



# New Jersey Turnpike Authority



## ANNUAL BUDGET 2019

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## Transmittal Letter



# New Jersey Turnpike Authority

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JOHN D. MINELLA, Commissioner  
RAPHAEL SALERMO, Commissioner  
JOHN M. KELLER, Executive Director

October 23, 2018

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) 2019 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 2019 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 2019 Annual Budget includes an almost 25% increase in funding to repair aging bridge decks, as well as additional funding for roadway lighting, drainage and concrete barrier repairs. The 2019 Annual Budget continues the funding of design work for new capital projects that was approved in the Amended 2018 Annual Budget, allowing for construction projects to begin when a funding source is approved. During 2019, in addition to the Authority's own construction projects contained in this budget, the service area operators will begin major renovations and remodeling of the service areas along both roadways.

In 2018, the Authority has completed and opened to traffic the final phase of the Garden State Parkway widening to milepost 35. This, combined with other increases in capacity over the past few years have generated increased revenue, but also have necessitated higher spending levels for both operations and maintenance of the Turnpike System. The 2019 Annual Budget provides the necessary funds to meet these expenditures and includes funding to support an increase in both roadway maintenance staff and New Jersey State Police assigned to patrol the roadways. Finally, the 2019 Budget includes funding to cover debt service payments on both existing debt and the final issuance of up to \$525 million of Turnpike Revenue Bonds expected in late 2018 or early 2019. This issuance will complete the funding for the \$7 Billion Capital Improvement Program.

The 2019 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 2019 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, 2018**

*Christopher P. Morill*

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, 2018**. 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 best 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 Ridgefield 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.

A ground breaking ceremony was held in July 2009 for the construction of the Turnpike’s Interchange 6 to 9 Widening Program. The Program 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 Program was designed to relieve heavy and recurring congestion on this section of the Turnpike, improve operational and maintenance performance, and provide for the increased demand for capacity in the future. 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 41, 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 widening of the Parkway from milepost 63 in Stafford Township to milepost 80 in South Toms River opened in May 2011 was funded as part of the Capital Improvement Program. 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. In addition to the widening from milepost 63 to 80, the Parkway was widened from milepost 48 to 63. The widening to milepost 52 opened in the spring of 2014. The remaining widening of this section to milepost 48 was opened in May 2015 upon the completion of the rehabilitation of the Bass River Bridge. The final phase of the Parkway widening from milepost 35 to 48 is has been open to traffic. The third lane between milepost 42 and 48 was opened in June 2016. The remaining portion of the Parkway widening to milepost 35 was opened to traffic in the spring 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, 2025. 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 a Toll Revenue Forecast Study dated September 27, 2018 (draft). Toll revenue for 2019 – 2025 has come from the September 27, 2018 Draw Down Letter. 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 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 \$9.0 million in 2019, as 2018 included several non-recurring insurance and settlement payments, and grow by about 2.0% per year thereafter based on historical growth.

#### Operating Expenses

- Operating Expenses are projected to increase by 2% per year from 2019 – 2025, primarily driven by projected wage, pension and health benefit increases, and higher maintenance expenses to cover the increased roadway capacity and keep the assets in a state of good repair.

#### Net Debt Service

- Projected Net Debt Service includes the expected final new money borrowing of \$525 million in late 2018 to complete the funding of the \$7 Billion CIP at an assumed interest cost of 5%. Debt service also reflects the savings from the fixed rate bond refundings completed in 2017.

#### 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 September 8, 2017. Maintenance Reserve Fund deposits include an additional \$10 million per year above the Consulting Engineer's report, as additional funds were generated from bond refinancings which will be used for lighting repairs on the roadways.

#### State Payments

- TTF 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 assume a successor State Transportation Projects Funding Agreement will be entered into after the current agreement expires.

The Authority's Financial Plan through 2025 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 \$125 million in 2017; \$150 million in 2018; \$175 million in 2019 and 10% of total annual revenue as of December 31, 2020 and each December 31<sup>st</sup> thereafter.

