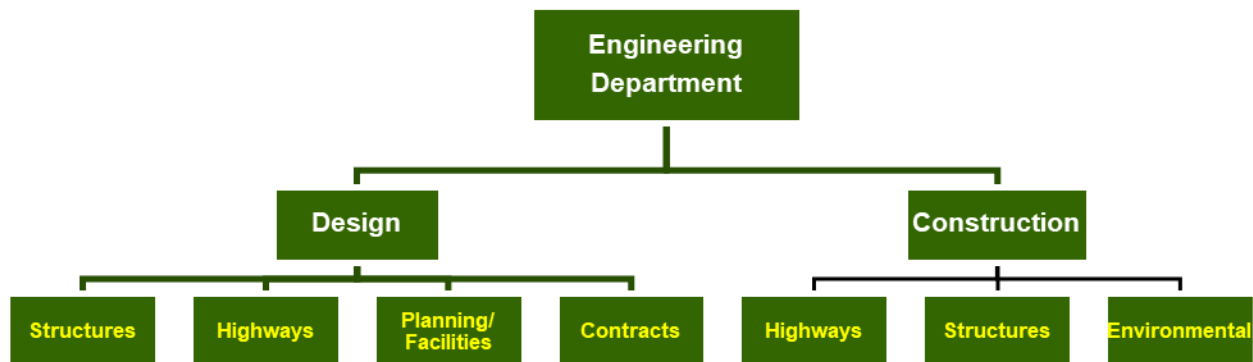


Figure 63: Engineering Department Organization Chart

### Senior Staff:

Chief Engineer: Robert J. Fischer

Deputy Chief Engineer – Construction: Michael Garofalo

Deputy Chief Engineer – Design: J. Lawrence Williams

### 2019 Accomplishments:

- Developed 17 projects for the \$500 million 2019 Capital Improvement Program (State of Good Repair)
- Continued to fill vacancies (People)
- Awarded the final contracts to complete the \$7 billion Capital Improvement Program (State of Good Repair)
- Began to award the design Order for Professional Services for the 17 projects in the \$500 million 2019 Capital Improvement Program (State of Good Repair)

#### 2020 Goals:

- Continue implementation and award of contracts in the \$500 million 2019 Capital Improvement Program (State of Good Repair)
- Improve the overall condition of the mainline pavement on the Turnpike and Parkway (State of good Repair/Safety)
- Fill all vacant positions (People)

Engineering Department Operating Budget					
	2018 Actuals	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Salaries	\$ 2,373,700	\$ 2,752,000	\$ 1,734,800	\$ (1,017,200)	-37.0%
Allowances	600	-	-	-	-
Pension & Taxes	978,400	538,900	339,500	(199,400)	-37.0%
Health Benefits	1,020,100	1,345,100	945,000	(400,100)	-29.7%
Non-Overnight Travel	11,500	11,700	11,700	-	-
Overnight Travel	5,400	3,500	3,500	-	-
Printing & Office Supplies	17,000	32,600	32,600	-	-
Operating Supplies	100	1,900	1,700	(200)	-10.5%
Other Materials	-	200	-	(200)	-100.0%
Consulting Services	1,276,400	2,023,400	3,330,000	1,306,600	64.6%
Environmental Services	3,349,300	4,100,000	4,000,000	(100,000)	-2.4%
Other Services	10,400	11,700	13,200	1,500	12.8%
Equipment Maintenance	-	700	700	-	-
<b>Total Operating Budget</b>	<b>\$ 9,042,900</b>	<b>\$ 10,821,700</b>	<b>\$ 10,412,700</b>	<b>\$ (409,000)</b>	<b>-3.8%</b>

Figure 64: Engineering Department Operating Budget (2018-2020)

#### 2020 Budget Highlights:

- Salaries are decreasing due to the reduction of position count by 2 positions in combination with an increase in salaries charged to capital projects based upon the department's involvement in capital projects
- Engineering comprises 1.0% of total Authority salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Consulting services are increasing due to core services and 6 document reviews being performed during 2020

Engineering Department Budgeted Positions				
	2018	2019	2020	Change from 2019
Administrative Secretary/Assistant	5	5	5	-
Assistant Engineer	6	4	5	1
Assistant Project Supervisor	2	1	1	-
CAAD Engineering Technician	1	1	1	-
Chief Engineer	1	1	1	-
Chief File Clerk	1	1	1	-
Clerk	1	1	0	(1)
Confidential Secretary	1	0	0	-
Contracts Division Manager	1	1	1	-
Coordinator, Bargaining	1	1	0	(1)
Deputy Chief Engineer	2	2	2	-
Engineering Administrative Aide	1	1	1	-
Engineering Administrative Manager	0	0	1	1
Engineering Assistant	1	1	1	-
Engineering Coordinator	2	2	2	-
Engineering Project Analyst	1	1	1	-
Engineering Technician	2	2	2	-
Field Environmental Manager	1	1	1	-
Highway Engineer	1	1	1	-
Office Administrator, Engineering	1	1	1	-
Project Architect	0	0	1	1
Project Engineer	12	19	17	(2)
Project Manager	2	2	1	(1)
Project Supervisor	8	3	4	1
Right of Way Manager	1	1	1	-
Senior CADD Engineering Technician	1	1	1	-
Senior Clerk	2	3	2	(1)
Senior Confidential Secretary	0	1	1	-
Senior Construction Engineer	1	1	1	-
Senior Environmental Manager	1	1	1	-
Senior Environmental Supervisor	2	2	2	-
Senior File Room Supervisor	1	1	1	-
Senior Project Engineer	4	4	4	-
Senior Supervising Engineer	1	1	0	(1)
Supervising Engineer	3	2	2	-
Supervising Engineer	2	2	3	1
<b>Total</b>	<b>73</b>	<b>72</b>	<b>70</b>	<b>(2)</b>

Figure 65: Engineering Department Positions (2018-2020)

## Toll Collection

### Department Description:

The Toll Collection Department oversees the collection of toll revenue through both manual and automatic coin machine methods for the New Jersey Turnpike and the Garden State Parkway. The Department currently has 542 full-time employees and 565 part-time and temporary employees. In addition, the budget includes the costs associated with Electronic Toll Collection although oversight for this function is spread over several departments.

### Department Organization:

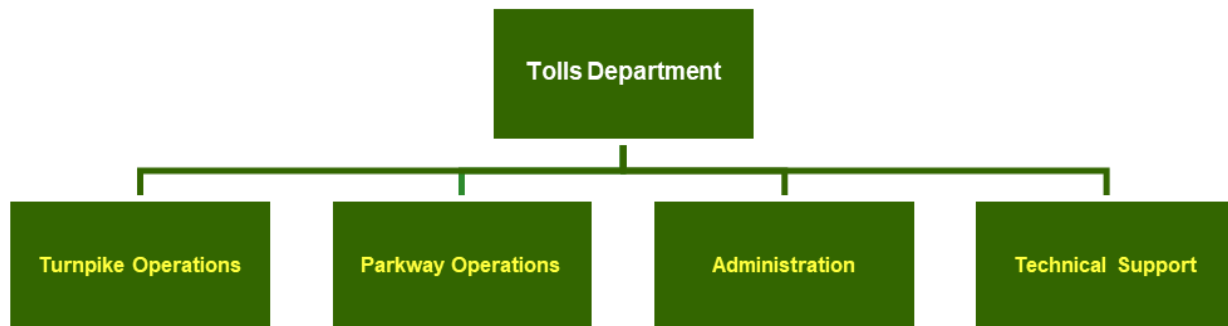


Figure 66: Tolls Department Organization Chart

### Senior Staff:

Director of Tolls: John D. Pagliarulo

Deputy Director of Tolls: F. Scott Barton

Assistant Director of Tolls – Operations: George Petito

Assistant Director of Tolls – Training: Colleen L. Lentini

### 2019 Accomplishments:

- Transitioned to new Garden State Parkway Administrative Team
- Interchanges 3, 4, and 5 received new concrete abutments that enhanced safety for the motorists as well as NJTA employees. The new structures gave employees new walking access to the toll-booths and the plaza buildings
- Re-organization of 20-hour Part-Time toll collectors in conjunction with the elimination of the Seasonal Collector Program
- Implementation of new training program to efficiently provide continued education to all personnel and to enforce collector variances and better protect Parkway assets. Program was successfully implemented on Turnpike in 2018
- Increased field training visits to collectors; and as a result, there has been a dramatic decrease in collector variances
- Increased field training refresher visits to all collectors
- HVAC System replacements at Raritan Toll Plaza and various Toll Booths now provide better working conditions for employees while creating NJTA energy savings
- Installed new Canopy signs at all mainline Toll Plazas on Turnpike to meet federal standards
- Automatic Coin machines were removed from all mainline Toll Plazas
- Many Manual lanes were rehabilitated due to the addition of Manual Toll Lanes on Mainline Barriers
- New LED canopy lighting have been installed at various locations, which improves safety for our motorists and employees



**2020 Goals:**

- Interchanges 16E/18E will undergo extensive improvements installing Express EZ Pass on the SNE/NSE Roadways. This will ease congestion for trucks heading 95 North (Routes 46, 80, GWB etc.) (State of Good Repair/Mobility)
- Eliminate Satellite Lanes at Raritan. Continue targeting older toll buildings that require rehabilitation. Currently East Orange and Asbury Park are receiving face-lifts (State of Good Repair)
- Continue the implementation of touch screen upgrades to further increase collector efficiency. Modify/Enhance the GSP Touch Screen to help reduce misclassifications (State of Good Repair/People)
- Fill vacant positions by implementing a more efficient way of communicating Tolls needs with Human Resources (People)
- Update the Customer Service video for new collector training (People)
- Rehabilitating toll booths at all Mainline toll plazas and staffed ramps. This will include new signage, HVAC units, lightening, Dutch doors, windows and electronic Toll equipment needed to have lanes functioning properly and safely for Manual toll collection (State of Good Repair/Safety/People)
- Install new Canopy signs at all Ramps and Toll Plazas on Parkway to meet federal standards (State of Good Repair/Mobility)

<b>Tolls Department Operating Budget</b>					
	<b>2018 Actuals</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>\$ Change from 2019 Budget</b>	<b>% Change from 2019 Budget</b>
Salaries	\$ 36,504,300	\$ 48,707,100	\$ 48,393,100	\$ (314,000)	-0.6%
Allowances	171,600	190,200	29,700	(160,500)	-84.4%
Pension & Taxes	18,560,800	9,539,100	9,479,000	(60,100)	-0.6%
Health Benefits	19,351,900	23,813,000	26,361,300	2,548,300	10.7%
Non-Overnight Travel	479,400	485,500	550,100	64,600	13.3%
Printing & Office Supplies	79,600	78,800	80,100	1,300	1.6%
Operating Supplies	203,100	349,600	325,600	(24,000)	-6.9%
Toll Tickets	289,100	316,200	316,200	-	-
Software	-	1,963,500	1,980,000	16,500	0.8%
Other Materials	99,900	876,000	426,000	(450,000)	-51.4%
Banking Services	27,608,100	31,867,600	31,128,700	(738,900)	-2.3%
Facilities Services	1,967,700	2,394,100	2,208,500	(185,600)	-7.8%
Other Professional Services	36,061,300	41,491,000	42,151,300	660,300	1.6%
Other Services	6,200	-	368,000	368,000	-
Toll Booth Maintenance	64,400	76,200	76,200	-	-
Equipment Maintenance	13,733,500	1,545,800	1,730,000	184,200	11.9%
Equipment	1,700	7,200	7,200	-	-
ETC Transponders	7,162,000	5,020,000	4,384,000	(636,000)	-12.7%
<b>Total Operating Budget</b>	<b>\$ 162,344,600</b>	<b>\$ 168,720,900</b>	<b>\$ 169,995,000</b>	<b>\$ 1,274,100</b>	<b>0.8%</b>

Figure 67: Tolls Department Operating Budget (2018-2020)

**2020 Budget Highlights:**

- Toll Collection comprises 26% of total Authority salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Banking Services are decreasing due to savings expected from the change to a new credit card processor for NJ E-Z Pass
- ETC Transponders decreased as fewer purchases needed after tag swap program is completed

Toll Collection Department Budgeted Positions				
	2018	2019	2020	Change from 2019
Administration Toll Collection Manager	1	1	1	-
Administrative Assistant	1	1	1	-
Administrative Secretary	2	2	2	-
Area Manager	6	6	7	1
Assistant Director of Tolls - Operations	1	1	-	(1)
Assistant Director of Tolls - Training	1	1	1	-
Assistant Division Manager	2	2	2	-
Assistant Manager, Toll Facilities	1	1	1	-
Assistant Plaza Supervisor	20	21	20	(1)
Clerk 3	-	1	-	(1)
Coordinator - Bargaining	-	-	1	1
Deputy Director Tolls	1	1	1	-
Director of Tolls	1	1	1	-
Field Operations Manager	1	1	1	-
Interchange Manager	8	8	8	-
Manager, Toll Systems Reconciliation	1	1	1	-
Manager, Training Operations	-	1	1	-
Senior Citizen Toll Collector	-	1	1	-
Senior Clerk	1	-	-	-
Temp Assistant Plaze Supervisor	-	-	4	4
Temp Toll Plaza Supervisor	-	1	-	(1)
Toll Collector - Parkway	147	142	141	(1)
Toll Collector - Turnpike	194	203	203	-
Toll Plaza Supervisor - Parkway	44	43	41	(2)
Toll Plaza Supervisor - Training	3	3	3	-
Toll Plaza Supervisor - Turnpike	93	93	94	1
Toll Records Clerk	4	4	4	-
Tolls Field Coordinator	2	2	2	-
<b>Total</b>	<b>535</b>	<b>542</b>	<b>542</b>	<b>-</b>

Figure 68: Tolls Department Positions (2018-2020)

## Operations

### Department Description:

The Operations Department ensures the continuous, safe and efficient movement of traffic on the Turnpike and Parkway by developing and implementing programs and by scheduling and coordinating activities of other Authority operating departments, contractors and outside agencies. The department is responsible for all traffic engineering functions, and all contracts with authorized towers, fire squads, first aid squads, and hazardous material clean-up contractors. Operations is also the Authority liaison with the New Jersey State Police.

### Department Organization:

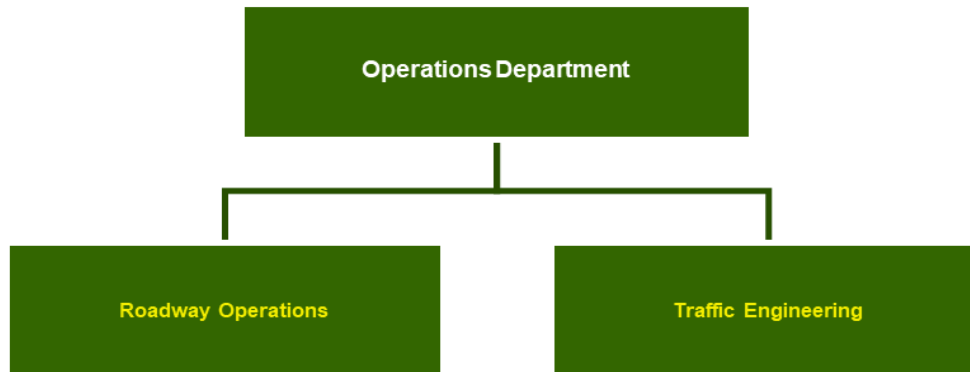


Figure 69: Operations Department Organization Chart

### Senior Staff:

Director of Operations: Kevin Dunn

Deputy Director of Operations: Frank Jordan

### 2019 Accomplishments:

- Expand the pilot functionality of the Traffic Volume/Traffic Count Application to provide Parkway traffic volume integration
- Rewrite all job descriptions to update prerequisites and functionality to meet current technology and also to eliminate past redundancy from NJTA and NJHA merger
- Updated devices at toll plazas to comply with 2019 Federal requirements
- Designed and implemented all traffic control for the service area reopening of Monmouth and Thomas Edison
- Designed and assisted in permanent traffic control for the new Interchange 19W at the American Dream commercial and entertainment facility

### 2020 Goals:

- Launch real-time mobile application for towing companies to reduce response times and to provide Operations with ability to track performance measures (Mobility)
- Install new regulatory signing on the NJ Turnpike between Interchanges 9 and 15E to support New Jersey State Police enforcement requests (Safety)
- Reconstruct existing helipads to help expedite serious-injury crashes (State of Good Repair)
- Install new emergency access gate at 23.4 SN on the Turnpike to reduce Gloucester County Fire/EMS response times for Turnpike incidents (Mobility)
- Begin succession planning for several veteran employees scheduled to retire in 2021 (People)

<b>Operations Department Operating Budget</b>					
	<b>2018 Actuals</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>\$ Change from 2019 Budget</b>	<b>% Change from 2019 Budget</b>
Salaries	\$ 6,237,400	\$ 6,603,600	\$ 7,228,700	\$ 625,100	9.5%
Allowances	21,300	23,800	25,000	1,200	5.0%
Pension & Taxes	2,976,900	1,293,200	1,415,800	122,600	9.5%
Health Benefits	3,103,800	3,227,600	3,937,700	710,100	22.0%
Non-Overnight Travel	4,700	5,000	4,500	(500)	-10.0%
Overnight Travel	2,200	3,500	3,300	(200)	-5.7%
Printing & Office Supplies	9,300	10,800	10,800	-	-
Operating Supplies	1,800	2,400	2,400	-	-
Other Materials	5,700	13,000	13,000	-	-
Facilities Services	454,800	448,000	470,400	22,400	5.0%
Other Professional Services	504,800	555,000	532,000	(23,000)	-4.1%
Environmental Services	72,400	-	40,000	40,000	-
Other Services	104,400	104,400	105,300	900	0.9%
Vehicle Maintenance	100	300	300	-	-
Roadway Maintenance	100	100	100	-	-
Equipment	1,600	1,900	21,900	20,000	1052.6%
<b>Total Operating Budget</b>	<b>\$ 13,501,300</b>	<b>\$ 12,292,600</b>	<b>\$ 13,811,200</b>	<b>\$ 1,518,600</b>	<b>12.4%</b>

Figure 70: Operations Department Operating Budget (2018-2020)

**2020 Budget Highlights:**

- Salaries are increasing due to the addition of 4 authorized positions, as well as anticipated contractual wage increases
- Operations comprises 4% of Authority total salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Facilities Services are increasing to appropriately account for safety organizations
- Environmental Services is a new budgeted item for 2020 to account for vehicle related environmental cleanup services
- Equipment is increasing for the purchased of 15 new 24/7 Operator chairs for the STMC

Operations Department Budgeted Positions				
	2018	2019	2020	Change from 2019
Administrative Assistant	1	1	1	-
Administrative Secretary	1	1	1	-
Assistant Manager STMC	1	1	1	-
Assistant Manager Traffic Operations	1	1	1	-
Assistant Traffic Engineer	3	2	1	-1
Communications Dispatcher	23	23	24	1
Deputy Director of Operations	1	1	1	-
Director of Operations	1	1	1	-
Emergency Services Supervisor	1	1	2	1
Engineering Aide - Traffic	1	1	2	1
Executive Secretary 1	2	2	2	-
Incident Management Coordinator	1	1	1	-
Manager, STMC	1	1	1	-
Manager, Traffic Operations	1	1	1	-
Operations Coordinator	1	1	1	-
Operations Engineer	-	1	1	-
Roadway Services Administrator	1	1	1	-
Senior Clerk	-	1	-	-1
Senior Emergency Services Manager	1	1	1	-
Senior Engineering Technician	1	1	1	-
Shift Supervisor	12	12	12	-
Superintendent of Snow Operations	-	-	1	1
Supervisor, STMC	1	1	1	-
Traffic Control Supervisor	12	11	11	-
Traffic Engineer	3	4	4	-
Traffic Incident Specialist	-	-	1	1
Traffic Operations Specialist	1	1	1	-
Traffic Technician	1	1	2	1
Trailblazer Supervisor	1	1	1	-
<b>Total</b>	<b>74</b>	<b>75</b>	<b>79</b>	<b>4</b>

Figure 71: Operations Department Positions (2018-2020)

## State Police

### Department Description:

The Mission of the New Jersey State Police Troop D is the safety of all travelers and patrons of the New Jersey Turnpike and the Garden State Parkway. Troop D provides all police services including, but are not limited to, the enforcement of laws and regulations, the prevention of crime, the pursuit and apprehension of offenders, providing stranded motorists with assistance and policing of service areas, for both the Turnpike and Parkway through its six regional stations in Cranbury, Moorestown, Newark, Galloway, Bloomfield and Holmdel as well as specialized traffic enforcement, construction, operational and criminal investigative units.

The strict enforcement of all motor vehicle laws inclusive of Driving While Intoxicated, investigation of motor vehicle accidents and truck inspection and enforcement programs are essential to maintaining and improving traffic safety and reducing motor vehicle crashes occurring on both roadways as well as the resulting fatalities, injuries, property damage, and traffic flow management.

The New Jersey Turnpike Authority's State Police Manager/liaison is responsible for supporting the New Jersey State Police Troop D assigned to patrol the Turnpike and the Parkway. The State Troopers and their commanders are contracted through an agreement with the New Jersey State Police. Although the costs associated with the State Police are budgeted for by the Authority, the Authority does not exercise control over the Troop assigned to patrol its roadways and does not include the Troop roster in the Authority's position count. The cost of the State Police is a contractual service.

### Department Organization:



Figure 72: State Police Department Organization Chart

### Senior Staff:

Troop Commander: Major Ernie Giampietro  
 Deputy Troop Commander: Captain Andrew Smoter  
 Regional Commander: Captain Terence Carroll

### 2019 Accomplishments:

- The Troop D has completed 248 Supplemental Traffic Details year to date inclusive of 45 Driving Under the Influence details. During these details there were 53 Supervisory details completed
- Participate in the "Click-It-or-Ticket", "Drive Sober or Get Pulled Over", and "U-Text, U-Drive, U-Lose" national campaigns and the "I-95 Drive to Save Lives" multi-state enforcement initiative
- Conducted Service Area Commercial Vehicle Enforcement details resulting in impounded Commercial Vehicles and summonses issued

- Completed a 40-hour Child Passenger Safety Seat Technician School obtaining CPS certification for 20 additional Troopers
- Completed a Basic Crash Investigation course in February and March of 2019 providing in-depth crash investigation training to an additional Troopers
- Added additional ALPR's (Automated License Plate Reader) at the PNC Arts Center which are fully operational and being utilized at all PNC events for counter-terrorism and investigative efforts
- Provided security at the PNC Arts Center for approximately 195,200 patrons at 23 events. During those events executed 248 arrests, 58 Investigation Reports and two DUI's resulting from a DUI Checkpoint.
- Purchase of and installation of additional HD security cameras at the PNC Arts Center with additional monitors placed in the sub-station area for viewing and crime detection. Additionally, infrastructure put in place for ALPR's at recently rebuilt Service Areas
- Troop D Training Office conducted Troop D Orientations (2), mandated Rifle and Pistol Qualifications, periodic Critical Incident Response Training (CIRT), updated the Troop D Range Shoot House, added new restroom facilities at the Troop D Range, added 5 new members to the Risk Management Office/Field Training Unit, continues individualized training for members to address deficiencies and continued joint training with other Division of State Police Units

**2020 Goals:**

- Working in conjunction with HMS Host and the NJTA, we will be looking to conduct Active Shooter Drills along the roadways (Safety)
- Implement the use of the "Critical Response Group" application troop wide (Safety)
- Field Intelligence Officer (FIO) to produce a pre-event briefing report for specific large-scale events at the PNC Arts Center. The intelligence briefing report will provide the Troop "D" Command Staff, the NJTA and Live Nation with a threat assessment to assist with personnel allocation and address any potential areas of concern (Safety)
- Commercial Vehicle Inspection (CVI) Unit, in addition to their strict enforcement of commercial vehicle traffic enforcement will conduct post-crash inspections on all commercial vehicles involved in serious/fatal motor vehicle accidents (Safety)
- Troop D Stations to detach a Road Trooper to the Criminal Investigation Office to gain experience in criminal investigations and administrative duties of the Criminal Investigation Office (People)
- Participate in the "Click-It-or-Ticket", "Drive Sober or Get Pulled Over", and "U-Text, U-Drive, U-Lose" national campaigns and the "I-95 Drive to Save Lives" multi-state enforcement initiative (Safety)
- Conduct monthly Service Area Commercial Vehicle Enforcement Details to mitigate truck parking violators and assist with the overflow of commercial vehicles displaced by the Vince Lombardi (13S) Service Area closure and renovation (Mobility)
- Leverage technology to detect suspicious activity as well as receive reports of possible traffic issues and criminal activity. Specifically, work with NJTA to obtain more/better security cameras at service areas, critical infrastructures, and the PNC Arts center (Safety)
- Training to increase the number of drug recognition experts as well as members more readily trained to identify intoxicated drivers assigned to troop D to combat DUI and specifically drug related DUI (People)

State Police Department Operating Budget					
	2018 Actuals	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Salaries	\$ 558,600	\$ 613,100	\$ 848,600	\$ 235,500	38.4%
Pension & Taxes	234,500	120,100	166,200	46,100	38.4%
Health Benefits	244,500	299,700	462,300	162,600	54.3%
Non-Overnight Travel	4,400	3,000	3,000	-	-
Printing & Office Supplies	50,600	64,000	64,000	-	-
Vehicle Supplies	-	12,000	-	(12,000)	-100.0%
Medical Supplies	19,900	69,700	69,700	-	-
Operating Supplies	39,500	34,300	40,000	5,700	16.6%
Software	200	1,800	1,800	-	-
Other Materials	769,600	841,500	541,000	(300,500)	-35.7%
Consulting Services	10,300	24,100	24,100	-	-
Environmental Services	-	-	1,000	1,000	-
State Police Services	71,988,700	80,642,200	82,484,000	1,841,800	2.3%
Vehicle Maintenance	125,300	250,000	300,000	50,000	20.0%
Equipment Maintenance	15,600	40,300	40,300	-	-
Equipment Rental	-	1,000	1,000	-	-
Equipment	3,452,600	4,500,000	4,200,000	(300,000)	-6.7%
<b>Total Operating Budget</b>	<b>\$ 77,514,300</b>	<b>\$ 87,516,800</b>	<b>\$ 89,247,000</b>	<b>\$ 1,730,200</b>	<b>2.0%</b>

Figure 73: State Police Department Operating Budget (2018-2020)

**2020 Budget Highlights:**

- Salaries are increasing to cover the cost of 3 additional civilian authorized positions in 2020, anticipated contractual wage increases, and to fully fund vacant positions
- State Police (excluding trooper costs) comprises less than 1% of Authority total salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Trooper Costs are increasing by \$1.8 for increased trooper pension costs, as well as anticipated wage increases for troopers. The authorized trooper count is 408 for 2020

State Police Department Budgeted Positions				
	2018	2019	2020	Change from 2019
Administrative Assistant	-	-	1	1
Assistant Police Services Manager	-	1	1	-
Clerk	-	-	1	1
Confidential Secretarial Aide	1	1	-	(1)
Motor Pool Fleet Specialist	1	1	1	-
Police Operations Clerk	3	3	3	-
Police Services Manager	1	1	1	-
Secretary	1	1	1	-
State Police Automotive Services Manager	-	-	1	1
State Police Technologies Manager	-	-	1	1
<b>Total</b>	<b>7</b>	<b>8</b>	<b>11</b>	<b>3</b>

Figure 74: State Police Department Positions (2018-2020)



## Information Technology Services

### Department Description:

The Information Technology Services Department (ITS) at the New Jersey Turnpike Authority (NJTA) provides strategic IT vision and enterprise solutions which drive and support NJTA's mission, goals, and operations. ITS is dedicated to collaboration, continuous improvements, state of good repair, innovation, people, services, and security. ITS serves two primary customer groups: the motoring public and employee community. The department strives to achieve efficient business processes and economies of scale, as it continues to enhance the IT delivery model. ITS is comprised of eight service teams which collectively work together to deliver value added services and products.

### Department Organization:



Figure 75: ITS Department Organization Chart

### Senior Staff:

Chief Information Officer: Jose Dios

Assistant Director, Software Engineering: Ning Ding

Assistant Director, Data Management Services: Stanley J. Ciszewski

### 2019 Accomplishments:

#### Administration and Employee

- Collaborated with Human Resources in evaluating and documenting an immersive experience, enhancing employee self-service, recruitment, and onboarding
- Gathered and documented business requirements for the next generation Capital Project Management System (CPMS), Human Capital Management System, and Financial Planning and Budgeting System

#### Enterprise Communications and Digital Transformation

- Continued network upgrades (wired and wireless) to ensure additional capacity as required by each roadway
- Implemented an enterprise-wide unmanned aerial vehicle (drone) program
- Completed the installation and upgrade of communications equipment in selected conference rooms, across both roadways, to enable on demand video conferencing
- Implemented Monthly Technology Forum days to enhance the learning experience

#### Financial, Contract, and Business Administration

- Continued Phase II deployment of the E-ZPass Customer Service Center Contract
- Continued to lead, operate, and manage the Active Management Model for the New Jersey E-ZPass Group

**Maintenance Operations and Management**

- Continued configuration of the Enterprise Asset Management (EAM) Program, Phase I (Fleet Management)
- Completed installation of vehicle key management system across both roadways
- Completed design and activation of the Roadway Weather Information Systems (RWIS) across both roadways

**Motorist and Public**

- Continued installation and configuration of subpoena and OPRA administration software
- Completed implementation of social media tools to help manage NJTA's social media footprint

**Risk Management**

- Continued to update disaster recovery and business continuity plans
- Continued to update employee security training program
- Completed installation and configuration of remote power monitoring systems at radio tower locations

**Talent Management**

- Continued to fill ITS vacancies

**Traffic Operations and Management**

- Deployed a real-time traffic data platform, powered by in ground pavement sensors, to enhance traffic operations decision-making process
- Completed installation and configuration of Dedicated Short-Range Communications (DSRC) Pilot for Vehicle-to-Infrastructure (V2I) communications on the Garden State Parkway
- Completed design for the next Hybrid Changeable Messaging Sign program

**Tolling Operations and Management**

- Continued to maintain, install, and improve critical components of the Toll Lane System
- Continued to introduce multiprotocol readers on both roadways
- Completed the design, installation, and activation of the Interchange 19W ORT Ramps (CNW/NWC)
- Completed the installation and activation of Toll Lane Variable Message Signs at the East Orange Toll Plaza
- Completed the design and activation of the Interchange 11 Ramp Lane Control Signs
- Completed variable messaging sign (VMS) installation at East Orange
- Wrote and deployed new point-of-sale and back office software to identify excess time tickets

**2020 Goals:****State of Good Repair**

- Continue to prioritize and complete selected remediation activities identified in recent IT Security Assessment
- Continue to update and activate disaster recovery and business continuity plans
- Continue to replace UPSs at various critical locations throughout both roadways to reduce the risk of power interruptions
- Continue network upgrades (wired and wireless) to ensure additional capacity as necessary on both roadways
- Continue installation and configuration of the first Enterprise Asset Management module

## People

- Begin State Police Troop D mobile radio upgrade.
- Continue to collaborate with Human Resources in evaluating, documenting, and implementing a digital transformation enhancing employee self-service, recruitment, and onboarding
- Advertise and begin implementation of the next generation Capital Project Management System
- Continue employee security training program

## Mobility

- Go-Live with real time traffic data to drive traffic operations decision making process
- Continue installation and configuration of Road Weather Information System Program
- Continue to install and improve critical components of the Production Toll Lane System
- Install and configure multiprotocol readers on both roadways

<b>Information Technology Services Department Operating Budget</b>					
	<b>2018 Actuals</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>\$ Change from 2019 Budget</b>	<b>% Change from 2019 Budget</b>
Salaries	\$ 6,484,600	\$ 8,187,900	\$ 8,184,900	\$ (3,000)	0.0%
Allowances	30,600	-	3,300	3,300	-
Pension & Taxes	4,543,500	1,602,500	1,601,600	(900)	-0.1%
Health Benefits	2,321,800	3,995,300	4,458,600	463,300	11.6%
Non-Overnight Travel	13,000	55,000	45,000	(10,000)	-18.2%
Overnight Travel	2,800	45,000	32,900	(12,100)	-26.9%
Printing & Office Supplies	16,800	23,000	20,800	(2,200)	-9.6%
Operating Supplies	4,800	20,000	4,000	(16,000)	-80.0%
Software	2,714,500	3,646,500	3,640,000	(6,500)	-0.2%
Other Materials	310,100	250,000	100,000	(150,000)	-60.0%
Other Professional Services	1,570,900	3,000,000	3,000,000	-	-
Other Services	4,200	1,200	4,000	2,800	233.3%
Equipment Maintenance	2,208,800	1,909,200	1,290,000	(619,200)	-32.4%
Equipment Rental	121,200	160,000	160,000	-	-
Equipment	1,304,400	1,900,000	1,900,000	-	-
<b>Total Operating Budget</b>	<b>\$ 21,652,000</b>	<b>\$ 24,795,600</b>	<b>\$ 24,445,100</b>	<b>\$ (350,500)</b>	<b>-1.4%</b>

Figure 76: ITS Department Operating Budget (2018-2020)

## 2020 Budget Highlights:

- Salaries are flat compared to 2019 despite assumed wage increases, as budgeted positions are flat and more salaries are being charged to capital projects
- Information Technology Services comprises 4% of Authority total salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Non-Overnight and Overnight Travel expenses are decreasing to truly reflect travel needs.
- Operating Supplies and Other Materials are decreasing due to equipment required for toll lane maintenance still being under warranty

Information Technology Services Department Budgeted Positions				
	2018	2019	2020	Change from 2019
Administrative Assistant	-	-	1	1
Administrative Secretary	2	2	1	-1
Administrative/Executive Assistant	1	1	-	-1
ASP Programmer	1	1	1	-
Assistant Director	2	2	2	-
Assistant Telecom Manager	1	1	1	-
Chief Information Officer	1	1	1	-
Clerk	-	-	1	1
Collaboration Services Manager	1	1	1	-
Communications Systems Analyst	1	-	-	-
Configuration/Software Quality Assurance Manager	1	1	1	-
CSC/VPC Operations Manager	1	1	1	-
Customer Service Contract Administrator	1	1	1	-
Data Processing Operating Coordinator	1	1	1	-
Database Administrator	2	2	2	-
Electrical Engineer	1	1	1	-
Electronic Project Supervisor	1	1	1	-
ETC Customer Relations Representative	1	-	-	-
ETC Database Manager	1	1	1	-
ETC Programmer	4	4	4	-
ETC Project Engineer	1	1	1	-
Fiber Optic Engineer	1	1	1	-
Field Electronics Manager	1	1	1	-
Hardware Engineer	1	-	-	-
Human Resources Manager	-	-	1	1
Information Security Analyst	-	-	1	1
ITS Admin Support Specialist	1	1	1	-
ITS Aide	1	1	1	-
ITS Contract Administrator	-	-	1	1
ITS Coordinator	1	1	1	-
ITS Customer Operations	-	-	1	1
IT Radio Engineer	-	-	1	1
IT Voice and Video Engineer	-	-	2	2
ITS Repair & Asset Specialist	1	1	1	-
ITS Software Engineer	-	1	-	-1
ITS Trainer, Software Quality Assurance	-	1	-	-1
Junior IT Voice and Video Admin	-	1	1	-
Junior Software Programmer 1	1	1	-	-1
LAN/WAN Network Administrator	1	1	1	-
Manager, Administration Software	1	1	1	-
Manager, Communication Services	1	1	1	-
Manager, GIS Platform	1	1	1	-
Manager, GSP Tech Device Technician	2	2	2	-
Manager, Infrastructure/User Support	1	1	1	-
Manager, IT Facilities	1	1	1	-
Manager, Technical Services	1	1	1	-
Manager, Technology Leased Assets	1	1	1	-

Manager, TP Tech Device Technician	-	2	2	-
Manager, Traffic Operations Software	1	1	1	-
Manager, Windows Administration	1	1	1	-
Network Engineer	1	1	1	-
Network Engineer, Voice, Video & Data	1	-	-	-
Program Analyst	1	1	1	-
Programmer	2	1	1	-
Project Change Manager	1	1	1	-
Project Engineer, ITS	1	1	1	-
Project Manager Telecommunications	1	1	1	-
Radio Engineer	1	1	-	-1
Security Analyst	1	1	-	-1
Senior Engineer, Voice & Coliab Services	1	1	1	-
Senior ETC Programmer	2	2	2	-
Senior IT Engineer, Facilities & Structures	3	3	3	-
Senior IT Software Developer	-	2	2	-
Senior Network Administrator	8	8	8	-
Senior Telecom Technical Assistant	1	1	1	-
Software Engineer	2	2	3	1
Systems Administrator	4	4	4	-
Systems Supervisor Parkway	2	2	2	-
Technology Device Technician	59	60	59	-1
Technology Device Technician Supervisor	8	7	7	-
Telecom Systems Administrator	1	1	1	-
Toll Equipment Maintenance Manager	1	-	-	-
Toll Equipment Supervisor	1	1	1	-
User Support Administrator	1	-	-	-
Voice Engineer	1	2	-	-2
Windows Platform Support Manager	1	1	1	-
	-	-	-	-
			<b>152</b>	-

Figure 77: ITS Department Positions (2018-2020)

## Executive Offices

### Department Description:

The Executive Office is the primary liaison with the Board of Commissioners and is responsible for the daily and long-term administration and operations of the Authority, which includes strategic planning, policy making and implementation, and special projects. The Department provides leadership and oversight in the development and implementation of efficient solutions and responses to matters concerning both internal and external departmental functions and Authority initiatives.

### Department Organization:

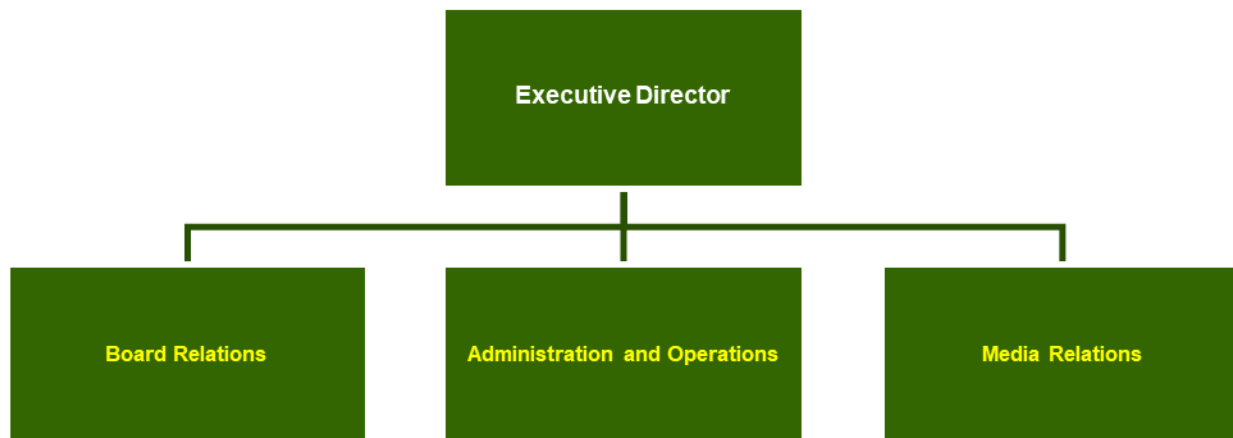


Figure 78: Executive Offices Department Organization Chart

### Senior Staff:

Executive Director: John M. Keller

Deputy Executive Director: James D. Carone

### 2019 Accomplishments:

- Memorandum of Agreement approved for the remaining bargaining units. This agreement specifically addressed wage related items
- Ensured compliance with the Diane B. Allen Equal Pay Act
- Reopening of the Monmouth Service Area on the Parkway and the Thomas Edison Service Area on the Turnpike. These are the first two service areas to be remodeled under the 25-year agreement with HMS Host and Sunoco
- Adopted the Authority's first ever Strategic Plan (2020-2029)

**2020 Goals:**

- Negotiate successor contracts with all unions (People)
- Implement and monitor the recently approved 10-Year Strategic Plan (Financial Stability)
- Expand Media Relations providing for an increased presence on social media platforms (People)
- Streamline Authority policies and procedures (People)

<b>Executive Office Department Operating Budget</b>					
	<b>2018 Actuals</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>\$ Change from 2019 Budget</b>	<b>% Change from 2019 Budget</b>
Salaries	\$ 807,500	\$ 777,800	\$ 946,000	\$ 168,200	21.6%
Pension & Taxes	281,200	152,300	184,900	32,600	21.4%
Health Benefits	293,200	380,200	515,300	135,100	35.5%
Non-Overnight Travel	100	1,400	1,400	-	-
Overnight Travel	2,800	-	7,500	7,500	-
Printing & Office Supplies	2,700	4,500	4,500	-	-
Other Professional Services	59,300	60,000	60,000	-	-
Other Services	12,200	12,800	11,300	(1,500)	-11.7%
<b>Total Operating Budget</b>	<b>\$ 1,459,000</b>	<b>\$ 1,389,000</b>	<b>\$ 1,730,900</b>	<b>\$ 341,900</b>	<b>24.6%</b>

Figure 79: Executive Offices Department Operating Budget (2018-2020)

**2020 Budget Highlights:**

- Salaries are increasing due to the addition of 2 media relations staff
- Executive Office salaries comprises .5% of total Authority salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates

<b>Executive Offices Department Budgeted Positions</b>				
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Change from 2019</b>
Administrative/Executive Assistant	1	1	1	-
Deputy Executive Director	1	1	1	-
Executive Director	1	1	1	-
Media Relations Coordinator	1	1	1	-
Media Relations Staff	-	-	2	2
Mobility Assignment	-	1	1	-
Secretary to the Authority	1	1	1	-
<b>Total</b>	<b>5</b>	<b>6</b>	<b>8</b>	<b>2</b>

Figure 80: Executive Offices Department Positions (2018-2020)

## Law

### Department Description:

The Law Department's dedicated team of attorneys and support personnel collectively manage the legal affairs of the NJTA which include, but are not limited to, matters involving Authority contract review and drafting, review and oversight of insurance coverages, real estate right of way and property related matters, employment, discipline and human resource issues, design, construction, maintenance and operational document approvals, risk management, labor negotiations/collective bargaining agreement oversight, toll violator enforcement, state and federal law compliance, EEO, SBE, Equal Pay Act, OPRA, subpoena compliance and evidence retrieval, EZ Pass enforcement issues, and bid and procurement issues. The Department also provides or supervises daily the provision of diverse legal advice to the Authority's Departments, supervising and managing outside counsel assigned matters, management of third-party administrators, insurance brokers, risk management consultants, coordination and oversight with NJSP operations, and liaisons with the MVC, OAL, Attorney General, GAU, and DOT on legal matters, and matters involving OCIP and worker's compensation. The Law Department Budget also includes the costs of insurance other than property, professional liability, OCIP and workers compensation, which are budgeted elsewhere.

### Department Organization:



Figure 81: Law Department Organization Chart

### Senior Staff:

Director of Law: Robert J. Carroll

Deputy Director of Law: Ann Christine Monica

### 2019 Accomplishments:

- Conducted evaluation and reorganization of Law Department attorneys and staff to improve oversight, efficiency and coordination among all Authority Departments, external law firms and Authority legal professionals
- Equal Pay Act Compliance: In conjunction with General Counsel, conducted an extensive evaluation relating to Authority compensation and comparative responsibilities for all Authority employees and, where appropriate, initiating corrective actions so as to ensure compliance with the 2018 EPA requirements
- Conducted ongoing comprehensive evaluation by Authority Law, Finance, and ITS Departments of multiple alternatives to respond to escalating and repetitive toll violator activities, including improving enforcement of existing laws and regulations; enabling NJSP improved and more efficient access to the Authority toll violation database; improving coordination with Authority external collections law firms pursuing violator litigations; developed efficient criteria and the methodology for referral of repetitive offenders for MVC suspension and where appropriate, potential criminal sanctions
- Department attorneys supervised and monitored over 45 active civil lawsuits; rendered assistance in assemblage of voluminous records for OPRA and litigation discovery requests and coordinated



depositions involving NJTA personnel. Participated in municipal court toll violator civil and criminal litigations as required

- In conjunction with Authority Executive Officers, developed a “Disciplinary Review Committee (“DRC”) to promote consistency in employee disciplinary decisions in significant or major infractions as well as enabling a centralized documentation process
- Continued all necessary real estate right of way acquisitions and transfers with NJDOT and/or local municipalities as a result of the conclusion of the Turnpike Interchange 6-9 Widening and GSP Interchange 30-80 Widening in the Authority’s Ten-Year Capital Program
- Conducted successful negotiations with the American Dream Project representatives regarding installation of tolling at ingress/egress ramps leading into project site
- Negotiated and oversaw renewals and rate adjustments of major Authority Insurance contracts; evaluation of claim intake and resolutions
- Successfully defended a major multi-million-dollar protest for the procurement and installation of security enforcement video cameras in E-Z Pass lanes
- Negotiated and renewed PNC Bank/NJTA/Live Nation Sponsorship Agreement

#### **2020 Goals:**

- Completion of internal Authority restructuring to increase effectiveness of MVC suspensions, expand civil and criminal enforcement efforts against toll violators with a special emphasis on large repetitive violators (Financial Strength)
- Continue to identify, process and market surplus real estate (Financial Strength)
- Work with Human Resources and other departments to increase workforce diversity; expand outreach (People)
- Continue coordination with Human Resources to continue/emphasize Sexual Harassment and Diversity training (People)
- Continue litigation management by monthly invoice reviews and where appropriate, analyzing the budget estimates prepared over the past years with actuals (Financial Strength)
- Continue to work with the Risk Management Committee to advance a full review of the Authority’s operations, for the purpose of strategic planning to prioritize the Authority’s enterprise risk management goals, including a timetable for implementing all goals, actions and recommendations identified in the strategic plan (Financial Strength)
- Continue real estate acquisitions and transfers because of the Authority’s \$7 Billion CIP (State of Good Repair)
- Finalize negotiations with providers of Electric Vehicle Charging services for roadway access
- Finalize negotiations with billboard service providers
- Finalize negotiations with towing service provider contracts
- Provide legal advice and work with the ITS Department regarding renewal/expansion of cell tower and fiber optic contracts as they become subject to renewal
- Finalize evaluation of vendor software to improve and integrate diverse Law Department functions, including but not limited to litigation oversight, case tracking, OPRA, subpoenas and litigation hold (People)

<b>Law Department Operating Budget</b>					
	<b>2018 Actuals</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>\$ Change from 2019 Budget</b>	<b>% Change from 2019 Budget</b>
Salaries	\$ 1,235,800	\$ 1,726,300	\$ 1,973,700	\$ 247,400	14.3%
Pension & Taxes	742,000	338,100	386,300	48,200	14.3%
Health Benefits	773,600	843,800	1,075,100	231,300	27.4%
Non-Overnight Travel	2,300	10,700	10,700	-	-
Printing & Office Supplies	25,800	28,100	30,000	1,900	6.8%
Insurance	4,273,600	6,396,000	5,448,400	(947,600)	-14.8%
Law Services	998,200	1,538,700	1,569,900	31,200	2.0%
Other Professional Services	113,100	174,600	292,500	117,900	67.5%
Other Services	4,600	6,900	12,000	5,100	73.9%
Taxes	50,600	101,700	103,800	2,100	2.1%
Equipment	-	-	8,600	8,600	-
<b>Total Operating Budget</b>	<b>\$ 8,219,600</b>	<b>\$ 11,164,900</b>	<b>\$ 10,911,000</b>	<b>\$ (253,900)</b>	<b>-2.3%</b>

Figure 82: Law Department Operating Budget (2018-2020)

**2020 Budget Highlights:**

- Salaries are increasing due to the addition of 2 authorized positions as well as anticipated contractual wage increases and step increases
- Law comprises 1% of total Authority salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Liability insurance expenses are decreasing as result of lower claim settlements based upon prior year experience
- Other professional services increased as forensic audit expenses, performed by KPMG, have been reclassified to Law from the Finance department

Law Department Budgeted Positions				
	2018	2019	2020	Change from 2019
Administrative Assistant	1	1	2	1
Administrative Secretary	1	1	1	-
Assistant Director of Law	1	-	-	-
Attorney	8	6	7	1
Claims Coordinator	1	1	1	-
Compliance Manager	1	1	1	-
Confidential Secretary	1	1	-	(1)
Coordinator	1	1	1	-
Deputy Director of Law	-	1	1	-
Deputy General Counsel	1	-	-	-
Director of Law	-	1	1	-
Document Services Coordinator	1	1	1	-
Equal Employment Opportunity Officer	1	1	1	-
General Counsel	1	-	-	-
Program Administrator	-	-	1	1
Secretary	1	1	1	-
Senior ETC Project Analyst	1	1	1	-
Senior Secretary	1	1	1	-
<b>Total</b>	<b>22</b>	<b>19</b>	<b>21</b>	<b>2</b>

Figure 83: Law Department Positions (2018-2020)

## Procurement and Materials Management

### Department Description:

Procurement and Materials Management is tasked with procuring goods and services and managing the flow of inventory items in the most efficient and cost-effective manner. Objectives include: enhancing all procurement and materials management processes; reducing spending on contracts; monitoring compliance with procurement laws, policies, and procedures; maintaining strong internal controls for the Authority's physical inventory of goods (centralized receiving); increasing revenue via surplus property sales and significantly reducing paper/manual processes.

The Department is separated into two primary functional areas: 1) Procurement and 2) Materials Management. Procurement is further divided into staff generally dedicated to types of commodities/services as well as methods of procurement. For example, most of technology goods and services are procured via the New Jersey State Contract system and most of maintenance equipment and services are procured via competitive (public bid/informal solicitations or request for proposals for professional services.) Materials Management Section is separated into Inventory Control with one centralized warehouse and one satellite facility on the Southern end of the Turnpike; Supply Chain Management and Property Control and Surplus Personal Property Sales.

### Department Organization:

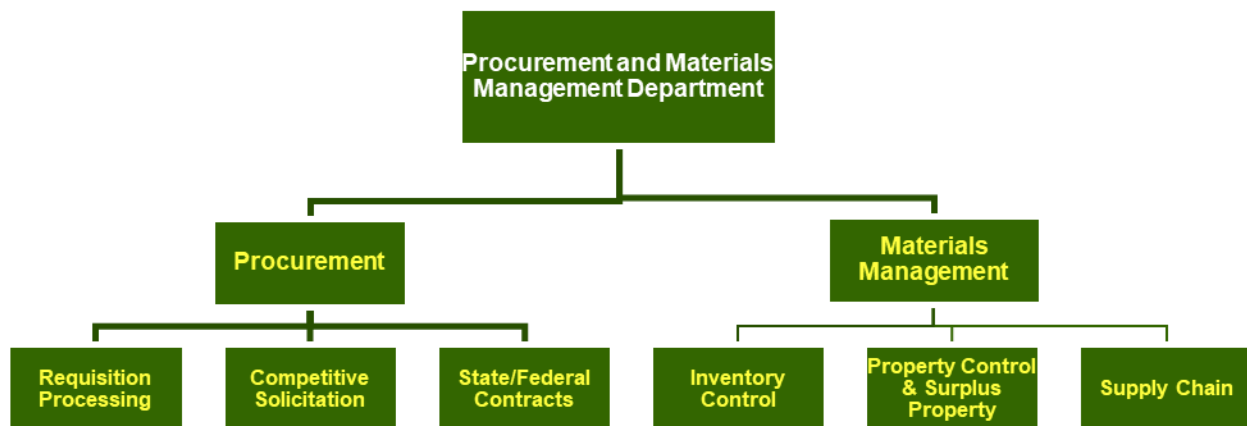


Figure 84: Procurement and Materials Management Department Organization Chart

### Senior Staff:

Director of Procurement and Materials Management, Acting: Dale Barnfield  
 Supply Chain Manager: Janet Rzepka

### 2019 Accomplishments:

- Completed more than 63 public bid solicitations including complex procurements such as: contracts for Snow Removal and Salting Services for locations on both Roadways and Violation Enforcement Cameras (all requiring reviews by the Office of State Comptroller); 219 informal solicitations for goods and services under \$40,000; In addition, Procurement has completed or currently conducting solicitations for 6 professional services contracts including Real Estate Broker Services, Insurance Brokerage Services, Occupational Healthcare and Physician Services (pending award), Management Services for Interchange

No. 8A Park and Ride Facility (pending award) and Deferred Compensation Consultant Services (a new service for the Authority)

- Continued to increase participation of diverse vendors (S/M/W/VOB firms) in procurement contracts: To date \$14,604,000 in contracts have been awarded by way of competitive solicitation – of that \$3,714,000 (25.5%) has been awarded to S/M/W/VOB firms
- Successful implementation the Return Materials Authorization (RMA) process in PeopleSoft Financials to automate the return of stock items by internal departments. This process will allow end users to enter a RMA request online in PeopleSoft which will then be approved by Inventory Management prior to returning items to stock and returning monies to the department's budget. This new process provides improved systematic tracking of items returned to Inventory
- Successfully added photos into the item master in PeopleSoft Financials. There are currently over 6000 different items held in Inventory. Adding photos has been suggested over the years by requestors in the field. Snow related items were the first pictures to be added for the upcoming winter season to assist end users when ordering parts
- Participation in the Authority's new EAM system project. This will be a multi-year, multi-departmental effort which includes the exchange of Inventory information between the new EAM, PeopleSoft Financials and High Jump (the warehouse management system)

#### **2020 Goals:**

- Restructure or implementation of an electronic bidding platform for public bids as well as professional service contracts (requiring mandatory electronic submission for select contracts) for by end of 2020 (People)
- Implement searchable vendor data base via the updated Authority website by Spring of 2020 (People)
- Continue the addition of photos to the item master in PeopleSoft Financials to assist users when ordering stock items. Mowing items along with auto related items will be the next areas of focus (People)
- Continued participation in the implementation of the Authority's new EAM system. New goals include online forms and approvals for both Inventory and Property Control forms currently handled thru a manual, paper process (People)
- Implement the HighJump warehouse management system upgrade project. Along with required software updates, this project will focus on improvements needs to the current system as well as possibly reducing paper documentation by utilizing hand held devices to capture signature at time of delivery as well as improve delivery tracking visibility (Financial Stability)
- Implementation of an email notification process to external vendors to alert them when Purchase Orders have not been received within a defined time frame. This automated process will drastically reduce the amount of time spent manually reviewing open orders and contacting vendors for order status (People)

<b>Procurement &amp; Materials Management Department Operating Budget</b>					
	<b>2018 Actuals</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>\$ Change from 2019 Budget</b>	<b>% Change from 2019 Budget</b>
Salaries	\$ 4,377,500	\$ 4,609,600	\$ 4,786,000	\$ 176,400	3.8%
Allowances	12,000	13,700	-	(13,700)	-100.0%
Pension & Taxes	2,473,800	902,700	937,200	34,500	3.8%
Health Benefits	2,579,200	2,253,000	2,607,100	354,100	15.7%
Non-Overnight Travel	9,300	2,600	2,900	300	11.5%
Printing & Office Supplies	14,500	15,000	17,000	2,000	13.3%
Operating Supplies	6,300	11,200	11,200	-	-
Other Materials	800	800	800	-	-
Other Services	35,200	53,400	50,300	(3,100)	-5.8%
Equipment Maintenance	-	200	200	-	-
Equipment Rental	6,400	10,000	-	(10,000)	-100.0%
Equipment	21,000	30,000	30,500	500	1.7%
Other Expenses	31,800	12,300	62,300	50,000	406.5%
<b>Total Operating Budget</b>	<b>\$ 9,567,800</b>	<b>\$ 7,914,500</b>	<b>\$ 8,505,500</b>	<b>\$ 591,000</b>	<b>7.5%</b>

Figure 85: Procurement and Materials Management Department Operating Budget (2018-2020)

**2020 Budget Highlights:**

- Salaries are increasing due to anticipated contractual wage increases
- Procurement and Materials Management comprises 3% of total Authority salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Increase in Other Expenses to handle core charges for various parts

<b>Procurement &amp; Materials Management Department Budgeted Positions</b>				
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Change from 2019</b>
Assistant Buyer	1	1	1	-
Assistant Manager, Inventory Control	-	2	2	-
Assistant Office Services Manager	1	-	-	-
Buyer	3	5	5	-
Clerk	1	-	-	-
Confidential Secretary	1	1	-	-1
Deputy Director Procurement & Materials Management	1	-	1	1
Director Procurement & Materials Management	1	1	1	-
Expediter	1	1	1	-
Inventory and Field Buyer	1	-	-	-
Inventory and Materials Supervisor	8	6	7	1
Inventory Records Clerk	1	1	1	-
Maintenance Records Clerk	2	2	2	-
Office Services Assistant	2	-	-	-
Parts/Inventory Counter Clerk	13	14	14	-
Print & Supply Specialist	1	-	-	-
Procurement Coordinator	1	1	-	-1
Procurement Specialist	2	2	2	-
Procurements Specialist Manager	1	-	-	-
Property & Materials Supervisor	3	2	1	-1
Property Control Manager	1	1	1	-
Property Control Specialist	1	1	1	-
Purchasing Assistant	-	-	1	1
Purchasing Manager	1	1	1	-
Senior Clerk	1	1	1	-
Senior Mail/ Messenger/Shipping Clerk	2	-	-	-
Senior Secretary Parkway	1	1	-	-1
Senior Supply Chain Analyst	-	1	1	-
Storekeeper 2	2	2	2	-
Storekeeper 3	6	6	6	-
Supply Chain Analyst	1	-	-	-
Supply Chain Manager	1	1	1	-
Tolls Inventory and Staffing Manager	1	1	1	-
Vendor Compliance Specialist	-	-	1	1
<b>Total</b>	<b>63</b>	<b>55</b>	<b>55</b>	<b>-</b>

Figure 86: Procurement and Materials Management Department Positions (2018-2020)

## Human Resources and Office Services

### Department Description:

The Human Resources & Office Services Department supports the activities of the Authority by providing employment services which include hiring, development & training, labor relations management, health administration, safety administration and benefits administration.

### Department Organization:



**Figure 87: Human Resources and Office Services Department Organization Chart**

### Senior Staff:

Director of Human Resources: Mary-Elizabeth Garrity  
 Deputy Director of Human Resources: Robert Weakly  
 Assistant Director of Human Resources: Kevin Burke  
 Assistant Director of Human Resources – Policy & Training: Brenda Coleman-Caldwell

### 2019 Accomplishments:

- Assisted with implementation of the Equal Pay Act
- Increased participation in State Charitable Campaign
- Rolled out group orientation for all new hires
- Continuation of the first phase of the overhaul of the HR department's filing system (hardcopy and electronic)
- Continuation of the job description project
- Implementation of basic supervisory training for newly promoted supervisors

### 2020 Goals:

- Implement an Applicant Tracking System. (People)
- Issue new and revised policies and issue employee handbook (People)



- Implement new deferred comp plan and on board independent consultant. (People)
- Implement and monitor new evaluation system for the non-aligned employees. (People)
- Increase training options for employees and enhanced delivery of training via elearning. (People)

<b>Human Resources &amp; Office Services Department Operating Budget</b>					
	<b>2018 Actuals</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>\$ Change from 2019 Budget</b>	<b>% Change from 2019 Budget</b>
Salaries	\$ 2,890,600	\$ 3,240,400	\$ 3,276,700	\$ 36,300	1.1%
Allowances	7,300	7,000	6,700	(300)	-4.3%
Pension & Taxes	1,374,800	634,600	642,100	7,500	1.2%
Employee Relations	-	32,000	32,000	-	-
Health Benefits	1,433,400	1,583,800	1,785,000	201,200	12.7%
Tuition	123,600	100,000	200,000	100,000	100.0%
Non-Overnight Travel	19,200	139,300	175,800	36,500	26.2%
Printing & Office Supplies	87,200	119,100	138,900	19,800	16.6%
Medical Supplies	12,200	9,000	10,000	1,000	11.1%
Operating Supplies	5,200	11,200	10,000	(1,200)	-10.7%
Other Materials	11,900	10,100	10,700	600	5.9%
Consulting Services	14,900	64,100	32,700	(31,400)	-49.0%
Other Professional Services	42,600	277,400	390,000	112,600	40.6%
Environmental Services	2,000	3,500	4,100	600	17.1%
Other Services	1,700	2,600	4,000	1,400	53.8%
Building Maintenance	27,900	84,000	-	(84,000)	-100.0%
Equipment Maintenance	47,400	66,900	87,900	21,000	31.4%
Equipment Rental	-	-	900	900	-
Equipment	1,000	12,200	68,500	56,300	461.5%
<b>Total Operating Budget</b>	<b>\$ 6,102,900</b>	<b>\$ 6,397,200</b>	<b>\$ 6,876,000</b>	<b>\$ 478,800</b>	<b>7.5%</b>

Figure 88: Human Resources and Office Services Department Operating Budget (2018-2020)

#### 2020 Budget Highlights:

- Salaries are increasing due to anticipated wage increases
- Human Resources and Office Services comprises 2% of Authority salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Tuition is increasing based on an anticipated increase in employee tuition reimbursement programs
- Increase in Training and Transportation costs to cover the increase in investment for training for all Authority employees, especially supervisory and management training
- Consulting services are decreasing due to the deferral of Silica consulting in addition to the transfer of safety related consulting to Internal Audit
- Other Professional Services are increasing due to the additional expense of deferred compensation and worker's compensation consultants
- Decrease in building maintenance as all costs are Safety Staff related, all of which were transferred to Internal Audit
- Equipment Maintenance is increasing due to the addition of mail room equipment and contract increases and renewals

<b>Human Resources &amp; Office Services Department Budgeted Positions</b>				
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Change from 2019</b>
Administrative Assistant	-	-	1	1
Administrative Manager	1	1	1	-
Assistant Director of Human Resources	-	1	1	-
Assistant Director, HR Policy & Training	1	1	1	-
Assistant Office Services Manager	-	1	1	-
Benefits Administrator	1	1	1	-
Benefits Manager	1	1	1	-
Camera Person	1	1	1	-
Clerk 1 - 70	-	1	1	-
Computer Graphics Coordinator	1	1	1	-
Confidential Secretary	3	3	2	(1)
Deputy Director of Human Resources	-	-	1	1
Director of Human Resources	1	1	1	-
Employment Manager	1	1	1	-
Human Resources Clerk	1	1	2	1
Human Resources Coordinator	-	-	1	1
Human Resources Generalist	3	2	3	1
Human Resources Manager	1	-	-	-
Human Resources Project Coordinator	-	1	1	-
Human Resources Specialist	1	1	1	-
Junior Printer	2	3	3	-
Manager - Safety Programs	1	-	-	-
Nurse	1	2	1	(1)
Office Services Assistant	-	2	2	-
Paste-Up / Graphic Artist	1	1	1	-
Print Shop Manager	1	1	1	-
Printer	1	1	1	-
Printing and Support Specialist	-	1	1	-
Safety Manager	2	-	-	-
Senior Benefits Manager	1	1	1	-
Senior Clerk	1	1	1	-
Senior Human Resources Generalist	4	4	2	(2)
Senior Human Resources Manager	1	-	-	-
Senior Mail Clerk	-	2	2	-
Senior Nurse	1	1	1	-
Senior Printer	2	2	2	-
Senior Safety Inspector	1	-	-	-
Senior Secretary Parkway	-	1	-	(1)
<b>Total</b>	<b>37</b>	<b>42</b>	<b>42</b>	<b>-</b>

Figure 89: Human Resources and Office Services Department Positions (2018-2020)

## Finance

### Department Description:

The Finance Department is responsible for all fiscal matters of the Authority. The department ensures compliance with trust agreements including the bond resolution, manages the Authority's resources, structures financial plans to maintain debt service coverage, and works with all departments to optimize costs. Overall financial policies and reporting requirements are dictated by the terms of the Authority's Bond Resolution, and mandated by statute or Executive Order. Responsibility for meeting the deadlines and financial covenants of the bond resolution lie with the Finance Department. Financial policies approved by the Board of Commissioners include the Guidelines, Debt Management Plan, Investment Policy and Swap Management Plan. The Finance Department oversees the collection of more than \$1.8 billion of revenue, \$2 billion of investments, and \$11 billion of debt. In addition, the department monitors funding and spending for all of the Authority's capital programs.

### Department Organization:

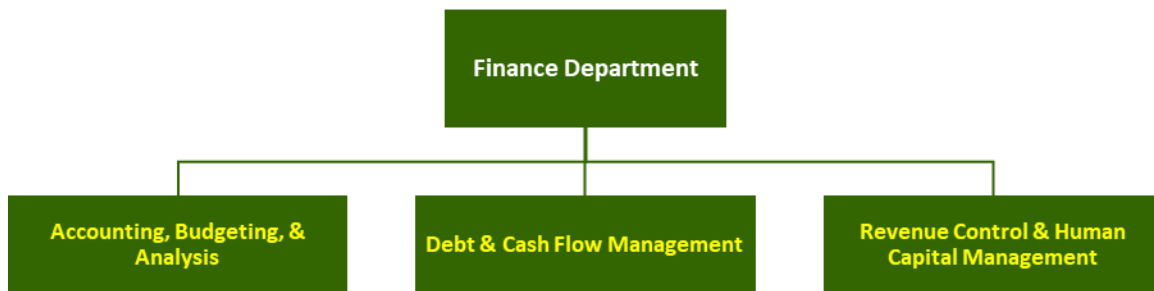


Figure 90: Finance Department Organization Chart

### Senior Staff:

Chief Financial Officer: Donna Manuelli  
 Comptroller: Mukta Puranik  
 Assistant Comptroller: Stellanie Callanan  
 Assistant Comptroller: Erwin Luna  
 Assistant Comptroller: Louis Polise

### 2019 Accomplishments:

- Successfully automated financial statement preparation to improve the efficiency and accuracy of financial reporting
- Implemented reporting software Wdesk by Workiva to optimize the time and resources needed to generate the Comprehensive Annual Financial Report and other management reports prepared during the year
- Issued \$449 million of new money bonds in February of 2019 to complete the financing of the \$7 billion CIP
- Improved efficiency of monthly budgetary tracking and reporting

- Integrated employee position tracking in PeopleSoft Financial system
- Successfully paid retroactive salary increases based on union contract settlements
- Other Post-Employment Benefits (OPEB) Trust plan document approved by the Board
- Reached target of general reserve balance of \$175 million
- Initiated the effort of developing a policy and procedure manual for the Finance Department
- Achieved process efficiency by automating many routine and recurring processes of the Accounts Receivable and Billing sections
- Reorganized the department into functional sections

#### 2020 Goals:

- As of December 31st, have minimum general reserve balance equal to 10% of the 2020 budgeted revenue (Financial Strength)
- Further improve process efficiencies through automation (People)
- Further improve internal and external reporting (People)
- Establish funding for OPEB Trust (Financial Strength)
- Improve bond ratings to provide the lowest cost of capital (Financial Strength)
- Issue \$200 million of new money bonds in 2020 to partially fund the \$500 million CIP approved during 2019 (Financial Strength)
- Continue to review and update Finance Department policies and procedures. Implement leading practices and document current workflows (People)
- Implement and promote the Right-Fare Campaign to ensure customers are paying the correct toll (Financial Strength)
- Continue to improve cross-section collaboration to reach Finance department goals (People)
- Establish reporting for strategic plan goals (Financial Strength)

Finance Department Operating Budget					
	2018 Actuals	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Salaries	\$ 5,914,000	\$ 6,702,400	\$ 6,941,100	\$ 238,700	3.6%
Allowances	4,000	500	2,300	1,800	360.0%
Pension & Taxes	2,664,000	1,312,500	1,359,600	47,100	3.6%
Health Benefits	2,777,500	3,275,900	3,781,100	505,200	15.4%
Non-Overnight Travel	400	700	1,400	700	100.0%
Overnight Travel	1,500	-	800	800	-
Printing & Office Supplies	24,000	29,500	31,100	1,600	5.4%
Other Materials	700	700	700	-	-
Banking Services	971,900	914,200	936,500	22,300	2.4%
Consulting Services	555,800	518,400	771,400	253,000	48.8%
Other Professional Services	971,100	932,000	591,600	(340,400)	-36.5%
Other Services	50,900	43,300	54,300	11,000	25.4%
Roadway Maintenance	28,000	-	-	-	-
Other Expenses	-	-	300	300	-
<b>Total Operating Budget</b>	<b>\$ 13,963,800</b>	<b>\$ 13,730,100</b>	<b>\$ 14,472,200</b>	<b>\$ 742,100</b>	<b>5.4%</b>

Figure 91: Finance Department Operating Budget (2018-2020)

#### 2020 Budget Highlights:

- Salaries are increasing due to the cost of anticipated contractual wage increases and step increases
- Finance comprises 4% of total Authority salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Other Professional Services are decreasing due to the reclassification of certain expenses to other departments
- Banking Services are increasing due to the addition of OPEB Trust Fees
- Consulting Services are increasing due to funding for “On-Call” projects, as well as an increase in the core consulting services provided by CDM Smith

Finance Department Budgeted Positions				
	2018	2019	2020	Change from 2019
Accounting Manager, General Ledger	1	1	1	-
Accounting Manager, Internal Control	1	1	1	-
Accounts Clerk	1	2	1	(1)
Accounts Payable Manager	1	1	1	-
Accounts Receivable Analyst	1	1	1	-
Accounts Receivable Manager	1	1	1	-
Accounts Receivable Supervisor	1	-	-	-
Administrative Assistant	1	1	1	-
Assistant Comptroller	-	1	3	2
Assistant Director of Finance	1	-	-	-
Audit Data Inspector	1	1	1	-
Audit Data Specialist	2	2	2	-
Billings Manager/Administrator	1	1	1	-
Billings Supervisor	1	1	1	-
Budget Coordinator, Finance	1	1	1	-
Budget Supervisor	1	1	1	-
Capital Budget Supervisor	1	-	-	-
Cash Manager	1	1	-	(1)
Cash Management Supervisor	-	-	1	1
Cash Toll Audit Manager	1	1	-	(1)
Chief Financial Officer	1	1	1	-
Clerk 1, 70	1	1	2	1
Comptroller	-	-	1	1
Confidential Secretary	1	1	1	-
Coordinator - Bargaining	1	1	-	(1)
Data Analyst	3	3	3	-
Deputy Chief Financial Officer	1	-	-	-
Disbursements Clerk	1	1	1	-
Disbursements Section Supervisor	2	2	2	-
Documents Services Coordinator	-	-	1	1
Financial Analyst	1	2	2	-
Financial Manager	2	2	-	(2)
Financial Resources Specialist	1	-	-	-
Human Capital Management Analyst	2	1	1	-
Human Capital Management Manager	1	1	1	-
Human Capital Management Specialist	1	2	2	-
Junior Accountant	4	4	5	1
Junior Accounting Analyst	13	15	14	(1)
Payroll Administrator/Manager	1	1	1	-
Payroll Analyst	-	2	2	-
Payroll Coordinator	3	2	2	-
Revenue Control Manager	1	-	1	1
Senior Accounts Clerk	1	1	-	(1)
Senior Accounting Analyst	-	-	2	2
Senior Accounts Payable Supervisor	1	1	1	-
Senior Budget Supervisor	2	2	2	-
Senior Clerk	6	5	2	(3)
Senior Contract Administrative Manager	-	-	1	1
Senior Data Analyst	1	1	1	-
Senior Document Services Coordinator	1	1	-	(1)
Senior F&B Document Specialist	1	1	1	-
Senior Toll Audit Coordinator	3	3	3	-
Staff Accountant	2	3	3	-
Variance Analyzer Coordinator	2	2	2	-
Violations Analyst	-	-	1	1
<b>Total</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>-</b>

Figure 92: Finance Department Positions (2018-2020)

## Community and Patron Relations

### Department Description:

Community and Patron Relations is comprised of the Community and Government Relations Department and the Patron Services Department, for budget and reporting presentation purposes only. The Community and Government Relations Department was formed in April 2018, and includes the Customer Service Division. The Community and Government Relations Department's primary responsibilities include both customer service and public policy. The department responds to and interacts with the public, the Governor's Office, the Department of Transportation key staff, legislators and their staff, and other agencies, as well as municipal and county leaders. The department has a legislative tracking list to stay on top of any state legislative proposals that could impact the Authority. The Customer Service Division's goal is always the same – to provide the most effective and efficient customer service experience for our internal and external customers, partners and stakeholders. Together, the public policy component and customer service function work together as one team. The primary responsibility of Patron Services is to oversee the management and operation of all service area facilities located on the New Jersey Turnpike and Garden State Parkway. The division oversees the majority of lease agreements that produce non-toll revenue for the Authority. The Authority's non-toll revenue programs managed by Patron Services include, but are not limited to, billboard vendors, installation and operation of electric vehicle charging stations, the PNC Bank Arts Center operator, the operation of park-and-ride facilities and commuter bus services provider(s). Patron Services is also responsible for participating in the negotiation of lease agreements and the procurement of services provided by the above-referenced vendors.

### Department Organization:

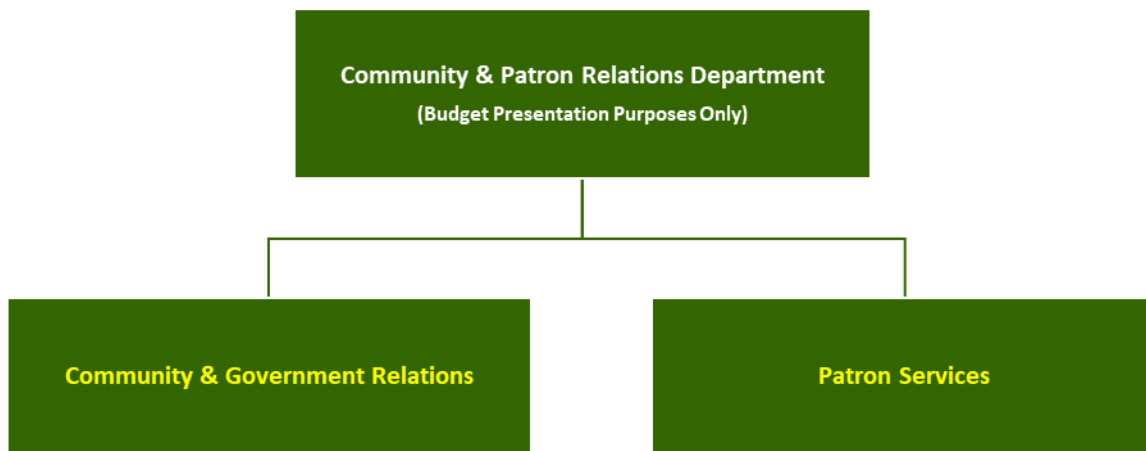


Figure 93: Community and Patron Relations Department Organization Chart

#### Senior Staff

##### Community & Government Relations:

Director of Community and Government Relations: Shawn Taylor

Customer Services Manager: Denise DeSante

##### Patron Services:

Patron Services Manager: Erika Vargas-Garrison

**2019 Accomplishments****Community & Government Relations:**

- Continued participation on Active Management Committee regarding the Conduent Contract (E-ZPass), many changes we made to enhance our customer service experience
- Enhanced the present info guides for the Parkway and Turnpike to provide useful and updated information for our customers
- Updated the senior citizen E-ZPass discount application
- Had a presence at the senior shows at PNC Arts Center to inform customers of the benefit of E-ZPass
- Enhanced the current legislative referral database
- Worked with Governor's Office and Legislators to get specific legislation amended
- Appeared at local public meetings concerning Authority engineering projects
- Attend legislative hearings, voting sessions and Budget Hearings in Trenton
- Member of the newly formed Towing Committee

**Patron Services:**

- Completion of Phase I Service Area Redevelopment projects for the Thomas Edison, Alexander Hamilton, Monmouth, Brookdale North service areas
- Completion of EVgo universal electric vehicle chargers at the Vince Lombardi, Joyce Kilmer, Molly Pitcher, Brookdale North, Brookdale South and Forked River service areas

**2020 Goals****Community & Government Relations:**

- Appear at local public meetings concerning Authority engineering projects (State of Good Repair)
- Communicate with Legislator's concerning Authority engineering projects in their area (People)
- Attend legislative hearings and voting sessions in Trenton (People)
- Advocate internally and externally on transportation and labor policies affecting the Authority (People)
- Study relevant legislation and regulations, focusing on those with financial implications for the Authority (Financial Strength)
- Continue to work with our Tow Operators and strengthen our working relationship to provide better customer service (Financial Strength and People)
- Communicate with Legislator's on new policy initiatives, such as "Right Fare" and other wide-ranging policy initiatives (People)

**Patron Services:**

- Reconstruction and renovation of a minimum of 14 restaurant buildings and fuel stations at service areas on the New Jersey Turnpike and Garden State Parkway over the course of the next 7 years (State of Good Repair)
- Construction of three (3) new billboard structures on the New Jersey Turnpike (Financial Strength)
- Installation of electric vehicle chargers at the Vince Lombardi, Brookdale North, Brookdale South and Forked River service areas (Mobility)



<b>Community &amp; Patron Relations Department Operating Budget</b>					
	<b>2018 Actuals</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>\$ Change from 2019 Budget</b>	<b>% Change from 2019 Budget</b>
Salaries	\$ 1,255,400	\$ 1,418,700	\$ 1,516,100	\$ 97,400	6.9%
Allowances	-	500	500	-	-
Pension & Taxes	463,800	277,800	296,900	19,100	6.9%
Employee Relations	-	5,000	5,000	-	-
Health Benefits	483,500	693,400	825,900	132,500	19.1%
Non-Overnight Travel	200	1,300	1,600	300	23.1%
Printing & Office Supplies	6,700	7,800	9,900	2,100	26.9%
Consulting Services	151,000	170,000	166,200	(3,800)	-2.2%
<b>Total Operating Budget</b>	<b>\$ 2,360,600</b>	<b>\$ 2,574,500</b>	<b>\$ 2,822,100</b>	<b>\$ 247,600</b>	<b>9.6%</b>

Figure 94: Community and Patron Relations Department Operating Budget (2018-2020)

**2020 Budget Highlights:**

- Salaries increasing to reflect the addition of an authorized position during 2019 as well as anticipated contractual wage increases
- Community and Patron Relations comprises 1% of total Authority salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates

<b>Community &amp; Patron Relations Budgeted Positions</b>				
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Change from 2019</b>
Administrative Secretary	0	1	1	-
Assistant Customer Service Manager	2	2	2	-
Community & Government Relations Specialist	0	1	1	-
Customer Service Manager	1	1	1	-
Director Community & Government Relations	0	1	1	-
Receptionist	1	2	2	-
Senior Clerk	1	1	1	-
<b>Total</b>	<b>5</b>	<b>9</b>	<b>9</b>	<b>-</b>

<b>Patron Services Budgeted Positions</b>				
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Change from 2019</b>
Assistant Patron Services Manager	1	1	1	-
Clerk	0	0	1	1
Contract Services Supervisor	1	1	1	-
Marketing Coordinator	1	1	1	-
Patron Services Contract Manager	0	1	1	-
Patron Services Manager	1	1	1	-
Senior Patron Services Aide	2	2	2	-
<b>Total</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>1</b>

<b>Total Combined</b>	<b>11</b>	<b>16</b>	<b>17</b>	<b>1</b>
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Figure 95: Community and Patron Relations Department Positions (2018-2020)

## Internal Audit

### Department Description:

The Internal Audit Department reports functionally to the Audit Committee and the Authority's Commissioners and administratively to the Executive Director. The department is responsible for providing an independent appraisal of Authority financial and operating activities. In addition, the department is responsible for safeguarding the Authority's assets as well as its employees.

### Department Organization



Figure 96: Internal Audit Department Organization Chart

### Senior Staff:

Director of Internal Audit: Donna Wilser  
 Deputy Director of Internal Audit: Tracey Walters  
 Senior Security Manager: Thomas McGowan  
 Safety Program Manager: Paul Butrico

### 2019 Accomplishments:

- Updated the Authority-wide Enterprise Risk Assessment to provide an efficient and systematic process to determine the universe of auditable areas
- Completed a number of Internal Audit projects resulting in internal control improvements completing audits related to the Authority's Self-Funded Health Benefits Program
- Oversaw the installation and implementation of the Toll Plaza Security Upgrade project for the remaining seven Turnpike Toll Facility locations
- Conducted twenty-five (25) Toll Plaza/Interchange inspections with the assistance of the New Jersey State Police. In addition, assisted the New Jersey State Police in investigating twelve major Toll Collection theft cases
- Oversaw the Authority's Employee Safety Program

### 2020 Goals:

- Continue to update the Authority-wide Enterprise Risk Assessment to provide an efficient and systematic process to determine the universe of auditable areas and develop a 2020 Annual Audit Plan (Financial Strength)
- Update the Authority's Crisis Management Plan (Financial Strength)

- Participate in the Authority's Risk Management Committee to identify overall risks to the Authority (Financial Strength)
- Conduct an audit of the Authority's Self-Funded Health Benefits Program (Financial Strength)
- Oversee the continued installation and implementation of both the Toll Plaza Security Upgrade Project and the Authority's access control system software (People)

<b>Internal Audit Department Operating Budget</b>					
	<b>2018 Actuals</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>\$ Change from 2019 Budget</b>	<b>% Change from 2019 Budget</b>
Salaries	\$ 2,017,500	\$ 2,486,300	\$ 2,726,800	\$ 240,500	9.7%
Allowances	7,400	4,000	-	(4,000)	-100.0%
Pension & Taxes	928,300	486,900	534,000	47,100	9.7%
Health Benefits	967,900	1,215,200	1,485,400	270,200	22.2%
Non-Overnight Travel	200	-	800	800	-
Overnight Travel	-	-	4,000	4,000	-
Printing & Office Supplies	4,900	6,300	6,400	100	1.6%
Operating Supplies	15,800	20,000	20,000	-	-
Other Professional Services	-	-	85,000	85,000	-
Environmental Services	-	-	700	700	-
Other Services	600	1,200	1,200	-	-
Building Maintenance	46,000	-	95,000	95,000	-
Equipment Maintenance	142,800	400,000	555,000	155,000	38.8%
Equipment Rental	18,500	24,000	24,000	-	-
Equipment	-	10,000	40,200	30,200	302.0%
<b>Total Operating Budget</b>	<b>\$ 4,149,900</b>	<b>\$ 4,653,900</b>	<b>\$ 5,578,500</b>	<b>\$ 924,600</b>	<b>19.9%</b>

Figure 97: Internal Audit Department Operating Budget (2018-2020)

#### 2020 Budget Highlights:

- Salaries are increasing to cover the cost of anticipated contractual wage increases, increased positions, and the use of temporary staffing to supplement permanent staff. Safety staff and their responsibilities were transferred into Internal Audit from Human Resources. Additional staff was added to the security section to allow for timely internal investigations
- Internal Audit comprises 1% of total Authority salaries
- Taxes, Pension, and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 20% and 54%, respectively. Health Benefits are increasing based upon estimated usage and medical inflation rates
- Other Professional Services are increasing due to the addition of budgets for the CVS audit (reclassified from Finance) and random drug testing, which was previously paid for by Human Resources but now falls under Internal Audit because of the Safety Staff
- Equipment Maintenance is increasing due to ongoing gate maintenance and systems service contract
- Equipment is increasing to account for the Safety Division portion of expenses

Internal Audit Department Budgeted Positions				
	2018	2019	2020	Change from 2019
Acting Director Internal Audit	-	1	-	(1)
Administrative Assistant	-	-	1	1
Audit Manager	1	1	1	-
Auditor	3	3	3	-
Case Manager	1	1	-	(1)
Clerk	2	2	2	-
Confidential Secretary	2	2	1	(1)
Deputy Director Internal Audit	1	1	1	-
Director Internal Audit	1	-	1	1
Manager - Safety Programs	-	1	1	-
Safety Manager	-	2	3	1
Security Inspector	1	1	2	1
Security Officer	2	2	3	1
Security Supervisor	2	2	2	-
Senior Auditor	2	2	2	-
Senior Maintenance Budget Supervisor	-	1	1	-
Senior Safety Inspector	-	1	1	-
Senior Security Manager	1	1	1	-
Tolls Investigation Manager	1	1	1	-
Tolls Investigation Supervisor	2	2	2	-
<b>Total</b>	<b>22</b>	<b>27</b>	<b>29</b>	<b>2</b>

Figure 98: Internal Audit Department Positions (2018-2020)

## Debt Service

### Debt Limit

In accordance with the Bond Resolution, the amount of bonds to be issued is limited by the following:

- 1) **Additional Bonds Test - New Money Purposes:** In accordance with Section 203 of the Bond Resolution, in order for the Authority to issue and sell its bonds for new money purposes, the Authority must, among other things, satisfy the following tests:
  - a) the Net Revenue of the Authority (Pledged Revenue minus Operating Expenses) for any period of twelve (12) consecutive calendar months out of the twenty-four (24) calendar months next preceding the issuance of such bonds must equal or exceed the Net Revenue Requirement for such twelve (12) month period without regard to the bonds proposed to be issued; and
  - b) the estimated Net Revenue for the first full five (5) calendar years after the financed asset is estimated to be placed in service must equal or exceed the Net Revenue Requirement for each such year and the estimated Net Revenue in the 5th such calendar year must equal or exceed the future maximum Aggregate Debt Service in any year.

In addition, all other requirements of the Bond Resolution relating to the issuance of bonds for new money purposes must be satisfied.

For purposes of the Bond Resolution, the “Net Revenue Requirement” in any year is the greater of:

- (i) the sum of the Aggregate Debt Service on all outstanding Authority bonds, the Maintenance Reserve Payments, the Special Project Reserve Payment and all deposits to the Charges Fund in such year; or
  - (ii) 1.20 times the Aggregate Debt Service on all outstanding Authority bonds in such year.
- 2) **Additional Bonds Test - Refunding:** In accordance with Section 204 of the Bond Resolution, in order for the Authority to issue and sell its bonds for refunding purposes, the Authority must, among other things, either:
  - a) demonstrate that the Aggregate Debt Service on all outstanding Authority bonds is not increased in the then current or any future calendar year as a result of the issuance of such refunding bonds, or
  - b) satisfy both of the tests described in clauses (a) and (b) of the preceding subsection of this policy entitled “Additional Bonds Test – New Money Purposes”.

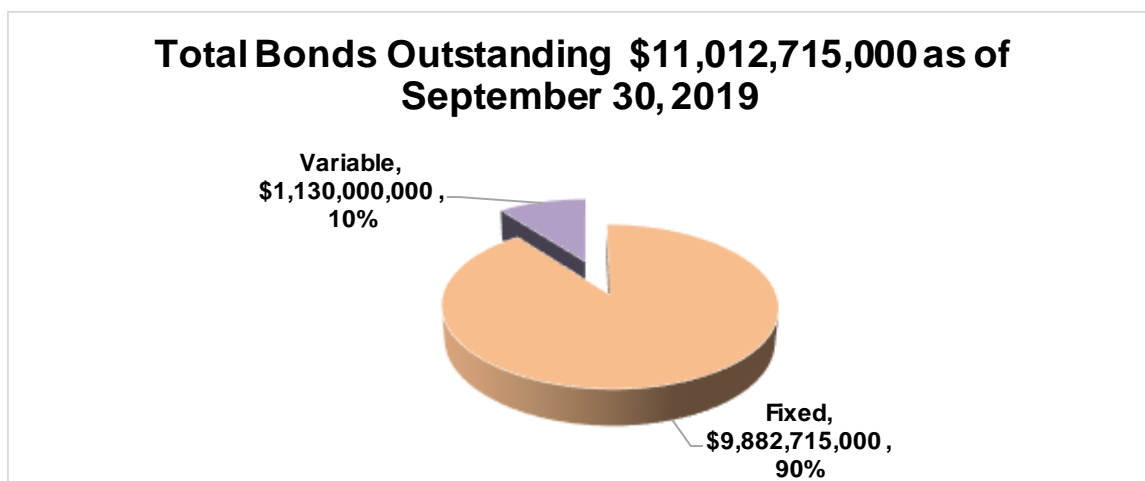


Figure 99: Total Outstanding Bond

## Bond Indebtedness

Bond Indebtedness				
Bond Series	Amount Outstanding September 30, 2019	Mandatory Redemption / Sinking Fund Installments	Projected Debt Issuance	Amount Outstanding December 31, 2020
Series 2004 C-2	\$ 132,850,000	-	-	\$ 132,850,000
Series 2005 A	173,650,000	-	-	173,650,000
Series 2005 D1-D4	208,735,000	-	-	208,735,000
Series 2009 F	1,375,000,000	-	-	1,375,000,000
Series 2009 H	36,695,000	-	-	36,695,000
Series 2010 A	1,850,000,000	-	-	1,850,000,000
Series 2012A	15,000,000	-	-	15,000,000
Series 2012B	646,000,000	(42,070,000)	-	603,930,000
Series 2013A	306,480,000	(6,165,000)	-	300,315,000
Series 2013F	90,880,000	-	-	90,880,000
Series 2014A	1,000,000,000	-	-	1,000,000,000
Series 2014C	198,730,000	(21,090,000)	-	177,640,000
Series 2015A	92,500,000	(38,075,000)	-	54,425,000
Series 2015B	50,000,000	(21,750,000)	-	28,250,000
Series 2015C	43,750,000	(19,025,000)	-	24,725,000
Series 2015D	43,750,000	(19,050,000)	-	24,700,000
Series 2015E	750,000,000	-	-	750,000,000
Series 2015F	72,350,000	-	-	72,350,000
Series 2015G	25,000,000	-	-	25,000,000
Series 2015H	48,235,000	-	-	48,235,000
Series 2016A	149,995,000	-	-	149,995,000
Series 2016B	75,025,000	-	-	75,025,000
Series 2016C	50,015,000	-	-	50,015,000
Series 2016D	50,000,000	-	-	50,000,000
Series 2017A	600,000,000	-	-	600,000,000
Series 2017B	646,765,000	-	-	646,765,000
Series 2017C	400,000,000	(31,050,000)	-	368,950,000
Series 2017D	179,375,000	-	-	179,375,000
Series 2017E	359,680,000	-	-	359,680,000
Series 2017F	166,505,000	(51,120,000)	-	115,385,000
Series 2017G	726,640,000	-	-	726,640,000
Series 2019A	449,110,000	-	-	449,110,000
Series 2020 A*	-	-	200,000,000	200,000,000
Premiums and discounts, net	554,513,000	-	-	483,903,000
<b>Total Bond Indebtedness</b>	<b>\$ 11,567,228,000</b>	<b>\$ (249,395,000)</b>	<b>\$ 200,000,000</b>	<b>\$ 11,447,223,000</b>

\*Amounts are projected

Figure 100: Bond Indebtedness

## Aggregate Bond Debt Service Requirement

Aggregate Bond Debt Service Requirements			
Fiscal Year Ending 12/31	Principal	Interest	Total Debt Service (1)
2019(2)	\$ 228,205,000	\$ 596,778,000	\$ 824,983,000
2020(2)	249,395,000	588,302,000	837,697,000
2021	278,700,000	578,380,000	857,080,000
2022	289,050,000	566,553,000	855,603,000
2023	304,350,000	554,178,000	858,528,000
2024	355,750,000	540,645,000	896,395,000
2025	374,280,000	522,361,000	896,641,000
2026	391,550,000	503,937,000	895,487,000
2027	411,630,000	484,434,000	896,064,000
2028	423,310,000	463,883,000	887,193,000
2029	426,005,000	442,663,000	868,668,000
2030	443,210,000	421,757,000	864,967,000
2031	464,765,000	400,209,000	864,974,000
2032	503,570,000	376,971,000	880,541,000
2033	543,420,000	352,858,000	896,278,000
2034	528,413,000	327,036,000	855,449,000
2035	541,447,000	299,187,000	840,634,000
2036	555,979,000	266,097,000	822,076,000
2037	598,532,000	228,201,000	826,733,000
2038	631,404,000	188,569,000	819,973,000
2039	674,732,000	145,217,000	819,949,000
2040	773,078,000	98,830,000	871,908,000
2041	184,080,000	46,819,000	230,899,000
2042	192,250,000	38,654,000	230,904,000
2043	117,400,000	30,123,000	147,523,000
2044	123,095,000	24,426,000	147,521,000
2045	129,070,000	18,452,000	147,522,000
2046	134,950,000	12,573,000	147,523,000
2047	141,095,000	6,426,000	147,521,000
<b>Total Bond Debt Service</b>	<b>\$ 11,012,715,000</b>	<b>\$ 9,124,519,000</b>	<b>\$ 20,137,234,000</b>

## Notes:

- (1) Total Debt Service does not include debt service from the potential \$200 million 2020A & \$284 million 2021A new money issuance.
- (2) Does not agree to the 2019 and 2020 Debt Service Fund Budget as the budget includes debt service on projected new money issuance in 2018 (that was not issued until 2019) and 2020.