## New Jersey Turnpike Authority Financial Plan

<i>Fiscal Year Ending 12/31 (In Thousands)</i>	Actual 2017	Actual/Est 2018	Budget 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025
Turnpike Tolls	\$ 1,151,739	\$ 1,169,582	\$ 1,171,737	\$ 1,192,889	\$ 1,209,177	\$ 1,228,761	\$ 1,248,638	\$ 1,271,835	\$ 1,288,854
Parkway Tolls	428,157	431,669	434,163	440,409	444,357	449,412	454,480	460,722	464,661
E-ZPass Fees	60,505	76,000	77,500	79,050	80,631	82,244	83,888	85,566	87,278
Federal Subsidy for Series 2009 F and Series 2010 A Bonds	76,153	76,438	76,602	76,602	76,602	76,602	76,602	76,602	76,602
Concession Revenue	35,591	36,063	34,000	35,557	35,884	35,669	37,732	38,487	39,256
Other Revenue	46,355	48,720	39,403	40,191	40,995	41,815	42,651	43,504	44,374
<b>Total Revenues</b>	<b>\$ 1,798,500</b>	<b>1,838,472</b>	<b>1,833,405</b>	<b>1,864,698</b>	<b>1,887,646</b>	<b>1,914,502</b>	<b>1,943,992</b>	<b>1,976,716</b>	<b>2,001,025</b>
Operating Expenses	(508,125)	(557,951)	(582,071)	(593,712)	(605,587)	(617,698)	(630,052)	(642,653)	(655,506)
<b>Total Revenues Available for Debt Service</b>	<b>\$ 1,290,375</b>	<b>1,280,521</b>	<b>1,251,334</b>	<b>1,270,986</b>	<b>1,282,059</b>	<b>1,296,804</b>	<b>1,313,939</b>	<b>1,334,063</b>	<b>1,345,519</b>
Future Debt Issuance		525,000							
Existing Debt Service	(822,984)	(788,199)	(806,573)	(817,241)	(836,624)	(835,147)	(838,073)	(875,939)	(876,185)
Proposed Debt Service on \$525mm Expected Future Debt Issuance		(4,375)	(26,250)	(26,250)	(26,250)	(26,250)	(26,250)	(26,250)	(26,250)
<b>Net Debt Service</b>	<b>(822,984)</b>	<b>(792,574)</b>	<b>(832,823)</b>	<b>(843,491)</b>	<b>(862,874)</b>	<b>(861,397)</b>	<b>(864,323)</b>	<b>(902,189)</b>	<b>(902,435)</b>
Total Revenues Available After Debt Service	467,391	487,947	418,511	427,495	419,185	435,407	449,616	431,874	443,084
Payments to Charges Fund	(115)								
<b>Cash Flow Available for Reserves</b>	<b>467,276</b>	<b>487,947</b>	<b>418,511</b>	<b>427,495</b>	<b>419,185</b>	<b>435,407</b>	<b>449,616</b>	<b>431,874</b>	<b>443,084</b>
Maintenance Reserve Fund	(116,751)	(119,086)	(131,468)	(134,097)	(136,779)	(139,515)	(142,305)	(152,305)	(162,305)
Special Project Reserve Fund	(39,696)	(40,490)	(41,300)	(41,300)	(42,126)	(42,969)	(43,828)	(44,705)	(45,599)
<b>Net Revenues Available for General Reserve Fund</b>	<b>310,829</b>	<b>328,371</b>	<b>245,743</b>	<b>252,098</b>	<b>240,280</b>	<b>252,923</b>	<b>263,483</b>	<b>234,864</b>	<b>235,180</b>
TTF Payments	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)
Feeder Road Maintenance Agreement	(6,500)	(4,500)	(3,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)
Prior and Existing State Transportation Funding Agreement	(204,000)	(166,500)	(154,000)	(129,000)	(129,000)	(64,500)			
Assumed Amounts for Additional State Transfers						(64,500)	(129,000)	(129,000)	(129,000)
Supplemental Capital/General Reserve Spending (1)	(61,048)	(115,394)	(168,365)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)
Transfer to Construction Fund Account			(25,000)	(25,000)	(25,000)	(25,000)			
<b>Net Annual General Reserve Fund Increase (Decrease)</b>	<b>17,281</b>	<b>19,977</b>	<b>(127,122)</b>	<b>(1,402)</b>	<b>(13,220)</b>	<b>(577)</b>	<b>34,983</b>	<b>6,364</b>	<b>6,680</b>
<b>Ending General Reserve Fund Balance</b>	<b>348,373</b>	<b>368,350</b>	<b>241,228</b>	<b>239,826</b>	<b>226,606</b>	<b>226,029</b>	<b>261,012</b>	<b>267,376</b>	<b>274,055</b>
<b>Net Revenues to Debt Service Coverage Ratio</b>	<b>1.57</b>	<b>1.62</b>	<b>1.50</b>	<b>1.51</b>	<b>1.49</b>	<b>1.51</b>	<b>1.52</b>	<b>1.48</b>	<b>1.49</b>
<b>Net Revenues to Debt Service and Reserves Coverage Ratio</b>	<b>1.32</b>	<b>1.34</b>	<b>1.24</b>	<b>1.25</b>	<b>1.23</b>	<b>1.24</b>	<b>1.25</b>	<b>1.21</b>	<b>1.21</b>

(1) Net of release of reserve (2017 and 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 is in the final stages of adopting and implementing of the New Jersey Turnpike Authority strategic plan for the next ten years. The Strategic Plan, through its incorporation of the Authority's vision, mission, and core values, provides clear direction and measurable goals for 2019-2027.

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
- 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 (Authority) and is a critical component of the agency's 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
- Privacy/Data Security
- Emergency Management
- 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
- Maximizing Revenue
- Capital Budget Performance
- 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
- Freight Mobility
- Multi Modal Connectivity through Regional Coordination

## State of Good Repair

Maintaining a state of good repair can increase the useful life of Authority 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
- Roadside Features
- Facilities
- Technology

## 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

The Authority completed a final draft of the New Jersey Turnpike Authority 2019-2028 Strategic Plan and New Jersey Turnpike Authority Long Range Capital Plan in 2018. Once reviewed and adopted by the Board of Commissioners, the Authority will begin to implement the plan.

## New Jersey Turnpike Authority 2018 Accomplishments and 2019 Goals

As mentioned in the previous section, the Authority is in the final process of approving and implementing the Strategic Plan. 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 2018 and goals for 2019 per selective Strategic Plan performance criteria as follows:

### Safety

#### 2018 Accomplishments

- While overall crashes per vehicle miles traveled has increased slightly by 4%, crashes have decreased on the Garden State Parkway, believed to be a direct result of the shoulder restoration and widening programs.

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

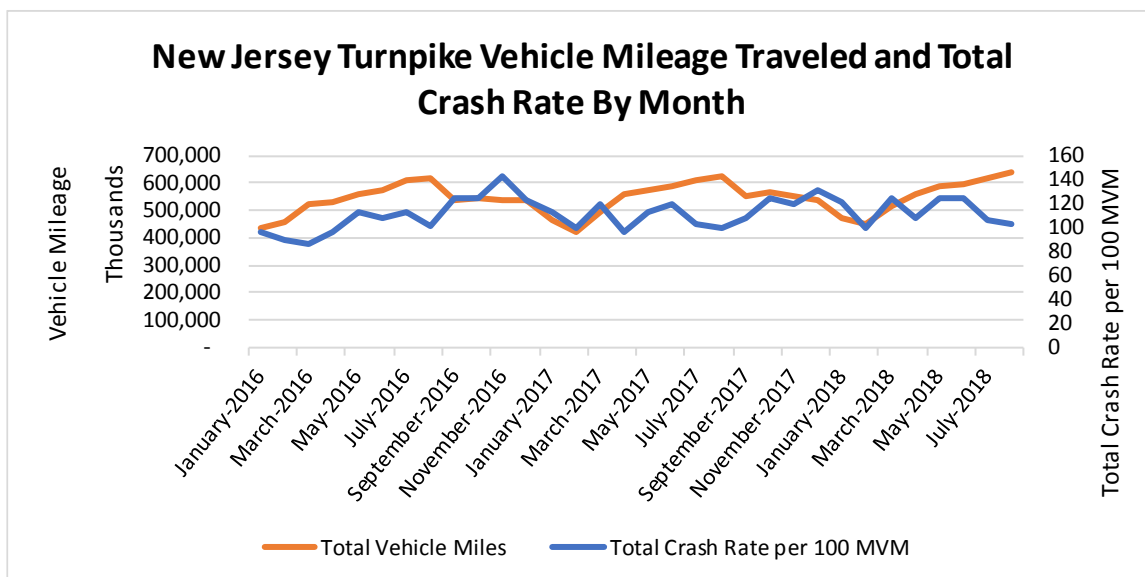


Figure 3: Vehicle Mileage Traveled and Total Crash Rate By Month (Turnpike)

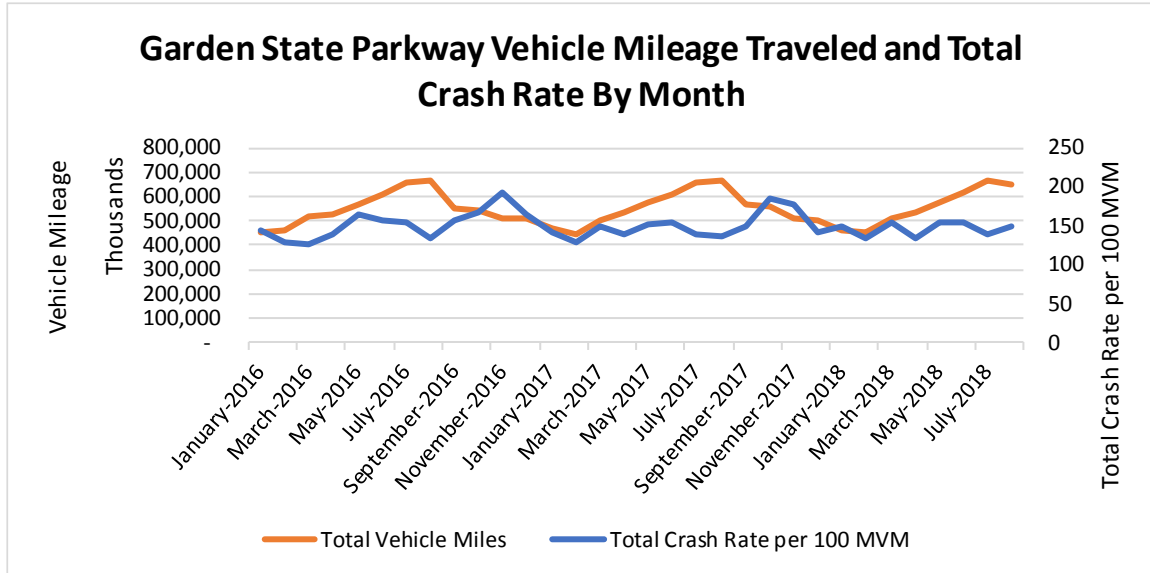


Figure 4: Vehicle Mileage Traveled and Total Crash Rate By Month (Parkway)

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

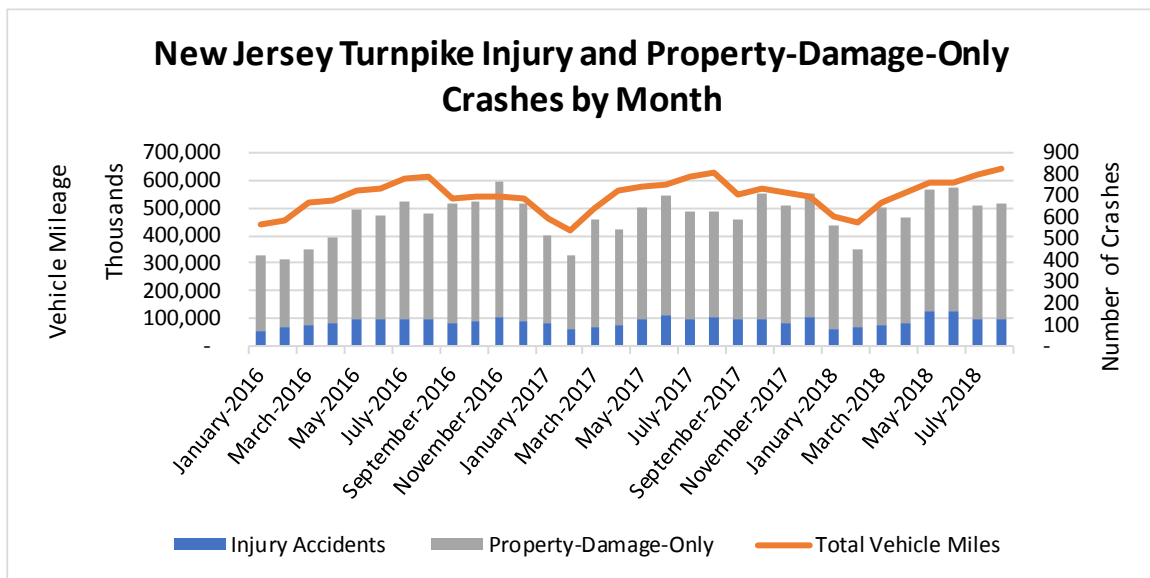


Figure 5: Injury and Property-Damage-Only Crashes by Month (Turnpike)