Figure 101: Aggregate Bond Debt Service Requirement



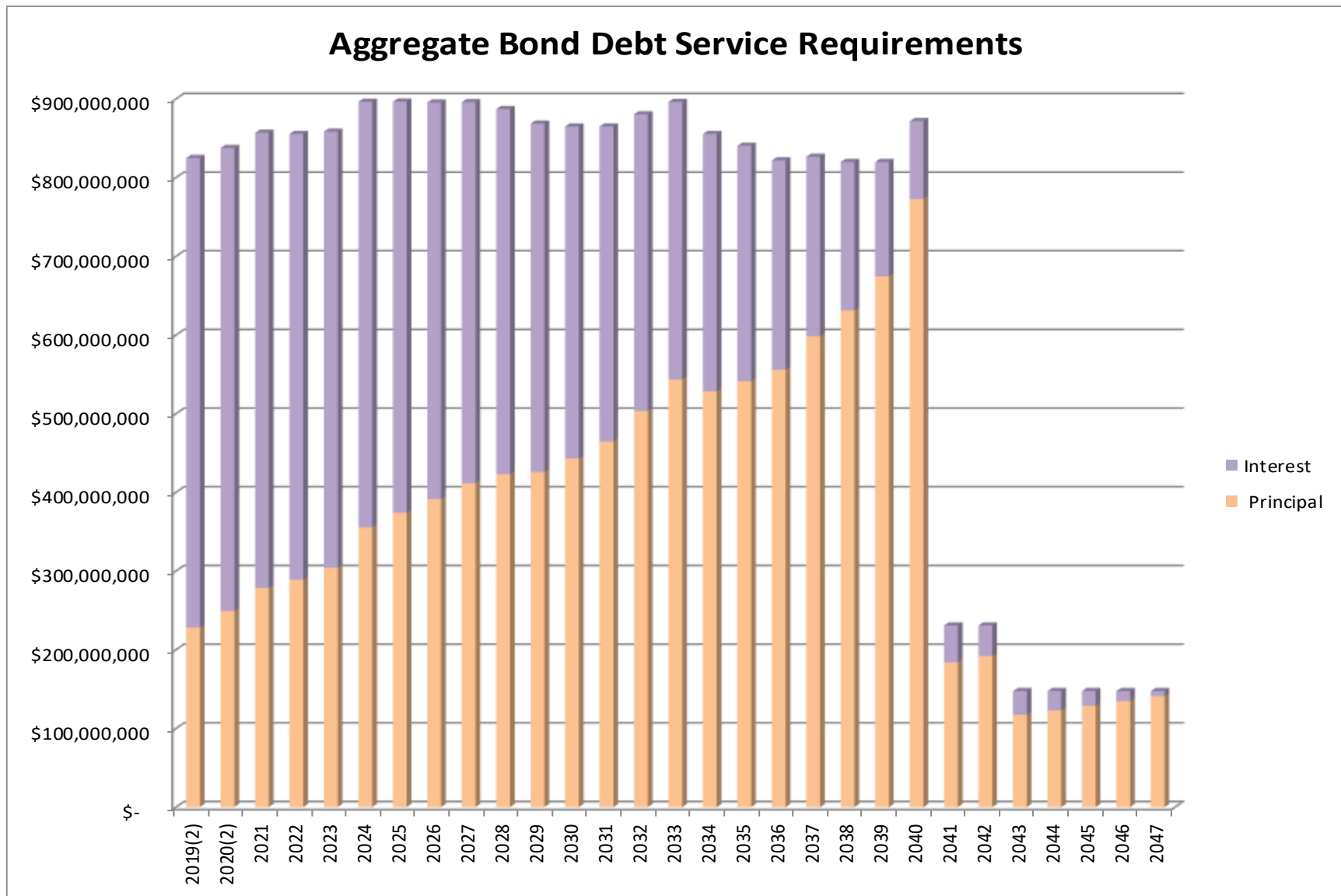


Figure 102: Aggregate Bond Debt Service Requirement Graph

## Debt Services Fund Budget

Debt Service Fund Interest Budget					
	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
2004 Series C-2	\$ 7,307,000	\$ 7,307,000	\$ 7,307,000	-	-
2005 Series A	9,117,000	9,117,000	9,117,000	-	-
2005 Series B	1,563,000	-	-	-	-
2005 Series D1-4	10,959,000	10,959,000	10,959,000	-	-
2009 Series F	101,943,000	101,943,000	101,943,000	-	-
2009 Series H	1,835,000	1,835,000	-	(1,835,000)	-
2010 Series A	131,387,000	131,387,000	131,387,000	-	-
2012 Series A	581,000	581,000	581,000	-	-
2012 Series B	39,772,000	31,850,000	28,676,000	(3,174,000)	-
2013 Series A	13,673,000	13,418,000	13,182,000	(236,000)	-
2013 Series F	4,357,000	4,357,000	4,357,000	-	-
2014 Series A	48,890,000	48,890,000	48,890,000	-	-
2014 Series C	10,093,000	9,937,000	7,482,000	(2,455,000)	-
2015 Series A (1)(2)(3)	3,378,000	3,929,000	2,869,000	(1,060,000)	-
2015 Series B (1)(3)	1,893,000	1,891,000	1,281,000	(610,000)	-
2015 Series C (1)(3)	1,727,000	1,728,000	1,171,000	(557,000)	-
2015 Series D (1)(3)	1,729,000	1,728,000	1,172,000	(556,000)	-
2015 Series E	36,413,000	36,413,000	36,413,000	-	-
2015 Series F (1)(3)	2,950,000	2,926,000	2,926,000	-	-
2015 Series G (1)(3)	992,000	988,000	988,000	-	-
2015 Series H (1)(3)	1,951,000	1,951,000	1,951,000	-	-
2016 Series A	7,312,000	7,312,000	7,312,000	-	-
2016 Series B (1)(3)	2,981,000	3,060,000	3,060,000	-	-
2016 Series C (1)(3)	2,000,000	2,040,000	2,040,000	-	-
2016 Series D (1)(3)	2,021,000	1,995,000	1,995,000	-	-
2017 Series A	29,409,000	29,409,000	29,409,000	-	-
2017 Series B	31,304,000	31,304,000	31,304,000	-	-
2017 Series C (1)(3)	18,887,000	18,967,000	18,967,000	-	-
2017 Series D (1)(3)	7,237,000	7,340,000	7,340,000	-	-
2017 Series E	17,984,000	17,983,000	17,983,000	-	-
2017 Series F	5,372,000	5,343,000	5,306,000	(37,000)	-
2017 Series G	30,481,000	30,480,000	30,480,000	-	-
2019 Series A	-	-	20,456,000	20,456,000	-
2018 New Money - A (4)	-	26,250,000	-	(26,250,000)	-
2020 New Money - A (5)	-	-	5,000,000	5,000,000	-
<b>Total DS Interest Fund</b>	<b>\$ 587,498,000</b>	<b>\$ 604,618,000</b>	<b>\$ 593,304,000</b>	<b>\$ (11,314,000)</b>	<b>-1.9%</b>

Debt Service Fund Principal Budget					
	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
2005 Series B	\$ 32,500,000	-	-	-	-
2009 Series H	-	36,695,000	-	(36,695,000)	-
2012 Series B	158,435,000	63,485,000	42,070,000	(21,415,000)	-
2013 Series A	5,620,000	4,795,000	6,165,000	1,370,000	-
2014 Series C	3,130,000	49,085,000	21,090,000	(27,995,000)	-
2015 Series A	-	28,200,000	38,075,000	9,875,000	-
2015 Series B	-	16,125,000	21,750,000	5,625,000	-
2015 Series C	-	14,100,000	19,025,000	4,925,000	-
2015 Series D	-	14,100,000	19,050,000	4,950,000	-
2015 Series F	-	-	-	-	-
2015 Series G	-	-	-	-	-
2015 Series H	-	-	-	-	-
2016 Series B	-	-	-	-	-
2016 Series C	-	-	-	-	-
2016 Series D	-	-	-	-	-
2017 Series C	-	-	31,050,000	31,050,000	-
2017 Series D	-	-	-	-	-
2017 Series F	1,340,000	1,620,000	51,120,000	49,500,000	-
<b>Total DS Principal Fund</b>	<b>\$ 201,025,000</b>	<b>\$ 228,205,000</b>	<b>\$ 249,395,000</b>	<b>\$ 21,190,000</b>	<b>9.3%</b>

Debt Service Fund Total Payment Budget					
<b>Total Debt Service Fund</b>	<b>\$788,523,000</b>	<b>\$832,823,000</b>	<b>\$842,699,000</b>	<b>\$9,876,000</b>	<b>1.2%</b>

(1) Variable rate debt with an associated Interest Swap Agreement has interest included at the fixed swap rate.

(2) Interest on the \$5,000,000 unhedged portion is calculated at the maximum rate of 12%.

(3) Include the fixed credit spread as interest expense.

(4) Assumed new money issuances in November 2018 \$525 million to fund the \$7 billion capital program with interest at 5%. Not issued until February 2019 at only \$449 million.

(5) Assumed new money issuances in July 2020 \$200 million to fund 2019 capital program with interest at 5%.

Figure 103: Debt Service Fund Budget

The Debt Service Fund Budget is increasing in 2020 due to higher required principal payments on existing bonds. The 2020 budget assumes a \$200 million new money issuance in July 2020 at 5% interest. The bonds will finance a portion of the funds needed for the 2019 CIP.

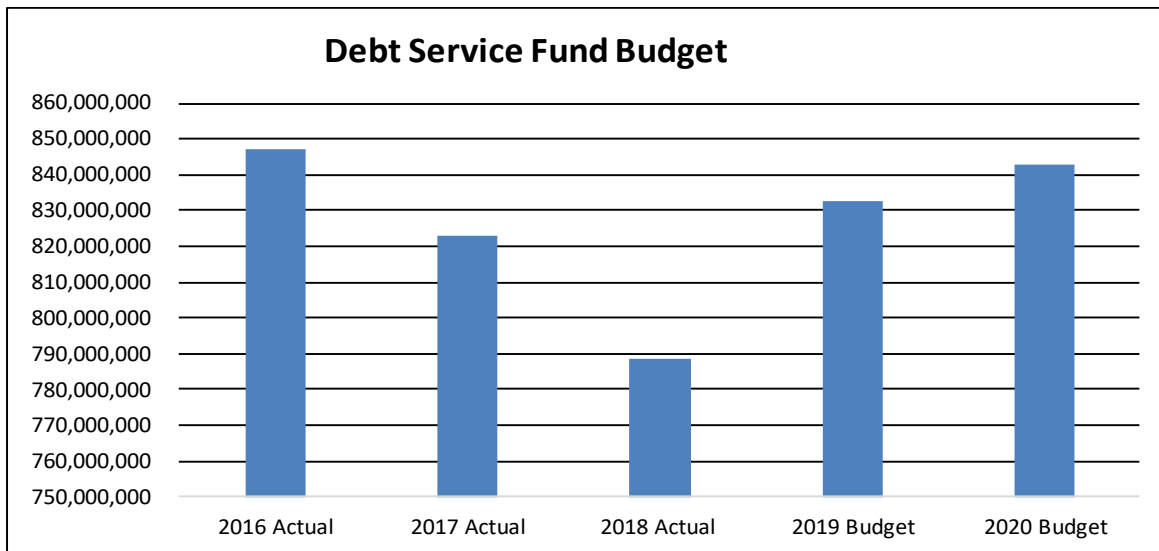


Figure 104: Debt Service Fund Budget Graph (2016-2020)

Debt Service Fund Balance					
	2018 Actual	2019 Est/Actual	2020 Budget	\$ Change from 2019 Est/Actual	% Change from 2019 Est/Actual
Beginning Balance	\$ 218,475,000	\$ 201,025,000	\$ 228,205,000	\$ 27,180,000	-
Revenue Transfers	788,523,000	824,449,000	842,699,000	18,250,000	-
Interest Expense	(587,498,000)	(596,244,000)	(593,304,000)	2,940,000	-
Principal Payments	(218,475,000)	(201,025,000)	(228,205,000)	(27,180,000)	-
<b>Ending Balance</b>	<b>\$ 201,025,000</b>	<b>\$ 228,205,000</b>	<b>\$ 249,395,000</b>	<b>\$ 21,190,000</b>	<b>9.3%</b>

Figure 105: Debt Service Fund Balance (2018-2020)

### Debt Reserve Fund

No spending budget is required for the Debt Reserve Fund, as no draws on the Debt Reserve Fund are anticipated for 2020. Maximum debt service is not expected to increase with potential bond issuance in 2020. However, any increase in the Debt Reserve requirement will be funded with bond proceeds.

Debt Reserve Fund Balance					
	2018 Actual	2019 Budget	2020 Budget(1)	\$ Change from 2019 Budget	% Change from 2019 Budget
Beginning Balance	\$ 598,830,000	\$ 598,756,000	\$ 599,128,000	-	-
Fair Market Value Adjustment	\$ (74,000)	372,000	-	-	-
Bond Proceeds	-	-	-	-	-
<b>Ending Balance</b>	<b>\$ 598,756,000</b>	<b>\$ 599,128,000</b>	<b>\$ 599,128,000</b>		

(1) Maximum debt service is not expected to increase from potential bond issuance in 2020.

Figure 106: Debt Reserve Fund Balance (2018-2020)

## General Reserve Spending Budgets

### General Reserve Fund

The General Reserve Fund includes \$178.5 million (74%) for contractual state payments, including the State Transportation Projects Funding Agreement payments of \$129 million, and an additional \$25 million annual payment obligation related to the Portal North Bridge project contingent upon receipt of federal funding for the project by NJ Transit. The 2020 budget also includes \$32.3 million (13%) for Extraordinary Events, which are generally costs for state of emergency weather events. New items in the 2020 budget also include \$4.5 million for the potential funding of a State Trooper class and an \$11 million reserve for Owner Controlled Insurance Claims. The OCIP claim reserve is necessary to fund open claims for construction projects completed as part of the \$7 Billion CIP. The costs can no longer be capitalized and absorbed by the \$7 Billion CIP.

In addition to a net spending budget of \$251.3 million, the 2020 General Reserve Budget includes a net transfer budget of \$164.2 million. Those transfers will provide cash funding for 2020 spending in the Supplemental Capital Program and Passaic River Bridge Program. The Live Nation Contribution represents Live Nations contractual obligation to provide 50% of the funding for the Garden State Arts Center Rehabilitation project, included in the 2020 Supplemental Capital Program.

General Reserve Fund Budget					
	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
<b>General Reserve Fund</b>					
Extraordinary Events	\$ 25,378,000	\$ 32,295,000	\$ 32,295,000	\$ -	0.0%
Claim Settlements	4,000,000	4,000,000	4,000,000	-	0.0%
Other Post-Employment Benefits	15,000,000	15,000,000	15,000,000	-	0.0%
Bond Cost of Issuance	15,000	1,000,000	1,000,000	-	0.0%
Miscellaneous Expenditures	-	50,000	50,000	-	0.0%
State Payments	193,000,000	179,500,000	178,500,000	(1,000,000)	-0.6%
OCIP Claim Payment	-	-	11,000,000	11,000,000	-
Reimbursable Expenditures	10,206,000	5,263,000	4,500,000	(763,000)	-14.5%
Contingency	-	-	5,000,000	5,000,000	-
<b>Total GRF Expenditures</b>	<b>\$ 247,599,000</b>	<b>\$ 237,108,000</b>	<b>\$ 251,345,000</b>	<b>\$ 14,237,000</b>	<b>6.0%</b>
Recoveries from Reimbursable Expenditures	\$ (10,406,000)	\$ (5,263,000)	\$ -	5,263,000	-100%
<b>Total GRF Expenditures Net of Recoveries</b>	<b>237,193,000</b>	<b>231,845,000</b>	<b>251,345,000</b>	<b>19,500,000</b>	<b>8.4%</b>
<b>Transfers</b>					
Funding for Passaic River Bridge	\$ -	\$ 25,000,000	\$ 25,000,000	-	0.0%
Funding for Supplemental Capital Spending	61,695,000	126,520,000	143,936,000	17,416,000	13.8%
Live Nation Contribution	(2,750,000)	(2,750,000)	(4,750,000)	(2,000,000)	72.7%
<b>Total Transfers- Net</b>	<b>58,945,000</b>	<b>148,770,000</b>	<b>164,186,000</b>	<b>15,416,000</b>	<b>10.4%</b>

General Reserve Fund Budget (Expensed)					
General Reserve Spending	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
<b>Operating</b>					
Maintenance of Infrastructure	\$ 32,512,000	\$ 39,738,064	\$ 50,738,064	\$ 11,000,000	-
Toll Collection	3,859,000	4,321,257	4,321,257	-	-
Traffic Control & State Police	709,000	702,690	5,202,690	4,500,000	640.4%
Technology	1,238,000	629,121	629,121	-	-
General & Administrative	5,860,000	5,953,867	10,953,867	5,000,000	84.0%
<b>Total Operating</b>	<b>\$ 44,178,000</b>	<b>\$ 51,345,000</b>	<b>\$ 71,845,000</b>	<b>\$ 20,500,000</b>	<b>39.9%</b>
<b>Non-Operating</b>					
Bond Cost of Issuance	\$ 15,000	\$ 1,000,000	\$ 1,000,000	\$ -	-
State Payments	193,000,000	179,500,000	178,500,000	(1,000,000)	-0.6%
Loss on Disposal of Capital Assets	-	-	-	-	-
<b>Total Non-Operating</b>	<b>\$ 193,015,000</b>	<b>\$ 180,500,000</b>	<b>\$ 179,500,000</b>	<b>\$ (1,000,000)</b>	<b>-0.6%</b>
<b>Total General Reserve Spending</b>	<b>\$ 237,193,000</b>	<b>\$ 231,845,000</b>	<b>\$ 251,345,000</b>	<b>\$ 19,500,000</b>	<b>8.4%</b>

Figure 107: General Reserve Fund Budget (2018-2020)

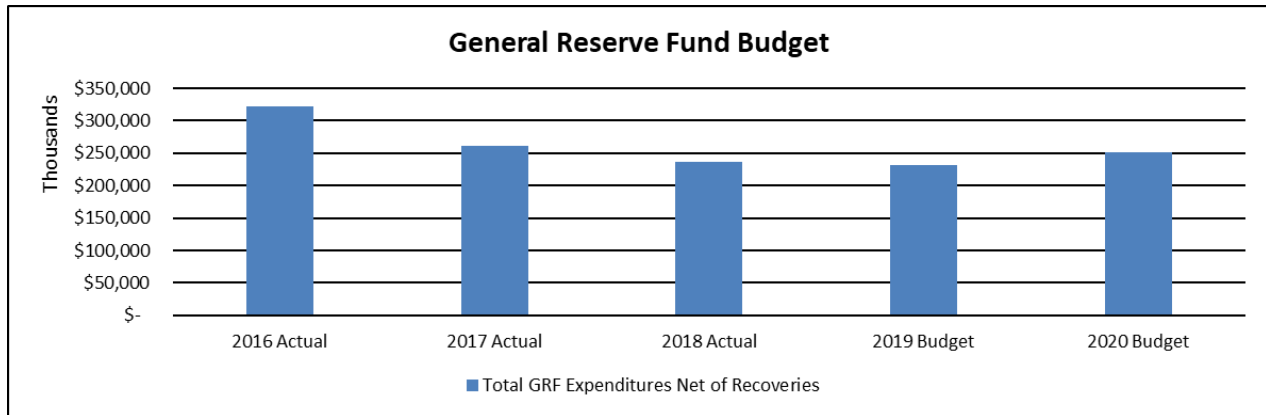


Figure 108: General Reserve Fund Budget Graph (2016-2020)

The graph below depicts the General Reserve Fund ending balance for the past five years as compared to the targets in the Authority's Financial Management Principles and Guidelines. The General Reserve Fund balance has exceeded the target each year and is projected to exceed the target again in 2020 as well. The General Reserve Fund balance has declined, as the transfers in from the Revenue Fund have declined as projected, mainly from increased debt service from the full funding of the \$7 Billion CIP, as well as higher deposits to the Maintenance Reserve Fund. In addition, beginning in 2019 the Authority has budgeted to transfer balances from the General Reserve Fund to revenue funded accounts in the Construction Fund to meet pay as you go capital project needs.

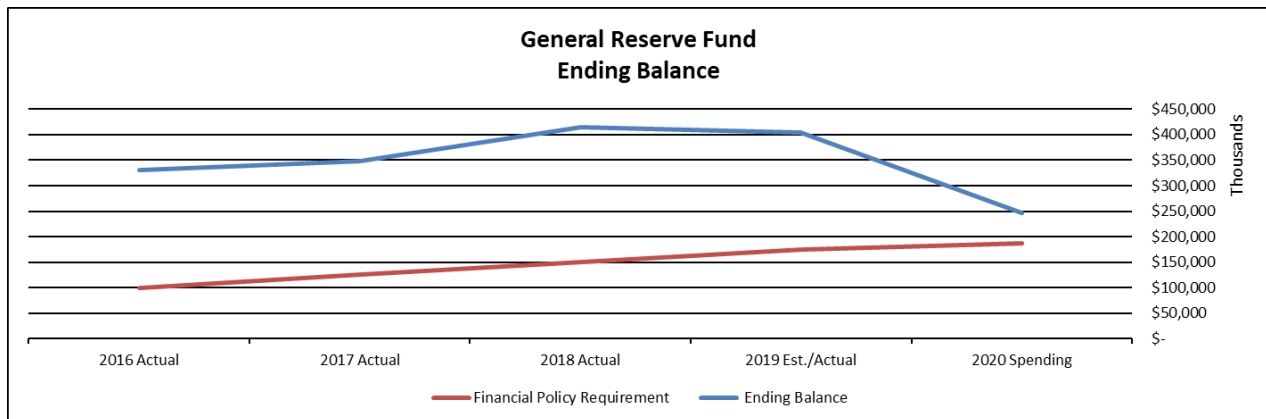


Figure 109: General Reserve Fund Budget Graph (2016-2020)

General Reserve Fund Balance					
	2018 Actual	2019 Est./Actual	2020 Spending	\$ Change from 2019 Est./Actual	% Change from 2019 Est./Actual
Beginning Balance	\$ 348,373,000	\$ 414,449,000	\$ 403,737,000	\$ (10,712,000)	-2.6%
Transfer from Revenue Fund	374,075,000	296,588,000	247,876,000	(48,712,000)	-16.4%
GRF Spending Net	(307,999,000)	(282,300,000)	(251,345,000)	30,955,000	-11.0%
Transfer to Construction Fund Acct (1)	-	(25,000,000)	(164,186,000)	(139,186,000)	556.7%
<b>Ending Balance</b>	<b>\$ 414,449,000</b>	<b>\$ 403,737,000</b>	<b>\$ 236,082,000</b>	<b>\$ (167,655,000)</b>	<b>-41.5%</b>

(1) In 2020, revenue funded capital projects (supplemental capital) have been moved out of General Reserve and are now a revenue funded account within the Construction Fund for Bond Resolution purposes. General Reserve acts a funding source only. Prior years spending for Supplemental Capital projects are included in the General Reserve Fund Spending-Net line.

- Totals may not add due to rounding

Figure 110: General Reserve Fund Balance (2018-2020)

General Reserve Fund 2020	
Category	Description
Bond Cost of Issuance	To pay rating agency, legal, trustee, financial advisor, general consulting & traffic engineer fees, etc. for cost of issuance expenses related to variable rate debt.
Extraordinary Events	To pay for the cost of major weather or other events when there is a declared state of emergency.
Transportation Trust Fund	Under an agreement dated 4/27/84, Authority pays the Treasurer of State of New Jersey. These funds are to be used by the State of New Jersey, or the Transportation Trust Fund, to pay or provide for the development of State transportation projects, in effort to further satisfy the overall transportation needs of the State. The agreement expires when all obligations of the Transportation Trust Fund have been satisfied.
Feeder Road Reimbursement NJDOT	Cost Sharing Agreement expiring 6/30/23, providing reimbursement by the Authority to the NJDOT for reconstruction, maintenance and repair of Feeder Roads at twenty New Jersey Turnpike Interchanges and thirty-six Garden State Parkway Interchanges.
State Transportation 2016-2021	The Authority makes annual payments to the State of New Jersey under a five-year Transportation Projects Funding Agreement for the development of transportation purposes. The agreement expires in 2021.
Claim Settlements	To fund reserve for the Authority's self-insured retention on claims related to property, general liability, and/or auto liability.
Other Post-employment benefits	To fund reserve for OPEB, representing a portion of the additional funding necessary to meet the difference between actuarially calculated Annual Required Contribution (ARC) and pay-go expenses paid through the Operating Expense budget.
Arbitrage Expense	To fund reserve for potential arbitrage payments due to the IRS on the Authority's bonds based upon the arbitrage consultant's annual calculations.
OCIP Claim Payments	6-9 and Rolling OCIP Claim Payments on completed construction projects.
State Police Class	Potential funding for a new state trooper class to ultimately increase the Authority's number of assigned troopers.
Contingency	To fund any unanticipated emergency work.

Figure 111: General Reserve Fund Project Descriptions

## Capital Budget (Revenue Funded)

The Authority considers its Capital Budget to include all revenue funded projects, as opposed to those projects that are funded through bond proceeds. Currently, the Authority's Capital Budget includes the Maintenance Reserve Fund, the Special Project Reserve Fund, the 2020 Supplemental Capital Program and the Passaic River Bridges Rehabilitation Program. The Maintenance Reserve Fund and the Special Project Reserve Fund are defined in the Authority's Bond Resolution. Annual deposits of revenue to these funds are determined by the Authority's General Consulting Engineer based upon the requirements established in the Bond Resolution. The annual deposits to these funds are included in the Authority's bond coverage calculations. The 2020 Supplemental Capital Program and the Passaic River Bridges Rehabilitation Program are revenue funded accounts within the Construction Fund as defined in the Bond Resolution. These revenue funded accounts receive funds through transfers from the General Reserve Fund and generally include medium term (1-5 years) capital projects.

The 2020 Capital Budget includes total project budgets of \$649 million, with spending plans of \$440 million in 2020. All projects submitted for consideration for inclusion in the 2020 Capital Budget were categorized into one of the following eleven (11) categories that briefly describe the need for or benefit of the project. They are:

1. Public Safety
2. Employee Health & Safety
3. Regulatory Mandate
4. Frequent Problems
5. Generates Revenues
6. Generates Cost Savings
7. Age or Condition of Existing
8. Public Benefit
9. Public Demand
10. Synergy with Other Projects
11. Strategic Goal

During the evaluation process of determining which projects would be funded, the categories were considered. Priority was given to those projects that maintain a state of good repair of the roadways and facilities, improve the safety of our roadways for our patrons, and provide a high level of service for our patrons. A summary of the 2020 Capital Budget projects by category is as follows:

<u>Category</u>	<u>% of Total Capital Budget Project Budgets</u>
Age or Condition of Existing	44%
Public Safety	16%
Strategic Goal	15%
Public Benefit	9%
Employee Health & Safety	7%
Generates Revenue	3%
Frequent Problems	3%
Regulatory Mandate	2%
Synergy with Other Projects	1%

Approximately 44% of the total project budgets for 2020 is intended to maintain assets in a state of good repair. This includes bridge repair, roadway resurfacing projects and facility improvements. The Authority continues to increase its funding to maintain the roadways in a state of good repair. In 2020 the Authority will continue the goal of resurfacing 200 lane miles per year (12-year repaving cycle) and painting 20,000 tons of steel per year (15-year cycle). Approximately 16% of the total 2020 Capital Budget is for projects which are intended to improve Public Safety, such as providing shoulder widening and more effective signage, and programs that will provide a benefit

to the public other than safety, such as bridge and structure inspections and evaluation of interchanges or sections of the roadway that may be improved to provide patrons with a more efficient travel experience.

Capital Budget By Program					
	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Maintenance Reserve Fund	\$ 96,835,000	\$ 185,025,000	\$ 255,943,000	\$ 70,918,000	38.3%
Special Project Reserve Fund	35,595,000	65,149,000	83,896,000	18,747,000	28.8%
2020 Supplemental Capital Program	61,695,000	126,520,000	176,683,000	50,163,000	39.6%
Passaic River Bridge Program	1,953,000	100,000,000	132,135,000	32,135,000	32.1%
<b>Total Funding Sources</b>	<b>\$ 196,078,000</b>	<b>\$ 476,694,000</b>	<b>\$ 648,657,000</b>	<b>\$ 171,963,000</b>	<b>36.1%</b>

- Totals may not add due to rounding

Figure 112: Total Capital Budget (2020)

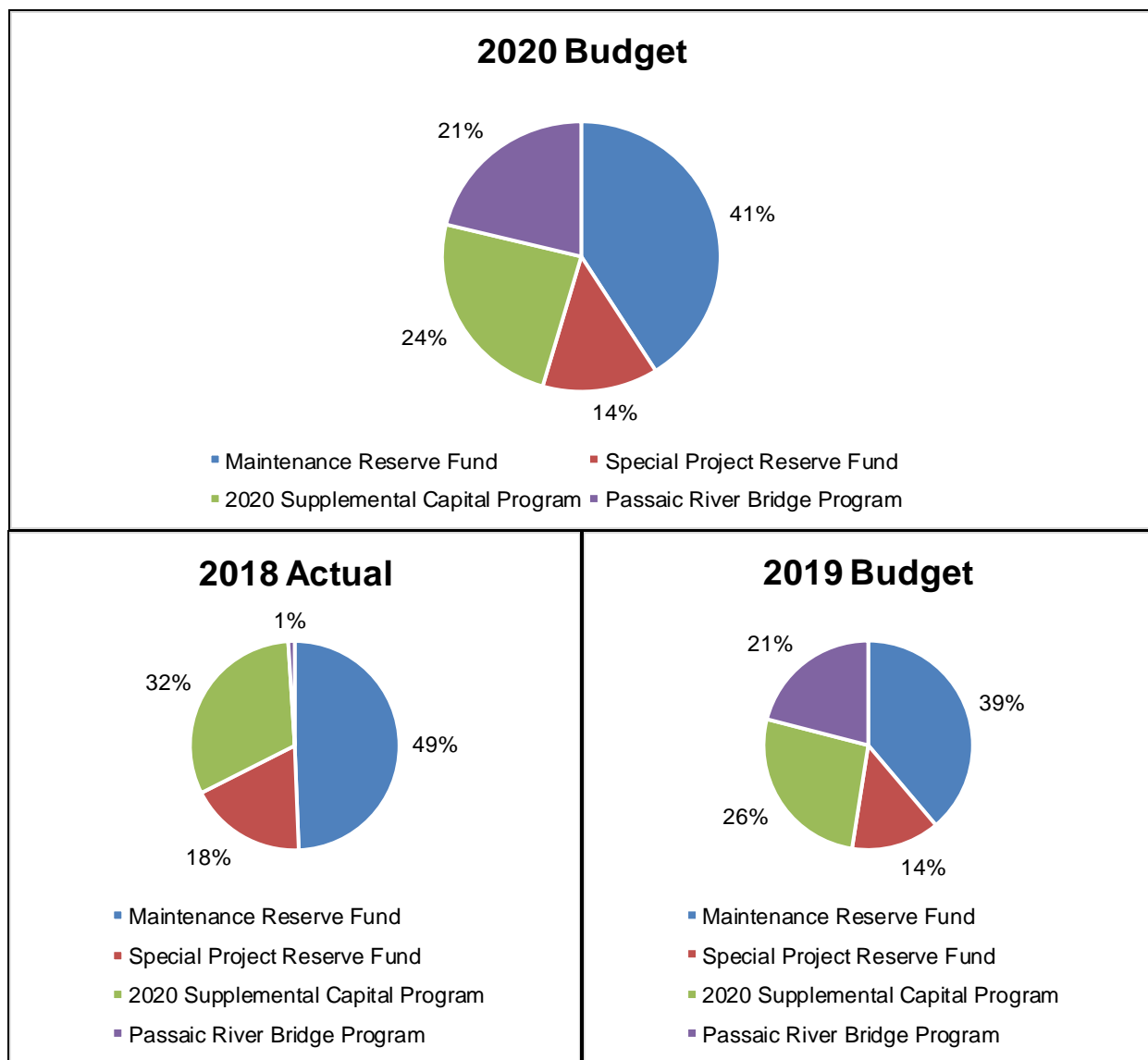


Figure 113: Total Capital Budget Percentages (2018-2020)



Capital Budget Spending by Project Type					
	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
<b>Roadway</b>					
Bridge Repairs	\$ 50,630,000	\$ 209,150,000	\$ 213,267,000	\$ 4,117,000	2.0%
Concrete Barrier Repairs	7,614,000	11,100,000	6,972,000	(4,128,000)	-37.2%
Drainage Structure Repairs	4,134,000	10,000,000	35,756,000	25,756,000	257.6%
Emergency Maintenance	2,231,000	10,100,000	5,215,000	(4,885,000)	-48.4%
Other Roadway Improvements	38,144,000	18,956,000	69,255,000	50,299,000	265.3%
Resurfacing	30,968,000	67,930,000	114,978,000	47,048,000	69.3%
Roadway Lighting Repairs	2,333,000	15,195,000	35,917,000	20,722,000	136.4%
Shoulder Restoration	-	10,000,000	-	(10,000,000)	-100.0%
<b>Total Roadway</b>	<b>\$ 136,054,000</b>	<b>\$ 352,431,000</b>	<b>\$ 481,360,000</b>	<b>\$ 128,929,000</b>	<b>36.6%</b>
<b>Non-Roadway</b>					
Facility Improvements	\$ 23,710,000	\$ 39,871,000	\$ 56,512,000	\$ 16,641,000	41.7%
Fleet Upgrades	10,726,000	11,720,000	15,396,000	3,676,000	31.4%
Service Areas & Arts Center	-	19,766,000	24,877,000	5,111,000	25.9%
Technology Improvements	10,549,000	32,630,000	34,041,000	1,411,000	4.3%
<b>Total Non-Roadway</b>	<b>\$ 44,985,000</b>	<b>\$ 103,987,000</b>	<b>\$ 130,826,000</b>	<b>\$ 26,839,000</b>	<b>25.8%</b>
<b>Total of All Projects (Capitalized)</b>	<b>\$ 181,039,000</b>	<b>\$ 456,418,000</b>	<b>\$ 612,186,000</b>	<b>\$ 155,768,000</b>	<b>34.1%</b>

Capital Budget Spending by Project Type Spending Budget (Expensed)					
Functional Area	2018	2019	2020	\$ Change from 2019 Budget	% Change from 2019 Budget
Maintenance of Infrastructure	\$ 11,808,000	\$ 15,746,000	\$ 21,102,000	\$ 5,356,000	34.0%
Traffic Control & State Police	1,075,000	1,292,000	4,027,000	2,735,000	211.7%
Technology	2,118,000	2,988,000	8,397,000	5,409,000	181.0%
General & Administrative	37,000	250,000	2,945,000	2,695,000	1078.0%
<b>Total by Functional Area</b>	<b>\$ 15,038,000</b>	<b>\$ 20,276,000</b>	<b>\$ 36,471,000</b>	<b>\$ 16,195,000</b>	<b>79.9%</b>
<b>Total Capital Budget Spending by Project Type Spending Budget (Capitalized + Expensed)</b>	<b>\$ 196,077,000</b>	<b>\$ 476,694,000</b>	<b>\$ 648,657,000</b>	<b>\$ 171,963,000</b>	<b>36.1%</b>

Figure 114: Capital Budget Spending (2018-2020)

Some highlights for the Capital Budget include:

- An increase in over 220% combined for drainage structure and concrete barrier repairs. These repairs will not only help to maintain a state of good repair, but more importantly increase patron safety.
- In 2020, a total of \$88.7 million is budgeted for Turnpike and Parkway bridge repairs, which is a 71.2% increase from the \$124.5 budgeted in 2019.
- In 2020, a total of \$96.5 million is budgeted for resurfacing, which is a 42% increase from the \$67.9 million budgeted in 2019.
- Increased funding of \$5.1 million for the Authority's responsibility for Service Area and Arts Center improvements primarily to improve safety.

## Maintenance Reserve Fund

- The New Jersey Turnpike lanes will be resurfaced northbound and southbound from mileposts 88.89 to 92.65, 101.03 to 103.53, easterly 106.68 to easterly 107.87, easterly 110.85 to 112.1, and westerly 116.10/easterly 116.42 to 122. Southbound lanes will be resurfaced from mileposts 116.10 to 122. Interchanges 11, 13A, 15E, 15X, Route 46, and exits 68, 69, 70, 71, 72, 73 will also be resurfaced. Resurfacing for the Turnpike is a total of 313 lane miles.
- The New Jersey Turnpike is scheduled to have 30 bridge decks repaired.
- The Garden State Parkway lanes will be resurfaced northbound and southbound from mileposts 64.2 to 80.3. Interchanges 63, 67, 69, 74, and 77 will also be resurfaced. Resurfacing for the Parkway is a total of 214 lanes miles.
- The Garden State Parkway is scheduled to have 20 bridge decks repaired.

Maintenance Reserve Project Budget (Capitalized Projects)					
	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
<b>Roadway</b>					
Bridge Repairs	\$ 48,677,000	\$ 68,700,000	\$ 72,447,000	\$ 3,747,000	5.5%
Concrete Barrier Repairs	7,614,000	11,100,000	6,972,000	(4,128,000)	-37.2%
Drainage Structure Repairs	4,134,000	10,000,000	35,756,000	25,756,000	257.6%
Emergency Maintenance	2,231,000	1,600,000	215,000	(1,385,000)	-86.6%
Other Roadway Improvements	878,000	2,000,000	3,108,000	1,108,000	55.4%
Resurfacing	30,968,000	67,930,000	96,528,000	28,598,000	42.1%
Roadway Lighting Repairs	2,333,000	15,195,000	35,917,000	20,722,000	136.4%
Contingency	-	8,500,000	5,000,000	(3,500,000)	-41.2%
<b>Total Roadway</b>	<b>\$ 96,835,000</b>	<b>\$ 185,025,000</b>	<b>\$ 255,943,000</b>	<b>\$ 70,918,000</b>	<b>38.3%</b>
<b>Total Projects</b>	<b>\$ 96,835,000</b>	<b>\$ 185,025,000</b>	<b>\$ 255,943,000</b>	<b>\$ 70,918,000</b>	<b>38.3%</b>

- Totals may not add due to rounding

Figure 115: Maintenance Reserve Fund Projects (2018-2020)

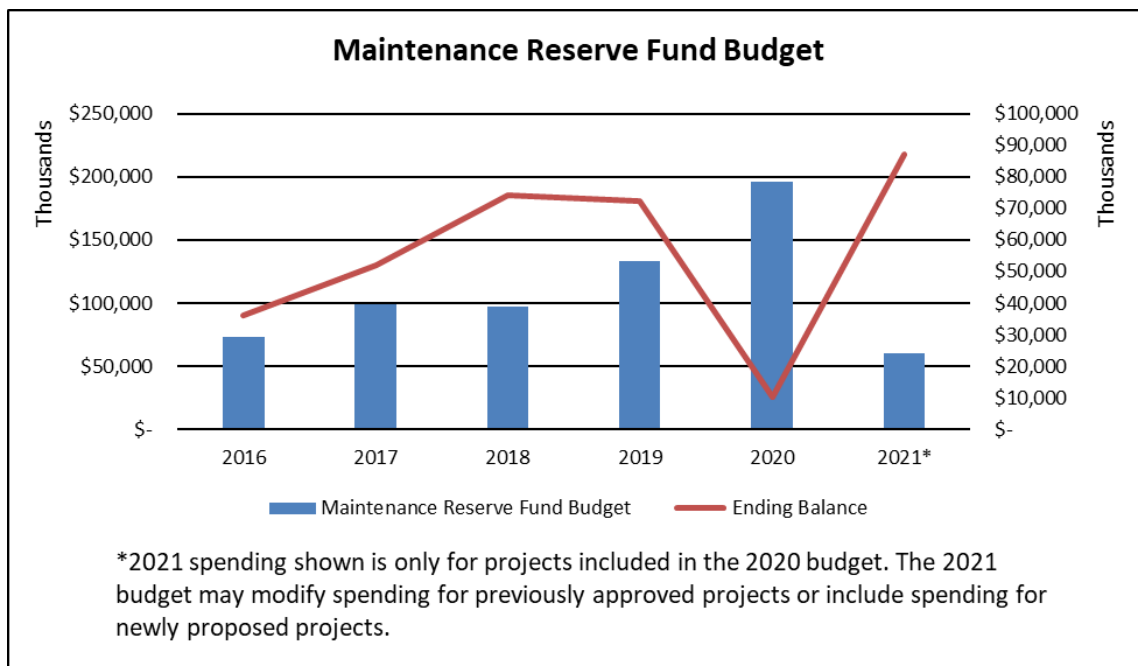


Figure 116: Maintenance Reserve Fund Budget Graph (2016-2021)

<b>Maintenance Reserve Fund Balance</b>						
	<b>2018 Actual</b>	<b>2019 Est/Actual</b>	<b>2020 Spending</b>	<b>\$ Change from 2019</b>	<b>% Change from 2019</b>	<b>2021 Spending<sup>1</sup></b>
Beginning Balance	\$ 51,908,000	\$ 74,159,000	\$ 72,142,000	\$ (2,017,000)	-3%	\$ 10,389,000
Transfer from Revenue Fund	119,086,000	131,468,000	134,097,000	2,629,000	2%	136,779,000
Project Expenses	(96,835,000)	(133,485,000)	(195,850,000)	(62,365,000)	47%	(60,093,000)
<b>Ending Balance*</b>	<b>\$ 74,159,000</b>	<b>\$ 72,142,000</b>	<b>\$ 10,389,000</b>	<b>\$ (61,753,000)</b>	<b>-86%</b>	<b>\$ 87,075,000</b>

<sup>1</sup> 2021 spending shown is only for projects included in the 2020 budget. The 2021 budget may modify spending for previously approved projects or include spending for newly proposed projects.

\*Does not agree to fund balance in the Authority's financial statement as this chart excludes capitalized assets.

- Totals may not add due to rounding

**Figure 117: Maintenance Reserve Fund Balance (2018-2020)**

The following is a detailed list of the projects included in the 2020 Maintenance Reserve Fund Spending Budget:

<b>Maintenance Reserve Fund 2020</b>				
<b>Maintenance Reserve Fund 2020 Capitalized Projects</b>				
<b>Project Number</b>	<b>Project Name</b>	<b>2020 Budget</b>	<b>2020 Spending</b>	<b>2021 Spending</b>
#030C00001E	Drainage Structure Repairs	\$ 21,837,000	\$ 18,726,000	\$ 3,111,000
#030C00002	Concrete Barrier Repairs	6,972,000	2,705,000	4,267,000
#030C00003E	Roadway Lighting Repairs	26,900,000	8,300,000	18,600,000
#030C00004	P0.00 Emergency Repairs	215,000	125,000	90,000
#030C10001E	Turnpike Bridge Repairs	37,419,000	28,194,000	9,225,000
#030C10002E	Turnpike Resurfacing	71,731,000	66,731,000	5,000,000
#030C200001E	Parkway Bridge Repairs	35,028,000	20,228,000	14,800,000
#030C200005E	Parkway Resurfacing	24,797,000	19,797,000	5,000,000
#030C00001M	Drainage Structure Repairs	13,919,000	13,919,000	-
#030C00003M	Major Reconstruction and Replacement of Roadway Lighting	9,017,000	9,017,000	-
#030C00005M	Major Roadway Repairs	3,108,000	3,108,000	-
#039999999	Contingency	5,000,000	5,000,000	-
<b>Maintenance Reserve Fund 2020 Capitalized Projects Total</b>		<b>\$ 255,943,000</b>	<b>\$ 195,850,000</b>	<b>\$ 60,093,000</b>

**Figure 118: Maintenance Reserve Fund 2020 Projects**

Maintenance Reserve Fund 2020		
Maintenance Reserve Fund 2020 Capitalized Projects		
Project	Project Name	Project Description
#030C00001E	Drainage Structure Repairs	Provide resources for the design, construction and construction supervision of scheduled major reconstruction, repairs and improvements of drainage and utility culverts with spans between 5 and 20 feet.
#030C00002	Concrete Barrier Repairs	Provides resources for the design, construction and construction supervision of repairs/replacements to existing concrete median barrier at various locations along the length of the Garden State Parkway and New Jersey Turnpike roadways to restore this asset to a safe, serviceable and aesthetically pleasing condition.
#030C00003E	Roadway Lighting Repairs	Provides resources for the design, construction and construction supervision of the repairs/replacements of roadway lighting on the New Jersey Turnpike and Garden State Parkway mainlines and ramps.
#030C00004	P0.00 Emergency Repairs	Funding for the completion of the emergency repairs to the Delaware River turnpike Bridge (NJTA Structure No. P0.00) as well as structural monitoring and non-destructive testing.
#030C10001E	Turnpike Bridge Repairs	Inspection, design, construction and construction supervision for repairs of New Jersey Turnpike bridges; includes 37 bridge repairs for 2020.
#030C10002E	Turnpike Resurfacing	Provides resources for the annual roadway resurfacing program for the New Jersey Turnpike mainline and ramps including inspection, design, construction and construction supervision. This funding allows surface course pavement to be maintained in a safe and serviceable condition for the benefit of patrons.
#030C200001E	Parkway Bridge Repairs	Inspection, design, construction and construction supervision for repairs of Garden State Parkway bridges; includes 24 bridge repairs in 2020.
#030C200005E	Parkway Resurfacing	Provides resources for the annual roadway resurfacing program for the Garden State Parkway mainline and ramps including inspection, design, construction and construction supervision. This funding allows surface course pavement to be maintained in a safe and serviceable condition for the benefit of patrons.
#030C00001M	Drainage Structure Repairs	Funding for stormwater system repairs and replacements with costs over \$50,000.00.
#030C00003M	Major Reconstruction and Replacement of Roadway Lighting	Funding for roadway lighting system repairs and replacements with costs over \$50,000.00.
#030C00005M	Major Roadway Repairs	Funding for roadway and structural repairs with costs over \$50,000.00.
#039999999	Emergency Maintenance	Emergency/Unanticipated roadway, bridge or structure maintenance.

Figure 119: Maintenance Reserve Fund Project Descriptions

## Special Project Reserve Fund

Approximately \$56.2 million (67%) is budgeted for Capitalized projects. Of this \$19.4 million (23%) is budgeted for Facility Improvements, \$7.4 million (9%) is budgeted for Roadway Improvements, \$12.5 million (15%) is budgeted for Technology Improvements and \$15.4 million (18%) for Fleet Upgrades. Approximately \$27.7 million (33%) is budgeted for Expensed projects. Of this \$17.1 million (20%) is budgeted for Maintenance of Infrastructure, \$ 4.0 million (5%) for Traffic Control & State Police, \$2.9 million (4%) for General & Administrative and \$3.6 million (4%) for Technology.

Special Projects Reserve Fund Budget (Capitalized)					
	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
<b>Roadway</b>					
Other Roadway Improvements	1,110,000	3,746,000	7,434,000	3,688,000	98.5%
<b>Total Roadway</b>	<b>\$ 1,110,000</b>	<b>\$ 3,746,000</b>	<b>\$ 7,434,000</b>	<b>\$ 3,688,000</b>	<b>98.5%</b>
<b>Non-Roadway</b>					
Facility Improvements	\$ 6,923,000	\$ 20,683,000	\$ 19,441,000	\$ (1,242,000)	-6.0%
Fleet Upgrades	10,726,000	11,720,000	15,396,000	3,676,000	31.4%
Technology Improvements	2,044,000	6,904,000	12,456,000	5,552,000	80.4%
Contingency	-	2,000,000	1,500,000	(500,000)	-25.0%
<b>Total Non-Roadway</b>	<b>\$ 19,693,000</b>	<b>\$ 41,307,000</b>	<b>\$ 48,793,000</b>	<b>\$ 7,486,000</b>	<b>18.1%</b>
<b>Total Projects</b>	<b>\$ 20,803,000</b>	<b>\$ 45,053,000</b>	<b>\$ 56,227,000</b>	<b>\$ 11,174,000</b>	<b>24.8%</b>
<b>Special Projects Reserve Fund Budget (Expensed)</b>					
Functional Area	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
<i>Maintenance of Infrastructure</i>	\$ 11,808,000	\$ 15,746,000	\$ 17,112,000	\$ 1,366,000	8.7%
<i>Traffic Control &amp; State Police</i>	829,000	1,112,000	4,027,000	2,915,000	262.1%
<i>Technology</i>	2,118,000	2,988,000	3,585,000	597,000	20.0%
<i>General &amp; Administrative</i>	37,000	250,000	2,945,000	2,695,000	1078.0%
<b>Total by Functional Area</b>	<b>\$ 14,792,000</b>	<b>\$ 20,096,000</b>	<b>\$ 27,669,000</b>	<b>\$ 7,573,000</b>	<b>37.7%</b>
<b>Total Special Projects Reserve Fund Budget (Capitalized + Expensed)</b>	<b>\$ 35,595,000</b>	<b>\$ 65,149,000</b>	<b>\$ 83,896,000</b>	<b>\$ 18,747,000</b>	<b>28.8%</b>

- 2018 amounts have been reclassified to match 2020 presentation

- Totals may not add due to rounding

Figure 120: Special Project Reserve Fund Budget (2018-2020)

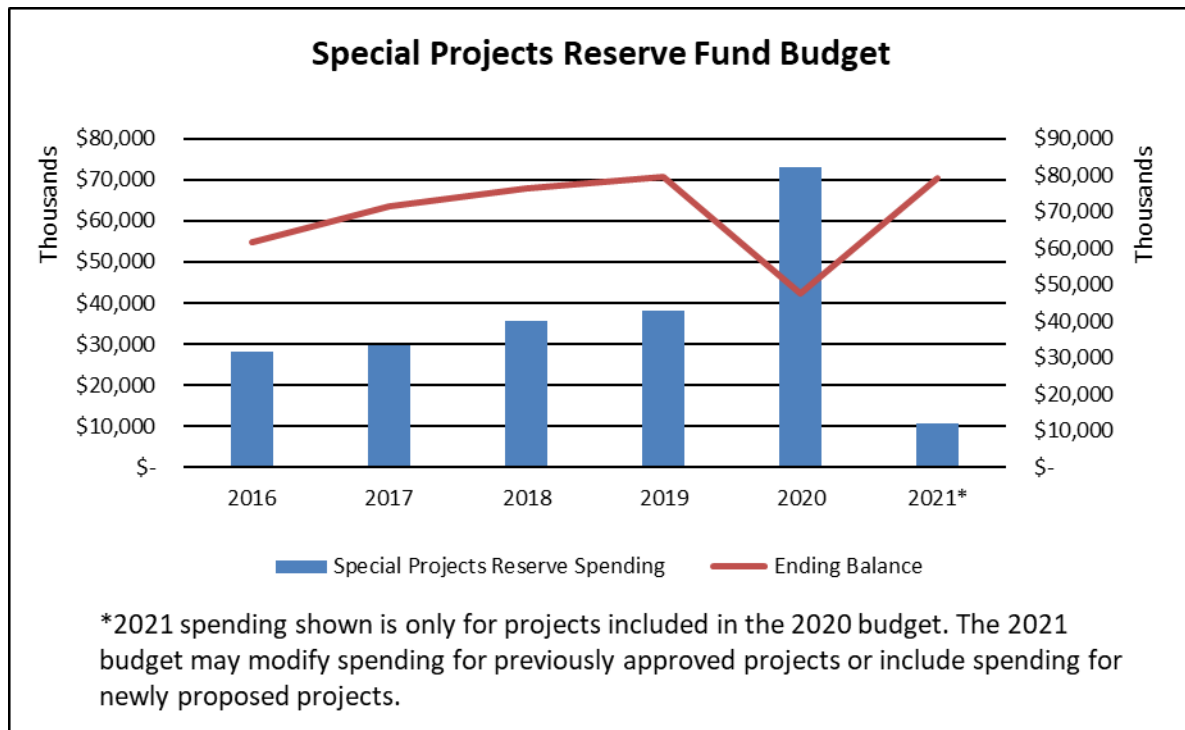


Figure 121: Special Project Reserve Fund Budget Graph (2016-2020)

Special Projects Reserve Fund Balance						
	2018 Actual	2019 Est/Actual	2020 Spending	\$ Change from 2019	% Change from 2019	2021 Spending <sup>1</sup>
Beginning Balance	\$ 71,552,000	\$ 76,447,000	\$ 79,535,000	\$ 3,088,000	4%	\$ 47,756,000
Transfer from Revenue Fund	40,490,000	41,300,000	41,300,000	-	0%	42,126,000
Project Expenses	(35,595,000)	(38,212,000)	(73,079,000)	(34,867,000)	91%	(10,817,000)
<b>Ending Balance</b>	<b>\$ 76,447,000</b>	<b>\$ 79,535,000</b>	<b>\$ 47,756,000</b>	<b>\$ (31,779,000)</b>	<b>-40%</b>	<b>\$ 79,065,000</b>

<sup>1</sup> 2021 spending shown is only for projects included in the 2020 budget. The 2021 budget may modify spending for previously approved projects or include spending for newly proposed projects.