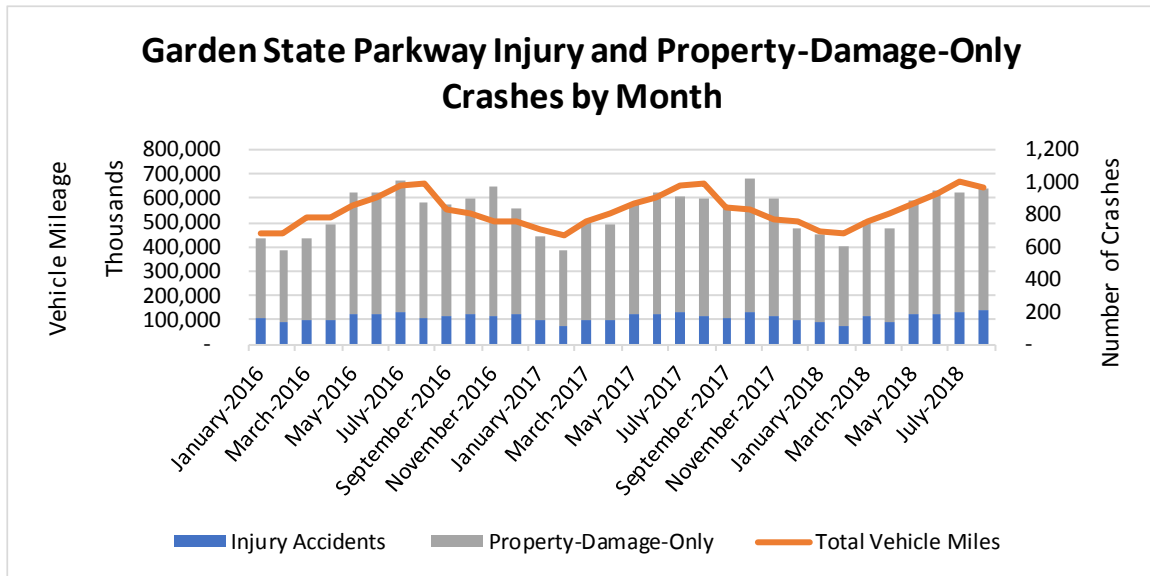


Figure 6: Injury and Property-Damage-Only Crashes by Month (Parkway)

#### 2019 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

### 2018 Accomplishments

- Improved the Authority's days cash on hand to 656 (FY2017) and current ratio to 2.04(FY 2017).
- Reached target of general reserve balance of \$150.0 million.
- Successfully received a \$6 million advance payment from our insurance claim for business interruption and physical damage of the Delaware River Turnpike Bridge which was closed from January 20, 2017 to March 9, 2018.

**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	2017 Bond Ratings	2018 Bond Ratings
Moody's Investors Services Inc	A3	A2
S&P Global Ratings	A+	A+
Fitch Ratings	A	A

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 bond ratings demonstrate a strong capacity to meet the Authority's financial obligations, and represent a relatively low risk to investors.

### 2019 Goals

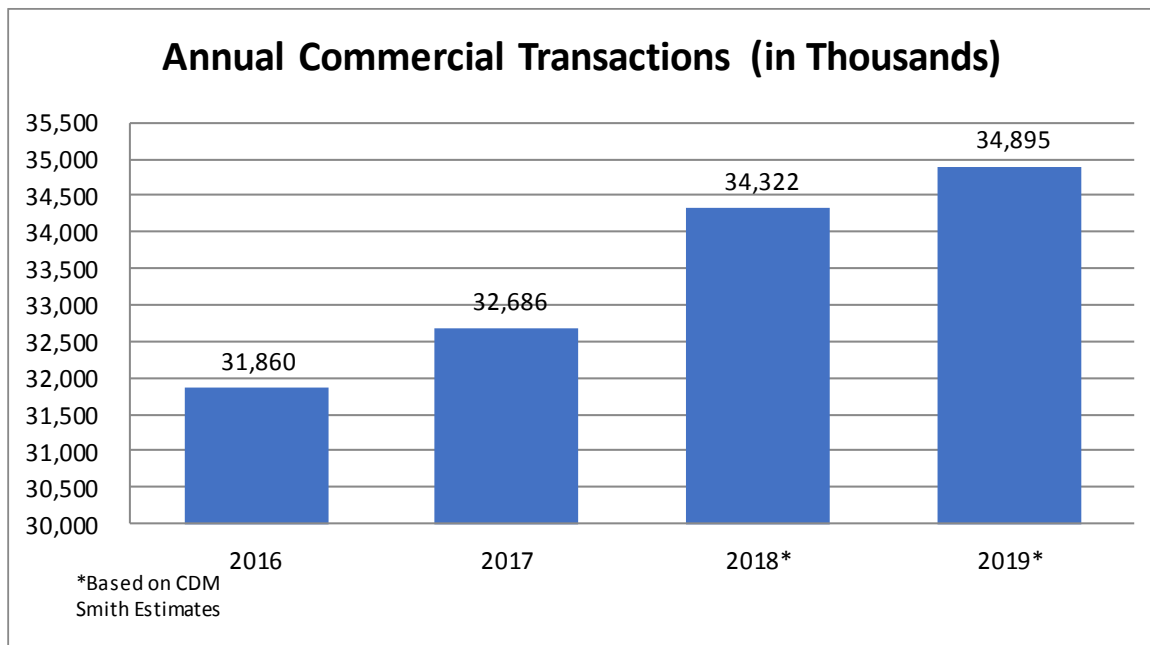
- Issue \$525 million of new money bonds if financing is not completed in 2018 due to market conditions.
- Procure and implement a more robust budgeting module that integrates with our current ERP system.
- Reach target of general reserve budget of \$175.0 million through prudent control of expenses.
- Present Other Post Employment Benefits (OPEB) Trust plan document to Board for approval
- Implement funding for OPEB Trust

## Mobility

### 2018 Accomplishments

- Completed interchange improvements to increase traffic safety, increase interchange capacity, and decrease travel times.
- Implemented new toll canopy signs over every Turnpike toll lane to meet driver expectation.
- Doubled capacity of bus processing at Turnpike Interchange 16E to support the NJDOT's Restore 495 project.

**Selected Performance Measure:** Annual commercial transactions



**Figure 8: Annual Commercial Transactions**

### 2019 Goals

- Expand 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
- 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/garage companies to reduce response times.

## State of Good Repair

### 2018 Accomplishments

- An overall total of 468 light emitting diode luminaires replaced high pressure sodium luminaires which is an 40% increase from previous year. This resulted in a .79% reduction of energy usage as well as an increase energy cost savings by .79%.
- Environmental impact: the LED fixtures have increased savings which are equivalent to CO2 emission of 53,115 lbs. of coal burning, or a 10.76% increase from previous year, as well as a reduction of 9 cars driven annually.

**Selected Performance Measure:** LED luminaires efficiency measured by cost per kWh hours of operations. Environmental impact is measured by greenhouse emission of cars driven annually, as well as CO2 emissions of coal burned.

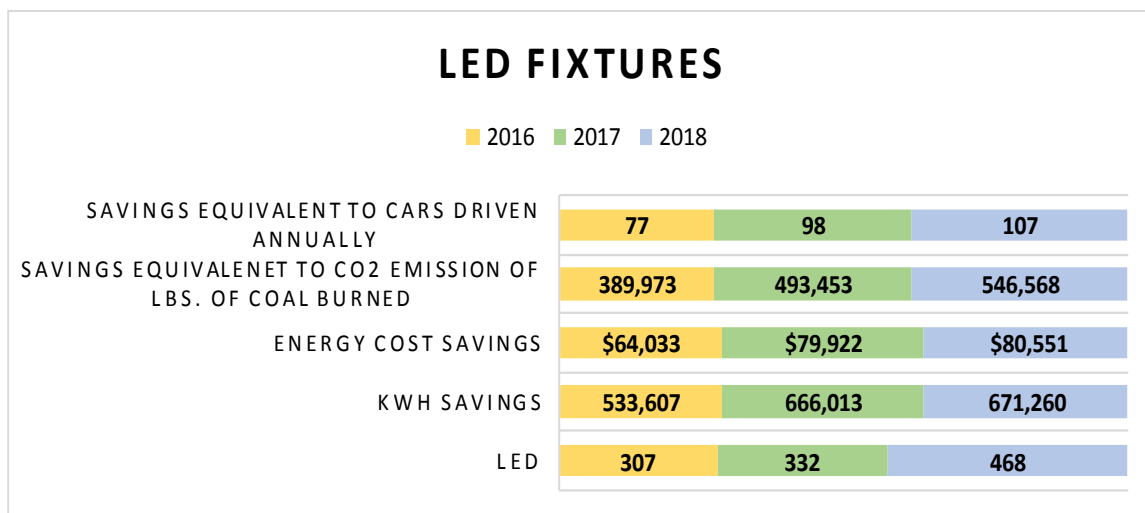


Figure 9: LED Fixtures

### 2019 Goals

- Continue updating roadway illumination levels while reducing energy usage through LED roadway lighting.
- Continue implementation and build out of the Authority's Roadside Weather Information System.
- Repair large drainage culverts, lighting and median barrier through the Maintenance Reserve Fund.
- Complete installation of electronic equipment accountability systems at each facility as more sites are constructed and completed.

## People

### 2018 Accomplishments

- Completed adequate training on new vehicles for the technicians, up-to-date diagnostic equipment for the department, as well as sufficient training on this equipment for the technicians.
- Provided mandatory training (including sexual harassment) for all employees.
- Implementation of a new Plaza Supervisor training program to more efficiently ready candidates for duty.
- In the Engineering Department, backfilled the two (2) Deputy Chief Engineer positions from within the department.
- Signed MOA with all unions regarding wage increase, with many dating back to 2011.

**Selected Performance Measure:** Budgeted headcount shows an upward trend with 1.12% increase from 2017 to 2018, and an estimated 1.35% increase for 2019.

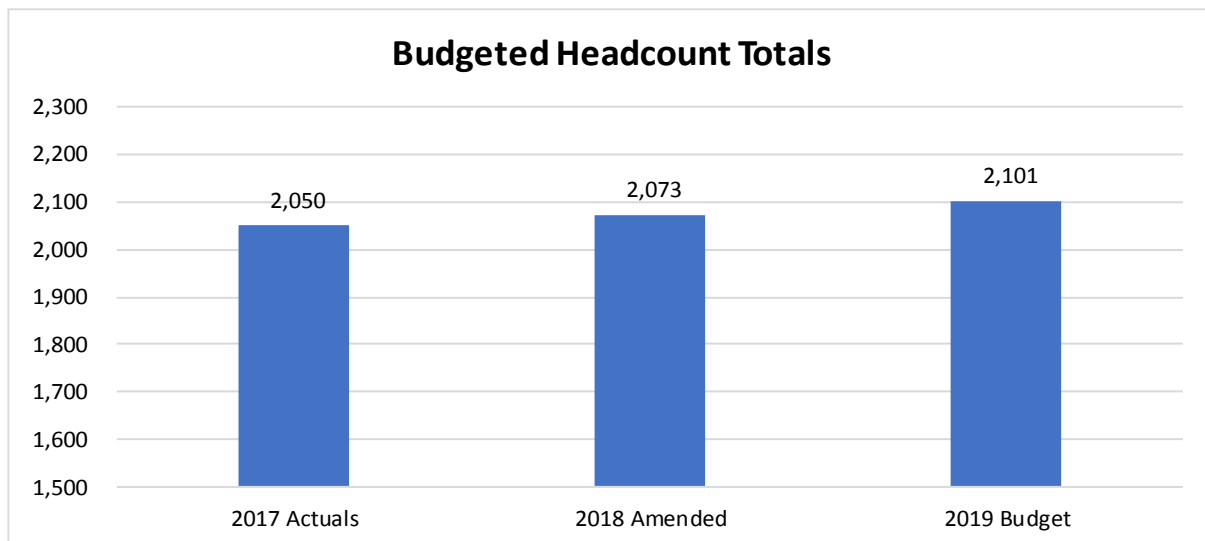


Figure 10: Budgeted Headcount Totals

### 2019 Goals

- Increase field training visits to our collectors to ensure they are receiving constant training in policy and procedures.
- Implement Open Enrollment Online.
- Roll out of Employee Recognition Program.
- Roll out group orientation for new hires.
- Continue to implement an active succession plan by positioning the next generation of leaders in challenging and visible roles.
- Negotiate and execute MOA with all unions regarding work rules.