\*Does not agree to fund balance in the Authority's financial statement as this chart excludes capitalized assets.

- Totals may not add due to rounding

Figure 122: Special Project Reserve Fund Balance (2018-2020)

Special Projects Reserve Fund 2020 Capitalized Projects				
Project Number	Project Name	2020 Budget	2020 Spending	2021 Spending
#040C00008	NJ Turnpike Milepost 29 Grade Sep	\$ 626,000.00	\$ 626,000.00	\$ -
#040C00038	Stormwater Pump Replacement Building Reno	2,625,000	1,063,000	1,562,000
#040C00040	Salt Shed TMD 6 Elizabeth	1,199,000	1,199,000	-
#040C00045	3S Pump Stn Force Main Upgrade	1,105,000	280,000	825,000
#040C00046	Service Area 6S Wastewater Pre-treatment Plant	1,325,000	225,000	1,100,000
#040C00050	GSP I/C 127 SBE Merge Improvements	274,000	274,000	-
#040C00059	Capex Manager	900,000	600,000	300,000
#040C00063	Guide Sign Guide Rail Improvements	169,000	169,000	-
#040C00064	Pre-Engineered Buildings	3,542,000	2,845,000	697,000
#040C00065	Building Renovations	1,382,000	1,382,000	-
#040C00072	Pleasant Plains Sub-Barracks	500,000	500,000	-
#040C00073	HQ Water Main Improvements	600,000	600,000	-
#040C00074	Roadside Safety Improvements at State Police and Maintenance Districts	2,350,000	2,350,000	-
#040C00070	Turnpike Regulatory Signing	563,000	563,000	-
#040C00084	Construction Barrier Steel Post	115,000	115,000	-
#040C00013	Law Department Software Improvements	145,000	145,000	-
#040C00015	Enterprise Asset Management (EAM)	4,002,000	4,002,000	-
#040C00020	Security Remediation	1,150,000	900,000	250,000
#040C00058	HR Software Improvements and Planning	1,700,000	500,000	1,200,000
#040C00069	Holmdel UPS Replacement	775,000	775,000	-
#040C00071	Capital Program Management Software	1,250,000	1,000,000	250,000
#040C00078	Financial Software Discovery and Implementation	500,000	250,000	250,000
#040C00079	High Jump Upgrade & Sky Track	150,000	150,000	-
#040C00077	Business Intelligence and Business Analytic	100,000	100,000	-
#040C00075	Bassett Building Improvements	300,000	100,000	200,000
#040C00011	Major Sign and Safety Replacement	1,100,000	550,000	550,000
#040C00024	Major Fleet Augmentation Tractors	1,238,000	1,238,000	-
#040C00034	Maintenance Dept. Material Storage Facility	525,000	525,000	-
#040C07021	Major Fleet Augmentation	4,699,000	4,699,000	-
#040C07021D	Major Fleet Augmentation Dump Trucks	5,040,000	5,040,000	-
#040C07021G	Major Fleet Augmentation-Generators	160,000	160,000	-
#040C07021L	Major Fleet Augmentation Loaders	1,155,000	1,155,000	-
#040C07021T	Major Fleet Augmentation Tandem Dump Trucks	2,016,000	2,016,000	-
#040C07021U	Major Fleet Augmentation Trade Utility Trucks	1,088,000	1,088,000	-
#040C17027	Major Building Improvements	3,900,000	1,900,000	2,000,000
#040C00081	Motorola Console Upgrade	2,000,000	2,000,000	-
#040C00076	BDA (Bi-Directional Amplifier) for Districts	500,000	500,000	-
#040C00082	TPLC	300,000	300,000	-
#040C00083	Traffic Management Center Communication's Enhancements	1,000,000	1,000,000	-
#040C00080	DOT Route 42 Bridge	100,000	100,000	-
#040C00068	Backup Storage	476,000	476,000	-
#040C08056	Traffic Permit Lane Close App	240,000	240,000	-
#040C00055	Radio Tower Backup Power	68,000	68,000	-
#040C00085	Toll Plaza Safety Improvements	2,000,000	2,000,000	-
#040C00086	Toll Canopy Signs - Turnpike	475,000	475,000	-
#040C00087	State Police / Emergency Services Upgrades	800,000	800,000	-
<b>Special Projects Reserve Fund 2020 Capitalized Projects Total</b>		<b>\$ 56,227,000</b>	<b>\$ 47,043,000</b>	<b>\$ 9,184,000</b>

Special Projects Reserve Fund 2020 Expensed Projects				
Project Number	Project Name	2020 Budget	2020 Spending	2021 Spending
#040E00006	Remediation at Chromate Sites	\$ 1,593,000	\$ 1,593,000	\$ -
#040E00009	Preparation of Jurisdictional Limits Maps	100,000	100,000	-
#040E00032	Culvert Inspections	565,000	565,000	-
#040E00033	Pavement Management	1,693,000	988,000	705,000
#040E00040	Development Roadway Lighting Program	20,000	20,000	-
#040E10018	Bridge and Structure Inspection	12,241,000	12,241,000	-
#040E10062	Engineering Studies	1,173,000	1,173,000	-
#040E18068	NBHCE Capacity Study	302,000	274,000	28,000
#040E00058	Department of Community Affairs (DCA) Compliance	750,000	750,000	-
#040E00060	Engineering Documents	1,000,000	1,000,000	-
#040E00059	General Permit Expansion	150,000	150,000	-
#040E00066	New Mile Markers - Turnpike & Parkway	300,000	300,000	-
#040E00068	Sensys Puck Expansion Study	100,000	100,000	-
#040E18054	On Call Traffic Engineering Services	709,000	709,000	-
#040E00037	Interchange 114 Traffic Signal Study	9,000	9,000	-
#040E00053	GSP 130-132 Crash Mitigation Study	269,000	269,000	-
#040E00046	E-ZPass Contract Implementation	1,970,000	1,970,000	-
#040E00055	Cell Tower Security	189,000	189,000	-
#040E00057	Fire Alarm	150,000	150,000	-
#040E00063	New Disaster Recovery & Business Continuity Updates	100,000	100,000	-
#040E00047	On Call Traffic and Revenue Study	411,000	411,000	-
#040E00048	Preliminary AET Study	224,000	124,000	100,000
#040E00061	ERP Consultant	300,000	150,000	150,000
#040E00062	Financial Planning Study & Analysis	400,000	200,000	200,000
#040E00001	Maintenance Studies and Scoping	900,000	450,000	450,000
#040E00026	Rutgers Assignment Maint Software	176,000	176,000	-
#040E00056	Direct to Plate System - Cron ECRM	110,000	110,000	-
#040E00064	Contract Audit	100,000	100,000	-
#040E00052	Emergency Access SN 23.4	165,000	165,000	-
#049999999	Contingency	1,500,000	1,500,000	-
<b>Special Projects Reserve Fund 2020 Expensed Projects Total</b>		<b>\$ 27,669,000</b>	<b>\$ 26,036,000</b>	<b>\$ 1,633,000</b>
<b>Special Projects Reserve Fund 2020 Projects Total (Expensed+Capitalized)</b>		<b>\$ 83,896,000</b>	<b>\$ 73,079,000</b>	<b>\$ 10,817,000</b>

Figure 123: Special Project Reserve Fund Project



Special Projects Reserve Fund 2020		
Special Projects Reserve Fund 2020 Capitalized Projects		
Project	Project Name	Project Description
#040C00008	NJ Turnpike Milepost 29 Grade Sep	Preparation of construction documents for a U-turn for Maintenance and operational needs; cost and time savings can be found during incident response and winter weather operations. The project will require provisions for construction of the U-turn roadway over a fiber optic line and also in close proximity to a Colonial Pipeline facility.
#040C00038	Stormwater Pump Replacement Building Reno	Funding for design for the preparation of plans and specifications to replace the existing Pump House at MP 92 on the Turnpike
#040C00040	Salt Shed TMD 6 Elizabeth	Preparation of plans and specifications for the construction of a salt shed at Turnpike Maintenance District 6, Elizabeth and removal of two existing salt domes. Completion of work under a construction contract which has been awarded. Funding for associated construction supervision. It is anticipated that all work will be completed in 2019.
#040C00045	3S Pump Stn Force Main Upgrade	The existing force main is excessively long with many dips and rises. The pipe clogs often and due to the profile cannot be cleaned safely.
#040C00046	Service Area 6S Wastewater Pre-treatment Plant	Funding for replacement of the plant which is past its useful life. The SBR system will be replaced with a smaller system that will allow the plant to meet new township sewage quality standards.
#040C00050	GSP I/C 127 SBE Merge Improvements	Study to evaluate a reconfiguration of the southbound entrance ramp from Route 440 and Smith Street to improve merging conditions on GSP Southbound.
#040C00059	Capex Manager	This request is to provide interim upgrades that may be needed in order to tweak current modules for continued use until a new system is in place
#040C00063	Guide Sign Guide Rail Improvements	To comply with congressional legislation; adds/replaces guide signs with the limits of the Interchange 6 to 9 Widening to achieve sign message congruency for the I-95 co-designation. Also includes relocation of I-95 SNX/SNL Milepost 120.6 Z-Turn North to 102.7 in order to facilitate accel and decel between roadways and a more level transition. new Z-Turn for TMD 3 at MP 58.4. Supports design, construction and construction supervision of these improvements
#040C00064	Pre-Engineered Buildings	Preparation of plans and specifications for the construction of pre-engineered metal storage buildings at various locations on the Garden State Parkway and New Jersey Turnpike. Upon completion of plans and specifications construction contracts (or COP, if appropriate) will be issued. Locations to include TMD 1 (Swedesboro) and PMD 5 (Telegraph Hill). Improvements will also include required storm water management and permitting requirements such as tree planting, enhancements, etc.
#040C00065	Building Renovations	Funding for programming (if required), design, construction and construction supervision for various building renovations, including the Print Shop at PMD 5 Telegraph Hill, redevelopment of the Traffic Management Center site including demolition of the former Highway Authority Building, and renovation of the vehicle storage building at Turnpike Maintenance District 7.
#040C00072	Pleasant Plains Sub-Barracks	Funding for design, construction, construction supervision and all other associated costs for a new NJ State Police sub-barracks building at Pleasant Plains and associated site work to replace the existing building.
#040C00073	HQ Water Main Improvements	Funding for design, construction, construction supervision, cost sharing with Middlesex Water Company, and all other associated costs for installation of a redundant water main and replacement of the existing service line for the Authority's Headquarters building.
#040C00074	Roadside Safety Improvements at State Police and Maintenance Districts	Funding for the design and construction of safety enhancements for Maintenance and State Police Buildings to prevent vehicles from veering off the roadway and into the buildings.
#040C00070	Turnpike Regulatory Signing	ROLLOVER - Funding for design, permitting, purchasing and construction resources for the construction of approximately 60 ground-mounted and 15 overhead regulatory signs on the Turnpike Roadway. This will occur from mileposts 0-1 and from IC 9-15E.
#040C00084	Construction Barrier Steel Post	Authority standards only provide for an aluminum post mounted on top of concrete barrier. For larger signs a stronger steel post is required. Operations has a current 2019 study underway to design this standard(s) and accompanying Shop Drawing(s) so that Maintenance can select which post type is appropriate for the barrier/location selected by Operations. This 2020 requested funding is for the fabrication and installation of the first approximate 85 locations.
#040C00013	Law Department Software Improvements	Implementation of case management software to track litigation holds, subpoena requests, OPRA requests and management of outside counsel projects. Funding will be used for hardware, software & services.
#040C00015	Enterprise Asset Management (EAM)	<p>\$2,500,000 is also requested for 2020 to purchase production software licenses and continued HNTB consulting, project management and implementation of Phase II (to be defined). This project will continue Phase I implementation of EAM: Fleet Management.</p> <p>In addition, funds are requested to continue improving Jira Implementation for ITS as part of the Authority EAM initiative.</p> <p>LOADRITE upgrade - Centralize reporting and monitoring for salt usage. Interface to Infor enterprise asset management system.</p> <p>Lastly, funds are requested for hardware, software, services and a consultant to rewrite Rutgers WeatherEVENT and Guardrail applications, thus the Authority can support in-house.</p>

#040C00020	Security Remediation	This product will encrypt sensitive data contained in the Peoplesoft database to only allow authorized users to view the data unencrypted. Funding will be used for hardware, software & services.
#040C00058	HR Software Improvements and Planning	This project is for the discovery of an alternative ERP System(s) for HR. PSHR92 support is provided until 2030, and there will be no future releases or enhancements.  In additions, this project will provide the Authority with an upgrade to the latest version of Kronos. This may be a phased approach.  Funding will be used for hardware, software and services.
#040C00069	Holmdel UPS Replacement	This project will carryover into 2020, as design engineering has not yet been finalized. Since upgrading Cranbury in 2018, the Holmdel State Police facility is the only remaining facility which does not have a stable UPS. The current UPS is the original UPS installed when the building was built and is now end-of-life and end-of-support. Funding will be used for hardware, software and services.
#040C00071	Capital Program Management Software	This project will enable the Authority to deploy a CPMS – Capital Project/Program/Portfolio Management Software/System. Funding will be used for hardware, software and services.
#040C00078	Financial Software Discovery and Implementation	This project will allow the Authority to discover a replacement for PSFin. PSFSCM92 is supported until 2030 and there is no future releases or enhancements. This project escalates Enterprise Planning. Funding will be used for hardware, software and services.
#040C00079	HighJump Upgrade & Sky Track	All work associated to perform the HighJump upgrade and implement the new software release, HighJump1, which is the next generation of HighJump Warehouse Advantage. It is recommended that this project not to commence until after EAM system implementation is completed. Funding will be used for hardware, software and services.
#040C00077	Business Intelligence and Business Analytic	Create a project that will form a core of senior management team to explore how Business Intelligence and Business Analytics can help the agency to gain insights into it operations from the data source internal to the agency and available externally, identify exceptions such that analyst resource are focused on problem areas only, provide end users with the ability to create customized reports without the need to have report programs written and provide management with tools to measure KPIs and to create meaningful dashboards that help them carry out their responsibilities to operate the agency. Funding will be used for hardware, software and services.
#040C00075	Bassett Building Improvements	This project will include an installation of roll-top door, concrete pad, and ramp at the Bassett Building warehouse. These additions will allow us to improve material handling at this facility and allow forklift transfers from outside storage containers to inside.
#040C00011	Major Sign and Safety Replacement	Funding for roadside signage and safety features with costs greater than \$50,000.00.
#040C00024	Major Fleet Augmentation Tractors	The purchase of replacement and supplemental equipment as needed on a priority and lifecycle basis.
#040C00034	Maintenance Dept. Material Storage Facility	Funding for design, permitting, purchasing and construction resources for a storage facility for equipment, materials, etc.
#040C07021	Major Fleet Augmentation	The purchase of replacement and supplemental equipment as needed on a priority and lifecycle basis.
#040C07021D	Major Fleet Augmentation Dump Trucks	The purchase of replacement and supplemental equipment as needed on a priority and lifecycle basis.
#040C07021G	Major Fleet Augmentation-Generators	The purchase of replacement and supplemental equipment as needed on a priority and lifecycle basis.
#040C07021L	Major Fleet Augmentation Loaders	The purchase of replacement and supplemental equipment as needed on a priority and lifecycle basis.
#040C07021T	Major Fleet Augmentation Tandem Dump Trucks	The purchase of replacement and supplemental equipment as needed on a priority and lifecycle basis.
#040C07021U	Major Fleet Augmentation Trade Utility Trucks	The purchase of replacement and supplemental equipment as needed on a priority and lifecycle basis.
#040C17027	Major Building Improvements	Reconstruction, Replacement and Improvements to Authority's buildings with a project cost greater than \$50,000.00.
#040C00081	Motorola Console Upgrade	This project is required because as of January 14, 2020, Windows 7 will no longer be supported. This project will upgrade all the consoles to Windows 10. Funding will be used for hardware, software and services.
#040C00076	BDA (Bi-Directional Amplifier) for Districts	The new district buildings have poor radio coverage inside the buildings due to the thickness of the wall. This prevents the maintenance personal from using the portable radios. To resolve this issue a BDA (Bi-Directional Amplifier) needs to be installed inside each building for adequate coverage. Funding will be used for hardware, software and services.
#040C00082	TPLC	Operations has identified new enhancements to the enterprise-wide traffic permitting and lane closure system. This project will fund these enhancements. Funding will be used for hardware, software and services.
#040C00083	Traffic Management Center Communication's Enhancements	This project will provide funds to upgrade the NJSP ODU console to receive 911 information at the STMC and 1 Hess Plaza. Current NJSP does not receive longitude and latitude information from calls, nor do they receive a call back number because the calls are transferred from 911 centers. This will not make the TMC a 911 Center, but will provide technology enhancements.

#040C00080	DOT Route 42 Bridge	NJDOT is performing bridge work on Route 42 and the New Jersey Turnpike Authority fiber needs to be relocated. DOT will reimburse the NJTA.
#040C00068	Backup Storage	The Authority's existing Backup Storage Units are end-of-service and end-of-life as of March, 2019. The new storage will implement a robust data protection architecture to protect data against individual system failure and multiple site failures. It also provide an archive strategy for long term data, eliminating the use of tapes. This is pertinent to disaster recovery and business continuity.
#040C00056	Traffic Permit Lane Close App	Operations has identified new enhancements to the enterprise-wide traffic permitting and lane closure system. This project will fund these enhancements.
#040C00055	Radio Tower Backup Power	The radio tower equipment on the Parkway and the Turnpike is powered by a 48VDC inverter containing twelve (12) 180AH VRLA batteries at 26 sites. It is estimated these batteries were installed at least 10+ years ago (max life cycle is 13 years). ITS has identified 16 of 26 as critical locations that cannot afford power interruptions. ITS plans to proactively upgrade the batteries at all 26 sites and install a web-based monitoring system. ITS also plans to extend circuitry to the network switch gear and eliminate rack-mounted UPS systems. This procurement includes hardware, software, and services.
#040C00085	Toll Plaza Safety Improvements	Design and construction of improvements at multiple toll plazas to provide for direct safety enhancements at Union, Bergen, and Asbury Park and also new overhead signs at Toms River. Multiple departments and the State Police have corroborated on the demonstrated need and scope of the project for this project.
#040C00086	Toll Canopy Signs - Turnpike	Construction of 210 new toll lane canopy signs on the Turnpike to complete effort started in T600.417. This final effort will establish necessary sign uniformity to support required payment methodologies by Tolls and ITS.
#040C00087	State Police / Emergency Services Upgrades	This effort will construct the 2019 special project for an Emergency Access Gate at MP 23.4 SN on the Turnpike and 4 new helipads. It will also reconstruct 1 existing helipad. Locations vary on both the Turnpike and Parkway.

Special Projects Reserve Fund 2020 Expensed Projects		
Project	Project Name	Project Description
#040E00006	Remediation at Chromate Sites	Efforts associated with the remediation of chromium impacted soil and/or groundwater at Chromate Site 192 in accordance with a court ordered mandate. Pre-design investigation (commence in 2017)/bid documents & specifications (2018); Remediation will take place 2018-2022. Remediation schedule dependent on Conrail approvals.
#040E00009	Preparation of Jurisdictional Limits Maps	Provide for preparation of Maintenance & Jurisdictional Limit Maps that do not exist. This will benefit the Authority by clearly depicting the Authority's limits of responsibility. This will also help in defining maintenance responsibilities and responsibility relative to lawsuits. Each year a manageable number of maps will be prioritized and developed in a stepped process.
#040E00032	Culvert Inspections	Inspection of New Jersey Turnpike and Garden State Parkway drainage and utility culverts with spans between 5 and 20 feet.
#040E00033	Pavement Management	Maintain the Pavement Decision Support System which will analyze annual and historic data to assess pavement performance, determine the remaining service life of pavement sections and make objective recommendations regarding repair types, methods and materials; Collection of Annual Pavement Distress (APD) data (IRI and SDI) for use in the Annual quantitative assessment of the overall condition of the GSP and Turnpike; and integrating into the eGIS Virtual Driver application high-resolution panoramic images with location attributes. Includes effort to submit annual condition reports to NJDOT.
#040E00040	Development Roadway Lighting Program	Assessment of work required including locations, limits of work, approx. number of poles and or fixtures and general conditions
#040E10018	Bridge and Structure Inspection	Inspection of New Jersey Turnpike & Garden State Parkway facilities including but not limited to major bridges, routine bridges, sign structures, antenna towers, retaining walls and noise barriers, high mast light poles, and other structural roadway features.
#040E10062	Engineering Studies	Funding for various Engineering studies.
#040E18068	NBHCE Capacity Study	Funding for a study related to options for increasing the capacity of the NBHCE and associated next steps
#040E00058	Department of Community Affairs (DCA) Compliance	Provide funding in order to comply with the Department of Community Affairs recent changes to NO/CO codes for buildings.
#040E00060	Engineering Documents	Provides funding to implement updates to the Design and Procedures Manuals, Standard Drawings and Specifications for Lighting, ITS and Guiderail.
#040E00059	General Permit Expansion	Supports the application for General Permits similar to those secured by other NJ State agencies that would allow for impacts regulated areas for temporary works related to structural and roadway maintenance activities on the Garden State Parkway and New Jersey Turnpike. This will limit the need to apply for individual general permits at multiple locations and will also provide reliable expectations on restrictions at each location.
#040E00066	New Mile Markers - Turnpike & Parkway	New mile markers will be installed in Union County on the Parkway, and Gloucester and Salem Counties on the Turnpike. These mile markers are properly sized to effectively provide a means for identifying the location of emergency incidents and traffic crashes, and to aid in roadway towing and maintenance. The existing design of the mile markers continues to frustrate motorists, State Police and towing companies.
#040E00068	Sensys Puck Expansion Study	This study would identify ramp locations on both roadways where traffic volumes entering and exiting can be quantified with greater precision through the installation of Sensys pucks that supplement the existing system. Required FHWA reporting has recently rejected our existing methodology for anecdotal traffic volume assignments for exiting volumes on the Turnpike system. This study will analyze power and communication necessities and identify inexpensive locations for construction.
#040E18054	On Call Traffic Engineering Services	Funding for Traffic Engineering Studies required by the Authority's Operations Department. There are currently a number of special needs that the Operations Department has that can be addressed under an on-call assignment. This assignment will allow the Operations Department the benefit of immediately utilizing a consultant's extensive experience with the NJTA.
#040E00037	Interchange 114 Traffic Signal Study	To study alternatives for the modification of the traffic signal at Interchange 114 off ramp traffic signal. Improvements will be the responsibility of Monmouth County.
#040E00053	GSP 130-132 Crash Mitigation Study	Study to develop construction costs of inexpensive, high-impact treatments to the Subject corridor. ATMS, traffic control devices, ramp widening, construction of continuous auxiliary lanes to be considered.
#040E00046	E-ZPass Contract Implementation	This project will enable the Authority to engage HNTB for their continual assistance in the implementation of the Authority's E-ZPass contract, specifically Phase II.
#040E00055	Cell Tower Security	The Authority has 30 cell towers on the both roadways which house equipment critical for ITS infrastructure. This project will secure the towers by providing physical fencing and cameras at each location. Funding will be used for hardware, software and services.

#040E00057	Fire Alarm	This project will allow the Authority to procure new fire alarms panels and modules. Communications for the fire alarm panels will be upgraded to be sent via the Authority's network and not the Verizon POTS network which is no longer supported. However, Safety will take the lead in prioritizing the upgrades for the sites. Funding will be used for hardware, software and services.
#040E00063	New Disaster Recovery & Business Continuity Updates	This project will allow ITS to update IT documents related to disaster recovery, business continuity and business practices.
#040E00047	On Call Traffic and Revenue Study	Various studies pertaining to Traffic and Revenue issues, enhancements or projections required by the Finance Department.
#040E00048	Preliminary AET Study	Preliminary work relate to all electronic tolling including but not limited to studies, business rules etc.
#040E00061	ERP Consultant	To independently evaluate and analyze proposed ERP solutions for Financial as well as HCM
#040E00062	Financial Planning Study & Analysis	To evaluate potential toll increase and pre-bonding cost
#040E00001	Maintenance Studies and Scoping	Funding for the resources to perform studies, scoping and research with respect to any and all departmental disciplines or objectives
#040E00026	Rutgers Assignment Maint Software	Funding for Rutgers to continue supporting software products.
#040E00056	Direct to Plate System - Cron ECRM	Replacement of current film to plate system with a computer (direct) to plate system which negate the use of film and the chemistry utilized by them film processor. The current plate system is obsolete and repairs will become impossible. New system will also save money on film an chemicals.
#040E00064	Contract Audit	ITS, along with Internal Audit and an auditor, will review and audit existing IT contracts.
#049999999	Contingency	Provides additional funding for increased project needs or unanticipated projects.
#040E00052	Emergency Access SN 23.4	Study to ascertain a cost to construct an emergency access point on the east side of the mainline Turnpike in Gloucester County. Multiple agencies have inquired in to the need of reducing response times. This is a request of Gloucester County due to the emergency response time delay in that area as a result of no current emergency access; a ditch also exists in this area which will need to be addressed for construction.

Figure 124: Special Project Reserve Fund Project Descriptions

### 2020 Supplemental Capital Program (Construction Fund Revenue Funded)

Approximately \$167.8 million (95%) is budgeted for Capitalized projects. Of this, \$58.7 million (33%) is budgeted for Roadway Improvements, \$37.0 million (21%) for Facility Improvements, \$24.8 million (14%) for Service Areas and Arts Center Improvements, \$20.0 million (11%) for Technology Improvements, \$18.4 million (10%) for Resurfacing and \$8.6 million (4%) for Bridge Repairs. Approximately \$8.8 million (5%) is budgeted for Expensed projects. Of this, \$3.9 million (2%) is budgeted for Maintenance of Infrastructure and \$4.8 million (3%) is budgeted for Technology.

Supplemental Capital Project Budget (Capitalized)					
	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
<b>Roadway</b>					
Bridge Repairs	\$ -	\$ 40,450,000	\$ 8,685,000	\$ (31,765,000)	-78.5%
Other Roadway Improvements	36,156,000	13,210,000	58,713,000	45,503,000	344.5%
Resurfacing	-	-	18,450,000	18,450,000	-
Shoulder Restoration	-	10,000,000	-	(10,000,000)	-100.0%
<b>Total Roadway</b>	<b>\$ 36,156,000</b>	<b>\$ 63,660,000</b>	<b>\$ 85,848,000</b>	<b>\$ 22,188,000</b>	<b>34.9%</b>
<b>Non-Roadway</b>					
Facility Improvements	\$ 16,787,000	\$ 19,188,000	\$ 37,071,000	\$ 17,883,000	93.2%
Service Areas & Arts Center	-	19,766,000	24,877,000	5,111,000	25.9%
Technology Improvements	8,505,000	23,726,000	20,085,000	(3,641,000)	-15.3%
<b>Total Non-Roadway</b>	<b>\$ 25,292,000</b>	<b>\$ 62,680,000</b>	<b>\$ 82,033,000</b>	<b>\$ 19,353,000</b>	<b>30.9%</b>
<b>Total Projects</b>	<b>\$ 61,448,000</b>	<b>\$ 126,340,000</b>	<b>\$ 167,881,000</b>	<b>\$ 41,541,000</b>	<b>32.9%</b>

Supplemental Capital Project Budget (Expensed)					
Functional Area	2018 Actual	2019 Budget	2020 Budget	\$ Change from 2019 Budget	% Change from 2019 Budget
Maintenance of Infrastructure	\$ -	\$ -	\$ 3,990,000	\$ 3,990,000	-
Traffic Control & State Police	246,000	180,000	-	(180,000)	-100.0%
Technology	-	-	4,812,000	4,812,000	-
<b>Total by Functional Area</b>	<b>\$ 246,000</b>	<b>\$ 180,000</b>	<b>\$ 8,802,000</b>	<b>\$ 8,622,000</b>	<b>4790.0%</b>
<b>Total Supplemental Capital Program Budget (Capitalized + Expensed)</b>	<b>\$ 61,694,000</b>	<b>\$ 126,520,000</b>	<b>\$ 176,683,000</b>	<b>\$ 50,163,000</b>	<b>39.6%</b>

- 2018 amounts have been reclassified to match 2020 presentation

- Totals may not add due to rounding

Figure 125: Supplemental Capital Program Budget (2018-2020)

2020 Supplemental Capital Account						
	2018 Actual	2019 Est/Actual	2020 Budget	\$ Change from 2019	% Change from 2019	2021 Spending <sup>1</sup>
Beginning Balance	\$ -	\$ -	\$ -	\$ -	-	\$ -
Transfer from General Reserve	61,694,000	70,309,000	143,936,000	73,627,000	105%	24,562,000
Supplemental Capital Spending	(61,694,000)	(70,309,000)	(143,936,000)	(73,627,000)	105%	(24,562,000)
<b>Ending Balance</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>	<b>\$ -</b>

<sup>1</sup> 2021 spending shown is only for projects included in the 2020 budget. The 2021 budget may modify spending for previously approved projects or include spending for newly proposed projects.

Figure 126: Supplemental Capital Program Budget (2018-2020)

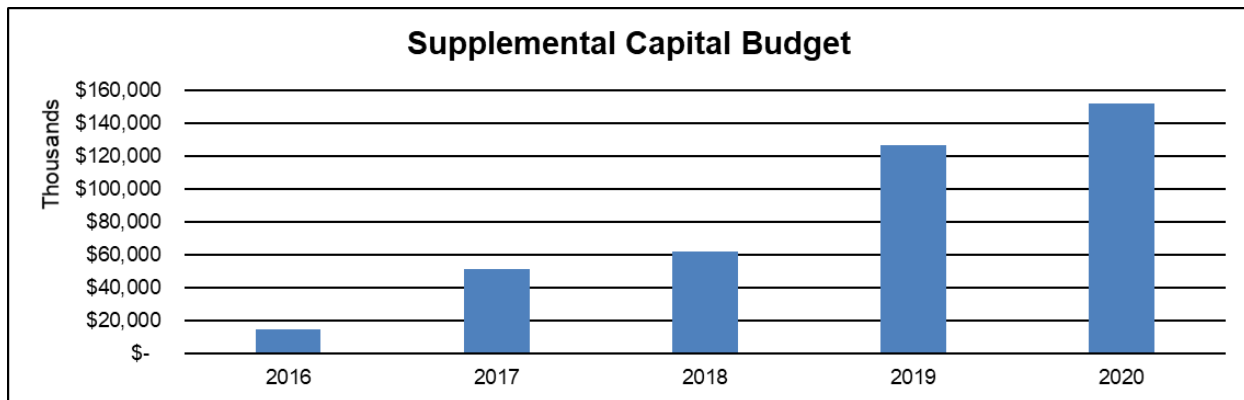


Figure 127: Supplemental Capital Program Budget Graph (2016-2020)

A detailed list of all projects contained in the 2019 Supplemental Capital spending budget follows:

Supplemental Capital Fund 2020				
Supplemental Capital 2020 Capitalized Projects				
Project Number	Project Name	2020 Budget	2020 Spending	2021 Spending
#080C00002	Replacement Toll Booths for Turnpike & Parkway	\$ 72,000	\$ 72,000	\$ -
#080C00005	Toll Facility Repairs & Improvements	2,196,000	2,196,000	-
#080C00006	Heards Brook Improvements (Rename from Slope Stabilization)	9,582,000	1,616,000	7,966,000
#080C00008	Interchange Improvements	21,000	21,000	-
#080C00018	Service Area Redevelopment	153,000	153,000	-
#080C00023	Reconstruction of the Westerly Hackensack River Bridge Piers	168,000	168,000	-
#080C00024	TPK IC 14B Canopy Replacement	5,000	5,000	-
#080C00034	CR 50 Improvements	2,203,000	2,203,000	-
#080C00035	Roadside Appurtenances	7,973,000	1,618,000	6,355,000
#080C00036	I-78 Pavement Repairs	17,514,000	17,514,000	-
#080C00037	Concept Develop & Preliminary Engineering	1,075,000	1,075,000	-
#080C27033	Arts Center Improvements	22,165,000	22,165,000	-
#080C00047	Service Area - HMS Host & Sunoco	24,877,000	24,877,000	-
#080C00051	Westerly Hackensack River Bridge - Reconstruct Piers	5,770,000	2,770,000	3,000,000
#080C00052	Bridge Fender Reconstruction - Phase 2	1,640,000	1,640,000	-
#080C00053	Rehabilitation or Replacement of TPK Str. Nos. W110.42, W111.48 and W112.72B080	375,000	375,000	-
#080C00050	Tremley Point Connector Road	18,185,000	4,000,000	6,000,000
#080C00054	GSP Mainline over I-280 – Redecking NJDOT Structure 0730170	900,000	600,000	300,000
#080C00043	NWC/CNW Ramp	90,000	90,000	-
#080C00007	HCMS Installation	845,000	845,000	-
#080C00012	Roadway Weather Information Systems	6,542,000	6,542,000	-
#080C00013	Production Toll Lane Refresh	7,000,000	7,000,000	-
#080C00030	Traffic Software Upgrade & Improvements	698,000	698,000	-
#080C07033	Security Systems/C Cure	1,570,000	1,570,000	-
#080C00003	Major Backup Generator Replacement	1,700,000	1,700,000	-
#080C07019	Major Roof Replacements	1,250,000	1,250,000	-
#080C07117	HVAC and Boiler Replacement Program	7,965,000	7,965,000	-
#080C17034	Nonvegetative Management	1,897,000	1,897,000	-
#080C00049	2019 Additional Roadway Resurfacing	18,450,000	18,450,000	-
#080C20020	Contingency	5,000,000	5,000,000	-
<b>Supplemental Capital 2020 Capitalized Projects Total</b>		<b>\$ 167,881,000</b>	<b>\$ 136,075,000</b>	<b>\$ 23,621,000</b>

Supplemental Capital 2020 Expensed Projects				
Project Number	Project Name	2020 Budget	2020 Spending	2021 Spending
#080E18028	Morris Canal Bridge	\$ 3,990,000	\$ 3,949,000	\$ 41,000
#080E17028	PTC Delaware River Bridge (painting, seismic retrofit, etc.)	500,000	500,000	-
#080E17028R	PTC Delaware River Bridge (painting, seismic retrofit, etc.) - Reimbursable	(500,000)	(500,000)	-
#080E17029	PTC Delaware River Bridge	500,000	500,000	-
#080E17029R	PTC Delaware River Bridge - Reimbursable	(500,000)	(500,000)	-
#080E17033	PTC Repaint and Improvements	2,880,000	2,880,000	-
#080E17033R	PTC Repaint and Improvements - Reimbursable	(2,880,000)	(2,880,000)	-
#080E00032	NJSP Motorola Mobile Radio	2,962,000	2,212,000	750,000
#080E00033	NJSP Body Cameras	500,000	500,000	-
#080E07052	Network Infrastructure Improvements	350,000	200,000	150,000
#080E00021	Motorola NJSP Barracks Local Survivability	250,000	250,000	-
#080E00022	NJSP Interview Room Equipment	250,000	250,000	-
#080E00023	Gasboy Fuel Plus	500,000	500,000	-
<b>Supplemental Capital 2020 Expensed Projects Total</b>		<b>\$ 8,802,000</b>	<b>\$ 7,861,000</b>	<b>\$ 941,000</b>
<b>Supplemental Capital 2020 Projects Total (Expensed+Capitalized)</b>		<b>\$ 176,683,000</b>	<b>\$ 143,936,000</b>	<b>\$ 24,562,000</b>

Figure 128: Supplemental Capital Program Projects



Supplemental Capital 2020		
Supplemental Capital 2020 Capitalized Projects		
Project	Project Name	Project Description
#080C00002	Replacement Toll Booths for Turnpike & Parkway	Funding for the design and fabrication of toll booths to create surplus free standing inventory to be utilized in emergency replacements or routine repairs.
#080C00005	Toll Facility Repairs & Improvements	Funding for the design, construction and construction supervision of Toll Plaza Site rehabilitation and various locations on the Garden State Parkway and NJ Turnpike.
#080C00006	Heards Brook Improvements (Rename from Slope Stabilization)	Funding to support the design, construction and construction supervision of improvements to Heards Brook which traverses the NJTA HQ property in Woodbridge. This feature exhibits extensive stream bank erosion in need of stabilization and has a poor condition culvert requiring repair.
#080C00008	Interchange Improvements	Construction of Improvements resulting from the Interchange 129, 136 and 139 studies.
#080C00018	Service Area Redevelopment	Design review and coordination of HMS Host and Sunoco's redevelopment of various Service Areas over the next 5 years and potentially construction supervision services to ensure the Authority's assets are constructed in accordance with the Authority's standards and satisfy the Authority's needs. (1 person full time until completion of construction). May include environmental inspection and remediation services. This project also includes the review of HMS Host concept plans for Monmouth Service Area building and update of development plan for the service area.
#080C00023	Reconstruction of the Westerly Hackensack River Bridge Piers	Inspection, design, construction and construction supervision for reconstruction of deteriorated bridge piers supporting the Westerly extension which exhibit severe spalling, section loss wide cracks.
#080C00024	TPK IC 14B Canopy Replacement	Funding to repair damage at Turnpike Interchange 14B Canopy caused by a motor vehicle accident. Some funds may be recovered through insurance claims.
#080C00034	CR 50 Improvements	Funding for the design and construction associated of improvements to CR 50 at GSP MP 112.1 in order to reduce the potential for future bridge beam impacts. In the past 10 years structure no 112.1 has suffered excessive damage due to over height vehicle impacts. This project proposes to lower the profile of CR-50 in order to improve vertical under clearance. Project will be completed through a cost sharing agreement with Monmouth County as the bridge impacts cause major impacts to the operation of CR-50.
#080C00035	Roadside Appurtenances	Design, Construction and Supervision of the installation or upgrade of roadside devices including weathering steel guiderail on the GSP.
#080C00036	I-78 Pavement Repairs	Design, Construction and Supervision of the repair to NJTA Maintained section of I-78.
#080C00037	Concept Develop & Preliminary Engineering	Design, construction and supervision for the rehabilitation or replacement of severely deteriorated Turnpike Bridge Nos. W110.42; W111.48; 112.72B.
#080C27033	Arts Center Improvements	Per the agreement between Live Nation and NJTA, a capital improvement program will be undertaken and administered by NJTA for major improvements at the Arts Center which may include demolition and replacement of bathroom facilities and concessions, renovation to the Live Nation offices, and security, lighting, and general overall repairs to bring this facility to a state of good repair and enjoyable/safe atmosphere for patrons. There will be utilities improvements, fiber optic enhancements, fire suppression improvements, etc. required to achieve this goal.
#080C00047	Service Area -HMS Host & Sunoco	This project covers the Authority's responsibility under the service area agreements to improve parking lots and ramps, includes lighting, cameras, etc. (generators)
#080C00051	Westerly Hackensack River Bridge - Reconstruct Piers	Inspection, design, construction and construction supervision for reconstruction of deteriorated bridge water piers supporting the Westerly extension which exhibit wide cracks.
#080C00052	Bridge Fender Reconstruction - Phase 2	Second phase of inspection, design, construction and construction supervision for reconstruction of deteriorated structural members and channel marking lighting systems of waterway channel fender protection systems of New Jersey Turnpike and Garden State Parkway bridges.
#080C00053	Rehabilitation or Replacement of TPK Str. Nos. W110.42, W111.48 and W112.72B080	Design, construction and supervision for the rehabilitation or replacement of three severely deteriorated Turnpike bridges.
#080C00050	Tremley Point Connector Road	Funding for the design associated with this new predominantly pier/pile supported, 1.1 mile long four lane elevated roadway/bridge that will connect Industrial Highway in Carteret, Middlesex County with Tremley Point Road in Linden, Union County traversing the Rahway River.
#080C00054	GSP Mainline over I-280 – Redecking NJDOT Structure 0730170	Funding for the design, construction and construction supervision for repairs to the severely deteriorated bridge deck of NJDOT Str. No. 0730170, which carries the Garden State Parkway over Interstate 280. The repairs are required to safely maintain traffic over the bridge which is located within the work zone of the Authority's Contract No. P300.433, Replacement of the Central Avenue Overpass at Interchange 145 & Bridge Deck Reconstruction, MP 144 to 152. NJDOT is the owner of the structure and cost sharing will be investigated.

#080C00043	NWC/CNW Ramp	Installation of permanent toll collection in conjunction with the opening of the American Dream project. AFN
#080C00007	HCMS Installation	Design (Contract #2) and Construction (Contract #1) are scheduled 2020 and beyond. (This may be an Engineering project.)
#080C00012	Roadway Weather Information Systems	This project will allow for final payments and 1st year of support. As well as finalizing engineering drawings.
#080C00013	Production Toll Lane Refresh	3 consultants (supplemental staff: 2 existing, 1 new) for the continuing support, maintenance and enhancements of the Electronic Tolling Software System, as well as project management. In addition, this project will also be utilized to reduce the amount of ETC Huts which are causing damage to the equipment. The existing ETC huts were installed in 1999 with a design life cycle of 15 years. Project costs would include conduit installation (in-house or contracted), UPS relocation, and room modifications such as HVAC, painting, flooring, lighting. If required, those huts will be replaced or equipment consolidated. From a hardware lane prospective, this is a multiyear project in which ITS will replace all system components which have been tested and qualified for use through the Toll Lane System Evaluation project. The current toll collection equipment is approximately 20 years old. Funding for this project will replace equipment in High Speed, Manual, Standard, and Automatic lanes. Components in these lanes include, but are not limited to lane controllers, Automatic Vehicle Classification (AVC), Automatic Vehicle Identification (AVI), Violation Enforcement System (VES), Lane Electronic Cabinet (LEC), Patron Fare Display (PFD), Manual Lane Toll Terminals (MLT), and Zone Controllers. These components have been fully tested and ITS will continue to systematically replace components in the lane. This procurement includes hardware, software, and support services. In addition, funding will support software initiatives such as migrating reports from Actuate 9 to JReport, replacing Xerox software in all High Speed Lanes on the Turnpike and Parkway, migration of Turnpike Plazas from Windows 2003 to Linux, and enhancing the tolling Audit software. (Please note: does not include AET) All of this work is intended to maintain the existing system for the next few years, as the Authority prepares for the next generation of tolling software, hardware and services.
#080C00030	Traffic Software Upgrade & Improvements	RTIM is an application that integrates the data and/or feed from various intelligent transportation devices like roadway sensors, cameras and sign devices to create a single platform where the Traffic Supervisors can monitor for roadway congestion/incident detection and respond accordingly during their routine traffic management operations. The user interface is a Roadway Line Diagram approach where all ITS devices are placed according to their geographic locations based on their mile marker data.  This project will also be utilized to purchase, install, and evaluate alternate technologies for traffic detection as a possible alternative to Sensys pucks at areas where it's not practical to install, replace, and maintain the "in-pavement" sensors, as well as project management. Full implementation of the project should also include custom programming resources to integrate the data from these sensors with data from the Sensys system and present it to Operations in a seamless format and use it as an actionable manner such as real-time automated sign and camera control. Funding will be used for hardware, software and services.
#080C07033	Security Systems/C Cure	Funding to complete the C Cure installation at the remaining Turnpike Tolls locations and to begin installation at other Authority facilities.
#080C00003	Major Backup Generator Replacement	Funding for backup up generators with costs over \$50,000.00.
#080C07019	Major Roof Replacements	Funding for roof replacements with costs over \$50,000.00.
#080C07117	HVAC and Boiler Replacement Program	Funding for hvac systems with costs over \$50,000.00.
#080C17034	Nonvegetative Management	Funding for ground surfacing resources with costs over \$50,000.00.
#080C00049	Additional Roadway Resurfacing	Funding for additional roadway resurfacing.
#080C20020	Contingency	Provides additional funding for increased project needs or unanticipated projects.

Supplemental Capital 2020 Expensed Projects		
Project	Project Name	Project Description
#080E18028	Morris Canal Bridge	Design, Supervision and Construction of vehicular bridge over the Morris Canal; connecting Jersey Avenue and Phillips Street in Jersey City.
#080E17028	PTC Delaware River Bridge (painting, seismic retrofit, etc.)	Design of Contract No. T100.216 for Bridge Painting and seismic retrofit, structural steel repairs, catwalk repairs, and installation of security gates
#080E17028R	PTC Delaware River Bridge (painting, seismic retrofit, etc.) - Reimbursable	REIMBURSIBLE
#080E17029	PTC Delaware River Bridge	Replacement of the suspenders and suspender protection in the main arch truss portion of the bridge
#080E17029R	PTC Delaware River Bridge - Reimbursable	REIMBURSIBLE
#080E17033	PTC Repaint and Improvements	Bridge Painting and seismic retrofit, structural steel repairs, catwalk repairs, and installation of security gates
#080E17033R	PTC Repaint and Improvements - Reimbursable	REIMBURSIBLE
#080NEW-05	Acquisition of Fee Ownership over abandoned Railroad Right of Way	Funding to investigate the acquisition rights to eliminate grade separated crossings at abandoned railroads along the Garden State Parkway and NJ Turnpike. Acquiring rights could reduce bridge inventory that is no longer necessary.
#080E00032	NJSP Motorola Mobile Radio	The existing mobile radios in NJSP vehicles are end-of-life and are no longer supported by the vendor. Currently there are approximately 300 marked and 200 unmarked vehicles that require a mobile radio. The existing radios in the vehicles are analog and will no longer function on the new P25 Phase 2 radio system currently being deployed by NJSP. The new radios are fully compatible with the P25 Phase 2 system. Funding will be used for hardware, software and services.
#080E00033	NJSP Body Cameras	State Police Project to install body cameras on Troopers. This procurement includes hardware, software, and services.
#080E07052	Network Infrastructure Improvements	This is a multiyear project which will provide fiber or wireless communication to roadway signs that are currently on modems and have poor network connectivity. Funding will be used for hardware, software and services.
#080E00021	Motorola NJSP Barracks Local Survivability	The 6 Troop D barracks currently have radio functionality that runs over the network. In case of a network or power outage the barracks lose radio communications. This project will install equipment at each barrack to make them locally independent in the event of a network outage. Funding will be used for hardware, software and services.
#080E00022	NJSP Interview Room Equipment	NJSP has requested an upgrade to the interview room equipment at their six barracks. This project will install equipment in two interview rooms at each Bloomfield SP, GallawaySP, Newark SP and Moorestown SP and one interview room at Holmdel SP and Cranbury SP. Funding will be used for hardware, software and services.
#080E00023	Gasboy Fuel Plus	This project will automate the mileage reading of vehicles and hours from equipment. This project includes: a. Hardware and installation for equipment in 2000 vehicles b. Hardware for two new virtual machines c. Services to support the setup of new hardware  Funding will be used for hardware, software and services.

Figure 129: Supplemental Capital Program Project Descriptions

### Passaic River Bridge Rehabilitation Program (Construction Fund Revenue Funded)

The Passaic River Bridge Rehabilitation Program was authorized by the Board in 2017 and is a revenue funded account within the Construction Fund. In 2019 and 2020 the General Reserve Fund will transfer \$25 million per year to this account, and \$41 million in 2021 and 2022, totaling \$132 million. These funds will be used for three bridge repair and rehabilitation projects which were not part of the \$7 Billion CIP. The bridges associated with the program include the Passaic River Bridge, the Laderman Bridge and the Washington Bridge. The funding made available for these projects is the direct result of bond refinancing during 2017 that have significantly decreased the annual interest payments on outstanding bonds resulting in debt savings to the Authority (\$100 million) with the remainder from future general reserve fund transfers.