## 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 to depict that the primary component of the Authority's operating revenue is toll revenue.

Toll Revenue As % Of Operating Revenue			
(\$ In Thousands)	2017 Actual	2018 Amended	2019 Budget
Toll Revenue	1,579,896	1,598,500	1,605,900
Operating Revenue	1,700,730	1,731,500	1,728,401
<b>Toll Revenue As % Of Operating Revenue</b>	<b>92.90%</b>	<b>92.32%</b>	<b>92.91%</b>

Figure 11: Toll Revenue as % of Operating Revenue

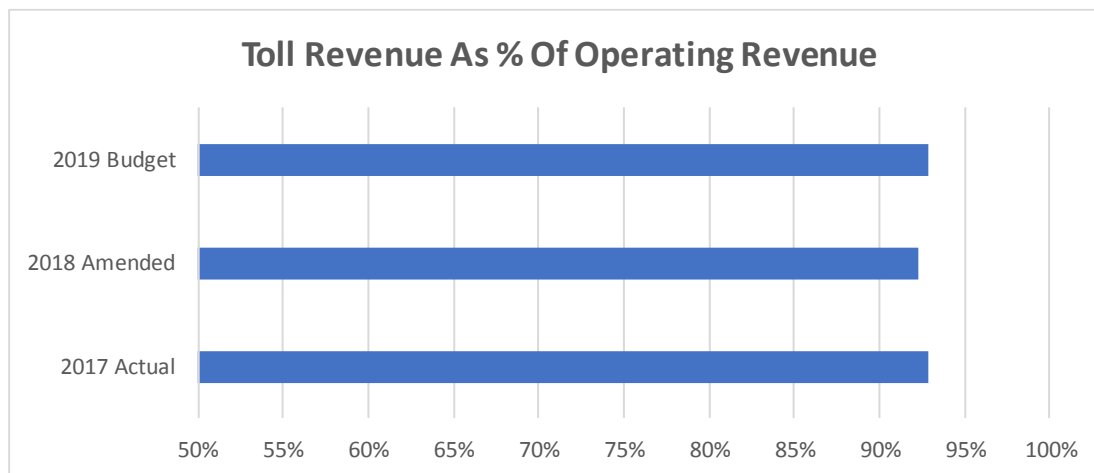


Figure 12: Toll Revenue as % of Operating Revenue Graph

## 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.

<b>Operating Margin Ratio</b>			
<i>(\$ In Thousands)</i>	<b>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>
Operating Revenue	1,700,730	1,731,500	1,728,401
Operating Expenses- Revenue Fund	(508,125)	(570,951)	(582,071)
<b>Operating Income</b>	<b>1,192,605</b>	<b>1,160,549</b>	<b>1,146,330</b>
<b>Operating Margin Ratio</b>	<b>0.70</b>	<b>0.67</b>	<b>0.66</b>

Figure 13: Operating Margin Ratio

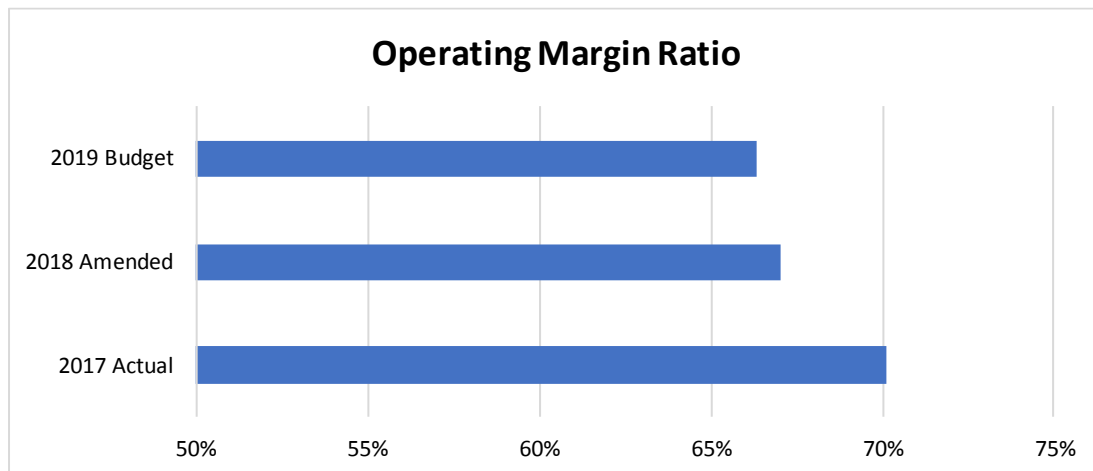


Figure 14: Operating Margin Ratio Graph

## Cost Recovery Ratio

This ratio is calculated by dividing the operating revenue by the total operating expenses excluding depreciation. 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>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>
Operating Revenue	1,700,730	1,731,500	1,728,401
Operating Expenses - Revenue Fund	(508,125)	(570,951)	(582,071)
<b>Cost Recovery Ratio</b>	<b>3.35</b>	<b>3.03</b>	<b>2.97</b>