Passaic River Bridge Capital Budget					
	2018 Budget	2019 Budget	2020 Amended	\$ Change from 2019 Budget	% Change from 2019 Budget
<b>Roadway</b>					
Bridge Repairs	\$ 1,953,000	\$ 100,000,000	\$ 132,135,000	\$ 32,135,000	32.1%
<b>Total Roadway</b>	<b>\$ 1,953,000</b>	<b>\$ 100,000,000</b>	<b>\$ 132,135,000</b>	<b>\$ 32,135,000</b>	<b>32.1%</b>
<b>Total Projects</b>	<b>\$ 1,953,000</b>	<b>\$ 100,000,000</b>	<b>\$ 132,135,000</b>	<b>\$ 32,135,000</b>	<b>32.1%</b>

- 2018 amounts have been reclassified to match 2020 presentation

- Totals may not add due to rounding

Figure 130: Passaic River Bridge Rehabilitation Program by Year

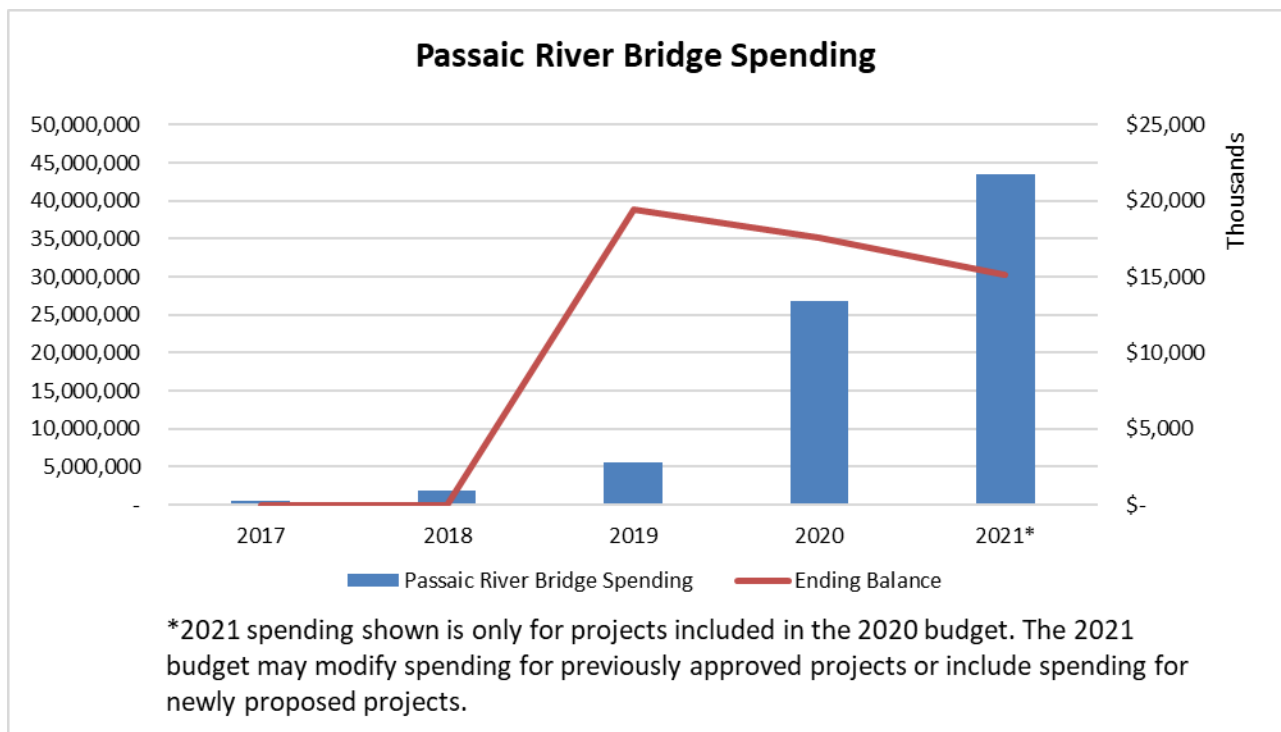


Figure 131: Passaic River Bridge Rehabilitation Program Spending Chart

<b>Passaic River Bridges Account</b>						
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>\$ Change from</b>	<b>% Change from</b>	<b>2021</b>
	<b>Actual</b>	<b>Est/Actual</b>	<b>Spending</b>	<b>2019</b>	<b>2019</b>	<b>Spending<sup>1</sup></b>
Opening Balance	\$ -	\$ -	\$ 19,461,000	\$ 19,461,000	-	\$ 17,596,000
Transfer from General Reserve Fund	-	25,000,000	25,000,000	-	-	41,000,000
Due to General Reserve Fund	1,953,000	-	-	-	-	-
Expenditures	1,953,000	5,539,000	26,865,000	21,326,000	385.0%	43,468,000
<b>Ending Balance</b>	<b>\$ -</b>	<b>\$ 19,461,000</b>	<b>\$ 17,596,000</b>	<b>\$ (1,865,000)</b>	<b>-9.6%</b>	<b>\$ 15,128,000</b>

<sup>1</sup> 2021 spending shown is only for projects included in the 2020 budget. The 2021 budget may modify spending for previously approved projects or include spending for newly proposed projects.

- 2018 amounts have been reclassified to match 2020 presentation
- Totals may not add due to rounding

**Figure 132: Passaic River Bridge Rehabilitation Program Fund Balance**

A detailed listing of projects in the Revenue Funded Construction Account are shown below:

<b>Passaic River Bridges Capital Budget</b>				
<b>Passaic River Bridges Capital Budget Projects</b>				
<b>Project Number</b>	<b>Project Name</b>	<b>2020 Amended</b>	<b>2020 Spending</b>	<b>2021 Spending</b>
#391R00001	Passaic River Bridge Rehab	\$ 97,341,000	\$ 7,769,000	\$ 38,105,000
#391R00002	Laderman Bridge Repair Project	24,911,000	13,366,000	3,493,000
#391R00003	Washington Bridge Repair Project	9,883,000	5,730,000	1,870,000
<b>Passaic River Bridges Capital Budget Projects Total</b>		<b>\$ 132,135,000</b>	<b>\$ 26,865,000</b>	<b>\$ 43,468,000</b>

**Figure 133: Passaic River Bridge Rehabilitation Program Projects Budget**

<b>Passaic River Bridges Capital Budget</b>		
<b>Passaic River Bridges Capital Budget Capitalized Projects</b>		
<b>Project</b>	<b>Project Name</b>	<b>Project Description</b>
#391R00001	Passaic River Bridge Rehab	This project provides for the design, construction and supervision, and permitting services for the superstructure replacement and widening of Parkway Structure No. 158.2, GSP Bridge over Passaic River, US Route 46, and River Road.
#391R00002	Laderman Bridge Repair Project	This project provides for the design, construction and supervision services for superstructure repairs to Turnpike Structure No. W107.87, Laderman Memorial Passaic River Bridge. The project also provides for strengthening of low rating superstructure members.
#391R00003	Washington Bridge Repair Project	This project provides for the design, construction and supervision services for superstructure repairs to Turnpike Structure No. E107.88, Chaplain Washington Memorial Passaic River Bridge. The project also provides for strengthening of low rating superstructure members and the replacement of the major pin and hanger assemblies of the superstructure.

**Figure 134: Passaic River Bridge Rehabilitation Program Projects Description**

A status of the projects in the Revenue Funded Construction Account is shown below:

<b>Passaic River Bridges Account</b>				
<b>Project Name</b>	<b>2020 Amended Budget</b>	<b>Total Expended or Committed</b>	<b>Future Anticipated Additional Expenses</b>	<b>% Spent &amp; Committed</b>
Passaic River Bridge Rehab	\$ 97,341,000	\$ 6,598,000	\$ 90,743,000	6.8%
Laderman Bridge Repair Project	24,911,000	24,158,000	753,000	97.0%
Washington Bridge Repair Project	9,883,000	10,306,000	(423,000)	104.3%
<b>Total Revenue Funded Construction</b>	<b>\$ 132,135,000</b>	<b>\$ 41,062,000</b>	<b>\$ 91,073,000</b>	<b>31.1%</b>

- Totals may not add due to rounding

Figure 135: Passaic River Bridge Rehabilitation Program Expended and Future Spending

## Construction Fund (Bond Funded)

The 2020 budget includes the budget for the bond funded accounts within the Construction Fund. The Construction Fund currently includes the \$7 Billion Capital Improvement Program approved in 2008 and the 2019 \$500 million Capital Improvement program, approved in April 2019. Both of these programs are funded through bond proceeds derived from the issuance of Turnpike Revenue Bonds.

Construction Fund Balance					
	2018 Actual	2019 Est/Actual	2020 Budget	\$ Change from 2019 Est/Actual	% Change from 2019 Est/Actual
Beginning Cash and Investments	\$ 482,164,000	\$ 202,957,000	\$ 441,656,000	\$ 238,699,000	118%
Bond Proceeds	-	449,110,000	200,000,000	(249,110,000)	-55%
Interest Income	6,016,000	13,844,000	6,000,000	(7,844,000)	-57%
Spending	(285,223,000)	(224,255,000)	(304,773,332)	(80,518,332)	36%
<b>Ending Available Cash and Investments*</b>	<b>\$ 202,957,000</b>	<b>\$ 441,656,000</b>	<b>\$ 342,882,668</b>	<b>\$ (98,773,332)</b>	<b>-38%</b>

\*Does not agree to fund balance in financial statement as this chart excludes capitalized assets.

Figure 136: Construction Fund Bond Proceeds Balance (2018-2020)

## \$7 Billion Capital Improvement Program

The New Jersey Turnpike Authority's \$7 Billion CIP was adopted in October 2008, with the first contract awarded in 2009. Several projects were added to the program from bid savings and could not be started until recently due to the need to coordinate scheduling and location of work with existing projects to minimize patron disruption. In addition, work on the NBHCE could not begin until the Pulaski Skyway work was completed by the state, with the Pulaski Skyway only reopening in July of 2018. Due to these factors, in September 2018 the Authority's Board extended the program an additional two years to allow completion of contract awards. In addition, due to the favorable bid prices and project close outs, an additional \$16.0 million of design work was approved, keeping within the \$7 billion total. The program includes projects focused on capacity, state of good repair, safety and security. These projects are separated into the following categories: Turnpike Interchanges 6 to 9 Widening, Bridge Construction, Preservation and Security, Roadway Improvements, Interchange Improvements, Facilities Improvements, and Widening of the Garden State Parkway (Mileposts 35 to 80). To date, the Authority has issued has fully funded the program through the issuance of Turnpike Revenue Bonds.

A summary of the projects in the \$7 Billion CIP is shown below:

Capital Improvement Program Project Summary			
Tier I Project Groups	Current Budget	Spent or Committed Through 8/31/19	Percentage of Budget
Turnpike Interchange 6-9 Widening	\$ 2,135,328,000	\$ 2,133,254,000	100%
Bridge Construction, Preservation & Security	1,686,774,000	1,670,716,000	99%
Roadway Improvements	850,029,000	828,094,000	97%
Interchange Improvements	1,068,629,000	1,028,792,000	96%
Facilities Improvements	673,034,000	672,382,000	100%
Parkway Mileposts 35-80 Widening*	586,206,000	578,436,000	99%
<b>Capital Improvement Program Total</b>	<b>\$ 7,000,000,000</b>	<b>\$ 6,911,674,000</b>	<b>99%</b>
* The total Parkway Mileposts 35-80 Widening cost is \$690,000,000, but \$100,000,000 was financed with Bond Anticipation Notes proceeds prior to the first series of bonds being issued for the CIP.			

- Totals may not add due to rounding

Figure 137: Capital Improvement Program Projects Summary

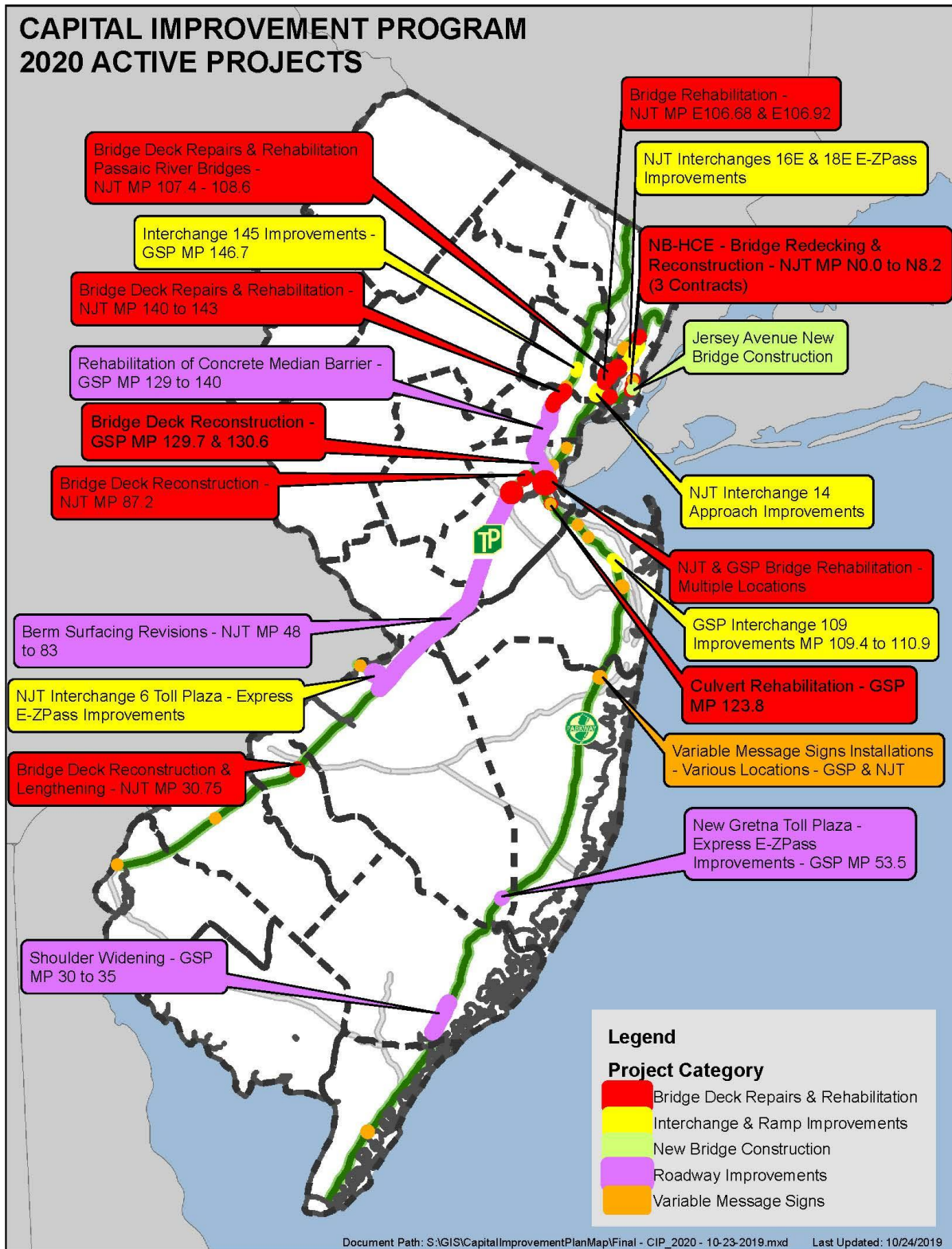


Figure 138: Map of Capital Improvement Program Active Projects



The \$7 billion CIP includes the following projects:

**Turnpike Widening (Interchange 6-9)**

**1. Turnpike Interchange 6-9 Widening**

- i. **Location:** Burlington, Mercer, and Middlesex counties
- ii. **Description:** The project involved the construction of 3 additional lanes, both northbound and southbound, between Interchanges 6 and 8A, approximately 25 miles. The project also included the addition of one lane in each direction between Interchanges 8A and 9. The widening project resulted in 12 total mainline lanes being provided between Interchanges 6 and 9. In addition, the project included interchange improvements within the project limits as determined to be necessary to meet traffic demands for the design year of 2032.
- iii. **Status:** Design and construction completed and opened to traffic – November 2014.
- iv. **Impact on Operating Budget:** This project added 216 lane miles of new pavement which increased operating and maintenance expenses approximately 5% for personnel, materials and equipment. These increases in costs have been incorporated into the budget based on actual expenses over the past three years.

**Bridge Improvements**

**2. Bridge Painting Phase I**

- i. **Location:** Various counties
- ii. **Location:** This project provided for the design and construction for the cleaning and repainting of structural steel of the highest priority Turnpike and Parkway major bridges.
- iii. **Status:** Design and construction completed – September 2014
- iv. **Impact on Operating Budget:** This group of bridge projects extends the life of the structural steel and reduces the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These reductions have been incorporated into the operating budget based on actual cost savings.

**3. Deck Reconstruction Phase I**

- i. **Location:** Various counties
- ii. **Description:** This project provided for the design and construction of the re-decking of the highest priority non-major Turnpike and Parkway mainline and overpass bridges.
- iii. **Status:** Design and construction completed and opened to traffic – March 2016
- iv. **Impact on Operating Budget:** This group of bridge projects extends the life of the bridge decks and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. These reductions have been incorporated into the operating budget based on actual cost savings.

**4. Bridge Preservation & Security**

- i. **Location:** Various counties
- ii. **Description:** This project provides for the design and construction phases of countermeasures and security improvements for the Authority's 16 major bridges on the Turnpike and Parkway. It also includes the design and construction of seismic retrofitting of the Turnpike's highest priority bridges as recommended from the Phase I Seismic Screening and Prioritization Report. This project further provides for the design and construction for the miscellaneous bridge work on the Turnpike not covered under the annual miscellaneous structural repair contracts. The primary work includes bridge bearing replacement and significant substructure repairs.
- iii. **Status:** Design and construction is on-going

- iv. **Impact on Operating Budget:** This group of bridge projects focuses primarily on security measures and seismic retrofitting, which has little to no impact on the operating budget. The miscellaneous bridge repairs will provide minor reductions in routine maintenance costs, and have been incorporated into the budget estimates.
- 5. **Deck Reconstruction Phase II**
  - i. **Location:** Various counties
  - ii. **Description:** This project provides for the design and construction of the re-decking of the highest priority non-major Turnpike and Parkway mainline and overpass bridges.
  - iii. **Status:** Design and construction is on-going
  - iv. **Impact on Operating Budget:** This group of bridge projects extends the life of the bridge decks and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. These minor reductions have been incorporated into the operating budget.
- 6. **Bridge Painting Phase II**
  - i. **Location:** Various counties
  - ii. **Description:** This project provides for the design and construction for the cleaning and repainting of structural steel of the highest priority Turnpike and Parkway major and non-major bridges.
  - iii. **Status:** Design and construction is on-going
  - iv. **Impact on Operating Budget:** This group of bridge projects extends the life of the structural steel and reduces the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These reductions have been incorporated into the operating budget.
- 7. **Turnpike Interchange 16E-18E Bridge Improvements**
  - i. **Location:** Hudson County
  - ii. **Description:** This project provided for the replacement of Structure No. E112.58A.
  - iii. **Status:** Design and construction completed and opened to traffic – 2011
  - v. **Impact on Operating Budget:** This group of bridge projects extends the life of the structural steel and reduces the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These reductions have been incorporated into the operating budget based on actual cost savings.
- 8. **Turnpike Easterly Hackensack River Bridge Rehabilitation**
  - i. **Location:** Hudson County
  - ii. **Description:** This project provided for the design and construction of the rehabilitation on the Turnpike's existing Eastern Hackensack River Bridge, Structure No. E109.83. The primary work included bridge re-decking, structural repairs, re-painting and seismic retrofit.
  - iii. **Status:** Design and construction completed and opened to traffic – April 2015
  - iv. **Impact on Operating Budget:** This bridge project extends the life of the bridge and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. These minor reductions have been incorporated into the operating budget based on actual costs.
- 9. **Newark Bay-Hudson County Extension Bridge Re-decking**
  - i. **Location:** Hudson and Essex counties
  - ii. **Description:** This project provides for the design and construction of the re-decking of various structures on the Newark Bay-Hudson County Extension, including the Newark Bay Bridge, Structure No. N2.01. This project also provides for the repairs to structural steel and substructure units, security improvements, and re-painting.
  - iii. **Status:** Design and construction on-going
  - iv. **Impact on Operating Budget:** This group of bridge projects extends the life of the bridge decks and structural steel. These projects reduce the need for intermittent repairs which results in minor

reductions in routine maintenance costs. These minor reductions have been incorporated into the operating budget.

#### 10. Turnpike Specialized Bridge Structure Repairs

- i. **Location:** Various counties
- ii. **Description:** This project provides for the design and construction of specialized bridge repairs on the Turnpike that are not covered under the annual miscellaneous structural repair contracts. The primary work includes improvements to gusset plate modifications to Turnpike Structure No. P0.00, bearing replacement and steel repairs, to various non-major bridges.
- iii. **Status:** Design and construction is on-going
- iv. **Impact on Operating Budget:** This group of bridge projects extends the life of the bridges and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. These minor reductions have been incorporated into the operating budget.

#### 11. Parkway Bass River Bridge

- i. **Location:** Atlantic County
- ii. **Description:** This project provided for the design and construction of improvements to the Parkway crossing of the Bass River. The primary work included the construction of a new parallel bridge and re-decking, structural repairs, re-painting and seismic retrofit on the existing bridge, Structure No. 51.9.
- iii. **Status:** Design and construction completed and opened to traffic – May 2015
- iv. **Impact on Operating Budget:** This bridge project extends the life of the existing bridge and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. In addition, the new bridge adds approximately 3.5 lane miles which increases the operations and maintenance costs by about 0.1%. These operations and maintenance cost savings and additions have been incorporated into the operating budget based on actual costs.

#### 12. Parkway Mullica River Bridge

- i. **Location:** Atlantic County
- ii. **Description:** This project provided for the design and construction of improvements to the Parkway crossing of the Mullica River. The primary work included the construction of a new parallel bridge and re-decking, structural repairs, re-painting and seismic retrofit on the existing bridge, Structure No. 49.0.
- iii. **Status:** Design and construction of new bridge completed and opened to traffic – December 2012. Design and reconstruction of existing bridge completed and opened to traffic – April 2014.
- iv. **Impact on Operating Budget:** This bridge project extends the life of the existing bridge and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. In addition, the new bridge adds approximately 3.5 lane miles which increases the operations and maintenance costs by about 0.1%. These operations and maintenance cost savings and additions have been incorporated into the operating budget based on actual costs.

#### 13. Parkway Bridge Substructure Repairs

- i. **Location:** Various counties
- ii. **Description:** This project provided for the design and construction of repairs and rehabilitation of the substructure elements of the Northbound Driscoll Bridge, Structure No. 127.2N, along with pier caps, columns, and substructure elements on other major and non-major bridge water crossings.
- iii. **Status:** Design and construction completed and opened to traffic – December 2015
- iv. **Impact on Operating Budget:** This group of bridge projects extends the life of the bridges and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. These reductions have been incorporated into the operating budget based on actual cost savings

**14. Parkway Great Egg Harbor/Drag Channel Bridges**

- i. **Location:** Atlantic and Cape May Counties
- ii. **Description:** This project provides for the design and construction of new parallel bridges carrying the southbound Parkway over Great Egg Harbor and Drag Channel. The new bridges will be constructed west of the existing southbound structures. Construction will also include demolition of the existing southbound bridges; rehabilitation of the northbound Parkway bridges; and demolition of the nearby existing Beesley's Point Bridge. Special construction features include a ten-foot-wide multi-use pathway on the west side of the new bridges and approach roadways, and a plastic lumber fender system to protect the bridge piers.
- iii. **Status:** Design and construction is on-going
- iv. **Impact on Operating Budget:** This bridge project extends the life of the existing bridge and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. In addition, new bridges are added which increase the operations and maintenance costs. These operations and maintenance cost savings and additions have been incorporated into the operating budget.

**Roadway Improvements****1. Drainage Improvements**

- i. **Location:** Various counties
- ii. **Description:** This project includes design services and construction to rehabilitate or replace non-functioning and substandard drainage systems. The project also includes the analysis of the condition of existing median inlets along the Authority's mainline and interchange ramp roadways, and will construct recommended improvements in compliance with current environmental regulations.
- iii. **Status:** Design and construction completed 2019.
- iv. **Impact on Operating Budget:** This group of projects extends the life of the drainage systems and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. These reductions have been incorporated into the operating budget based on actual cost savings.

**2. Improvements to Roadway Appurtenances**

- i. **Location:** Various counties
- ii. **Description:** This project provides for upgrading various guide rail, guide rail end treatments, and crash cushions along the Parkway and Turnpike.
- iii. **Status:** Design and construction completed 2019.
- iv. **Impact on Operating Budget:** This group of projects extends the life of the guiderail system and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. These reductions have been incorporated into the operating budget based on actual cost savings.

**3. Median Barrier Improvements**

- i. **Location:** Various counties
- ii. **Description:** This project included the inspection and condition assessment of concrete median barrier, and the implementation of a repair/replacement/upgrade program along the Parkway and Turnpike mainline and interchange ramps. The project included sections of severely deteriorated concrete median barrier that required replacement between Parkway MP 141 and MP 160.
- iii. **Status:** Design and construction completed – July 2014
- iv. **Impact on Operating Budget:** This group of projects extends the life of the drainage systems and reduces the need for intermittent repairs which results in minor reductions in routine maintenance

costs. These minor reductions have been incorporated into the operating budget based on actual costs.

**4. Guide Sign Replacements Phase I**

- i. **Location:** Various counties
- ii. **Description:** This project includes inspection, assessment and implementation of the remedial measures necessary to bring dated mainline and interchange guide signing into compliance with current standards. This project will upgrade existing Parkway and Turnpike guide signs and structures, along the mainline, ramps or at facilities to the current design standards. The project includes the study and assessment of current signing legends and locations along with recommendations and plans to procure the construction services necessary to bring signing into compliance with current standards.
- iii. **Status:** Design and construction completed 2018.
- iv. **Impact on Operating Budget:** This group of projects has no impact on the operating budget.

**5. Guide Sign Replacements Phase II**

- i. **Location:** Various counties
- ii. **Description:** This project includes the deployment of 250 Variable Message Signs (VMSs) at various locations along the length of the Turnpike and the Parkway. The project provided for design and construction of VMS sign supports, provision and installation of VMS signs, and connectivity utilizing fiber optic communications networks back to the Statewide Traffic Management Center (STMS). All signs are monitored and controlled from the STMC.
- iii. **Status:** Design and construction is on-going.
- iv. **Impact on Operating Budget:** This project added 250 VMSs to the Authority facilities, which results in additional operating and maintenance expenses. These additions have been incorporated into the operating budget based on actual costs.

**6. Turnpike and Parkway Southern Improvements**

- i. **Location:** Various counties
- ii. **Description:** This project provided miscellaneous improvements to mainline and interchanges located in the southern portion of the Turnpike between Interchange 1 and Interchange 4 and on the Parkway between MP 0 and MP 48.
- iii. **Status:** Design and construction completed – December 2013
- iv. **Impact on Operating Budget:** This group of projects cleared numerous maintenance issues and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. These minor reductions have been incorporated into the operating budget based on actual costs.

**7. Parkway Mainline Shoulder Improvements**

- i. **Location:** Ocean and Monmouth counties
- ii. **Description:** In the late 1980's, the right and left mainline shoulders from MP 80 to MP 100 on the Parkway were eliminated and the width of the travel lanes was reduced to create a third travel lane in both the northbound and southbound directions between Interchanges 80 and 91 and a fourth lane between Interchanges 91 and 98. The geometric changes were made to provide additional capacity to meet the traffic demands along this section of the Parkway. This project reconstructed the mainline roadway to provide full-width right and left shoulders and to widen the travel lanes to widths that meet current standards.
- iii. **Status:** Design and construction completed and opened to traffic - December 2015
- iv. **Impact on Operating Budget:** This project added 40 lane miles of new pavement which increased operating and maintenance expenses approximately 1% for personnel, materials and equipment. These increases in costs have been incorporated into the budget based on actual expenses.

**Interchange Improvements****8. Interchange Improvements**

- i. **Location:** Various counties
- ii. **Description:** This project includes improvements to interchanges on the Turnpike and Parkway. Interchange locations include Turnpike Interchanges 9, 10, 15W, 16W, and Parkway Interchanges 0, 105, 109, 145, 163.
- iii. **Status:** Design and construction is on-going
- iv. **Impact on Operating Budget:** This group of projects proposed to clear numerous operational and maintenance issues and reduce the need for intermittent repairs which results in minor reductions in routine maintenance costs. These minor reductions have been incorporated into the operating budget based on actual costs.

**9. Turnpike Interchange 8A to Route 130 Connector Improvements**

- i. **Location:** Middlesex County
- ii. **Description:** This project will address significant traffic congestion near Interchange 8A. The project limits include a section of Route 32 between Interchange 8A and the interconnection of Route 32 with Route 130. Middlesex County has requested that the Authority undertake appropriate improvements on the basis that much of the traffic within the corridor is destined to or from the Turnpike.
- iii. **Status:** Design and construction is complete
- iv. **Impact on Operating Budget:** This project adds approximately nine lane miles of new pavement which increases operating and maintenance expenses approximately 0.25% for personnel, materials and equipment. These increases in costs have been incorporated into the budget based on actual costs.

**10. Turnpike Interchange 14A Reconstruction**

- i. **Location:** Hudson County
- ii. **Description:** There are operational limitations due to constrained geometry for this existing Turnpike interchange that it is located within the cities of Bayonne and Jersey City. The proposed redevelopment of the Military Ocean Terminal in Bayonne along with Global Terminal will result in a significant increase in traffic using the Interchange 14A toll plaza. The interchange capacity will be improved and two additional toll lanes will be added to the existing toll plaza to address the operational and capacity deficiencies of the existing interchange.
- iii. **Status:** Design and construction is on-going
- iv. **Impact on Operating Budget:** This project adds six lane miles of new pavement which increases operating and maintenance expenses approximately 0.2% for personnel, materials and equipment. These increases in costs have been incorporated into the budget.

**11. Parkway Interchange 41 Improvements**

- i. **Location:** Atlantic County
- ii. **Description:** At Interchange 41, local traffic previously accessed the Parkway through a service road to the Atlantic Service Area from Jimmie Leeds Road. This project provided a full interchange to allow Parkway access at Jimmie Leeds Road to and from the south.
- iii. **Status:** Design and construction completed and opened to traffic – August 2015
- iv. **Impact on Operating Budget:** This project adds two lane miles of new pavement which increases operating and maintenance expenses less than 0.1% for personnel, materials and equipment. These slight increases in costs have been incorporated into the budget based on actual costs.

**12. Parkway Interchange 142 Improvements**

- i. **Location:** Union County

- ii. **Description:** This project was a joint cooperative project between the Authority and the New Jersey Department of Transportation (NJDOT) that provided for the design and construction of missing ramp connections between the Parkway and I-78. The project also provided improvements to the interchange's existing ramp network, toll plaza and to the I-78 mainline. The project was funded by the Federal Highway Administration, NJDOT, and the Authority. This project cost represents the Authority's share of the overall cost of the project.
- iii. **Status:** Design and construction completed and opened to traffic – April 2011
- iv. **Impact on Operating Budget:** This project adds new pavement and bridge structures which increased operating and maintenance expenses for personnel, materials and equipment. These increases in costs have been incorporated into the budget based on actual costs.

### 13. Parkway Interchange 44 Improvements

- i. **Location:** Atlantic County
- ii. **Description:** Interchange 44 previously provided access to the Parkway to and from the north only. This project completed the interchange to provide two additional ramps to allow access to and from the south.
- iii. **Status:** Design and construction completed and opened to traffic – August 2015
- iv. **Impact on Operating Budget:** This project adds two lane miles of new pavement which increases operating and maintenance expenses less than 0.1% for personnel, materials and equipment. These slight increases in costs have been incorporated into the budget based on actual costs.

### 14. Parkway Interchanges 9, 10 & 11 Improvements

- i. **Location:** Cape May County
- ii. **Description:** There were three traffic signals on the Parkway in Cape May County at Interchanges 9, 10 and 11. This project eliminated the traffic signals by providing three bridges to carry the Parkway over the local streets at each interchange. This project also provided for full access to the Parkway northbound and southbound at each interchange.
- iii. **Status:** Design and construction completed and opened to traffic – April 2016
- iv. **Impact on Operating Budget:** This project adds four lane miles of new pavement which increases operating and maintenance expenses 0.1% for personnel, materials and equipment. These slight increases in costs have been incorporated into the budget based on actual costs.

### 15. Parkway Interchange 125 Improvements Phase I

- i. **Location:** Middlesex County
- ii. **Description:** Interchange 125 is a partial interchange presently configured with a southbound entrance and northern exit ramp. This project will provide a new northbound entrance and new southbound exit ramp. The southbound exit ramp was opened July 2017 and is tolled to be consistent with one-way tolls at the Raritan Toll Plaza.
- iii. **Status:** Design and construction is on-going
- iv. **Impact on Operating Budget:** This project adds one lane mile of new pavement which increases operating and maintenance expenses less than 0.1% for personnel, materials and equipment. These slight increases in costs have been incorporated into the budget.

### 16. Parkway Interchange 88 Improvements

- i. **Location:** Ocean County
- ii. **Description:** This project provided missing ramp movements at this partial interchange along with modifications to the existing ramp movements to and from the north. The project also included the reconstruction of two mainline bridges, the construction of two new bridges over NJ Route 70, a new collector/distributor roadway that was constructed between this location and Interchange 89 and the relocation and consolidation of ramp toll collection facilities.
- iii. **Status:** Design and construction completed and opened to traffic – July 2015

- iv. **Impact on Operating Budget:** This project adds 15 lane miles of new pavement which increases operating and maintenance expenses 0.4% for personnel, materials and equipment. These increases in costs have been incorporated into the budget based on actual costs.

#### **17. Parkway Interchange 91 Improvements**

- i. **Location:** Ocean County
- ii. **Description:** This project is a joint cooperative project between the Authority and Ocean County that provides missing ramp movements at this partial interchange. This project also includes the construction of two extended service roads and county road improvements that eliminate the complex traffic pattern at the interchange, relieve congestion on local roads, and enhance safety. The project was funded by Ocean County and the Authority. This project cost represents the Authority's share of the overall cost of the project.
- iii. **Status:** Design and construction completed – September 2017.
- iv. **Impact on Operating Budget:** This project adds two lane miles of new pavement which increases operating and maintenance expenses less than 0.1% for personnel, materials and equipment. These slight increases in costs have been incorporated into the budget based on actual costs.

#### **Facilities Improvements**

#### **18. Salt Storage Facilities**

- i. **Location:** Various counties
- ii. **Description:** This project provided new, increased salt storage capacity for the Turnpike and Parkway.
- iii. **Status:** Design and construction is completed – May 2016
- iv. **Impact on Operating Budget:** This group of projects results in better-located, additional salt storage facilities that reduce operating costs because of more storage capacity and improved locations. These reductions have been incorporated into the operating budget based on actual costs.

#### **19. Facilities Improvements Phase I**

- i. **Location:** Various counties
- ii. **Description:** This project replaces and rehabilitates facilities at 22 Turnpike and Parkway maintenance districts to bring 50+ year old maintenance buildings into compliance with current building codes and operational standards. The project also includes repairing/rehabilitating several Turnpike toll plazas to incorporate safety and operational improvements. Finally, four new State Police facilities will be constructed under this project.
- iii. **Status:** Design and construction is on-going
- iv. **Impact on Operating Budget:** This group of projects cleared numerous maintenance issues which reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. In addition, new facilities were added which increase operations and maintenance costs. These minor reductions and additional have been incorporated into the operating budget.

#### **Parkway Widening (Interchange 35-80)**

#### **20. Parkway Widening Interchanges 63-80**

- i. **Location:** Various counties
- ii. **Description:** This project provided for a third travel lane with full shoulders in each direction on the Parkway and Express E-ZPass/One-Way Southbound Tolls at the Barnegat Toll Plaza. Three (3) individual design and construction contracts were provided for mainline widening of the 17-mile section in both directions, new sign structures, ten bridge replacements, realignment of the Parkway at the Barnegat Toll Plaza to provide for the elimination of tolls in the northbound direction, creating Express E-ZPass operation in the southbound direction, and a new toll utility building.



- iii. **Status:** Design and construction completed and opened to traffic – May 2011
- iv. **Impact on Operating Budget:** This project adds new pavement which increases operating and maintenance expenses for personnel, materials and equipment. These increases in costs have been incorporated into the budget based on actual costs.

**21. Parkway Widening Interchanges 35-63**

- i. **Location:** Various counties
- ii. **Description:** This project provides for the construction of a third travel lane with full shoulders in each direction on the Parkway. Six (6) individual design and construction contracts will provide for the widening of the 28-mile section in both directions the Parkway, new sign structures, and multiple bridge replacements.
- iii. **Status:** Design and construction from Interchange 63 to 41 completed - 2016. Design and construction from Interchange 41 to 35 was opened to traffic in the spring of 2018.
- iv. **Impact on Operating Budget:** This project adds 56 lane miles of new pavement which increases operating and maintenance expenses 1.6% for personnel, materials and equipment. These increases in costs have been incorporated into the budget.

Individual projects within the \$7 Billion CIP along with 2020 Amended Budget changes, is shown below:

<b>Capital Improvement Program Projects</b>				
<b>Project</b>	<b>Original Budget</b>	<b>2018 Amended Budget</b>	<b>2020 Amended Budget</b>	<b>Change in Amended Budget</b>
Turnpike Interchange 6-9 Widening	\$ 2,500,000,000	\$ 2,135,300,000	\$ 2,129,997,000	\$ (5,303,000)
<b>Total Turnpike Interchange 6-9 Widening</b>	<b>\$ 2,500,000,000</b>	<b>\$ 2,135,300,000</b>	<b>\$ 2,129,997,000</b>	
Bridge Painting Phase I	\$ 100,000,000	\$ 105,600,000	\$ 105,027,000	\$ (573,000)
Deck Reconstruction Phase I	150,000,000	200,500,000	200,150,000	(350,000)
Bridge Preservation & Security	265,000,000	92,800,000	93,960,000	1,160,000
Deck Reconstruction Phase II	350,000,000	146,200,000	144,702,000	(1,498,000)
Bridge Painting Phase II	150,000,000	65,200,000	67,430,000	2,230,000
Interchange 16E-18E Bridge Improvement	15,000,000	15,100,000	15,147,000	47,000
Turnpike Hackensack East Bridge Rehabilitation	135,000,000	136,500,000	131,904,000	(4,596,000)
NBHCE Bridge Redecking	250,000,000	489,200,000	531,612,000	42,412,000
Turnpike Special Bridge Structure	15,000,000	8,700,000	7,339,000	(1,361,000)
Parkway Bass River Bridge	125,000,000	76,400,000	76,432,000	32,000
Parkway Mullica River Bridge	75,000,000	49,400,000	49,392,000	(8,000)
Parkway Substructure Repairs	20,000,000	33,500,000	33,249,000	(251,000)
Great Egg Harbor/Drage Channel	-	265,900,000	264,196,000	(1,704,000)
<b>Total Bridge Construction, Preservation &amp; Security</b>	<b>\$ 1,650,000,000</b>	<b>\$ 1,685,000,000</b>	<b>\$ 1,720,540,000</b>	<b>\$ 35,540,000</b>
Drainage Improvements	\$ 50,000,000	\$ 62,200,000	\$ 61,834,000	\$ (366,000)
Improvements Roadway Appurtenances	30,000,000	41,600,000	41,464,000	(136,000)
Median Barrier Improvements	85,000,000	64,200,000	51,467,000	(12,733,000)
Sign Replacements Phase I	100,000,000	142,000,000	139,322,000	(2,678,000)
Sign Replacements Phase II	175,000,000	155,000,000	156,843,000	1,843,000
Turnpike/Parkway So Improve	100,000,000	15,900,000	15,865,000	(35,000)
Turnpike Widening Interchange 16W to Interchange 18W	200,000,000	-	-	-
Parkway Mainline Shoulder Improvements	250,000,000	366,700,000	359,145,000	(7,555,000)
<b>Total Roadway Improvements</b>	<b>\$ 990,000,000</b>	<b>\$ 847,600,000</b>	<b>\$ 825,940,000</b>	<b>\$ (21,660,000)</b>
Interchange Improvements	\$ 275,000,000	\$ 417,000,000	\$ 416,699,000	\$ (301,000)
Turnpike Interchange 8A to Rte 130 Connect	100,000,000	7,000,000	6,157,000	(843,000)
Turnpike Interchange 14A Reconstruction	500,000,000	290,500,000	288,248,000	(2,252,000)
Parkway Interchange 41 Improvements	25,000,000	23,800,000	22,899,000	(901,000)
Parkway Interchange 142 Improvements	45,000,000	700,000	655,000	(45,000)
Parkway Interchange 44 Improvements	25,000,000	29,000,000	28,833,000	(167,000)
Parkway Interchange 9, 10 & 11 Improvements	125,000,000	92,300,000	82,791,000	(9,509,000)
Parkway Interchange 125 Phase I	40,000,000	98,900,000	97,994,000	(906,000)
Parkway Interchange 88 Improvements	50,000,000	97,900,000	97,433,000	(467,000)
Parkway Interchange 91 Improvements	50,000,000	11,600,000	2,505,000	(9,095,000)
<b>Total Interchange Improvements</b>	<b>\$ 1,235,000,000</b>	<b>\$ 1,068,700,000</b>	<b>\$ 1,044,214,000</b>	<b>\$ (24,486,000)</b>
Salt Storage Facilities	\$ -	\$ 17,600,000	\$ 17,561,000	\$ (39,000)
Facilities Improvements Phase I	425,000,000	654,700,000	686,525,000	31,825,000
<b>Total Facilities Improvements</b>	<b>\$ 425,000,000</b>	<b>\$ 672,300,000</b>	<b>\$ 704,086,000</b>	<b>\$ 31,786,000</b>
Parkway Widening Phase Interchange 63-80	\$ 200,000,000	\$ 129,900,000	\$ 126,877,000	\$ (3,023,000)
Parkway Widening Phase Interchange 35 -63	-	461,200,000	448,346,000	(12,854,000)
<b>Total Widening of Garden State Parkway</b>	<b>\$ 200,000,000</b>	<b>\$ 591,100,000</b>	<b>\$ 575,223,000</b>	<b>\$ (15,877,000)</b>
<b>Total Capital Improvement Program Budget</b>	<b>\$ 7,000,000,000</b>	<b>\$ 7,000,000,000</b>	<b>\$ 7,000,000,000</b>	

- Totals may not add due to rounding

Figure 139: Capital Improvement Program Projects

Individual projects within the \$7 Billion CIP with life to date, 2020 and future years spending is shown below:

Capital Improvement Program Spending					
Project	Project Name	LTD Expenses	2020 Spending	Future Spending	Total Spending
39018001	Turnpike Interchange 6-9 Widening	\$ 2,129,251,000	\$ 722,000	\$ 24,000	\$ 2,129,997,000
<b>Total Turnpike Interchange 6-9 Widening</b>		<b>\$ 2,129,251,000</b>	<b>\$ 722,000</b>	<b>\$ 24,000</b>	
39001008	Bridge Painting Phase I	\$ 105,010,000	\$ 6,000	\$ 11,000	\$ 105,027,000
39001010	Deck Reconstruction Phase I	200,132,000	18,000	-	200,150,000
39001011	Bridge Preservation & Security	84,680,000	9,280,000	-	93,960,000
39001033	Deck Reconstruction Phase II	123,070,000	938,000	20,694,000	144,702,000
39001034	Bridge Painting Phase II	63,562,000	1,537,000	2,331,000	67,430,000
39011002	Interchange 16E-18E Bridge Improvement	15,147,000	-	-	15,147,000
39011012	Turnpike Hackensack East Bridge Rehabilitation	131,841,000	17,000	46,000	131,904,000
39011025	NBHCE Bridge Redecking	299,793,000	89,686,000	142,133,000	531,612,000
39011028	Turnpike Special Bridge Structure	7,329,000	5,000	5,000	7,339,000
39021004	Parkway Bass River Bridge	76,432,000	-	-	76,432,000
39021015	Parkway Mullica River Bridge	49,392,000	-	-	49,392,000
39021020	Parkway Substructure Repairs	33,249,000	-	-	33,249,000
39021036	Great Egg Harbor/Drag Channel	253,731,000	399,000	10,066,000	264,196,000
<b>Total Bridge Construction, Preservation &amp; Security</b>		<b>\$ 1,443,368,000</b>	<b>\$ 101,886,000</b>	<b>\$ 175,286,000</b>	<b>\$ 1,720,540,000</b>
39002003	Drainage Improvements	\$ 61,834,000	\$ -	\$ -	\$ 61,834,000
39002016	Improvements Roadway Appurtenances	41,464,000	-	-	41,464,000
39002017	Median Barrier Improvements	49,236,000	2,231,000	-	51,467,000
39006014	Sign Replacements Phase I	139,322,000	-	-	139,322,000
39006019	Sign Replacements Phase II	127,603,000	7,840,000	21,400,000	156,843,000
39009036	Turnpike/Parkway So Improve	15,865,000	-	-	15,865,000
39018032	Turnpike Widening Interchange 16W to Interchange 18W	-	-	-	-
39022023	Parkway Mainline Shoulder Improvements	359,009,000	136,000	-	359,145,000
<b>Total Roadway Improvements</b>		<b>\$ 794,333,000</b>	<b>\$ 10,207,000</b>	<b>\$ 21,400,000</b>	<b>\$ 825,940,000</b>
39003035	Interchange Improvements	\$ 334,220,000	\$ 33,585,000	\$ 48,894,000	\$ 416,699,000
39013005	Turnpike Interchange 8A to Rte 130 Connect	6,157,000	-	-	6,157,000
39013027	Turnpike Interchange 14A Reconstruction	276,689,000	4,061,000	7,498,000	288,248,000
39023006	Parkway Interchange 41 Improvements	22,763,000	136,000	-	22,899,000
39023007	Parkway Interchange 142 Improvements	655,000	-	-	655,000
39023009	Parkway Interchange 44 Improvements	28,833,000	-	-	28,833,000
39023022	Parkway Interchange 9, 10 & 11 Improvements	82,081,000	710,000	-	82,791,000
39023024	Parkway Interchange 125 Phase I	83,483,000	2,713,000	11,798,000	97,994,000
39023029	Parkway Interchange 88 Improvements	97,433,000	-	-	97,433,000
39023030	Parkway Interchange 91 Improvements	2,505,000	-	-	2,505,000
<b>Total Interchange Improvements</b>		<b>\$ 934,819,000</b>	<b>\$ 41,205,000</b>	<b>\$ 68,190,000</b>	<b>\$ 1,044,214,000</b>
39003040	Salt Storage Facilities	\$ 17,561,000	\$ -	\$ -	\$ 17,561,000
39005013	Facilities Improvements Phase I	632,066,000	29,095,000	25,364,000	686,525,000
<b>Total Facilities Improvements</b>		<b>\$ 649,627,000</b>	<b>\$ 29,095,000</b>	<b>\$ 25,364,000</b>	<b>\$ 704,086,000</b>
39028018	Parkway Widening Phase Interchange 63-80	\$ 126,877,000	\$ -	\$ -	\$ 126,877,000
39028031	Parkway Widening Phase Interchange 35 -63	437,660,000	10,631,000	55,000	448,346,000
<b>Total Widening of Garden State Parkway</b>		<b>\$ 564,537,000</b>	<b>\$ 10,631,000</b>	<b>\$ 55,000</b>	<b>\$ 575,223,000</b>
<b>Total Capital Improvement Program Spending</b>		<b>\$ 6,515,935,000</b>	<b>\$ 193,746,000</b>	<b>\$ 290,319,000</b>	<b>\$ 7,000,000,000</b>

- Totals may not add due to rounding

Figure 140: Capital Improvement Program Project Spending by Year

## 2019 Capital Improvement Program

In September 2018, the Authority's Board of Commissioners approved \$41 million of design work for new capital projects above those funded by the ongoing \$7 Billion Capital Improvement Program (CIP). Funding for this \$41 million of design work was approved as \$16 million from the \$7 Billion CIP, and \$25 million from the Supplemental Capital Fund. In addition, the 2019 Supplemental Capital Fund Budget included an additional \$6 million of design work for new projects, bringing the total approved design work for new projects to \$47 million. In January 2019, Governor Murphy and Commissioner of Transportation Gutierrez-Scaccetti, announced that during 2019, the Authority would award \$400 million of construction contracts related to this design work. Based on this, the Authority adopted a \$500 million 2019 Capital Improvement Program (2019 CIP) in April 2019 which consists of the design, supervision and construction of 17 capital improvement projects on both roadways. The projects include several bridge deck improvements on both roadways, the shoulder widening and reconstruction of the Garden State Parkway between mileposts 30 and 35, and the replacement of the hybrid changeable message signs on the New Jersey Turnpike. These projects are separated into the following categories: Roadway Improvements, Bridge Improvements, Facility Improvements, Interchange Improvements and Contingency.

The \$500 million 2019 CIP will be funded through bond proceeds, with \$16 million funded from the \$7 Billion CIP as approved in September 2018, and the remaining \$484 million funded through net proceeds of a series of future bond issuances. Currently, it is projected that the additional bonds needed to fund the 2019 CIP will not be issued until late 2020. Sufficient cash balances remain from the proceeds of the Series 2019 A Bonds which can be used to fund the cash needs for both the \$7 Billion CIP and the new \$500 million 2019 CIP for the remainder of 2019 and most of 2020. It is expected that bonds will be issued in mid-2020 and 2021 to fund these future capital needs. Resolutions authorizing the sale of bonds, including all required preapprovals, will be requested as needed, as was done with the \$7 Billion CIP.

<b>2019 Capital Improvement Program Project Summary</b>			
	<b>Current</b>	<b>Spent or Committed</b>	<b>Percentage</b>
<b>Tier I Project Groups</b>	<b>Budget</b>	<b>Through 8/31/19</b>	<b>of Budget</b>
Bridge Construction, Preservation & Security	\$ 268,200,000	\$ 21,084,000	8%
Roadway Improvements	194,525,000	20,713,000	11%
Interchange Improvements	10,000,000	1,790,000	18%
Facilities Improvements	22,275,000	-	0%
Contingency	5,000,000	-	0%
<b>Capital Improvement Program Total</b>	<b>\$ 500,000,000</b>	<b>\$ 43,587,000</b>	<b>9%</b>

Figure 141: 2019 Capital Improvement Program Projects Summary

# New Jersey Turnpike Authority

## 2019 Capital Improvement Program

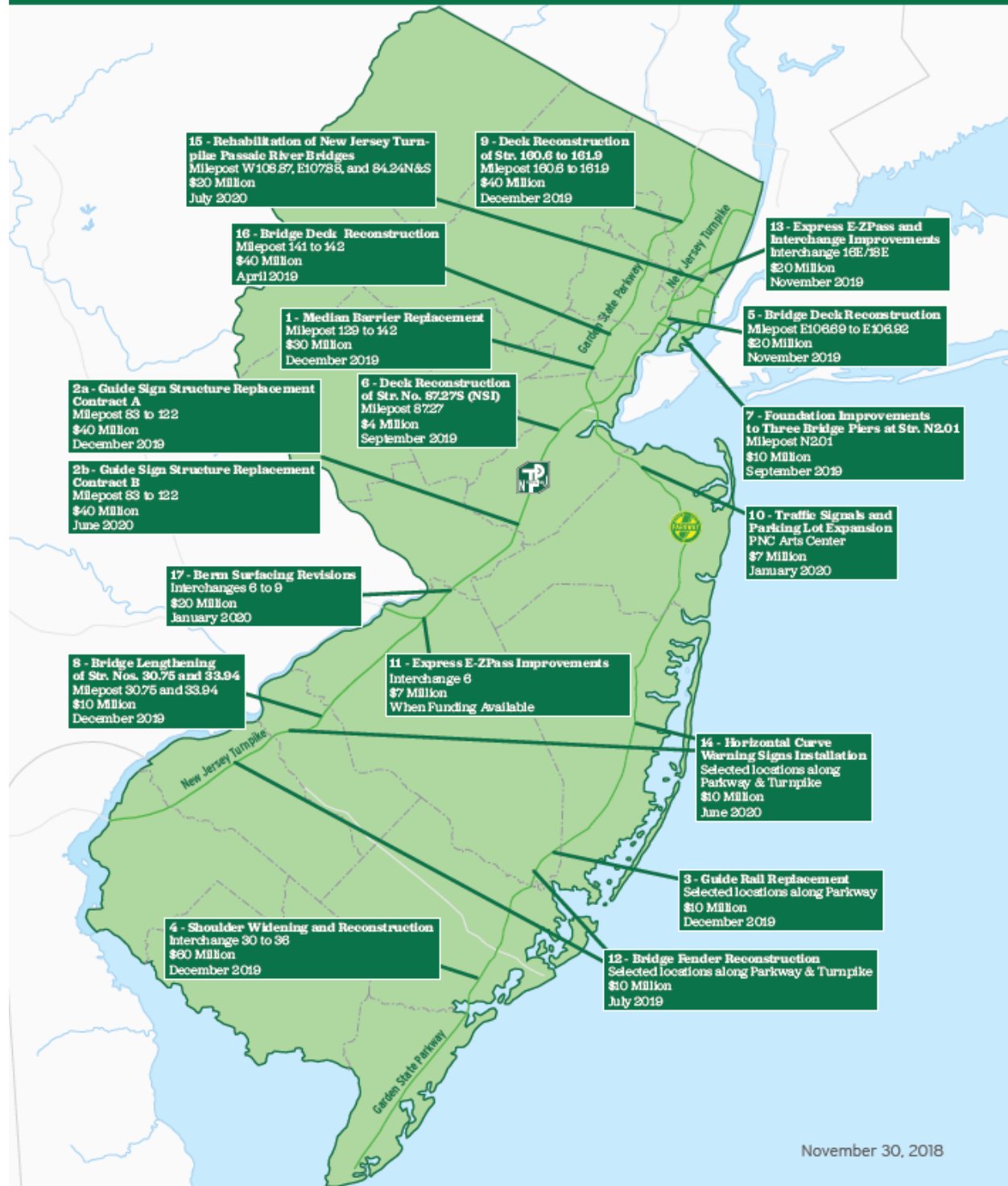


Figure 142: Map of 2019 Capital Improvement Program Active Projects

The 2019 CIP includes the following projects:

**Roadway Widening**

**1. Parkway Shoulder Widening, MP 30 - 35**

- i. **Location:** Cape May and Atlantic counties
- ii. **Description:** Safety and maintenance improvements to this area of the GSP are necessary for this section to be consistent with the other safety improvements recently completed under the \$7 Billion Capital Investment Program. This project provides for the construction of standard width shoulders, multiple bridge replacements, drainage and roadside area improvements.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will widen NB and SB roadway shoulders along 5 miles of the GSP, replace 8 bridges, and improve drainage facilities. Although there will be a slight increase in operational and maintenance costs for the widened shoulders, overall operational and maintenance costs will be slightly reduced after accounting for the extended life of the bridges and drainage systems. These slight reductions will be taken into account in the operating budget once construction is completed.

**Bridge Improvements**

**2. Turnpike Bridge Deck Reconstruction of Str. Nos. E106.68 and E106.92B**

- i. **Location:** Essex county
- ii. **Description:** This project provides for the design and construction for the reconstruction and/or superstructure replacement of two severely deteriorated, high priority bridge decks located at Mileposts E106.68 and E106.92B along the easterly extension of the Turnpike.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will extend the life of two bridges and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These routine maintenance cost savings will be considered when developing the operating budget for the year construction is completed.

**3. Turnpike Deck Reconstruction Str. No. 87.27S NSI**

- i. **Location:** Middlesex county
- ii. **Description:** This project provides for the design and construction for the reconstruction and/or superstructure replacement of a severely deteriorated, high priority bridge deck located at Milepost 87.27S on the Turnpike.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will extend the life of Bridge No. 87.27S and will reduce the need for intermittent repairs resulting in very minor reductions in routine maintenance costs which will be reflected in the operating budget in the year construction is completed.

**4. Turnpike Foundation Improvements to Three Bridge Piers Str. No. N2.01**

- i. **Location:** Essex and Hudson counties
- ii. **Description:** This project provides for the design and construction for the reconstruction of three high priority undermined bridge pier foundations between Piers E6 and E9 of the Newark Bay Bridge, Turnpike Str. No. N2.01.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will extend the life of three piers associated with Bridge No. N2.01 and will reduce the need for intermittent repairs resulting in very minor reductions in routine maintenance costs. These minor reductions will be considered in the development of the operating budget for the year of construction completion.

**5. Turnpike Bridge Lengthening of Str. Nos. 30.75 and 33.94**

- i. **Location:** Camden and Burlington counties
- ii. **Description:** This project provides for the design and construction for the reconstruction and/or superstructure replacement and lengthening of two severely deteriorated bridge decks which carry local roads over the southern portion of the Turnpike located at Mileposts 30.75 and 33.94. Bridge lengthening will provide for adequate space for future widening of the Turnpike.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will extend the life of two bridges and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These minor savings will be included in the operating budget forecast for the year construction will be completed.

**6. Parkway Bridge Deck Reconstruction, MP 160.6 to 161.9 NB and SB**

- i. **Location:** Bergen county
- ii. **Description:** This project includes the reconstruction and/or superstructure replacement of six severely deteriorated, high priority bridge decks which carry the Parkway mainline over local roads located between Mileposts 160.6 and 161.9.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will extend the life of six bridges and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs which will be considered during development of the operating budget for the year of construction completion.

**7. Turnpike Rehabilitation of Passaic River Bridges**

- i. **Location:** Essex, Hudson and Middlesex counties
- ii. **Description:** This project provides for the design and construction for continued rehabilitation of the NJ Turnpike Passaic and Raritan River Bridge Str. Nos. W107.87, E107.88 and 84.24N & S.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will extend the life of these bridges and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These minor reductions will be considered when developing the operating budget for the year of construction completion.

**8. Turnpike Bridge Fender Repairs and Rehabilitation**

- i. **Location:** Various counties
- ii. **Description:** This project will design and reconstruct deteriorated structural members and channel marking lighting systems of waterway channel fender protection systems of select Turnpike and Parkway bridges
- iii. **Status:** Design and construction is ongoing
- iv. **Impact on Operating Budget:** This project will extend the life of waterway channel fender protection systems and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs which will be taken into account in the operating budget for the year construction is completed.

**9. Parkway Bridge Deck Parapet Reconstruction, MP 141 to 142**

- i. **Location:** Union county
- ii. **Description:** This project provides for the reconstruction and/or superstructure replacement of severely deteriorated, high priority bridge decks located between milepost 141 and 142.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will extend the life of various bridges between Parkway MP 141 and 142 and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These minor savings will be considered when developing the operating budget for the year that construction is completed.



**Roadway Improvements****10. Parkway Rehabilitation of Concrete Median Barrier, MP 129 - 140**

- i. **Location:** Middlesex and Union counties
- ii. **Description:** This project includes the inspection and condition assessment of concrete median barrier, and the implementation of a repair/replacement/upgrade program along the Parkway in the former State section between MP 129 and 142.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project extends the life of concrete median barrier and reduces the need for intermittent repairs which results in very minor reductions in routine maintenance costs. These reductions will be considered when developing the operating budget for the year of construction completion.

**11. Turnpike Installation of Hybrid Changeable Message Signs at Various Locations**

- i. **Location:** Various counties
- ii. **Description:** This project includes the deployment of 89 Hybrid Changeable Message Signs (HCMSs) at 50 sites along the New Jersey Turnpike to replace the existing changeable message drum signs. The project provides for design and construction of the HCMS structural supports, provision and installation of HCMSs, and connectivity utilizing fiber optic communication networks back to the Statewide Traffic Management Center (STMC). All signs are monitored and controlled from the STMC.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project implements new HCMS signs to replace the existing drum signs and add several new signs for a total of 126 HCMSs. Since the majority of the new HCMSs replace existing signs, there will be a reduction in maintenance costs because the signs allow access from the roadway shoulder eliminating the need for lane closures to perform maintenance and the HCMSs utilize new technology that reduces maintenance needs. These savings will be taken into account during the operating budget development for the year in which construction is completed.

**12. Turnpike Berm Surfacing Revisions, MP 48 to 83**

- i. **Location:** Middlesex, Mercer and Burlington counties
- ii. **Description:** This project will design and construct berm surfacing improvements at select locations adjacent to and underneath exiting guide rail systems and at various median locations between Turnpike Interchanges 6 and 9.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will construct berm surfacing improvements that will slightly decrease operating and maintenance expenses for personnel, materials and equipment. These expense reductions will be considered for the operating budget development for the year of construction completion.

**13. Parkway Weathering Guide Rail Replacement**

- i. **Location:** Various counties
- ii. **Description:** The Parkway guide rail systems are comprised of weathering steel. This project will provide for upgrades to the highest priority guide rail systems along the Parkway to comply with recently adopted Federal crash test standards.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project extends the life of weathering steel guide rail systems and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. These reductions will be taken into account when developing the operating budget for the year of construction completion.

**14. Parkway PNC Arts Center Operational Improvements and Traffic Signals, MP 115.8**

- i. **Location:** Ocean county
- ii. **Description:** This project includes the construction of new traffic signals at the PNC Arts Center.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will construct new traffic signals at the PNC Arts Center and will slightly increase the need for intermittent repairs resulting in a minor increase in routine maintenance costs. These minor increases will be considered when developing the operating budget for the year of construction completion.

**15. Turnpike and Parkway Horizontal Curve Warning Sign Installation**

- i. **Location:** Various counties
- ii. **Description:** This project will design and construct new curve warning signs on select Parkway and Turnpike ramps to provide advanced warning to the motoring public in order to improve safety.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will have no impact on the operating budget.

**Interchange Improvements****16. Turnpike Interchange 6 Express E-ZPass Improvements**

- i. **Location:** Burlington county
- ii. **Description:** This project will construct improvements to implement dual Express E-ZPass lanes in the eastbound and westbound directions at the Interchange 6 toll plaza.
- iii. **Status:** Design and construction is ongoing
- iv. **Impact on Operating Budget:** This project will implement dual Express E-ZPass lanes at Interchange 6 and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. The minor reductions will be taken into account when developing the operating budget for the year of construction completion.

**17. TPK Interchange 18E Express E-ZPass and 16E Improvements**

- i. **Location:** Bergen county
- ii. **Description:** This project will design and construct an Express E-ZPass bypass for Interchange 18E and allow 18E cash customers to use the remaining toll plaza lanes at 16E. This will improve the overall traffic flow at the Interchange and reduce the exiting bus queuing that utilizes the contraflow Exclusive Bus Lane (XBL).
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will construct new express E-ZPass lanes at Interchange 18E and will slightly increase the need for intermittent repairs resulting in a minor increase in routine maintenance costs. This small increase will be considered when developing the operating budget for the year of construction completion.

Individual projects within the 2019 CIP are shown below:

<b>2019 Capital Improvement Program Projects</b>	
<b>Project</b>	<b>Original Budget</b>
TPK Redeck Str E106.68 E106.92	\$ 26,000,000
TPK Redeck Str 87.27 NSI	5,000,000
TPK Improve Str N2.01 Piers	12,275,000
TPK Bridge Lengthen 30.75&33.94	13,200,000
GSP Str 160.6 to 161.9 NB SB	53,250,000
TPK Bridge Fender Reconstruct	12,100,000
TPK Bridge Rehabilitation	26,000,000
GSP Bridge Deck Recon 141-142	46,700,000
<b>Total Bridge Construction, Preservation &amp; Security</b>	<b>\$ 194,525,000</b>
GSP Rehab Concrete Median Barr	\$ 35,000,000
TPK Install New Hybrid CMS	98,450,000
GSP Weather Guiderail Replace	12,000,000
GSP Shoulder Widen Rec MP30-35	76,650,000
TPK Interchange 6 Exp E-ZPass Improvement	8,300,000
TPK Interchange 18E High Spd E-ZPass 16E	25,000,000
Horizontal Curve Warn Sign Ins	12,800,000
<b>Total Roadway Improvements</b>	<b>\$ 268,200,000</b>
TPK Interchange 6-9 Berm Surface Revisn	\$ 22,275,000
<b>Total Interchange Improvements</b>	<b>\$ 22,275,000</b>
GSP Arts Center Signal Lot Exp	\$ 10,000,000
<b>Total Facilities Improvements</b>	<b>\$ 10,000,000</b>
Contingency	\$ 5,000,000
<b>Total Contingency</b>	<b>\$ 5,000,000</b>
<b>2019 Capital Improvement Program Budget</b>	<b>\$ 500,000,000</b>

Figure 143: 2019 Capital Improvement Program Projects

Individual projects within the 2019 CIP with spending is shown below:

<b>2019 Capital Improvement Program Projects</b>					
<b>Project</b>	<b>Project Name</b>	<b>LTD Expenses</b>	<b>2020 Spending</b>	<b>Future Spending</b>	<b>Total Spending</b>
39200005	TPK Redeck Str E106.68 E106.92	\$ 849,000	\$ 7,429,000	\$ 17,723,000	\$ 26,001,000
39200006	TPK Redeck Str 87.27 NSI	370,000	-	4,630,000	5,000,000
39200007	TPK Improve Str N2.01 Piers	313,000	-	11,962,000	12,275,000
39200008	TPK Bridge Lengthen 30.75&33.94	1,490,000	-	11,710,000	13,200,000
39200009	GSP Str 160.6 to 161.9 NB SB	1,793,000	14,739,000	36,717,000	53,249,000
39200012	TPK Bridge Fender Reconstruct	1,680,000	10,425,000	-	12,105,000
39200015	TPK Bridge Rehabilitation	-	-	26,000,000	26,000,000
39200016	GSP Bridge Deck Recon 141-142	-	-	46,700,000	46,700,000
<b>Total Bridge Construction, Preservation &amp; Security</b>		<b>\$ 6,495,000</b>	<b>\$ 32,593,000</b>	<b>\$ 155,442,000</b>	<b>\$ 194,530,000</b>
39200001	GSP Rehab Concrete Median Barr	\$ 5,050,000	\$ 10,500,000	\$ 19,450,000	\$ 35,000,000
39200002	TPK Install New Hybrid CMS	300,000	12,050,000	86,100,000	98,450,000
39200003	GSP Weather Guiderail Replace	659,000	3,588,000	7,753,000	12,000,000
39200004	GSP Shoulder Widen Rec MP30-35	6,444,000	19,409,000	50,797,000	76,650,000
39200011	TPK Interchange 6 Exp E-ZPass Improvement	370,000	7,873,000	57,000	8,300,000
39200013	TPK Interchange 18E High Spd E-ZPass 16E	920,000	-	12,793,000	13,713,000
39200014	Horizontal Curve Warn Sign Ins	7,000	17,827,000	6,253,000	24,087,000
<b>Total Roadway Improvements</b>		<b>\$ 13,750,000</b>	<b>\$ 71,247,000</b>	<b>\$ 183,203,000</b>	<b>\$ 268,200,000</b>
39200017	TPK Interchange 6-9 Berm Surface Revisn	\$ -	\$ -	\$ 22,270,000	\$ 22,270,000
<b>Total Interchange Improvements</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ 22,270,000</b>	<b>\$ 22,270,000</b>
39200010	GSP Arts Center Signal Lot Exp	\$ 549,000	\$ 7,188,000	\$ 2,263,000	\$ 10,000,000
<b>Total Facilities Improvements</b>		<b>\$ 549,000</b>	<b>\$ 7,188,000</b>	<b>\$ 2,263,000</b>	<b>\$ 10,000,000</b>
39299999	Contingency	\$ -	\$ -	\$ 5,000,000	\$ 5,000,000
<b>Total Contingency</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ 5,000,000</b>	<b>\$ 5,000,000</b>
<b>2019 Capital Improvement Program Spending</b>		<b>\$ 20,794,000</b>	<b>\$ 111,028,000</b>	<b>\$ 368,178,000</b>	<b>\$ 500,000,000</b>

Figure 144: 2019 Capital Improvement Program Project Spending by Year

## Appendices

### Appendix A: General Consulting Engineer's Approval

**HNTB Corporation**  
The HNTB Companies  
Infrastructure Solutions

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Parsippany, NJ 07054

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October 16, 2019

John M. Keller, PE  
Executive Director  
New Jersey Turnpike Authority  
1 Turnpike Plaza  
Woodbridge, NJ 07095-5042

Re: Order for Professional Services No. A3584  
General Consulting Engineering Services  
Review of Final 2020 Annual Budget

Dear Mr. Keller:

In accordance with the provisions of Section 710(a) of the Turnpike Revenue Bond Resolution, as adopted on August 20, 1991, as amended and restated on September 26, 1991 and as further amended and restated on November 22, 1991, HNTB has thoroughly reviewed the New Jersey Turnpike Authority's Final 2020 Annual Budget.

HNTB hereby approves the New Jersey Turnpike Authority's Final 2020 Annual Budget. The Final 2020 Annual Budget includes:

• Operating Expense Budget	\$598,971,000
• Debt Service Budget	\$842,699,000
• Charges Fund Budget	\$0
• Maintenance Reserve Fund Spending Budget	\$255,942,000
• Special Project Reserve Fund Spending Budget	\$83,896,000
• Supplemental Capital Fund Spending Budget	\$176,683,000
• Passaic River Bridge Rehabilitation Program	\$132,134,000
• General Reserve Fund Spending Budget	\$251,345,000

In addition, the Final 2020 Annual Budget includes the following deposits:

• Maintenance Reserve Fund	\$134,097,000
• Special Projects Reserve Fund	\$41,300,000
• General Reserve Fund	\$247,876,000

We appreciate being of service to you in this regard. Should you have any questions or comments related to our review of this budget, please contact us.

Sincerely,

Gregory A. LeFrois, PE  
Senior Vice President  
Project Manager

Copy: Donna Manuelli, CFO, NJTA  
GAL/sb

## Appendix B Schedule of Revenue, Operating and Non-Operating Expenses

### NEW JERSEY TURNPIKE AUTHORITY Schedule of Revenue, Operating and Non-Operating Expenses Reconciliation of Bond Resolution to GAAP

(In thousands)

	2018 Actual	2019 Budget	2020 Budget
Operating revenues:			
Toll revenue	\$ 1,612,326	1,605,900	1,633,298
E-ZPass fees	84,417	77,500	80,050
Concession revenue	36,192	34,000	35,557
Miscellaneous revenue	19,443	11,002	11,790
Total operating revenues	1,752,378	1,728,402	1,760,695
Operating expenses:			
Maintenance of roadway, buildings, and equipment	274,118	316,801	343,806
Toll collection	170,603	185,879	187,748
State police and traffic control	93,573	103,824	114,401
Technology	26,417	29,869	34,994
General administrative costs	50,727	57,937	68,956
Depreciation	326,616	375,000	390,000
Total operating expenses	942,054	1,069,310	1,139,905
Nonoperating revenues (expenses):			
Build America Bonds subsidy	76,439	76,602	76,847
Federal and State reimbursements	7	—	—
Payments to the State of New Jersey	(193,000)	(179,500)	(178,500)
Interest expense, Turnpike Revenue Bonds	(524,796)	(556,968)	(548,937)
Other bond expenses	(11)	(1,000)	(1,000)
Loss on disposal of capital assets	(597)	—	—
Investment income	36,861	27,000	30,000
Arts Center	4,453	3,401	3,401
Total nonoperating (expenses), net	(600,644)	(630,465)	(618,189)
Capital contributions	200	5,000	—
Change in Net Position	209,880	33,627	2,601

## Notes:

The Budget does not include depreciation and other non-cash expenses resulting from GASB implementation.

The non-cash expenses include Pollution Remediation (GASB 49), Pension (GASB 68) and Other Postemployment Benefits (GASB 75).

**Figure 145: Schedule of Revenue, Operating and Non-Operating Expenses**

## NEW JERSEY TURNPIKE AUTHORITY

## Schedule of Revenue, Operating and Non-Operating Expenses - Reconciliation of Bond Resolution to GAAP

2018 Actual  
(in thousands)

	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Debt service	Debt reserve	Total bond resolution	GAAP adjustments *	Total 2018 GAAP Financials
Operating revenues:										
Toll revenue	\$ 1,612,326	-	-	-	-	-	-	1,612,326	-	1,612,326
E-Z Pass Fees	84,417	-	-	-	-	-	-	84,417	-	84,417
Concession revenue	36,192	-	-	-	-	-	-	36,192	-	36,192
Miscellaneous revenue	19,443	-	-	-	-	-	-	19,443	-	19,443
Total operating revenues	1,752,378	-	-	-	-	-	-	1,752,378	-	1,752,378
Operating expenses:										
Maintenance of roadway, buildings and equipment	221,230	-	-	11,809	32,712	-	-	265,751	8,367	274,118
Toll Collection	162,345	-	-	-	3,859	-	-	166,204	4,399	170,603
State Police and Traffic Control	91,016	-	-	829	955	-	-	92,800	773	93,573
Technology	21,652	-	-	2,118	1,238	-	-	25,008	1,409	26,417
General administrative costs	45,824	-	-	37	5,860	-	-	51,721	(994)	50,727
Depreciation	-	263,659	38,868	10,266	13,823	-	-	326,616	-	326,616
Total operating expenses	542,067	263,659	38,868	25,059	58,447	-	-	928,100	13,954	942,054
Nonoperating revenues (expenses):										
Build America Bonds subsidy	76,439	-	-	-	-	-	-	76,439	-	76,439
Federal and State reimbursements	7	-	-	-	-	-	-	7	-	7
Payments to the State of New Jersey	-	-	-	-	(193,000)	-	-	(193,000)	-	(193,000)
Interest expense, Turnpike Revenue Bonds	-	52,022	-	-	-	(587,453)	-	(535,431)	10,635	(524,796)
Other bond expense	-	4	-	-	(15)	-	-	(11)	-	(11)
Loss on disposal of capital assets	-	(597)	-	-	-	-	-	(597)	-	(597)
Investment income (loss)	3,720	6,016	1,682	1,693	7,559	4,900	11,291	36,861	-	36,861
Arts Center	4,453	-	-	-	-	-	-	4,453	-	4,453
Total nonoperating revenues (expenses), net	84,619	57,445	1,682	1,693	(185,456)	(582,553)	11,291	(611,279)	10,635	(600,644)
Capital contributions	-	-	-	-	200	-	-	200	-	200
Change in Net Position	1,294,930.00	(206,214.00)	(37,186.00)	(23,366.00)	(243,703.00)	(582,553.00)	11,291.00	213,199.00	(3,319.00)	209,880.00

Figure 146: Schedule of Revenue, Operating and Non-Operating Expenses - Reconciliation of Bond Resolution to GAAP 2018 Actuals



## NEW JERSEY TURNPIKE AUTHORITY

## Schedule of Revenue, Operating and Non-Operating Expenses - Reconciliation of Bond Resolution to GAAP

2019 Budget  
(in thousands)

	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Debt service	Debt reserve	Total bond resolution	GAAP adjustments *	Total 2018 GAAP Financials
Operating revenues:										
Toll revenue	\$ 1,605,900	-	-	-	-	-	-	1,605,900	-	1,605,900
E-Z Pass Fees	77,500	-	-	-	-	-	-	77,500	-	77,500
Concession revenue	34,000	-	-	-	-	-	-	34,000	-	34,000
Miscellaneous revenue	11,002	-	-	-	-	-	-	11,002	-	11,002
Total operating revenues	1,728,402	-	-	-	-	-	-	1,728,402	-	1,728,402
Operating expenses:										
Maintenance of roadway, buildings and equipment	240,920	-	-	15,746	39,738	-	-	296,404	20,397	316,801
Toll Collection	168,720	-	-	-	4,321	-	-	173,041	12,838	185,879
State Police and Traffic Control	99,810	180	-	1,112	703	-	-	101,805	2,019	103,824
Technology	24,796	-	-	2,988	629	-	-	28,413	1,456	29,869
General administrative costs	47,825	-	-	250	5,954	-	-	54,029	3,908	57,937
Depreciation #	-	294,043	48,868	14,266	17,823	-	-	375,000	-	375,000
Total operating expenses	582,071	294,223	48,868	34,362	69,168	-	-	1,028,692	40,618	1,069,310
Nonoperating revenues (expenses):										
Build America Bonds subsidy	76,602	-	-	-	-	-	-	76,602	-	76,602
Federal and State reimbursements	-	-	-	-	-	-	-	-	-	-
Payments to the State of New Jersey	-	-	-	-	(179,500)	-	-	(179,500)	-	(179,500)
Interest expense, Turnpike Revenue Bonds	-	56,386	-	-	-	(604,618)	-	(548,232)	(8,736)	(556,968)
Other bond expense	-	-	-	-	(1,000)	-	-	(1,000)	-	(1,000)
Loss on disposal of capital assets	-	-	-	-	-	-	-	-	-	-
Investment income (loss)	25,000	2,000	-	-	-	-	-	27,000	-	27,000
Arts Center	3,401	-	-	-	-	-	-	3,401	-	3,401
Total nonoperating revenues (expenses), net	105,003	58,386	-	-	(180,500)	(604,618)	-	(621,729)	(8,736)	(630,465)
Capital contributions	-	-	-	-	5,000	-	-	5,000	-	5,000
Change in Net Position	1,251,334	(235,837)	(48,868)	(34,362)	(244,668)	(604,618)	-	82,981	(49,354)	33,627

# Operating revenue, operating and non-operating expenses for each fund match to expense budget except depreciation.

\* GAAP Adjustments fund includes the non-cash expenses related to GASB 49, GASB 68 and GASB 75

Figure 147: Schedule of Revenue, Operating and Non-Operating Expenses - Reconciliation of Bond Resolution to GAAP: 2019 Budget

## NEW JERSEY TURNPIKE AUTHORITY

## Schedule of Revenue, Operating and Non-Operating Expenses - Reconciliation of Bond Resolution to GAAP

2020 Budget  
(in thousands)

	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Debt service	Debt reserve	Total bond resolution	GAAP adjustments	Total 2018 GAAP Financials
Operating revenues:										
Toll revenue	\$ 1,633,298	-	-	-	-	-	-	1,633,298	-	1,633,298
E-Z Pass Fees	80,050	-	-	-	-	-	-	80,050	-	80,050
Concession revenue	35,557	-	-	-	-	-	-	35,557	-	35,557
Miscellaneous revenue	11,790	-	-	-	-	-	-	11,790	-	11,790
Total operating revenues	1,760,695	-	-	-	-	-	-	1,760,695	-	1,760,695
Operating expenses:										
Maintenance of roadway, buildings and equipment	250,577	3,990	-	17,112	50,738	-	-	322,417	21,389	343,806
Toll Collection	169,995	-	-	-	4,321	-	-	174,316	13,432	187,748
State Police and Traffic Control	103,058	-	-	4,027	5,203	-	-	112,288	2,113	114,401
Technology	24,445	4,812	-	3,585	629	-	-	33,471	1,523	34,994
General administrative costs	50,896	-	-	2,945	10,954	-	-	64,795	4,161	68,956
Depreciation	-	303,043	51,868	16,266	18,823	-	-	390,000	-	390,000
Total operating expenses	598,971	311,845	51,868	43,935	90,668	-	-	1,097,287	42,618	1,139,905
Nonoperating revenues (expenses):										
Build America Bonds subsidy	76,847	-	-	-	-	-	-	76,847	-	76,847
Federal and State reimbursements	-	-	-	-	-	-	-	-	-	-
Payments to the State of New Jersey	-	-	-	-	(178,500)	-	-	(178,500)	-	(178,500)
Interest expense, Turnpike Revenue Bonds	-	52,949	-	-	-	(593,304)	-	(540,355)	(8,582)	(548,937)
Other bond expense	-	-	-	-	(1,000)	-	-	(1,000)	-	(1,000)
Loss on disposal of capital assets	-	-	-	-	-	-	-	-	-	-
Investment income (loss)	24,000	6,000	-	-	-	-	-	30,000	-	30,000
Arts Center	3,401	-	-	-	-	-	-	3,401	-	3,401
Total nonoperating revenues (expenses), net	104,248	58,949	-	-	(179,500)	(593,304)	-	(609,607)	(8,582)	(618,189)
Capital contributions	-	-	-	-	-	-	-	-	-	-
Change in Net Position	1,265,972	(252,896)	(51,868)	(43,935)	(270,168)	(593,304)	-	53,801	(51,200)	2,601

# Operating revenue, Operating and non-operating expenses for each fund match to expense budget except depreciation.

\* GAAP Adjustments fund includes the non-cash expenses related to GASB 49, GASB 68 and GASB 75

Figure 148: Schedule of Revenue, Operating and Non-Operating Expenses - Reconciliation of Bond Resolution to GAAP 2020 Budget

## Appendix C Financial Policies

### Financial Management Principles and Guidelines

#### I. INTRODUCTION

##### **A. Purpose of Financial Management Principles and Guidelines**

These Financial Management Principles and Guidelines are intended to serve as a management tool to enable the New Jersey Turnpike Authority (the “Authority”) to communicate the Authority’s commitment to a sound financial decision-making process and affirm to investors and the credit rating agencies management’s commitment to the long term financial viability of the Authority and repayment of its bonds. These Financial Management Principles and Guidelines are also intended to serve as guidance for management of the Authority with respect to:

- i. the issuance and management of Authority debt in appropriate amounts and types with the goals of achieving the lowest possible costs of capital within prudent risk parameters and ensuring ongoing access to the capital markets; and
- ii. compliance by the Authority with all provisions of the Act (as hereinafter defined) relating to bonds, notes or other obligations of the Authority, as well as all provisions of the Authority’s Bond Resolution (as hereinafter defined).

These Financial Management Principles and Guidelines will be reviewed by the Authority no less than once every two (2) years and any changes to these Financial Management Principles and Guidelines will be presented to and approved by the Authority’s Board of Commissioners. These Financial Management Principles and Guidelines will also be made available on the Authority’s website (<http://www.state.nj.us/turnpike>)\*.

##### **B. Best Interests of the Authority**

While adherence to these Financial Management Principles and Guidelines is desirable, deviations from these Financial Management Principles and Guidelines may be appropriate from time to time to address: (i) changing financial goals; (ii) emerging financial products/debt structures; and (iii) unique market opportunities. As a result, the general best interests of the Authority shall supersede any provision of these Financial Management Principles and Guidelines.

##### **C. The Authority**

The Authority is a public body corporate and politic of the State of New Jersey created under and by virtue of the New Jersey Turnpike Authority Act of 1948, constituting Chapter 454 of the Laws of New Jersey of 1948, as amended and supplemented (the “Act”). Pursuant to the Act, the Authority is authorized and empowered to issue and incur its bonds, notes and other obligations for the purposes and on the terms and conditions set forth in the Act. All currently issued and outstanding bonds of the Authority, and all future bonds, notes or other obligations of the Authority, have been or will be issued and incurred under and pursuant to, and/or in accordance with, the terms and provisions of the Act and a resolution of the Authority adopted on August 20, 1991 and entitled, “Turnpike Revenue Bond Resolution”, as amended and restated on September 26, 1991, and as further amended and restated on November 22, 1991, as the same has been and will be further amended, restated and supplemented from time to time (the “Bond Resolution”). Capitalized terms used herein which are not otherwise defined shall have the meaning given to such terms in the Bond Resolution.

\*Effective 10/17, Authority website is <http://www.njta.com>

## II. FINANCIAL MANAGEMENT PRINCIPLES AND GUIDELINES

- A. Management will conduct Authority business in a manner that is in compliance with the requirements of the Act and the Bond Resolution, as well as all other applicable federal and state laws, rules and regulations.
- B. Revenues and bond proceeds will be used to improve and/or maintain safe and efficient roadways.
- C. The Authority will employ a Traffic Engineer to develop conservative toll revenue growth projections and establish toll rate schedules.
- D. The Authority will manage operating expenses within its available annual authorized operating budget, with a goal of reducing operating expenses while maintaining the quality of its roads and services.
- E. The Authority will adequately fund its Maintenance Reserve Fund, Special Project Reserve Fund, and other capital budgets in compliance with the provisions of the Bond Resolution and the recommendations of its Consulting Engineer.
- F. The Authority will manage its cash flow and total expenditure levels such that it maintains average unrestricted cash balances in the General Reserve Fund equal to at least:
  - (1) one hundred and twenty-five million dollars (\$125,000,000) as of December 31, 2017;
  - (2) one hundred and fifty million dollars (\$150,000,000) as of December 31, 2018;
  - (3) one hundred and seventy-five million dollars (\$175,000,000) as of December 31, 2019; and
  - (4) ten (10) percent of total annual revenue as of December 31, 2020 and each December 31st thereafter, based on that year's budgeted total annual revenue.
- G. The Authority will continue to fund its approved Capital Improvement Program with the lowest possible cost of capital. The Capital Improvement Program will be reviewed on an annual basis. Management will establish a Capital Improvement Program Reserve within the Capital Improvement Program budget to protect against risk.
- H. The Authority will prepare, at a minimum, a 5-year financial plan and update this plan on a regular basis as assumptions change.
- I. The Authority shall invest all of its funds (including the proceeds received from the sale of its bonds, notes or other obligations) which are not immediately needed for the purposes of the Authority in Investment Securities as provided in the Bond Resolution. The Authority shall invest all of its funds in a manner that allows such funds to be available when needed to be applied for their intended purposes. Funds will be invested in a manner consistent with the Investment Plan to be hereafter adopted by the Authority in accordance with Paragraph S below, with the goals of safety, liquidity and then yield in that order of priority.
- J. The Authority will prepare its books, records, and accounts according to General Accepted Accounting Principles applicable to governmental entities in the United States of America

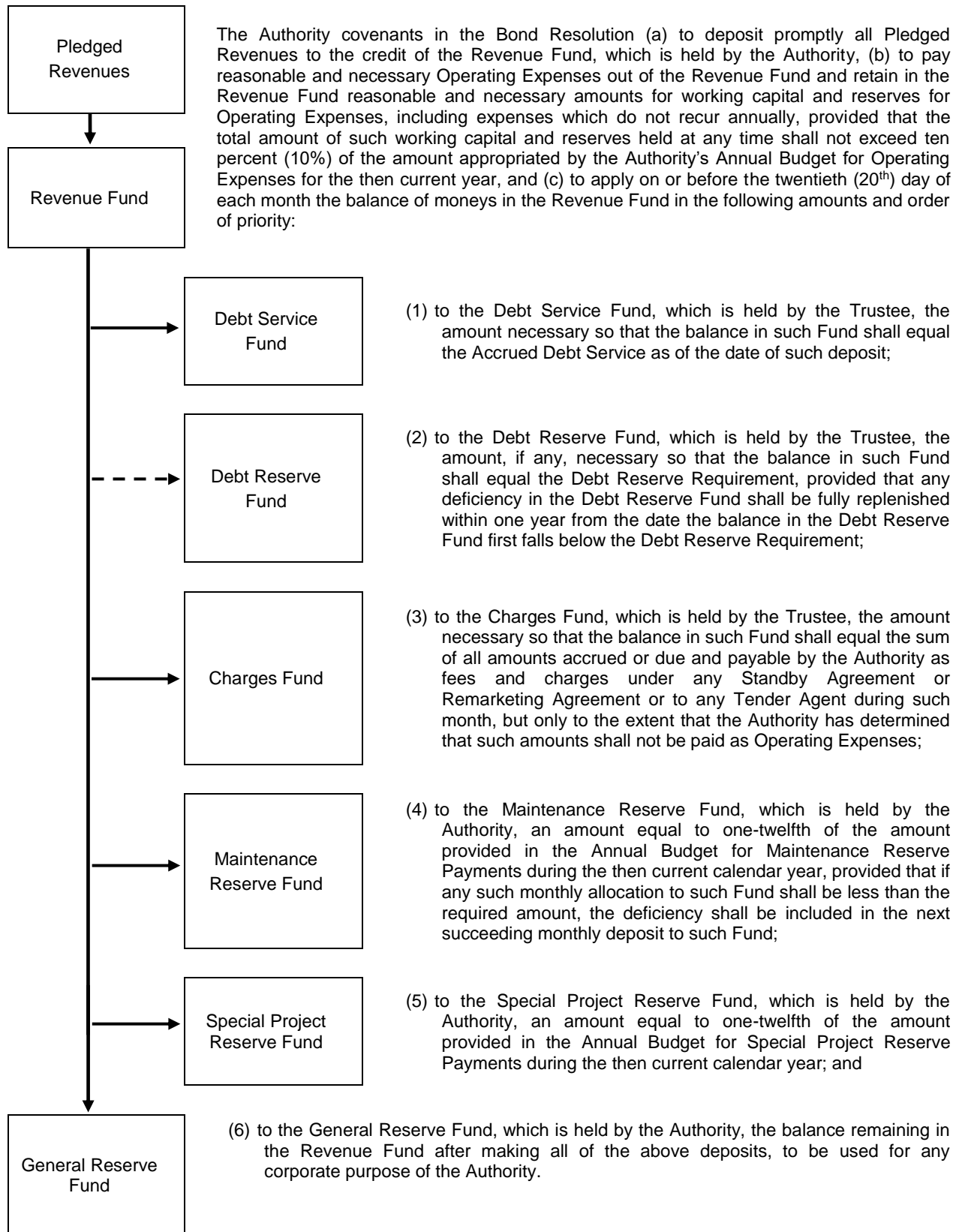
and cause such books, records and accounts to be annually audited by a nationally recognized firm of Certified Public Accountants. The Authority shall record all transactions consistent with the provisions of the Bond Resolution, including the provisions relating to all Funds and Accounts established under the Bond Resolution.

- K. The Authority will maintain current and meaningful financial and other information on its website for the benefit of investors, credit enhancement providers, and credit rating agencies.
- L. The Authority shall strive to maintain or improve the credit ratings for its debt without adversely affecting the levels or types of debt that may be issued by the Authority to finance its essential capital activities. The Authority will strive to communicate regularly with the rating agencies. To the extent possible and/or necessary, the Authority will forward periodic financial and other information to the rating agencies, update the rating agencies upon the occurrence of any significant financial developments and communicate with the rating agencies prior to each Authority debt issuance.
- M. The Authority will manage its toll rates, expense budget, and debt issuance program to achieve a minimum senior debt service coverage of 1.4x, and a total requirements coverage of 1.2x, although compliance with the Net Revenue Requirement under the Bond Resolution only requires the Authority to generate Net Revenues in each calendar year in an amount equal to the greater of (i) the sum of Aggregate Debt Service, required payments into the Maintenance Reserve Fund, required payments into the Special Project Reserve Fund and the payments, if any, into the Charges Fund for such year, or (ii) 1.2x the Aggregate Debt Service for such year. Furthermore, although the Bond Resolution permits the Authority to include amounts which are withdrawn from the Construction Fund, the Special Project Reserve Fund, and the General Reserve Fund and deposited into the Revenue Fund as part of the Pledged Revenues for purposes calculating compliance with the Net Revenue Requirement, the Authority shall not, in any calendar year, set its toll rates and/or adopt an annual budget which in any manner expressly relies, in whole or in part, upon any such withdrawals and deposits into the Revenue Fund as a means for achieving compliance with the Net Revenue Requirement or any other higher debt service or other coverage level which the Authority has established as its goal.
- N. Bonds, notes, and other obligations will be issued by the Authority solely for the purposes of financing its essential capital activities or refunding outstanding debt. Debt will not be issued by the Authority to fund, in whole or in part, operation and maintenance costs of the Turnpike System or capital assets with remaining useful lives shorter than the final maturity date of the associated debt. All bonds, notes and other obligations issued by the Authority will comply with the requirements of the Act and the Bond Resolution, as well as all other applicable federal and state laws, rules and regulations.
- O. The Authority will structure its new money debt maturities to achieve either an overall level debt service structure or a standalone level debt service structure. The Authority will continue to issue its bonds with maturities up to thirty (30) years from date of issuance to finance essential capital activities for the Turnpike System, including the acquisition, construction and rehabilitation of major capital assets for and/or additions to the New Jersey Turnpike, the Garden State Parkway and any other component of the Turnpike System.

- P. During the financing of the Authority's currently approved Capital Investment Program, the Authority does not intend to increase its overall variable rate debt in an amount greater than 20% of its overall debt.
- Q. During the financing of the currently approved Capital Investment Program, the Authority does not intend to increase the overall aggregate notional amount of its currently outstanding interest rate swap agreements and will look to reduce its outstanding interest rate swaps as economic opportunities to do so arise. Over the long-term, the Authority will not enter into interest rate swaps in an aggregate notional amount greater than 20% of its overall debt outstanding. If additional swaps are entered into, the Authority will have a goal to achieve a diversified (no more than 25% with any single counterparty) and highly rated (A1/A+ or better) group of counterparties. The Authority will require appropriate collateral provisions from such counterparties if their ratings decline below A2/A. The Authority will not provide collateral or termination rights to the counterparty unless the Authority's ratings decline below Baa2/BBB or lower. Any additional interest rate swap agreements will be entered into by the Authority in a manner consistent with the Interest Rate Swap Management Plan to be hereafter adopted by the Authority in accordance with Paragraph S below.
- R. When identifying potential refunding candidates for economic refundings, the Authority will generally seek a minimum per transaction present value savings threshold of 3%. Notwithstanding the above, the 3% savings threshold shall not apply for debt with a call date between one (1) and three (3) years from their stated maturity, or for small principal maturities and bonds that produce significant negative arbitrage. In certain instances, it may be advantageous for the Authority to issue refunding debt that does not produce positive economic savings but serves to restructure existing debt or retire debt in order to remove undesirable debt covenants. Prior to issuing non-economic refunding debt, the Authority will evaluate the benefits (both intangible and tangible) of issuing such debt as well as the economic cost of such debt.
- S. The Authority will hereafter adopt a formal Debt Management Plan, an Interest Rate Swap Management Plan and an Investment Plan, all of which shall be consistent with the provisions of the Act, the Bond Resolution and these Financial Management Principles and Guidelines.

### **III. BOND RESOLUTION FLOW OF FUNDS:**

The Bond Resolution creates and establishes various Funds and provides that the Pledged Revenues shall be deposited into such Funds in the amounts and in the order of priority set forth in the Bond Resolution. The Authority will at all times comply with the provisions of the Bond Resolution in connection with the deposit and application of the Pledged Revenues. The following chart illustrates and generally describes the provisions of the Bond Resolution governing the deposit and application of the Pledged Revenues to the various Funds created and established under the Bond Resolution:



#### IV. STATUTORY PROVISIONS AND CONSIDERATIONS

##### A. General

Bonds, notes or other obligations issued by the Authority are revenue obligations of the Authority and are not a debt or liability of the State of New Jersey or any political subdivision thereof (other than the Authority). Neither the faith and credit nor the taxing power of the State of New Jersey or of any political subdivision thereof is pledged to the payment of the Authority's bonds, notes or other obligations. The Authority has no taxing power.

##### B. Approvals of Governor and State Treasurer

Pursuant to Section 3(F) of the Act (N.J.S.A. 27:23-3(F)), no resolution or other action of the Authority providing for the issuance of bonds, refunding bonds or other obligations or the fixing, revising or adjusting of tolls for the use of the Turnpike System shall be adopted or otherwise made effective by the Authority without the prior written approval of the Governor and the State Treasurer. Section 3(F) of the Act further provides that the powers conferred upon the Governor and the State Treasurer pursuant to such Section shall be exercised with due regard of the rights of the holders of the Authority's bonds at any time outstanding and nothing in such Section shall in any limit, restrict or alter the obligation or powers of the Authority to carry out and perform each and every covenant, agreement or contract at any time made or enter into by or on behalf of the Authority with respect to its bonds or for the benefit, protection and security of the holders thereof.

##### C. State Non-Impairment Agreement

Pursuant to Section 7 of the Act (N.J.S.A. 27:23-7), the State of New Jersey has pledged and agreed with the holders of the Authority's bonds that it will not limit or restrict the rights vested in the Authority to acquire, maintain, construct, improve, manage, repair, reconstruct and operate the Turnpike System, or to establish and collect such charges and tolls as may be convenient or necessary to produce sufficient revenue to meet the expenses of maintenance and operation thereof and to fulfill the terms of any agreements made with the holders of the Authority's bonds or in any way impair the rights and remedies of the holders of such bonds until the bonds, together with interest thereon, are fully paid and discharged.