Figure 15: Cost Recovery Ratio

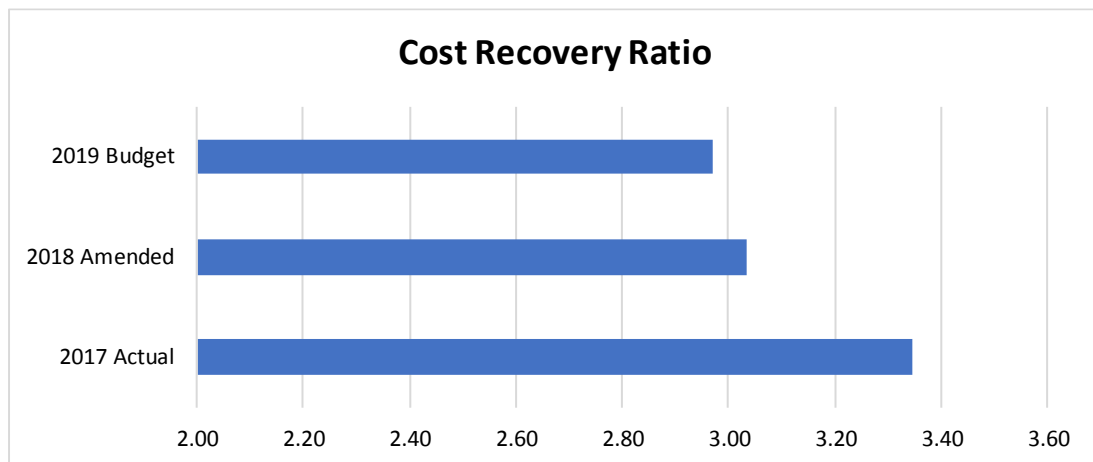


Figure 16: Cost Recovery Ratio Graph



### 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>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>
Toll Revenue - Turnpike	1,151,739	1,165,300	1,171,737
Toll Transactions - Turnpike	260,665	261,612	261,108
<b>Average Toll Per Transaction - Turnpike</b>	<b>\$ 4.42</b>	<b>\$ 4.45</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>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>
Toll Revenue - Parkway	428,157	433,200	434,163
Toll Transactions - Parkway	392,895	396,713	384,049
<b>Average Toll Per Transaction - Parkway</b>	<b>\$ 1.09</b>	<b>\$ 1.09</b>	<b>\$ 1.13</b>

Figure 18: Average Toll/ Transaction- Parkway

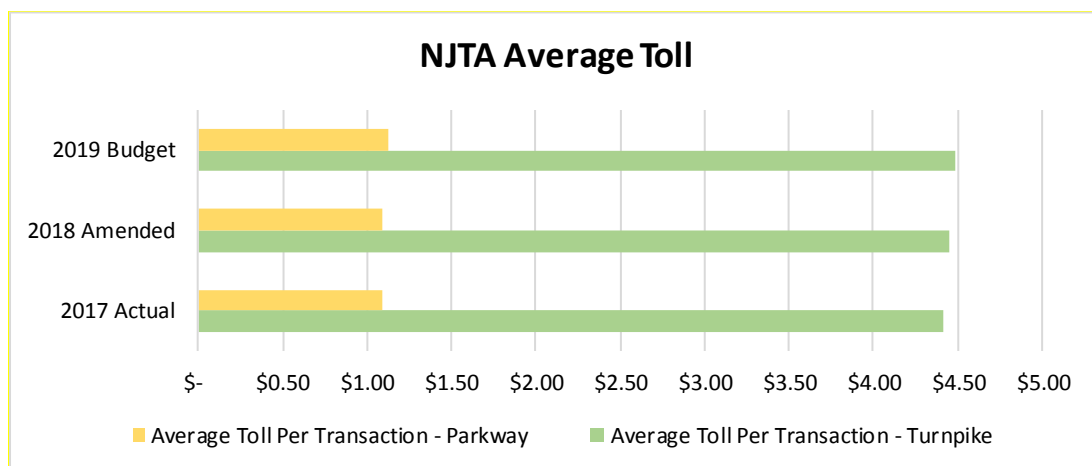


Figure 19: Average Toll/ Transaction- Turnpike/Parkway Graph

## 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>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>
Toll Revenue - Turnpike	\$ 1,151,739	\$ 1,165,300	\$ 1,171,737
Toll Revenue - Parkway	428,157	433,200	434,163
<b>Toll Revenue - Authority</b>	<b>1,579,896</b>	<b>1,598,500</b>	<b>1,605,900</b>
Lane Miles - Turnpike	2,418	2,423	2,428
Lane Miles - Parkway	2,028	2,041	2,038
<b>Lane Miles - Authority</b>	<b>4,446</b>	<b>4,464</b>	<b>4,466</b>
Revenue per Lane Mile - Turnpike	\$ 476	\$ 481	\$ 483
Revenue per Lane Mile - Parkway	\$ 211	\$ 212	\$ 213
<b>Revenue per Lane Mile - Authority</b>	<b>\$ 355</b>	<b>\$ 358</b>	<b>\$ 360</b>

Figure 20: Toll Revenue/Lane Mile

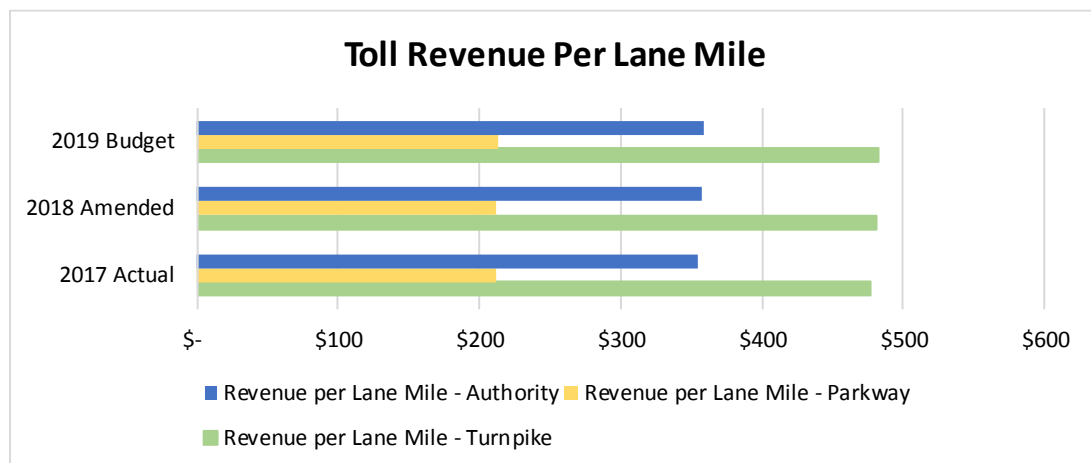


Figure 21: Toll Revenue/Lane Mile Graph

## 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 2018 Amended and 2019 Budget assume full spending of the snow budget, filling all vacancies, and wage increases for all union contracts, accounting for the increase over 2017 actual.