## Debt Management Policy

### I. INTRODUCTION

#### **A. Purpose of Policy**

This Debt Management Policy is intended to serve as a management tool to enable the New Jersey Turnpike Authority (the "Authority") to identify circumstances and transactions under which the Authority can issue and manage its bonds, notes and other obligations in the most efficient manner and provide for the full and timely repayment thereof. This policy is also intended to serve as guidance for management of the Authority with respect to:

- (i) the issuance and incurrence of Authority debt in appropriate amounts and types with the goals of achieving the lowest possible costs of capital within prudent risk parameters and ensuring ongoing access to the capital markets;
- (ii) compliance by the Authority with all provisions of the Act (as hereinafter defined) relating to bonds, notes or other obligations of the Authority, as well as all provisions of the Authority's Bond Resolution (as hereinafter defined);
- (iii) preservation of financial flexibility to maintain appropriate resources and funding capacity for present and future capital needs;
- (iv) management of interest rate risk exposure to promote the appropriate diversification within the debt portfolio to balance risk and liquidity and promote and maintain an acceptable balance between interest rate risk and the long-term cost of capital; and
- (v) securing of highly qualified professional services firms to assist with debt issuance in an open and competitive process.

#### **B. The Authority**

The Authority is a public body corporate and politic of the State of New Jersey created under and by virtue of the New Jersey Turnpike Authority Act of 1948, constituting Chapter 454 of the Laws of New Jersey of 1948, as amended and supplemented (the "Act").

#### **C. Review**

This Policy will be reviewed by the Authority no less than once every (2) two years and any changes to this Policy will be presented to and approved by the Authority's Board of Commissioners. This Policy will also be made available on the Authority's website (<http://www.state.nj.us/turnpike>)\*.

#### **D. Best Interests of the Authority**

Although adherence to this policy is desirable, deviations from the policy may be appropriate at times to address: (i) changing financial goals; (ii) emerging financial products/debt structures; and/or (iii) unique market opportunities. Consequently, the general best interests of the Authority shall supersede any provision of the policy.

\*Effective 10/17, Authority website is <http://www.njta.com>

## II. TURNPIKE REVENUE BONDS

### **A. Legal Authority**

Pursuant to the Act, the Authority is authorized and empowered to issue and incur its bonds, notes and other obligations for the purposes and on the terms and conditions set forth in the Act. All currently issued and outstanding bonds of the Authority, and all future bonds, notes or other obligations of the Authority, have been or will be issued and incurred under and pursuant to, and/or in accordance with, the terms and provisions of the Act and a resolution of the Authority adopted on August 20, 1991 and entitled, "Turnpike Revenue Bond Resolution", as amended and restated on September 26, 1991, and as further amended and restated on November 22, 1991, as the same has been and will be further amended, restated and supplemented from time to time (the "Bond Resolution") (Capitalized terms used herein which are not otherwise defined shall have the meaning given to such terms in the Bond Resolution).

### **B. Approvals of Governor and State Treasurer**

Pursuant to Section 3(F) of the Act (N.J.S.A. 27:23-3(F)), no resolution or other action of the Authority providing for the issuance of bonds, refunding bonds or other obligations or the fixing, revising or adjusting of tolls for the use of the Turnpike System shall be adopted or otherwise made effective by the Authority without the prior written approval of the Governor and the State Treasurer. Section 3(F) of the Act further provides that the powers conferred upon the Governor and the State Treasurer pursuant to such Section shall be exercised with due regard of the rights of the holders of the Authority's bonds at any time outstanding and nothing in such Section shall in any way limit, restrict or alter the obligation or powers of the Authority to carry out and perform each and every covenant, agreement or contract at any time made or enter into by or on behalf of the Authority with respect to its bonds or for the benefit, protection and security of the holders thereof.

### **C. Use of Debt Proceeds**

As more fully described in this Policy, bonds, notes and other obligations will be issued by the Authority solely for the purposes of financing its essential capital activities or refunding outstanding debt. Debt will not be issued by the Authority to fund, in whole or in part, operation and maintenance costs of the Turnpike System or capital assets with average useful lives which are shorter than the average maturity of the associated debt. All bonds, notes and other obligations issued by the Authority will comply with the requirements of the Act and the Bond Resolution, as well as all other applicable federal and state laws, rules and regulations.

### **D. Types of Debt**

Under the Bond Resolution, the Authority is authorized to issue Turnpike Revenue Bonds payable from and secured by a lien on and pledge of the Pledged Revenues of the Turnpike System on a parity with all Bonds Outstanding under the Bond Resolution from time to time and the reimbursement and payment obligations under certain Credit Facilities and Qualified Swap (as such terms are defined in the Bond Resolution). Specific types of debt that can be issued are as follows:

- (i) **Long-Term Debt**: Although the Statute and Bond Resolution allow debt to be issued up to forty (40) years, the Authority will limit its maturities to up to thirty (30) years from date of issuance to finance essential capital activities for the Turnpike System, including the acquisition, construction, and rehabilitation of major capital assets for and/or additions to the New Jersey Turnpike, the Garden State Parkway, and any other component of the Turnpike System.
- (ii) **Short-Term Debt**: Short-term debt with maturities of two (2) years or shorter may be used to provide interim financing for the acquisition, construction, and rehabilitation of capital assets for and/or additions to the Turnpike System and/or to reduce or hedge interest rate costs. Short-term debt

obligations may include bond anticipation notes and variable rate bonds or notes, as well as any other appropriate instrument(s).

- (iii) Variable Rate Debt: In addition to fixed rate debt, the Authority may issue bonds/notes with a variable interest rate to: (i) diversify its debt portfolio; (ii) reduce interest costs; (iii) improve its match of assets to liabilities; and/or (iv) provide budgetary relief. Pursuant to and in accordance with the provisions of the Bond Resolution and its Interest Rate Swap Management Plan, the Authority may also enter Qualified Swap Agreements and/or Exchange Agreements to hedge its interest rate risk on variable rate debt where appropriate.

#### **E. Purposes**

The Authority may issue debt for either new money or refunding purposes.

- (i) New Money: New money debt may be issued by the Authority to provide funding for essential capital activities as described in the Section entitled "Types of Debt" above.
- (ii) Economic Refunding: The Authority may issue refunding debt to achieve debt service savings on its outstanding debt by redeeming outstanding debt with lower interest rate debt. The Authority may structure the savings from these refunding issues on a level, accelerated or deferred basis depending on the Authority's financing goals.
- (iii) Non-Economic Refunding: In certain instances, it may be advantageous for the Authority to issue refunding debt that does not produce positive economic savings but serves to restructure existing debt or retire debt in order to remove undesirable debt covenants. Prior to issuing non-economic refunding debt, the Authority will evaluate the benefits (both intangible and tangible) of issuing such debt as well as the economic cost of such debt.

#### **F. Debt Limit**

The amount of bonds to be issued is limited by the following in the Bond Resolution:

- (i) Additional Bonds Test - New Money Purposes: In accordance with Section 203 of the Bond Resolution, in order for the Authority to issue and sell its bonds for new money purposes, the Authority must, among other things, satisfy the following tests:
  - (a) the Net Revenues of the Authority (Pledged Revenues minus Operating Expenses) for any period of twelve (12) consecutive calendar months out of the twenty-four (24) calendar months next preceding the issuance of such bonds must equal or exceed the Net Revenue Requirement for such twelve (12) month period without regard to the bonds proposed to be issued; and
  - (b) the estimated Net Revenues for the first full five (5) calendar years after the financed asset is estimated to be placed in service must equal or exceed the Net Revenue Requirement for each such year and the estimated Net Revenues in the 5th such calendar year must equal or exceed the future maximum Aggregate Debt Service in any year.

In addition, all other requirements of the Bond Resolution relating to the issuance of bonds for new money purposes must be satisfied.

For purposes of the Bond Resolution, the "Net Revenue Requirement" in any year is the greater of: (i) the sum of the Aggregate Debt Service on all outstanding Authority bonds, the Maintenance Reserve

Payments, the Special Project Reserve Payment and all deposits to the Charges Fund in such year; or (ii) 1.20 times the Aggregate Debt Service on all outstanding Authority bonds in such year.

- (ii) Additional Bonds Test - Refunding: In accordance with Section 204 of the Bond Resolution, in order for the Authority to issue and sell its bonds for refunding purposes, the Authority must, among other things, either (i) demonstrate that the Aggregate Debt Service on all outstanding Authority bonds is not increased in the then current or any future calendar year as a result of the issuance of such refunding bonds, or (ii) satisfy both of the tests described in clauses (a) and (b) of the preceding subsection of this policy entitled "Additional Bonds Test – New Money Purposes".

#### **G. State Non-Impairment Agreement**

Pursuant to Section 7 of the Act (N.J.S.A. 27:23-7), the State of New Jersey has pledged and agreed with the holders of the Authority's bonds that it will not limit or restrict the rights vested in the Authority to acquire, maintain, construct, improve, manage, repair, reconstruct and operate the Turnpike System, or to establish and collect such charges and tolls as may be convenient or necessary to produce sufficient revenue to meet the expenses of maintenance and operation thereof and to fulfill the terms of any agreements made with the holders of the Authority's bonds or in any way impair the rights and remedies of the holders of such bonds until the bonds, together with interest thereon, are fully paid and discharged.

### **III. DEBT STRUCTURING**

#### **A. Maximum Term**

The Authority will limit its maturities to a maximum of thirty (30) years from date of issuance. The average maturity of the Authority's bonds may not exceed the average remaining useful life of the assets being financed or the limitations set forth in the Act.

#### **B. Bond and Debt Service Structure**

Turnpike Revenue Bonds can be structured using discount, par, or premium coupons or any combination, utilizing the coupon structure, which produces the lowest True Interest Cost (TIC), taking into consideration the call option value of any callable maturities. When comparing yields associated with callable premium bonds and callable discount bonds of the same maturity, the yield-to-maturity should be evaluated in addition to the yield-to-call date. The use of capital appreciation bonds or zero-coupon bonds should be used only when necessary to meet minimum Net Revenue Requirement targets or minimum General Reserve Fund target balances as specified in the Authority's Financial Management Principles and Guidelines, or if they produce the lowest TIC compared to other structures. The Authority will structure its new money debt maturities to achieve either an overall level debt service structure for its debt portfolio or a standalone level debt service structure. The determination of debt service structure will consider Net Revenue Requirement targeted levels and minimum General Reserve Fund balance target levels as specified in the Authority's Financial Management Principles and Guidelines, as well as the TIC for various debt service structures to achieve the optimum structure.

#### **C. Maturities**

Bonds or notes may be serial bonds or notes, or term bonds or notes, or any combination thereof.

#### **D. Composition of Debt**

The aggregate amount of the Authority's long-term variable rate debt should not exceed 20% of its outstanding long-term debt.

#### **E. Credit Enhancement**

The Authority may secure credit and/or liquidity enhancement for all or a portion of each debt issuance, which may be in the form of municipal bond insurance, a letter/line of credit or a standby purchase arrangement. The Executive Director and the Chief Financial Officer shall make the final recommendation to use bond insurance for a particular debt issuance after taking into account such factors as the economic benefit of the enhancement, the Authority's available insurance capacity with the insurance community, and future secondary market trading conditions. The Authority will not secure credit enhancement through the final maturity date of a particular debt issuance unless it meets the minimum threshold of providing a net economic benefit to the transaction, assuming the debt remains outstanding until its final maturity date. With respect to bond insurance or any other form of credit enhancement which is paid for with an upfront premium, the Authority will analyze the economic benefit both to the final maturity date of the debt and to the first optional redemption date of the debt.

The Authority may also use a letter/line of credit and/or a standby purchase arrangement (collectively, a "Credit/Liquidity Facility") to provide credit and/or liquidity support for its debt. The Authority shall consider the following criteria when selecting the provider of a Credit/Liquidity Facility: (i) the long-term ratings of the provider, which shall be at least equal to or better than the Authority's long-term ratings; (ii) the short-term ratings of the provider, which shall be at least P-1/A-1; (iii) the legal and business terms and conditions of the agreement with the provider, which shall be acceptable to the Authority; (iv) a representative list of clients similar to the Authority for whom the provider has provided credit and/or liquidity support; (v) the costs to the Authority associated with the proposed Credit/Liquidity Facility, including the cost of the Credit/Liquidity Facility itself, the fees associated with any drawings on the Credit/Liquidity Facility, the fees and expenses of counsel to the provider and any other administrative costs associated with the Credit/Liquidity Facility, and (vi) the trading differential cost between the Authority's debt which is supported by the proposed Credit/Liquidity Facility and its unenhanced debt.

#### **F. Capitalized Interest**

Capitalized Interest may be used if needed for new money bonds but is limited to two (2) years.

#### **G. Derivative Agreements**

The Authority shall maintain an Interest Rate Swap Management Plan and the time to time use by the Authority of any Qualified Swap Agreements, Exchange Agreements, and other derivative agreements and instruments in connection with its debt shall comply with the terms of its Interest Rate Swap Management Plan as in effect. The Authority shall consult with its Bond Counsel and Financial/Swap Advisor in the event that the Authority is considering entering into any Qualified Swap Agreement, Exchange Agreement, and other derivative agreement or instrument in connection with any debt.

#### **H. Call Provisions**

Long-term fixed rate tax-exempt debt should generally be callable in ten (10) years. This provides flexibility to refund bonds if interest rates decline. An analysis should be performed to determine the economic benefit of utilizing call provisions shorter than ten (10) years.

#### **I. Tax Status**

The Authority may issue debt on a taxable or tax-exempt basis. The Authority has a preference for issuing debt on a tax-exempt basis to take advantage of the expected interest costs savings compared to issuing taxable debt.

### **IV. DEBT ISSUANCE**

#### **A. Sale of Bonds**

The Authority shall determine the method of sale of its bonds (competitive versus negotiated) by evaluating the benefits that are associated with each method of sale, in addition to examining financial and market conditions. Due to the size and complexity of the Authority's debt issues, bonds are normally sold on a negotiated basis. Underwriters shall be selected through a Request For Proposal (RFP) process and the Authority will encourage the participation of minority-owned and women-owned business enterprises, and will take into consideration an applicant's presence in New Jersey. The RFP process will be in compliance with the Authority's procurement policies and Executive Order 37 (Corzine). The Authority will use the services of a financial advisor and bond counsel, each of which will be selected through an RFP process.

In accordance with Article IX of the Bond Resolution, the Authority shall appoint a Trustee, Paying Agent, and Registrar for the new bond series. All Fiduciaries shall accept all responsibilities as outlined in Article IX of the Bond Resolution.

#### **B. Credit Ratings**

The Authority shall have a ratings strategy that is guided by achieving the best economic results for the Authority, including attaining a proper balance between minimizing borrowing costs and maximizing financial flexibility for the Authority's debt program. The Authority shall strive to maintain or improve the credit ratings for its debt without adversely affecting the levels or types of debt that may be issued by the Authority to finance its essential capital activities, including the acquisition, construction and rehabilitation of major capital assets for and/or additions to the Turnpike System. The Authority recognizes and acknowledges, however, that as market conditions and financing needs change and evolve, so should the Authority's credit ratings strategy. The Authority may accept a lower credit rating or downgrade to its existing ratings (and thus incur a modest financing cost differential) in order to gain the flexibility needed to effect significant policy initiatives. The Authority will periodically review its credit rating strategy to assess whether market or capital plan developments warrant a revision in the Authority's approach to its ratings.

As of January 2014, the Authority is rated A3\* by Moody's Investors Services, A+ by Standard and Poor's Ratings Services, and A by Fitch Ratings Inc. The Authority will receive ratings from at least two (2) of the four (4) nationally recognized credit rating agencies, which are currently Moody's Investors Services, Standard and Poor's Rating Services, Fitch Ratings Inc., and Kroll Bond Rating Agency. Selection of the ultimate number of ratings and credit rating agency will be based upon overall cost, service to the Authority, any investor requirements and the recommendation of the Authority's financial advisor.

The Authority will strive to communicate regularly and frequently with the credit rating agencies. To the extent possible and/or necessary, the Authority will forward periodic information to the credit rating agencies, arrange regular conference calls to update the rating analysts on any significant financial developments and communicate with the credit rating agencies prior to each Authority debt issuance. The Authority will also maintain periodic communication with its credit enhancement providers, updating them on financial developments as a means of facilitating future market participation with the credit enhancement community.

#### **C. Economic Refunding Criteria**

When identifying potential refunding candidates for economic refunding, the Authority will generally seek a minimum per transaction present value savings threshold of three percent (3%). Notwithstanding the above, the 3% savings threshold shall not apply for debt with a call date between one (1) and three (3) years from their stated maturity, or for small principal maturities and bonds that produce significant negative arbitrage. In addition, for an advance refunding, the Authority will consider the refunding efficiency of potential bond refunding, considering the negative arbitrage, if any, on the refunding escrow and will seek a minimum refunding efficiency percentage of at least seventy percent (70%).

\*Effective 7/16, the Authority's credit rating was upgraded to A2

**V. DEBT MANAGEMENT****A. Investment of Funds**

The Authority shall invest all of its funds (including the proceeds received from the sale of its bonds, notes or other obligations), which are not immediately needed for the purposes of the Authority, in Investment Securities as provided in the Bond Resolution. The Authority shall invest all of its funds in a manner that allows such funds to be available when needed to be applied for their intended purposes. Investments are further governed by the terms of the Authority's Investment Policy.

**B. Compliance with Bond Resolution**

The Bond Resolution, including specifically Article VII thereof, contains several covenants, requirements and other provisions which the Authority has agreed to comply with for the benefit, protection and security of the holders of its outstanding bonds issued from time to time under and pursuant to the Bond Resolution. The Authority shall at all times manage its debt portfolio and operate and manage the Turnpike System in a manner which results in the Authority being in compliance with all covenants, requirements, and other provisions of the Bond Resolution, including, without limitation, the Sections of the Bond Resolution more fully described below.

**(i) Tolls and Charges**

Pursuant to Section 713 of the Bond Resolution, the Authority has covenanted to, at all times, fix, charge and collect such tolls for the use of the Turnpike System as shall be required in order that in each calendar year the Net Revenues shall at least equal the Net Revenue Requirement for such year. Section 713 of the Bond Resolution furthers provides that, on or before December 1 in each year, the Authority shall complete a review of its financial condition for the purpose of estimating whether the Net Revenues for such year and the next succeeding year will be sufficient to meet the Net Revenue Requirement and shall by resolution of its Board of Commissioners make a determination with respect thereto. The Authority shall file a copy of its determination with the Trustee under the Bond Resolution on or before December 20 of each year. If the Authority determines that the Net Revenues may not be sufficient to meet the Net Revenue Requirement, the Authority shall cause its Traffic Engineers to make a study for the purpose of recommending a new schedule of tolls which will cause the Authority to have sufficient Net Revenues to meet the Net Revenue Requirement, and, as promptly as practicable, but by no later than the following April 1, the Authority shall adopt and place into effect the schedule of tolls recommended by the Traffic Engineers.

**(ii) Annual Budget**

Section 710 of the Bond Resolution contains certain covenants, agreements and provisions relating to the preparation, filing and adoption of the Authority's annual budget for each calendar year. The Authority shall at all times comply with the provisions of Section 710 in connection with the adoption of each annual budget.

**(iii) Sale, Lease or Disposal of Property**

Section 708 of the Bond Resolution provides that no part of the Turnpike System shall be sold, mortgaged, leased or otherwise disposed of, except as permitted by such Section. Among other things, Section 708 permits the Authority to sell, lease or exchange any property or facilities constituting part of the Turnpike System and not useful or necessary in the operations thereof, but any proceeds of any such transaction not used to acquire other property necessary or desirable for the safe and efficient operation of the Turnpike System shall be deposited in the Revenue Fund or the General Reserve Fund as the Authority may determine. The Authority shall at all times comply with the provisions of Section 708 of the Bond Resolution.

(iv) **Consulting and Traffic Engineers**

As required by Section 709 of the Bond Resolution, the Authority shall employ, at the times and in the manner set forth in Section 709, the services of separate, independently nationally recognized engineering firms or entities to perform the functions and duties of the Consulting Engineers and the Traffic Engineers, respectively, set forth in the Bond Resolution.

(v) **Books, Accounts, Records and Reports**

As required by Section 717 of the Bond Resolution, the Authority shall keep and maintain proper books of record and accounts in which complete and correct entries shall be made of all transactions relating to the Turnpike System and all Funds and Accounts established under the Bond Resolution. The Authority shall also prepare, or caused to be prepared, and file with the Trustee, the Consulting Engineers and, if applicable, the holders of any of the Authority's bonds, all financial and statistical reports, including its annual audited financial statements, required by the provisions of Section 717 at the times and in the manner required by the provisions of such Section. The Authority shall prepare and keep its books of record and accounts and its financial statements and reports in accordance with generally accepted accounting principles applicable to governmental entities in the United States of America. The Authority shall from time to time institute such controls as may be recommended by its independent auditor and other best practices deemed appropriate by its Chief Financial Officer.

(vi) **Debt Service Reserve Requirement**

In connection with the issuance of any bonds by the Authority, the Bond Resolution also requires that the Debt Reserve Fund created under the Bond Resolution must be funded to the Debt Reserve Requirement, which is the lesser of (i) the greatest amount of interest accruing on all outstanding bonds of the Authority any in calendar year, or (ii) the maximum amount permitted by the provisions of the Internal Revenue Code of 1986, as amended.

**C. Compliance with Financial Management Principles and Guidelines**

The Authority will comply with its Financial Management Principles and Guidelines as they pertain to the issuance, structure and management of debt.

**D. Arbitrage and Rebate**

The Authority will engage the services of an Arbitrage and Rebate Consultant to provide written reports to assist the Authority in monitoring yield on investments and calculating any rebate that may be due for all tax-exempt bonds. The consultant will provide written reports on the arbitrage liability, if any, on an annual basis. The Authority will file all required forms with the Internal Revenue Service and make any required payments when due.

**E. Continuing Disclosure Agreement**

In order to enable the underwriters of its bonds to comply with SEC Rule 15c2-12, the Authority enters into a Continuing Disclosure Agreement for each bond issue to provide for the timely filing of annual financial information, and material event notifications. Under its existing Continuing Disclosure Agreements, the Authority has agreed to provide, by May 1 of each year, its Audited Financial Statements, Annual Budget, and Financial Summary for the Twelve Months Ended December 31 and its Net Revenue Certification. A Continuing Disclosure Agreement will be executed for each bond issue.



**F. Investor Relations**

The Authority will maintain current and meaningful financial and other information on its website for the benefit of investors, credit enhancement providers and credit rating agencies. At a minimum, the Authority's investor relations website will contain traffic and revenue statistics, audited financial statements, trustee reports, and financial summaries.

**VI. POST-ISSUANCE COMPLIANCE POLICY****A. Purpose**

This Post-Issuance Compliance Policy (the "Policy") sets forth policies of the Authority designed to monitor compliance of tax-advantaged obligations ( "Obligations") issued by the Authority with applicable provisions of the Internal Revenue Code of 1986 as amended (the "Code") and regulations promulgated thereunder ("Treasury Regulations").

The Policy documents existing practices and describes various procedures and systems designed to identify on a timely basis facts relevant to demonstrating compliance with the requirements that must be satisfied subsequent to the issuance of Obligations in order that the interest on such Obligations be, or continue to be, or would be but for certain provisions of the Code, excludable from gross income for Federal income tax purposes.

The Authority recognizes that compliance with applicable provisions of law is an ongoing process, necessary during the entire term of the Obligations. Accordingly, analysis of information and implementation of this Policy will require continual monitoring and likely, ongoing consultation with bond counsel. Further policies and procedures may be identified from time to time by Authority staff in consultation with bond counsel and the arbitrage and rebate consultant.

**B. Policy Statement**

After Obligations are issued, the compliance process includes a focus on use and investment of proceeds of the Obligations and includes:

- Tracking bond proceeds spending for qualified and nonqualified purposes;
- Maintaining detailed records of expenditures and investments;
- Ensuring that the facilities financed are used in a manner consistent with legal and tax requirements;
- Providing necessary disclosure information regarding financial and operating status;
- Maintaining adequate records.

**C. Organizational Responsibility**

The Executive Director has overall responsibility for post-issuance compliance for Obligations issued by the Authority and may delegate such responsibilities to a "Compliance Officer," who will have primary responsibility for post-issuance compliance to ensure and monitor post-issuance matters with respect to Obligations. The Executive Director shall be responsible for assuring an adequate succession plan for transferring post-issuance compliance responsibility when changes in staff occur.

In the case of Obligations for which the Authority must review and approve requisitions, the Authority's Finance Department shall review requisitions to assure that proceeds are expended on projects as authorized in the applicable bond documents, that reimbursement of pre-issuance costs are permissible, and to determine when projects are completed and/or placed in service, including for Build America Bonds. The Chief Financial Officer, or designee, shall direct investment of proceeds, review monthly bank statements from trustees or custodians and engage an Arbitrage and Rebate Consultant for each issue of Authority Obligations. The Chief Financial Officer, or designee, shall consult with the Authority's Bond Counsel if questions should arise.

**D. Tracking Expenditures and Investment Earnings**

The Authority shall maintain detailed records regarding the use and allocation of bond proceeds, including investment earnings, throughout the term of the bonds to ensure compliance with covenants and restrictions set forth in the Tax Certificate relating to the Bonds. The Authority's Accounting System will maintain copies of approved requisitions and invoices for expenditures, as well as investment earnings records, including bank statements. The Finance Department will maintain copies of bank statements if electronic statements are not available.

The Authority's Compliance Officer will monitor the application and use of bond proceeds on an ongoing basis and inform the Executive Director and bond counsel of events relating to use of bond proceeds which may result in issues which must be analyzed for compliance with Federal tax laws.

**E. Records Retention**

The Authority will maintain the following documents for the term of each issue of bonds plus at least three (3) years:

- The bond transcript of proceedings;
- All resolutions, including reimbursement resolutions, and minutes pertaining to the projects financed, if not included in the bond transcript;
- All surveys, feasibility or demand studies and any publications, brochures and newspaper articles with respect to the bonds, if not included in the bond transcript;
- All bond yield computations including supporting certificates and investment records, including trustee records, pertaining to the issue price of the bonds, proceeds of the bonds, investment agreements and related bidding documents, credit enhancement and liquidity documents, swap documents, rebate reports and rebate payments;
- All documents pertaining to the expenditure or granting of bond proceeds for the acquisition, construction or renovation of bond financed property including any trustee records, requisitions, reimbursements, draw schedules, draw requests, construction contracts, invoices, bills, land/project related appraisals, payment records, requisition statements, reimbursement records, cancelled checks, a final schedule of property financed by the bonds and final allocations of bond proceeds;
- All formal elections made for the bond financing (e.g., an election to employ an accounting methodology other than specific tracing);
- All records of trade or business use, purchase, lease, sublease or sale of bond financed property including any leasehold improvement contracts and ownership documentations such as joint venture arrangements, limited liability corporation arrangements or partnership arrangements;
- All management contracts and other service agreements, research contracts, and naming rights contracts;
- All accounting audits for bond financed property;
- All information reports filed for the bonds;
- All documentation pertaining to any prior IRS examination of Authority and/or tax-exempt bonds; and
- All correspondence related to the above including faxes, emails, and letters.

The Authority, in the Tax Certificate and/or other documents pertaining to the bonds that are finalized in connection with the issuance of the bonds, shall designate an employee responsible for retaining the records listed above. Records may be retained in electronic format.

**F. Arbitrage and Rebate**

The Authority will engage the services of an Arbitrage and Rebate Consultant to provide written reports to assist the Authority in monitoring yield on investments and calculating any rebate that may be due. The Consultant will work with the Chief Financial Officer to review the yield on investments to determine if there is a possible rebate liability. If the Consultant provides a written report that rebate is due, the Authority will make any required payments to the IRS and any required filings.

**G. Credit Enhancement or Other Agreements Relating to Bonds**

The Compliance Officer will monitor any extension or alteration of any credit enhancement relating to the Authority's tax-exempt debt or of any changes to other agreements relating to Authority Obligations such as guaranteed investment contracts or derivative products to assure that any changes meet post-issuance compliance requirements. The Compliance Officer will also monitor information relating to the ratings of counterparties to such agreements to assure that provisions of such agreements are fulfilled. The Compliance Officer will report any questions or issues to bond counsel.

**H. Disclosures and Filings**

The Authority will, according to the bond documents, enter into Continuing Disclosure Agreements with the trustee for the applicable Obligations and to comply with continuing disclosure requirements. In addition, the Authority will provide bond documents, as applicable, and copies of reports sent to credit providers and insurance companies and other parties to transactions, as well as financial information. The Authority's bond counsel will be responsible for completing any necessary material event notice filings.

**I. Continuity and Training**

The Compliance Officer will receive periodic training regarding the tax and other requirements applicable to Obligations and provide periodic training to staff with responsibilities relating to the procedures set forth above. Such training will cover the purposes and importance of these procedures. Training may be provided by bond counsel and shall include a review of the IRS Code and the IRS's web site established for the use of the tax-exempt bond community located at: <http://www.irs.gov/taxexemptbond/index.html?navmenu=menu1>.

To provide for continuity of compliance with post-issuance debt requirements, the Authority will periodically review this policy but no less frequent than once every two (2) years, to assure that it comports with current law.

**J. Remedial Action**

Should the Authority become aware of events which may affect the permissible use and investment of bond proceeds the Authority will take steps, with advice from bond counsel, to seek remedial action with respect to such events.

## Interest Rate Swap Management Plan

### 1. PURPOSE

This Interest Rate Swap Management Plan sets forth the manner of execution of interest rate swaps and related agreements, provides for security and payment provisions, and sets forth certain other provisions related to interest rate swap agreements between the New Jersey Turnpike Authority ("Authority") and qualified swap counterparties. The Interest Rate Swap Management Plan also outlines procedures to be followed to insure compliance with all applicable federal and state laws. This Interest Rate Swap Management Plan will be reviewed by the Authority no less than once every two (2) years and any changes to this Interest Rate Swap Management Plan will be presented to the Authority's Board of Commissioners for approval. This Interest Rate Swap Management Plan will be made available on the Authority's website, <http://www.state.nj.us/turnpike>.\*

### 2. BEST INTERESTS OF THE AUTHORITY

Although adherence to this Interest Rate Swap Management Plan ("Plan") is desirable, deviations from this Plan may be appropriate from time to time to address: (i) changing financial goals; (ii) emerging financial products/debt structures; and (iii) unique market opportunities. As a result, the general best interests of the Authority shall supersede any provision of this Swap Management Plan.

### 3. THE AUTHORITY

The Authority is a public body corporate and politic of the State Of New Jersey operated under and by virtue of the New Jersey Turnpike Authority Act of 1948, constituting Chapter 454 of the Laws of New Jersey of 1948, as amended and supplemented (the "Act"). Pursuant to Section 5 of the Act, and Section 201 of the General Bond Resolution, the Authority is authorized to enter into interest rate swap transactions as it deems fit in order to obtain lower costs of capital or other advantages associated with this financing technique. The Authority may only enter into a swap transaction in connection with a specifically identified series of Authority bonds issued under its senior lien General Bond Resolution.

### 4. INTEREST RATE SWAP MANAGEMENT GOALS

The Authority intends to execute interest rate swaps if the transaction can be expected to result in the following:

- A. Hedging to reduced exposure to changes in interest rates on a particular financial transaction;
- B. Reduction in interest rate risk in order to maintain from the Authority's overall asset/liability balance;
- C. Obtain a lower net cost of borrowing with respect to the Authority's debt; and
- D. Manage variable interest rate exposure consistent with prudent debt practices.

The Authority shall not enter into interest rate swaps for speculative purposes or not in connection with a specified bond issue.

\*Effective 10/17, Authority website is <http://www.njta.com>

## 5. PROCUREMENT OF INTEREST RATE SWAP AGREEMENTS

The Authority will award interest rate swap transactions to one or more qualified counterparties (as herein defined) through competitive or negotiated procurement methods. The general method of procurement and the specific procurement process will be determined based on the prevailing market conditions at the time. Regardless of the procurement method employed, the Authority shall endeavor to obtain the best pricing and execution possible, diversify counterparty exposure and minimize aggregate counterparty risk. To that end, before entering into a transaction, the Authority, with input from its financial advisor and/or swap advisor, will evaluate the prevailing market conditions to determine the optimal procurement process and will evaluate how the proposed transaction would affect the Authority's aggregate counterparty exposure.

## 6. INTEREST RATE SWAP RISK FACTORS

The Authority recognizes that there are certain risks associated with interest rate swap transactions that it will consider prior to entering into each transaction. Such risks include:

- A. Counterparty risk** is the risk that the swap counterparty will not fulfill its obligation to honor its obligations as specified under the contracts. Failure of a counterparty could result in an unplanned change in the expected costs of funds of a particular transaction that could increase debt service costs to the Authority, depending upon the interest rate environment when this occurred.

In order to mitigate against this risk the Authority intends to diversify its counterparties and expects that going forward, no more than 25% of its interest rate swap exposure will be with any one counterparty. An exception will be made for fully collateralized swaps or if market conditions are such that it is not economically feasible to diversify or the interest rate swap market is such that no additional counterparties exist.

In order to diversify the Authority's counterparty risk, and to limit the Authority's credit exposure to any one counterparty, limits will be established by the Executive Director based in part upon the credit rating of the counterparty as well as the relative level of risk associated with each existing interest rate swap transaction.

The Authority shall be authorized to enter into interest swap transactions only with qualified swap counterparties rated at least A1/A+, or equivalent, by any two (2) of the nationally recognized rating agencies (e.g. Moody's, Standard and Poor's, or Fitch); or a "AAA" subsidiary as rated by at least one nationally recognized credit rating agency.

- B. Termination risk** is the risk that the interest rate swap could be terminated by the counterparty due to any of several events, which may include issuer or counterparty ratings downgrade, covenant violation by either party, bankruptcy of either party, swap payment default by either party, and default events as defined in the issuer's bond indenture.

In order to mitigate against these risks the Authority will require collateral postings from counterparties if the counterparties ratings decline below A2/A and other protection measures. As a general rule, the Authority will not enter into swaps where the counterparty has any optional right of termination.

The Authority shall consider including in all interest rate swap transactions provisions granting the Authority the right to optionally terminate a swap agreement at any time over the term of the agreement. The Executive Director shall determine if it is financially advantageous for the Authority to terminate a swap agreement.

A termination payment to or from the Authority may be required in the event of termination of an interest rate swap agreement due to a default or a decrease in credit rating of either the Authority or the

counterparty. It is the intent of the Authority not to make a termination payment to a counterparty that does not meet its contractual obligations. Prior to making any such termination payment, the Executive Director shall evaluate whether it is financially advantageous for the Authority to obtain a replacement counterparty to avoid making such termination payment.

As part of any interest rate swap agreement, the Authority may require collateralization or other credit enhancement to secure any or all swap payment obligations. As appropriate, the Authority may require collateral or other credit enhancement to be posted by each swap counterparty under the following circumstances:

- i. Each counterparty to the Authority may be required to post collateral if the credit rating of the counterparty or parent falls below the A2/A category. Additional collateral for further decreases in credit ratings of each counterparty shall be posted by each counterparty in accordance with the provisions contained in the collateral support agreement to each interest rate swap agreement with the Authority.
- ii. The Collateral shall consist of cash, U.S. Treasury securities and Federal agency securities.
- iii. Collateral shall be deposited with a third party trustee, or as mutually agreed upon between the Authority and each counterparty.
- iv. A list of acceptable securities that may be posted as collateral and the valuation of such collateral will be determined and mutually agreed upon during negotiation of the swap agreement with each swap counterparty.
- v. The market value of the collateral shall be determined on at least a monthly basis.
- vi. The Authority will determine reasonable threshold limits for the initial deposit and for increments of collateral posting thereafter.

The Executive Director shall determine on a case by case basis whether other forms of credit enhancement are more beneficial to the Authority

**C. Basis risk** refers to a mismatch between the interest rate received from the interest rate swap contract and the interest actually owed on the Authority's variable rate bonds. Prior to the execution of any interest rate swap, the Authority will undertake any analysis of both the starting basis risk match and the historical basis risk match in order to select an index payment of the interest rate swap and a mode mechanic for the variable rate debt that most closely approximates a zero basis risk profile, while still maintaining the economic advantages of the interest rate swap.

**D. Tax event risk.** All issuers who issue tax-exempt variable rate bonds that trade accept risk stemming from changes in marginal income tax rates. These risks are best mitigated by limiting the amount of variable rate debt as a percentage of the Authority's total debt outstanding. The Authority does not expect to issue more than 20% of its total debt in a variable rate mode of any form.

**E. Rollover risk** is the risk that the swap contract is not coterminous with related bonds. The Executive Director shall determine the appropriate term for an interest rate swap agreement on a case-by-case basis. The slope of the interest rate swap curve, the marginal change in interest rate swap rates from year to year along the interest rate swap curve, and the impact that the term of the interest rate swap has on the overall exposure of the Authority shall be considered in determining the appropriate term of any interest rate swap agreement. In connection with the issuance or carrying of bonds, the term of the interest rate swap agreement between the Authority and a qualified interest rate swap counterparty shall not extend beyond the final maturity date of existing debt of the Authority, or in the case of a refunding

transaction, beyond the final maturity date of the refunding bonds. The Authority does not intend to execute interest rate swaps that have rollover risk.

**F. Amortization risk** represents the cost to the issuer of servicing debt or honoring interest rate swap payments due to a mismatch between bonds and the notional amount of the interest rate swap. The Authority intends to always match the principal amount of bonds with the notional amount of the interest rate swap.

**G. Liquidity risk** refers to the issuer's inability to continue or renew a liquidity facility to assist in the sale of outstanding debt. The Authority will endeavor to provide sufficient liquidity available for swapped debt.

## 7. PAYMENT OBLIGATIONS

Pursuant to Section 201 of the General Bond Resolution, the Authority's payment obligation under any qualified interest rate swap shall be made from the Debt Service Fund.

## 8. LEGAL MATTERS

Each interest rate swap executed by the Authority shall contain terms and conditions as set forth in the International Swap and Derivatives Association, Inc. ("ISDA") Master Agreement, including any schedules and confirmations. The interest rate swap agreements between the Authority and each qualified swap counterparty shall include payment, term, security, collateral, default, remedy, termination, and other terms, conditions and provisions as the Executive Director or his/her designee deems necessary or desirable. The Executive Director is authorized to sign all representations and disclosures as required.

## 9. REGULATORY COMPLIANCE

Following is a list of regulatory requirements imposed at the Federal level with which the Authority shall make every reasonable effort to comply:

**A. Dodd-Frank Compliance.** Pursuant to the authority of Section 731 of Title VII of Dodd-Frank Act, which includes amendments to the Commodity Exchange Act ("CEA") regarding over-the-counter derivative instruments, regulations were published by the Commodities Futures Trading Commission ("CFTC") that define business conduct between Swap Dealers or Major Swap Participants and their counterparties, including Swap Dealers or Major Swap Participants engaged in transactions with state and local governmental counterparties such as the Authority (referred to in the regulations as "Special Entities"). The new business conduct rules are far ranging and they can impact the Authority on several fronts as the Authority enters into or modifies transactions. The following sections are included in this Swap Management Plan in order to assist the Authority in complying with the CEA as amended by Dodd-Frank:

### (1) Qualified Independent Representative

- a) In accordance with the CEA and as amended by Dodd-Frank, the Authority shall select a QIR that meets the following enumerated criteria:
  - i. has sufficient knowledge to evaluate the transaction and risks;
  - ii. is not subject to a statutory disqualification;
  - iii. is independent of the interest rate swap provider or major interest rate swap participant. To be independent the QIR must currently not, and was not with a one-year look back, an associated

person of the swap dealer; has no principal relationship with the swap dealer, provides timely disclosures of all potential conflicts of interest, complies with procedures designed to manage and mitigate conflicts of interest, is not controlled by, in control of, or under common control with the swap dealer, and was not recommended to the issuer by the swap dealer within one year of the transaction date;

iv. undertakes a duty to act in the best interests of the Authority;

v. makes appropriate and timely disclosures to the Authority;

vi. evaluates, consistent with any guidelines provided by the Authority, fair pricing and the appropriateness of the transaction; and

vii. is subject to restrictions on certain political contributions imposed by the CFTC, the SEC, or a self-regulatory organization subject to the jurisdiction of the CFTC or the SEC.

b) At least annually, or as required by the Board of Commissioners, the Authority shall conduct a review of its QIR to ensure that the QIR still meets the above enumerated criteria. In the event that it is determined that the QIR no longer meets the enumerated criteria, then prior to the execution of any transaction the Authority shall select a replacement QIR that meets the enumerated criteria.

(2) Written Representations. In order to ensure that the Authority is in compliance with the new regulations imposed by Dodd-Frank, the Authority may, but is not required to, execute a ISDA August 2012 DF Protocol Agreement with its QIR and each Counterparty prior to executing any transactions. If the Authority elects not to execute a ISDA August 2012 DF Protocol Agreement with a counterparty, then the Authority shall provide an alternate form of written representation to such Counterparty that meets all applicable disclosure requirements as required by Dodd-Frank.

(3) Derivative Clearing Requirement.

(a) The CEA, as amended by Dodd-Frank, requires that certain derivative transactions, including those commonly entered into by state and local



governmental entities, must be cleared through a derivatives clearing organization unless otherwise exempt from clearing under the "End User Exception" as specified in Section 2(h)(7) of the CEA. In order to qualify for the End User Exception to the clearing requirements of the CEA, the Special Entity must report to the CFTC on either an annual or a transaction-by-transaction basis that it:

- (i) is not a financial entity;
  - (ii) is using swaps to hedge or mitigate commercial risk; and
  - (iii) will notify the CFTC, in a manner set forth by the CFTC, how it generally meets its financial obligations associated with entering into non-cleared swaps.
- (b) The Authority, in consultation with its QIR, shall make its best efforts to comply with the applicable derivative clearing requirements of the CEA as amended by Dodd-Frank.

## **10. SELECTION OF QIR**

The Authority will competitively procure the services of a financial advisor or a swap advisor, whose scope of work shall include swap advisory services which will allow the firm to serve as the Authority's QIR under Dodd-Frank.

## **11. RECORD KEEPING**

Written records noting the status of all interest rate swap agreements will be maintained by the Authority and shall include the following information:

1. Highlights of all material changes to swap agreements or new swap agreements entered into by the Authority since the last report
2. Market value of each of the Authority's interest rate swap agreements.
3. For each counterparty, the Authority shall provide the total notional amount position, the average life of each swap agreement, the available capacity to enter into a swap transaction, and the remaining term of each swap agreement.
4. The credit rating of each swap counterparty and credit enhancer insuring swap payments
5. Actual collateral posting by swap counterparty, if any, per swap agreement and in total by swap counterparty.
6. A summary of each swap agreement, including but not limited to the type of swap, the rates paid by the Authority and received by the Authority, and other terms.
7. Results of the default, including but not limited to the financial impact to the Authority, if any.
8. A summary of any swap agreements that were terminated.

## **12. COMPLIANCE WITH ACCOUNTING STANDARDS**

Any interest rate swap agreement entered into by the Authority under this Interest Rate Swap Management Plan shall be described in the Authority's annual audited financial statements in accordance with applicable accounting

standards. This Interest Rate Swap Management plan shall be reviewed on an annual basis with the Authority's external auditor and any necessary changes shall be promptly implemented.

## Investment Policy

### I. INTRODUCTION

#### A. Purpose of Investment Policy

The purpose of the Investment Policy is to define guidelines and operational factors governing the investment of all funds held by the New Jersey Turnpike Authority (the "Authority") or its bond trustees. This Investment Policy is intended to show compliance with all provisions of the Act (as defined herein) relating to investment of funds of the Authority, as well as provisions of the Authority's Bond Resolution (as defined herein). The Investment Policy will be reviewed by the Authority's Chief Financial Officer no less than once every 2 years, and any changes to this document will be presented to the Authority's Board of Commissioners for approval. This Investment Policy will be made available on the Authority's website, <http://www.state.nj.us/turnpike>.

#### B. The Authority

The Authority is a public body corporate and politic of the State of New Jersey created under and by virtue of the New Jersey Turnpike Authority Act of 1948, constituting Chapter 454 of the Laws of New Jersey of 1948, as amended and supplemented (the "Act"). Pursuant to the Act, the Authority is authorized and empowered to, subject to any agreement with the bondholders, invest moneys of the Authority not required for immediate use, including proceeds from the sale of any bonds, in such obligations, securities and other investments as the Authority shall deem prudent. All investments that have been purchased or will be purchased under and pursuant to, and/or in accordance with, the terms and provision of the Act and a resolution of the Authority adopted on August 20, 1991 and entitled, "Turnpike Revenue Bond Resolution", as amended and restated on September 26, 1991, and as further amended and restated on November 22, 1991, as the same has been and will be further amended, restated and supplemented from time to time (the "Bond Resolution"). Capitalized terms used herein which are not otherwise defined shall have the meaning given to such terms in the Bond Resolution.

#### C. Best Interest of the Authority

Although adherence to this Investment Policy is desirable, deviations from this Policy may be appropriate from time to time to address: (i) changing financial goals; (ii) changing financial markets; and (iii) unique market opportunities. As a result, the general best interests of the Authority shall supersede any provision of this Investment Policy, provided that those provisions mandated by the Act or the Bond Resolution cannot be superseded without amendments to the Act or the Bond Resolution.

### II. INVESTMENT OBJECTIVES

#### A. All investment decisions will meet the following requirements:

1. Safeguard and preserve the principal amount of invested funds.
2. Manage and maintain adequate liquidity to meet cash flow requirements, including bond payments.
3. Maintain demand bank balances at minimum levels consistent with sound operations.

4. Maximize the total rate of return on invested funds.

### III. PERMITTED INVESTMENTS

#### A. Eligible securities are defined in the Bond Resolution and shall include:

1. Any direct and general obligations of, or any obligations guaranteed by, the United States of America, including but not limited to interest obligations of the Resolution Funding Corporation or any successor thereto.
2. Any obligations of any state or political subdivision of a state which bonds are fully secured as to principal and interest by an irrevocable pledge of moneys or direct and general obligations of, or obligations guaranteed by the United States of America, which moneys or obligations are segregated in trust and pledged for the benefit of the holders of the bonds.
3. Certificates of ownership of the principal or interest of direct and general obligations of, or obligations guaranteed by, the United States of America, which obligations are held in trust by a commercial bank which is a member of the Federal Reserve System.
4. Bonds, debentures, notes or other evidences of indebtedness issued by any agency or instrumentality of the United States to the extent such obligations are guaranteed by the United States or by another such agency the obligations (including guarantees) of which are guaranteed by the United States.
5. Bonds, debentures, notes or other evidences of indebtedness issued by any of the following agencies:
  - Government National Mortgage Assn. (GNMA)
  - Federal Home Loan Mortgage Corp. (FHLMC)
  - Federal National Mortgage Assn. (FNMA)
  - Federal Home Loan Banks (FHLB)
  - Federal Land Banks
  - Federal Intermediate Credit Banks
  - Banks for Cooperatives
  - Tennessee Valley Authority
  - United States Postal Service
  - Farmers Home Administration
  - Export-Import Bank
  - Federal Financing Bank
  - Student Loan Marketing Assn.(SLMA);
6. Negotiable or non-negotiable certificates of deposit issued by any bank, trust company or national banking association, which certificates of deposit shall be continuously secured or collateralized by obligations described in subparagraphs 1,2,3,4 and 5 above, which shall have a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such certificates of deposit and shall be lodged with the Trustee, as custodian, by the bank, trust company or national banking association issuing such certificates of deposit.
7. Uncollateralized negotiable or non-negotiable certificates of deposit issued by any bank, trust company or national banking association, the unsecured obligations of which are rated in one of the two highest rating categories, without regard to rating sub-categories, by Moody Investors Service (Moody's) and Standard & Poor's (S&P).

8. Repurchase agreements collateralized by obligations described in subparagraphs 1,2,3,4, and 5 above with any registered broker/dealer subject to the Securities Investors Protection Corporation jurisdiction, which has an uninsured, unsecured and unguaranteed obligation rated "Prime-1" or "A3" or better by Moody's and "A-1" or "A" or better by S&P, or any commercial bank with the above ratings provided:
  - A. A master repurchase agreement or specific written repurchase agreement governs the transaction, which characterizes the transaction as a purchase and sale of securities.
  - B. The securities are held free and clear of any lien, by the Trustee or an independent third party acting solely as agent for the Trustee, and such third party is (i) a Federal Reserve Bank, (ii) a bank which is a member of the Federal Deposit Insurance Corporation and which has combined capital, surplus, and undivided profits of not less than \$75,000,000, or (iii) a bank approved in writing for such purpose by each Credit Issuer, if any, and the Trustee shall have received written confirmation from such third party that it holds such securities, free and clear of any lien, as agent for the Trustee.
  - C. A perfected first security interest under the Uniform Commercial Code, or book entry procedures prescribed at 31 CFR 306.1 et seq. or 31 CFR 350.0 et seq. or a successor provision in such securities is created for the benefit of the Trustee.
  - D. The repurchase agreement has a term of six month or less, or the Authority will value the collateral securities no less frequently than monthly and will liquidate the collateral securities if any deficiency in the required collateral percentage is not restored within two business days of such valuation.
  - E. The repurchase agreement matures on or before a debt service payment date (or other appropriate liquidation period).
  - F. The fair market value of the securities in relation to the amount of the repurchase obligation is equal to at least 100%.
9. Banker's acceptances, Eurodollar deposits and certificates of deposit (in addition to the certificates of deposit provided for by subparagraphs 6 and 7 above) of the domestic branches of foreign banks having a capital and surplus of \$1,000,000,000 or more, or any bank or trust company organized under the laws of the United States of America or Canada, or any state or province thereof, having capital and surplus, in the amount of \$1,000,000,000; provided that the aggregate maturity value of all such banker's acceptances and certificates of deposit held at any times as investment of funds under the Bond Resolution with respect to any particular bank, trust company or national association shall not exceed 5% of its capital and surplus; and provided further that any such bank, trust company, or national association shall be rated in one of the two highest rating categories, without regard to rating sub-categories, by both Moody's and S&P.
10. Other obligations of the United States of America or any agency thereof which may then be purchased with funds belonging to the State of New Jersey or which are legal investments for savings banks in the State of New Jersey.
11. Deposits in the New Jersey Cash Management Fund.
12. Obligations of any state, commonwealth or possession of the United States or a political subdivision thereof or any agency or instrumentality of such a state, commonwealth, possession

or political subdivision, provided that at the time of their purchase such obligations are rated in either of the two highest rating categories by both Moody's and S&P.

13. Commercial paper with a maturity date not in excess of 270 days rated A1+ and P-1 by Moody's at the time of such investment, issued by an entity incorporated under the laws of the United States or any state thereof.

#### **IV. INVESTMENT PRACTICES**

##### **A. Investment Concentration**

It is the policy of the Authority to diversify its investment portfolio. Assets held in the investment portfolio shall be diversified to eliminate the risk of loss resulting from over-concentration of assets in a specific maturity, a specific issuer or a specific class of securities. The Authority will maintain an investment concentration not to exceed the percentages noted below. The Chief Financial Officer, or designee, is authorized to approve any deviation from these limits on a case by case basis.

1. There are no limitations on investments carrying the full faith and credit of the United States Government, including repurchase agreements collateralized by such investments.
2. Investments in any single Federal Agency not carrying the full faith and credit of the United States Government are limited to 40% of the portfolio.
3. Investments in Certificates of Deposit are limited to 30% of the portfolio.
4. Investments made in Commercial Paper are limited to 30% of the total portfolio.
5. Investments in Municipal securities are limited to 30% of the total portfolio.
6. Investments in any one single issuer (excluding US Treasury and Federal Agency securities) are limited to 5% of the portfolio.

##### **B. Quality of Investments**

All investments shall be made with judgment and care, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of capital as well as the probable income to be derived.

All investments ratings shall be based on security ratings at the time of purchase. In the event of a downgrade in rating, the Chief Financial Officer, or designee, will determine whether to sell or hold the investment. The Authority will not make an investment in an issuer who has a negative outlook associated with their credit rating, except for US Treasury or Federal Agencies. The portfolio's average credit quality should be rated Aa3/AA- or better by Moody's/S&P.

##### **C. Maximum Maturity**

At the time of purchase, the maturity of each security in the portfolio may not exceed the following maximum timeframes for the respective fund in which the investment is made in accordance with the Bond Resolution or Authority policy. The maximum maturity will take into account any call, put, prepayment or other features that may impact maturity. All investments mature no later than necessary to provide moneys when needed for payments to be made from such funds.

- Revenue Funds – 1 year (by Bond Resolution)
- Construction Funds – 5 years (by Authority Policy)
- Maintenance Reserve Fund – 2 years (by Bond Resolution)
- Special Projects Reserve Fund – 2 years (by Bond Resolution)
- General Reserve Fund – 3 years (by Bond Resolution)
- Debt Service Fund – 1 year (by Authority Policy)
- Charges Fund – 3 months (by Authority Policy)
- Debt Reserve Fund – 5 years (by Bond Resolution)

Investments are generally purchased with the intent of holding to maturity, but the Chief Financial Officer, or designee, has the flexibility to restructure and rebalance portfolio holdings to manage risk and take advantage of market opportunities.

**D. Security Purchases**

All securities purchased by the Authority under this Investment Policy shall be designated as assets of the Authority and shall be conducted on a delivery-versus-payment (DVP) basis, with the securities delivered to a designated Authority custodian. The securities will be protected through the use of a third-party custodian/safekeeping agent, which may be a Trustee. A minimum of three (3) informal bids or offers will be solicited for direct purchases of securities. The award will be based on lowest cost for purchase. The Authority may use electronic trading screens to facilitate the informal bid process.

**V. REPORTING REQUIREMENTS**

- A. On an annual basis, the Authority's Finance Department will prepare an Investment Plan, which will specify the targets for average invested balances, average maturity and average yield by fund. The report will also include concentration targets by investment type and issuer for the upcoming year considering current and projected market conditions.
- B. On a quarterly basis, the Authority's Finance Department will prepare an investment report which details actual performance compared to the Investment Plan.
- C. On a monthly basis, the Authority's Finance Department will prepare the following:
  - Schedule of Investments by fund;
  - Detailed purchases, maturities, sales of investments by fund;
  - Investments by Issuer;
  - Credit ratings by Issuer;
  - Average invested balances, maturity and yield by fund.

## Appendix D: Statistical Data

## New Jersey State Highway System

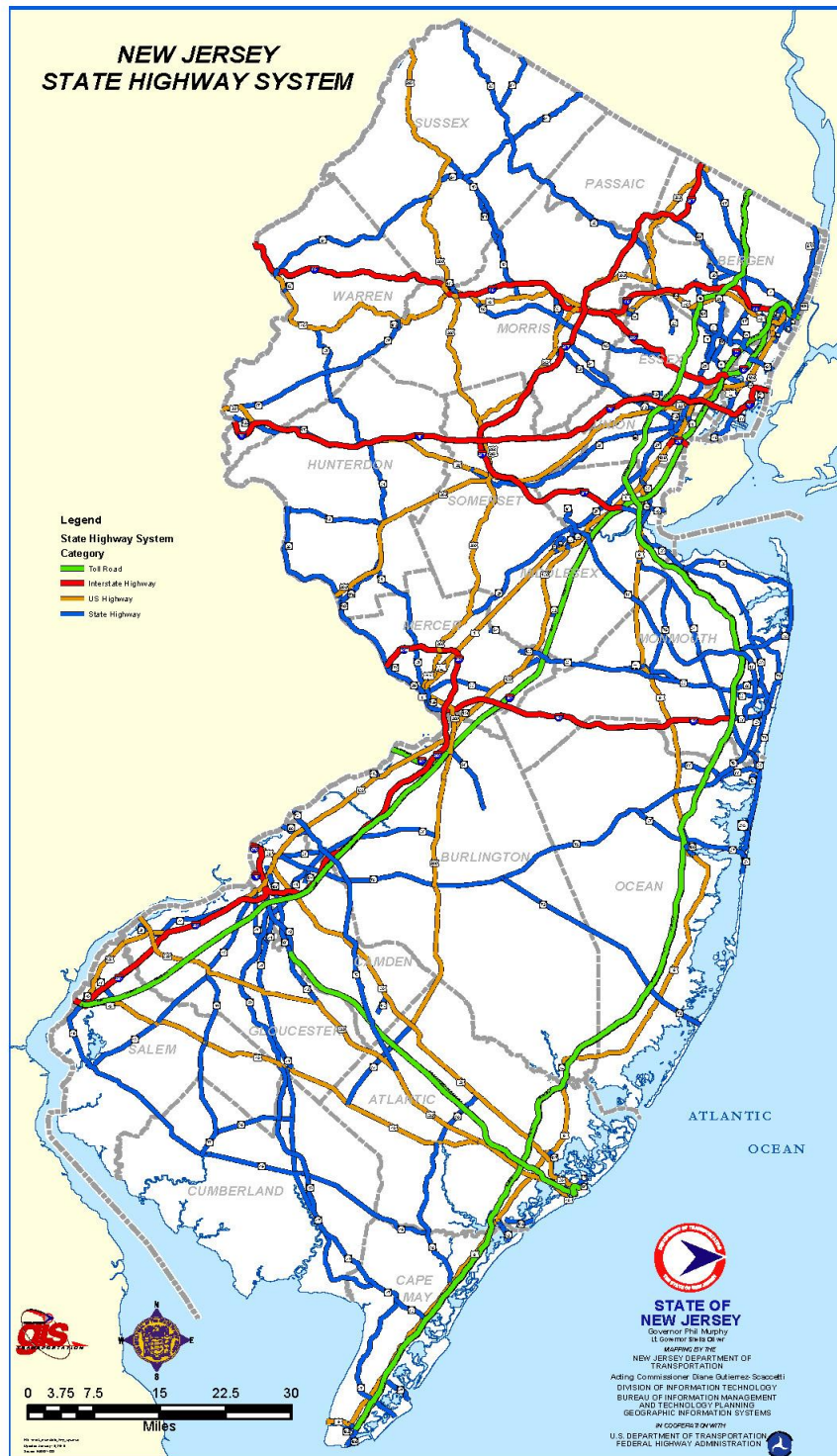


Figure 149: Map of New Jersey State Highway System

### New Jersey Turnpike Authority

The Authority is a body of corporate and politic of the State of New Jersey organized and existing by virtue of the New Jersey Turnpike Act of 1948, and is a public instrumentality exercising essential governmental functions. The Authority is empowered to acquire, construct, maintain, repair, and operate projects at locations established by law, to fix and establish tolls for use of the turnpike system, and to issue revenue bonds for its purposes. The Authority operates the State's two busiest toll roads, two of the busiest in the United States -- the New Jersey Turnpike and the Garden State Parkway. These two roadways run through 15 of New Jersey's 21 counties. The two Roadways intersect in Woodbridge Township, Middlesex County and intersect with every interstate and many major roadways across the State. The highways effectively serve as links for the entire State, Air and Sea Ports, and the Northeast Corridor.

### New Jersey Turnpike

The Turnpike was the first toll road in New Jersey and the third in the nation when it opened in 1951. It has grown over time from 118 linear miles to 148 linear miles with the addition of the Newark Bay Hudson County Extension (1956), the Pearl Harbor Memorial Turnpike Extension (1956), the Western Spur (1970) and the I-95 Extension (1992). The road has also grown wider over the years. Originally, it was four lanes for its full length. Today, it is as wide as 14 lanes in some areas and as of October 2019 includes approximately 2,427 lane miles. There are 28 toll interchanges and 375 toll lanes -145 entry lanes and 230 exit lanes.

This roadway serves as a major corridor for I-95 linking travel:

- 1) Between four states -- New Jersey, New York, Pennsylvania and Delaware;
- 2) Two major cities -- New York and Philadelphia;
- 3) Military roadway use for Joint Base McGuire-Dix-Lakehurst; and
- 4) Access to the port of New Jersey for use in transporting goods for global trade along the east coast.

### Garden State Parkway

The Parkway, which opened to traffic in 1954, passes through 10 counties between the Cape May-Lewes Ferry in Cape May County and the New York State Thruway at the New York State line in Bergen County. Originally four lanes wide, the Parkway is now 12 lanes at its widest point in Monmouth and Middlesex counties and has approximately 2,050 lane miles. The Parkway has a total of 359 exit and entrance points.

The Parkway is a major commuter highway throughout the year and during the summer months is the principal travel route to the Jersey Shore. It also provides access to the Delmarva Peninsula via the Cape May – Lewes Ferry.



## Population

The two roadways pass through Atlantic, Bergen, Burlington, Camden, Cape May, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Ocean, Passaic, Salem and Union counties. Population growth serves as one indicator of roadway usage. The chart below provides the official United States Census Bureau statistics from April 1, 2010 and its estimate as of July 1, 2018, the latest data published. While the State has seen a population growth of 1.3% over the time measured, the counties served by the Authority experienced above average growth rates with the counties that either roadway passes through increased in population by an average of 2.5%. Whereas counties that neither roadway passes through decreased by an average of 0.8%. These statistics demonstrate the importance of the roadways to the State's overall economic well-being.

<b>Population by County</b>				
<b>County</b>	<b>2018 Population</b>	<b>2010 Population</b>	<b>Increase (Decrease)</b>	<b>% Change</b>
Cumberland	150,972	156,898	(5,926)	-3.8%
Hunterdon	124,714	128,349	(3,635)	-2.8%
Morris	494,228	492,276	1,952	0.4%
Somerset	331,164	323,444	7,720	2.4%
Sussex	140,799	149,265	(8,466)	-5.7%
Warren	105,779	108,692	(2,913)	-2.7%
<b>Counties Not Served by Either Roadway</b>	<b>1,347,656</b>	<b>1,358,924</b>	<b>(11,268)</b>	<b>-0.8%</b>
Atlantic	265,429	274,549	(9,120)	-3.3%
Cape May	92,560	97,265	(4,705)	-4.8%
Monmouth	621,354	630,380	(9,026)	-1.4%
Ocean	601,651	576,567	25,084	4.4%
Passaic	503,310	501,226	2,084	0.4%
<b>Counties Served by Parkway Only</b>	<b>2,084,304</b>	<b>2,079,987</b>	<b>4,317</b>	<b>0.2%</b>
Camden	507,078	513,657	(6,579)	-1.3%
Gloucester	291,408	288,288	3,120	1.1%
Hudson	676,061	634,266	41,795	6.6%
Mercer	369,811	366,513	3,298	0.9%
Salem	62,607	66,083	(3,476)	-5.3%
<b>Counties Served by Turnpike Only</b>	<b>1,906,965</b>	<b>1,868,807</b>	<b>38,158</b>	<b>2.0%</b>
Bergen	936,692	905,116	31,576	3.5%
Burlington	445,384	448,734	(3,350)	-0.7%
Essex	799,767	783,969	15,798	2.0%
Middlesex	829,685	809,858	19,827	2.4%
Union	558,067	536,499	21,568	4.0%
<b>Counties Served by Both Roadways</b>	<b>3,569,595</b>	<b>3,484,176</b>	<b>85,419</b>	<b>2.5%</b>
<b>All Counties Served by Parkway</b>	<b>5,653,899</b>	<b>5,564,163</b>	<b>89,736</b>	<b>1.6%</b>
<b>All Counties Served by Turnpike</b>	<b>5,476,560</b>	<b>5,352,983</b>	<b>123,577</b>	<b>2.3%</b>
<b>Total</b>	<b>8,908,520</b>	<b>8,791,894</b>	<b>116,626</b>	<b>1.3%</b>

Figure 150: New Jersey Population by County

## Employment

Employment growth is a key indicator of economic growth. The total number of residents who live and work in New Jersey is 3,617,927 and the number of residents who commute to work out of state is 572,611. According to the New Jersey Department of Labor and Workforce Development, Bergen, Essex, Hudson, Monmouth and Union counties have shown an increase in employment.

The importance of the Authority's roadways in providing key connections to neighboring states is highlighted by the percentage of residents who work out of state. The chart below indicates the 2011-2015 five-year average of where the residences of each county are employed as reported by the New Jersey State Data Center. Overall, 14% of New Jersey state workers are employed out of state while more than 86% of employees working out of state are living in counties served by the New Jersey Turnpike. Further, only 7.3% of employees residing in counties that are not directly served by either roadway work out of state.

<b>Employment by County</b>				
<b>County</b>	<b>In State</b>	<b>Out of State</b>	<b>% in State</b>	<b>% Out of State</b>
Cumberland	59,515	1,848	97.0%	3.0%
Hunterdon	59,499	4,870	92.4%	7.6%
Morris	232,419	20,383	91.9%	8.1%
Somerset	155,109	12,103	92.8%	7.2%
Sussex	68,455	5,504	92.6%	7.4%
Warren	47,818	4,527	91.4%	8.6%
<b>Counties Not Served by Either Roadway</b>	<b>622,815</b>	<b>49,235</b>	<b>92.7%</b>	<b>7.3%</b>
Atlantic	120,593	4,258	96.6%	3.4%
Cape May	40,250	2,082	95.1%	4.9%
Monmouth	266,258	34,709	88.5%	11.5%
Ocean	230,408	9,510	96.0%	4.0%
Passaic	206,938	18,319	91.9%	8.1%
<b>Counties Served by Parkway Only</b>	<b>864,447</b>	<b>68,878</b>	<b>92.6%</b>	<b>7.4%</b>
Camden	190,660	44,903	80.9%	19.1%
Gloucester	111,746	27,246	80.4%	19.6%
Hudson	229,559	102,922	69.0%	31.0%
Mercer	156,385	17,355	90.0%	10.0%
Salem	23,868	4,852	83.1%	16.9%
<b>Counties Served by Turnpike Only</b>	<b>712,218</b>	<b>197,278</b>	<b>78.3%</b>	<b>21.7%</b>
Bergen	345,160	104,840	76.7%	23.3%
Burlington	189,062	31,352	85.8%	14.2%
Essex	301,679	47,870	86.3%	13.7%
Middlesex	349,730	44,686	88.7%	11.3%
Union	232,816	28,472	89.1%	10.9%
<b>Counties Served by Both Roadways</b>	<b>1,418,447</b>	<b>257,220</b>	<b>84.6%</b>	<b>15.4%</b>
<b>All Counties Served by Parkway</b>	<b>2,282,894</b>	<b>326,098</b>	<b>87.5%</b>	<b>12.5%</b>
<b>All Counties Served by Turnpike</b>	<b>2,130,665</b>	<b>454,498</b>	<b>82.4%</b>	<b>17.6%</b>
<b>Total</b>	<b>3,617,927</b>	<b>572,611</b>	<b>86.3%</b>	<b>13.7%</b>

Figure 151: New Jersey In/Out of State Employment by County

With the increase in employment reported by the New Jersey Department of Labor, the State has experienced a steady decline in unemployment since 2012.

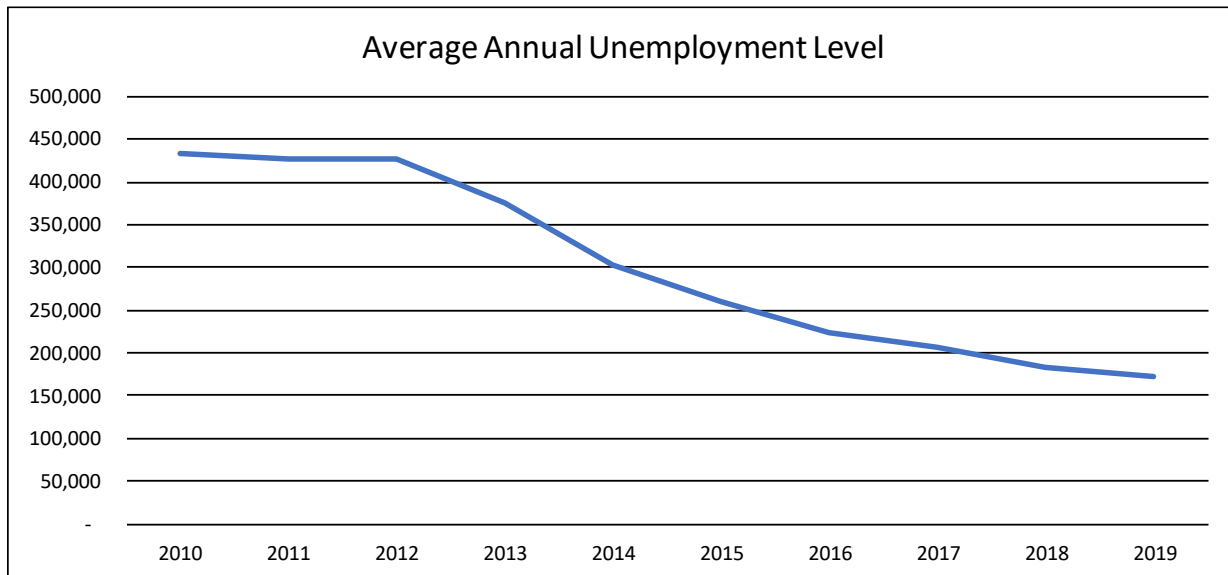


Figure 152: New Jersey Employment Totals (2010-2019)

Employment in the 21 counties in New Jersey increased by 118,000 and unemployment decreased by 250,400 between 2010 and 2018. The county reporting the largest increase in employment was Middlesex, which reported an increase of 33,200 jobs. Atlantic was followed by Hudson and Ocean at 24,600 and 18,200, respectively. The top 3 counties reporting a decrease in unemployment were Essex, which reported a decrease of 22,500 unemployed, followed by Essex and Middlesex at 22,200 each.

County	2010 Employed	2018 Employed	Change	2010 Unemployed	2018 Unemployed	Change
Atlantic	123,300	112,000	(11,300)	17,300	7,000	(10,300)
Bergen	440,500	455,800	15,300	38,400	16,200	(22,200)
Burlington	215,800	218,900	3,100	21,300	8,600	(12,700)
Camden	235,900	238,400	2,500	29,000	11,600	(17,400)
Cape May	43,200	41,900	(1,300)	7,000	3,800	(3,200)
Cumberland	63,200	60,100	(3,100)	9,400	4,200	(5,200)
Essex	340,600	345,500	4,900	41,400	18,900	(22,500)
Gloucester	137,000	140,900	3,900	15,600	6,200	(9,400)
Hudson	319,200	343,800	24,600	33,800	13,900	(19,900)
Hunterdon	63,200	61,000	(2,200)	5,000	2,000	(3,000)
Mercer	176,600	189,300	12,700	16,100	7,200	(8,900)
Middlesex	386,100	419,300	33,200	38,000	15,800	(22,200)
Monmouth	301,300	311,200	9,900	28,900	11,900	(17,000)
Morris	245,200	244,700	(500)	19,600	8,300	(11,300)
Ocean	237,300	255,500	18,200	27,100	11,500	(15,600)
Passaic	224,600	227,000	2,400	28,800	12,200	(16,600)
Salem	28,400	27,200	(1,200)	3,700	1,600	(2,100)
Somerset	160,300	163,300	3,000	13,200	5,800	(7,400)
Sussex	74,500	69,700	(4,800)	7,800	2,900	(4,900)
Union	252,500	260,900	8,400	26,600	11,700	(14,900)
Warren	52,900	53,200	300	5,800	2,100	(3,700)
<b>Total</b>	<b>4,121,600</b>	<b>4,239,600</b>	<b>118,000</b>	<b>433,800</b>	<b>183,400</b>	<b>(250,400)</b>

Figure 153: New Jersey Employment by County

### Economic Indicators

The latest estimates of state and national GDP growth released by the Bureau of Economic Analysis are for 2018. New Jersey has now seen seven consecutive years of growth in the state's gross domestic product since contractions in 2011. However, New Jersey's GDP growth continues to lag behind that at the national level since emerging from the recent recession at the end of 2009.

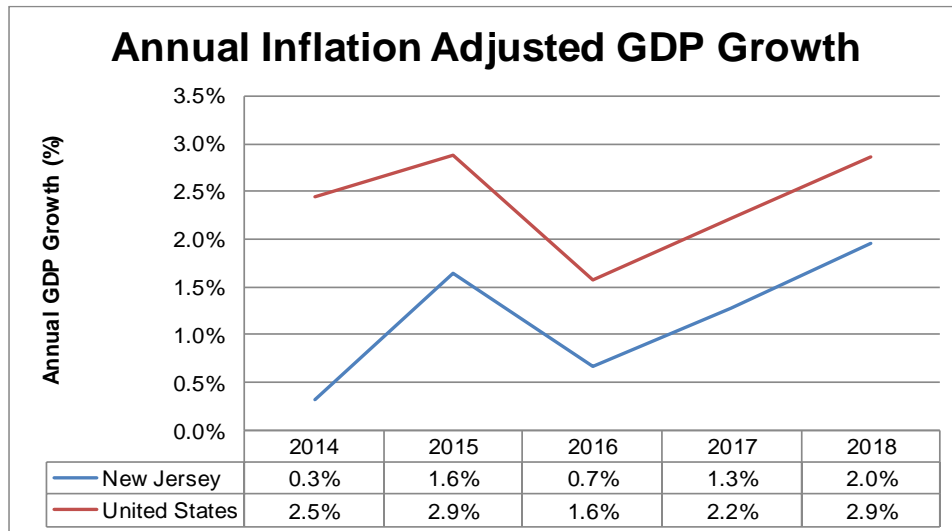
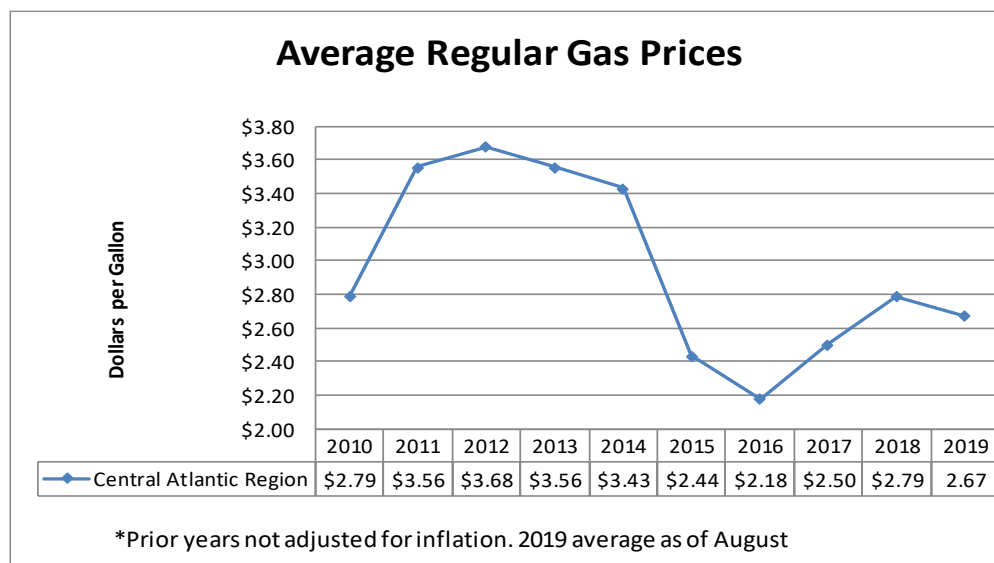


Figure 154: Annual Inflation Adjusted GDP Growth (2014-2018)

The average price for regular grade gasoline reached a 10 year low in 2016. According to projections from the U.S. Energy Information Administration (EIA) the average annual price for regular grade gas will rise to an average of \$2.67 per gallon in 2019 (data as of August). New Jersey is included in the EIA's Central Atlantic Region (PADD 1B), where gas prices have closely tracked the national average for the past 10 years.



\*2018 is through August

Figure 155: Average Annual Regular Gasoline Prices (2009-2019)

## Weather

Snowfall may have a significant impact on the Authority's operating expenses. In 2019, the Authority spent approximately \$27 million on snow removal through September. Spending of \$46 million in 2015 was the highest amount in Authority history, while snow removal costs for 2019 are 41% lower. The 2018-2019 winter season had an average temperature of 40.6° and ties for the least snowy season since 2012/2013. According to annual snowfall totals compiled by the New Jersey State Climatologist, snowfall has varied wildly over the previous six winter seasons. The Authority changed its method of calculating the snow removal budget in 2016 in an effort to account for the high variance in snow removal costs.

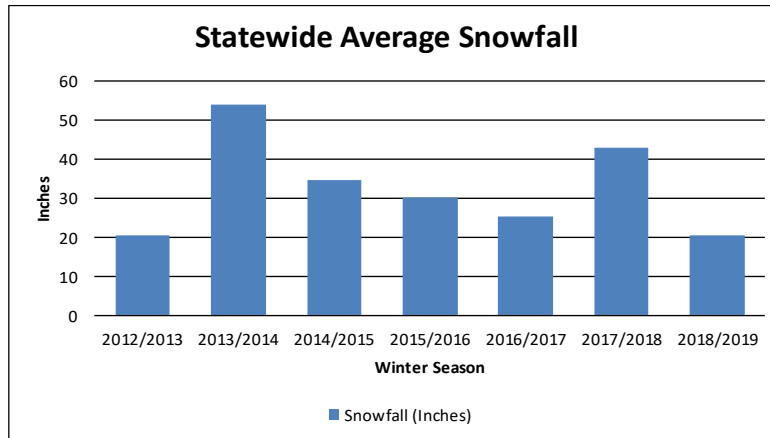


Figure 156: Statewide Average Snowfall by Season (2012-2019)

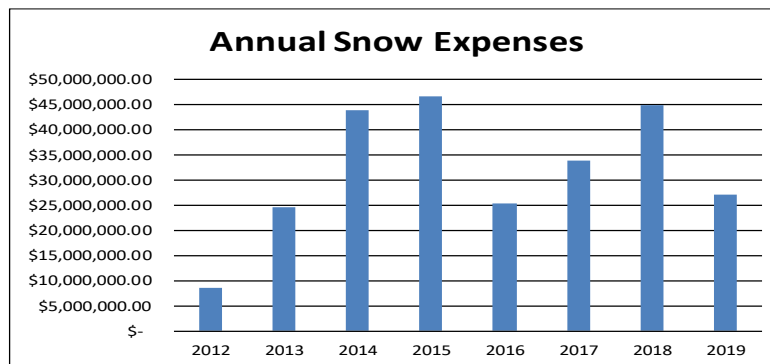


Figure 157: Snow Expenses by Calendar Year

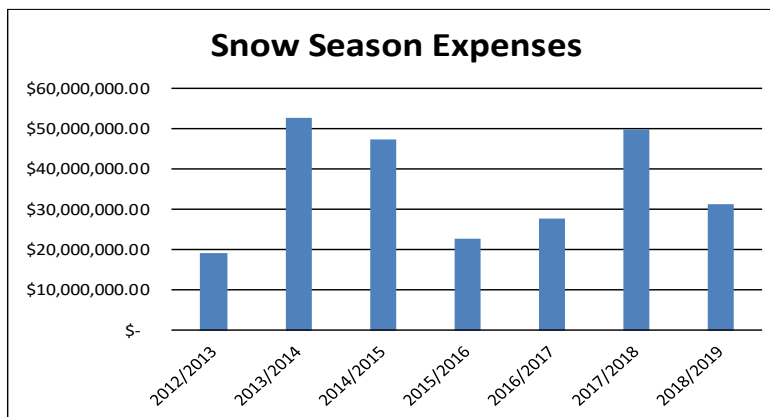


Figure 158: Snow Expenses by Season

## Glossary

**ACCRETION** – Accumulation of capital gains on discount bonds.

**ACCRUAL BASIS** – Accounting practice in which expenses and income are accounted for as they are earned or incurred.

**AMORTIZATION** – Gradual repayment of debt over a period of time.

**ANNUAL BUDGET** – Includes the Authority's Revenue Budget, Operating Budget, Debt Service Fund budget, Charges Fund Budget, Maintenance Reserve Fund Budget, Special Project Reserve Fund Budget, General Reserve Fund Budget, and Supplemental Capital Fund Budget.

**ANNUAL PROCUREMENT PLAN** – Active document listing all of the Authority's procurement contracts necessitating board approval for the current fiscal year.

**APPROPRIATIONS** – A sum of money or total of assets devoted to a specific purpose.

**ARBITRAGE** – The simultaneous purchase and sale of an asset in order to profit from a difference in price.

**AUCTION AGENT** – A financial institution responsible for conducting the auction used in connection with the periodic interest rate reset and remarketing of the Authority's bonds.

**AUDITED YEAR-END FINANCIAL STATEMENTS** – The Authority's end of fiscal year financial statements reviewed and audited by an independent auditor.

**BASIS OF ACCOUNTING** – The method of accounting used to track and report revenues and expenses, for example, cash or accrual.

**BONDS** – A written guarantee to pay a principal amount and/or interest at a specified date or dates known as the maturity date(s).

**BOND COVENANTS** – The Authority's contractual obligations set forth in issued bond contracts.

**BOND INSURANCE** – Insurance purchased by a bond issuer that guarantees the repayment of principal and all associated interest payments to the bondholders in the event of a default.

**BOND RATING** – An assessment of the credit risk with respect to a specific bond issue.

**BOND RESOLUTION** – The agreement that defines the Authority's obligations and requirements when issuing new-money bonds.

**BROKER/DEALER** – A financial institution responsible for both buying and selling securities for the Authority.

**BUDGET** – Plan of coordinating estimated expenses and income for a given period of time.

**CALL** – An option contract giving the owner the right to buy a specified amount of an underlying security at a specified price within a specified time.

**CALL OPTION VALUE** – The present value of a call option in light of present market conditions.

**CAPITAL ASSETS** – Land and improvements, easements, building and improvements, vehicles, machinery, equipment, infrastructure, and all other tangible and intangible assets that are used in operations and that have initial useful lives extending beyond a single reporting period.

**CAPITAL EXPENDITURE** – The costs in the acquisition of fixed assets and the non-recurring expenditures for the preservation, replacement, repair, renewal, reconstruction, modification or expansion of the roadway.

**CAPITAL IMPROVEMENT PROGRAM** – An account within the Construction Fund, funded by the issuance of Turnpike Revenue Bonds, used for construction of projects focused on increasing capacity, maintaining a state of good repair, and improving safety and security. The current Capital Improvement Programs are the \$7 Billion Capital Improvement Program and the 2019 Capital Improvement Program.

**CAPITALIZED INTEREST** – A portion of the proceeds from the issue of Turnpike Revenue Bonds set aside to pay interest on those bonds for a set period of time.

**CAPITALIZATION** – Recordation of a cost as an asset, rather than an expense. This approach is used when a cost is not expected to be entirely consumed in the current period, but rather over an extended period of time. The asset is recorded on the Authority's balance sheet and depreciated over its useful life.

**CAPITALIZATION POLICY** – The Authority's policy on allowable levels of asset capitalization.

**CASH FLOW** – The net amount of cash and cash-equivalents moving into and out of the Authority.

**CHARGES FUND** – Fund held for the purpose of paying accrued fees and charges of any credit issuer, remarketing agent, and tender agent not otherwise paid as an operating expense.

**COMMISSIONERS** – The eight members of the Authority's governing Board of Commissioners. Commissioners are appointed by the Governor of New Jersey.

**CONSTRUCTION FUND** – Fund created for the purpose of paying all costs of acquiring or constructing new projects and for the capital improvements of the roadway.

**COUPONS** – The interest rate stated on a bond when it is issued.

**CREDIT QUALITY** – An assessment of the credit risk with respect to a specific investment.

**CREDIT RATING AGENCY** – A company that assigns credit ratings for debt financed securities, assessing their credit quality.

**CURRENT PAY INTEREST BOND** – A bond that pays interest at regular intervals.

**DEBT COVERAGE COVENANTS** – The Authority's debt coverage obligations as defined by its Bond Resolution.

**DEBT FINANCING** – Raising money for working capital or capital expenditures by selling bonds.

**DEBT ISSUANCE** – The process of raising funds through the issue of bonds.

**DEBT RESERVE FUND** – Fund created to hold an amount equal to the greatest amount of interest accruing on all outstanding bonds in a calendar year to ensure full and timely payments to bond holders.

**DEBT RESERVE REQUIREMENT** – The amount required to be held in the Debt Reserve Fund under the Authority's Bond Resolution.

DEBT SERVICE – Payment of principal, interest and other obligations associated with the retirement of debt.

DEBT SERVICE BUDGET – Amounts held to pay the principal and accrued interest due on all outstanding bonds.

DEBT SERVICE COVERAGE RATIO – A measure of the Authority's cash flow available to pay current debt obligations; the ratio of cash available for debt servicing to interest, principal and lease payments.

DEPARTMENT – A major administrative division of the Authority that has overall management responsibility for an operation or group of related operations within a functional area.

DEPARTMENTAL REQUEST – This request represents the various departmental budgets to be presented to the budget section of the Finance Department.

DEPRECIATION – Allocation of the cost of a tangible asset over its useful life.

ELECTRONIC TOLL COLLECTION – An electronic means for motorists to pay toll charges without using coins or currency. Motorists attach an electronic signal device, known as a transponder, on their windshield to automatically deduct the toll charge as they drive through a toll plaza.

ENTERPRISE FUND – A government-owned fund that sells goods and services to the general public.

E-ZPASS – Brand name by which the New Jersey Turnpike Authority collects toll electronically.

FAIR MARKET VALUE – The accurate valuation or assessment of an asset's worth.

FEDERAL SUBSIDY FOR BUILD AMERICA BONDS – A federal subsidy of payable interest on bonds issued by state or local government agencies to raise necessary capital to pursue infrastructure improvements.

FIDUCIARIES – A party legally appointed and authorized to hold assets in a trust for another party.

FISCAL YEAR – The New Jersey Turnpike's fiscal year is January 1 through December 31. This is the period used for the annual operating budget and the reporting of financial position and results of operations of the Authority. The State of New Jersey's fiscal year is July 1 through June 30.

FIXED CREDIT SPREAD – The fixed spread between a benchmark interest rate and floating rate notes.

FIXED RATE – An interest rate that does not change over the life of a credit security.

FIXED SWAP RATE – The fixed rate that the receiver of floating rate notes demands in an interest rate swap.

FLOATING RATE NOTES – A debt instrument with a variable interest rate tied to a benchmark interest rate.

FULL-TIME EMPLOYEE – A full-time employee's work is based on a 35 hour or a 40-hour work week for 52 weeks depending on job title and function.

FUND – An account established to hold money for specific programs, activities or objectives.

FUND BALANCE – Represents the difference between fund assets and fund liabilities at year-end. For budgetary presentation purposes, fund balance excludes capitalized assets.

GENERAL RESERVE FUND – Used to make payments under any agreements with the State of New Jersey or for any other corporate purpose. The General Reserve Fund includes the Supplemental Capital Fund, which was established only for budgetary purposes.



GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB) – The source of generally accepted accounting principles (GAAP) used by State and Local governments in the United States.

INELASTIC – Insensitive to changes in price or income.

INFRASTRUCTURE – The roads and facilities needed for daily operation.

INTERCHANGE– A road junction that uses one or more ramps to allow traffic on one highway to pass through a junction without directly crossing any other traffic stream.

INTEREST INCOME – The Authority’s income from interest and investments.

INTEREST RATE SWAP – An agreement between two parties where one stream of future interest payments is exchanged for another based on a specified principal amount.

LANE MILES – The total length of a road multiplied by the number of lanes. For example, a 6-lane road that is 10 miles long has a total of 60 lane miles.

LIMITED ACCESS TOLL ROAD – A toll highway system in which the user pays tolls at plazas along the toll road.

MAINTENANCE RESERVE FUND – Used to pay for the cost of major resurfacing, replacement or reconstruction of the Turnpike System and major or extraordinary repairs, renewals or replacements of the Turnpike System necessary to restore or prevent physical damage to the Turnpike System, for the safe and efficient operation of the Turnpike system or to prevent loss of Pledged Revenues.

MILE POSTS – A marker set up to indicate a distance from a particular point.

NET REVENUE REQUIREMENT – The minimum net revenue level allowed under the Authority’s Bond Resolution.

NET REVENUE – The Authority’s total revenue less its operating expenses for the fiscal year, interest paid, depreciation and taxes.

NEW JERSEY TURNPIKE AUTHORITY ACT – 1948 Act enacted by the State of New Jersey creating the New Jersey Turnpike Authority and bestowing ownership and operational authority over the New Jersey Turnpike upon the Authority.

OPERATING BUDGET – The Authority’s Operating Budget consists of funds for Maintenance, Engineering, Toll Collection, State Police and Traffic Control operations, Integrated Technology Services, and General and Administrative Services.

OTHER POSTEMPLOYMENT BENIFITS (OPEB) – are benefits (other than pensions) that the Authority provides to retired employees. These benefits principally involve health care benefits.

OUTSTANDING DEBT – The as-of-yet unpaid portion of the Authority’s previously issued Turnpike Revenue Bonds.

PAYING AGENT – An agent who accepts payment from the Authority and then distributes those payments to the holders of the Authority’s bonds.

PLEDGED REVENUES – Includes, among other things, all toll revenues, fees, rents, charges and other income and receipts derived from the operation of the Turnpike System.

Position – A statement or description of the number of employees for a specific time period in each department.

PNC BANK ARTS CENTER – an outdoor amphitheater in Holmdel, NJ. Owned by the Authority, and leased and operated by Live Nation.

POLLUTION REMEDIATION LIABILITY RESERVE – Fund maintained to meet the obligations of the Government Accounting Standards Board’s pollution remediation policy.

PRELIMINARY BUDGET – The draft of the Authority’s fiscal year budget of operating expenses and reserves submitted to the Trustee for examination and approval.

PROCUREMENT – The buying of supplies and materials as needed for project completion.

REGISTRAR – An institution responsible for keeping records of the Authority’s bondholders.

REMARKETING – A formal underwriting of the Authority’s Revenue Bonds for which the form or structure is being changed.

RESERVE – Funds set aside to pay future liabilities.

REVENUE FUND – General operating fund of the Authority. The fund is used to account for all pledged revenues and operating expenses.

REVENUE REQUIREMENT – Requirement under the Authority’s Bond Resolution establishing Net Revenue Requirements.

REVENUES – All tolls, fees, charges, rents and other income and receipts derived from the operation of the Turnpike and Parkway. Revenues also include investment income from any monies or securities and the Federal Subsidy for Build America Bonds.

SERIAL BONDS – A bond issue in which a portion of the outstanding bonds matures at regular intervals until eventually all the bonds eventually mature.

SHORT TERM INTEREST RATES – The interest rates on loan contract or other debt instruments with a maturity of less than one year.

SPECIAL PROJECT RESERVE FUND – Used to pay for any major resurfacing, renewals or replacements of the Turnpike System and for studies, surveys, estimates and investigations.

STANDBY AGREEMENT – An agreement between the Authority and its Revenue Bond underwriters that the underwriters are responsible for any unsold portion of a bond issue.

SUBORDINATE BOND ANTICIPATION NOTES – A short-term interest-bearing security issued by the Authority in advance of a larger bond issue.

SUPPLEMENTAL CAPITAL FUND – For budgeting purposes only, the Authority has established a ‘Supplemental Capital Fund’ within the General Reserve Fund that is used to fund short to medium term projects not financed through bond proceeds. The Supplemental Capital Fund is not a legal fund, is not recognized under the Bond Resolution, and its activity is reported as General Reserve Fund activity in the Authority’s financial statements.

SWAP DEALER – An individual who acts as a counterparty in a swap agreement for a fee.

TENDER AGENT – The financial institution responsible for coordinating the process of soliciting bondholders for the issue of the Authority’s bonds.

TERMINUS – The end of the roadway.

TOLL – A fee for usage or passage over a toll roadway.

TOLL BOOTH – A booth on a highway where tolls are taken.

TOLL COLLECTOR – An employee hired to take tolls manually from customers.

TOLL REVENUE – The revenue from the tolls collected by the Authority. It is the main source of revenue for the Authority.

TOLL TRANSACTION – A passenger or commercial vehicle that passes through a toll plaza causing a toll to be collected.

TOTAL DEBT SERVICE – The total cash amount required to repay the interest and principal due on the Authority's issued bonds for the fiscal year.

TOTAL REQUIREMENTS COVERAGE RATIO – A measure of the Authority's cash flow available to meet all financial requirements for the fiscal year, including debt service, debt reserve and revenue requirements.

TOTAL REVENUE – Includes the Authority's Toll Revenue, E-Z Pass Fees, Concessions Revenue, Miscellaneous Revenue, Federal Subsidies, Interest Income, and Arts Center Revenues.

TRANSPONDER – An electronic device placed in a vehicle to communicate through radio signals with the toll plaza collection equipment as the vehicle passes through the lane, making a record of a paid toll.

TRUE INTEREST COST – The actual cost of issuing a bond including all ancillary fees and costs.

TRUSTEE – The Authority's Trustee is Bank of New York Mellon. The Authority's Co-Trustee is US Bank.

USEFUL LIFE – The period of time for which the asset will be economically feasible for use.

VARIABLE RATE DEBT – A tax-exempt short-term investment instrument based on the Authority's long-term bonds.

## Acronyms

**AASHTO** American Association of State Highway and Transportation Officials  
**ACM** Automatic Coin Machine  
**AIX** Advanced Interactive Executive  
**ALPR** Automated License Plate Recognition  
**APD** Annual Pavement Distress  
**ARC** Annual Required Contribution  
**ATMP** Advanced Traffic Management Program  
**AVC** Automatic Vehicle Classification  
**AVI** Automatic Vehicle Identification  
**CADS** Computer Aided Design Software  
**CAFR** Comprehensive Annual Report  
**CEA** Commodity Exchange Act  
**CFTC** Commodities Futures Trading Commission  
**CIP** Capital Improvement Program  
**CIMU** Construction/Incident Management Unit  
**CSC** Customer Service Center  
**CVI** Commercial Vehicle Inspection  
**DED** Deputy Executive Director  
**DF** Dodd-Frank Act  
**DVP** Delivery Versus Payment  
**EAM** Enterprise Asset Management  
**EEO** Equal Employment Opportunity  
**EGIS** Enterprise Geographic Information System  
**EIA** Energy Information System  
**ERP** Enterprise Resource Planning  
**ETC** Electronic Toll Collection  
**FEMA** Federal Emergency Management Agency  
**FHWA** Federal Highway Administration  
**FTE** Full Time Employees  
**GAAP** Generally Accepted Accounting Principles  
**GASB** Government Accounting Standards Board  
**GDP** Gross Domestic Product  
**GFOA** Government Finance Officers Association  
**GIS** Geospatial Information System  
**GSAC** Garden State Arts Center  
**GSP** Garden State Parkway  
**GWB** George Washington Bridge  
**HCM** Human Capital Management  
**HMS** Host Marriot Services  
**HR** Human Resources  
**HVAC** Heating, Ventilation, and Cooling  
**IP** Internet Phone  
**IRI** International Roughness Index  
**IRS** Internal Revenue Service

**ISDA** International Swap and Derivatives Association  
**ITS** Information Technology Services  
**LAN** Local Area Network  
**LEC** Lane Electronic Cabinet  
**LED** Light Emitting Diode  
**MLT** Manual Lane Toll Terminals  
**MP** Milepost  
**MPT** Maintenance and Protection of Traffic  
**NBHCE** Newark Bay Hudson County Extension  
**NCGAS** National Council on Governmental Accounting Statements  
**NJDEP** New Jersey Department of Environmental Protection  
**NJDOT** New Jersey Department of Transportation  
**NJSP** New Jersey State Police  
**NJTA** New Jersey Turnpike Authority  
**NJHA** New Jersey Highway Authority  
**OCIP** Owner Controlled Insurance Program  
**OPEB** Other Post-Employment Benefits  
**OPRA** Open Public Records Act  
**OPS** Order for Professional Services  
**OSHA** Occupational Safety and Health Administration  
**PANYNJ** Port Authority of New York and New Jersey  
**PDQ** Portable Dock Scissor Lift  
**PERS** Public Employees Retirement System  
**PMM** Procurement and Materials Management  
**PNC** Pittsburgh National Corporation  
**PTC** Pennsylvania Turnpike Commission  
**QIR** Qualified Independent Representative  
**QPL** Quality Products List  
**RFP** Request for Proposal  
**RMA** Return Materials Authorization  
**ROW** Right of Way  
**RWIS** Road Weather Information System  
**SBE** Small Business Enterprise  
**SDI** Surface Distress Index  
**SEC** Securities and Exchange Commission  
**STMC** Statewide Traffic Management Center  
**TIC** True Interest Cost  
**TCO** Total Cost of Ownership  
**TPA** Third Party Administrator  
**TPK** Turnpike  
**TMC** Transportation Management Center  
**UPS** Uninterruptible Power Supply  
**UST** Underground Storage Tanks  
**VMS** Variable Messaging System  
**VRLA** Valve-Regulated Lead-Acid  
**WMS** Warehouse Management System  
**XBL** Exclusive Bus Lane