<b>Operating Cost Per Lane Mile</b>			
<i>(\$ In Thousands)</i>	<b>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>
Operating Expenses - Revenue Fund	\$ 508,125	\$ 570,951	\$ 582,071
Lane Miles - Authority	4,446	4,464	4,466
<b>Operating Cost Per Lane Mile - Authority</b>	<b>\$ 114</b>	<b>\$ 128</b>	<b>\$ 130</b>

Figure 22: Operating Cost/Lane Mile

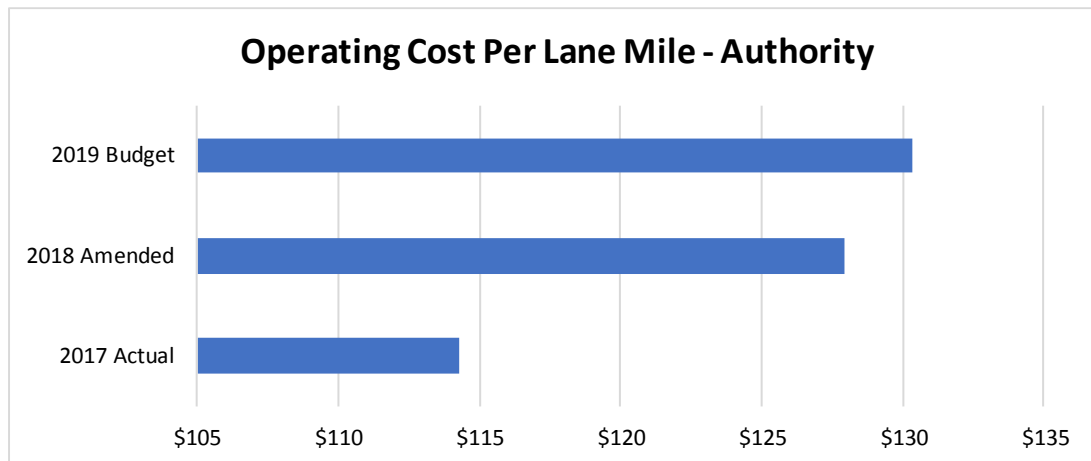


Figure 23: Operating Cost per Lane Mile

## Debt/Lane Mile

This ratio shows the Authority's bond indebtedness per lane mile as of 12/31 each year. Debt per lane mile has increased as the debt assumed to be issued in 2018 is for non-expansion capital projects.

<b>Debt per Lane Mile</b>			
<i>(\$ In Thousands)</i>	<b>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>
Bond Indebtedness, net	\$ 11,610,729	\$ 12,189,563	\$ 11,988,538
Lane Miles - Authority	4,446	4,464	4,466
<b>Debt per Lane Mile - Authority</b>	<b>\$ 2,612</b>	<b>\$ 2,731</b>	<b>\$ 2,684</b>

Figure 24: Debt/Lane Mile

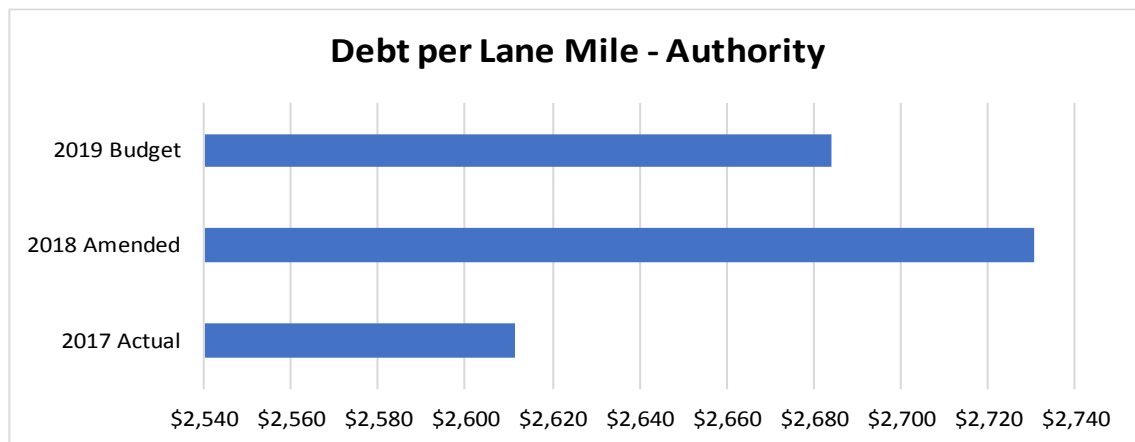


Figure 25: Debt/Lane Mile Graph

## 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 thirteen 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 96% 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 2019 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 2019 on both roadways due to normal growth and stable economic conditions. The toll revenue budget is based upon projections from a draft Toll Revenue Forecast study by CDM Smith dated September 27, 2018. Operating expense growth continues to be controlled, as the 2019 Operating Expense Budget will increase by less than 2%. The 2019 Annual Budget includes over \$376 million for Maintenance Reserve, Special Project Reserve and Supplemental Capital Projects, the highest these combined budgets have been since 2005. This being said, expected revenues are anticipated to be sufficient to meet the requirements of the Bond Resolution and all board adopted financial policies without the need for a toll increase.

A summary of the 2019 Annual Budget is as follows:

<b>Revenue</b>			
<b>In Thousands</b>	<b>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>
Toll Revenue	\$ 1,579,896	\$ 1,598,500	\$ 1,605,900
Other Revenue	218,604	234,675	227,505
<b>Total</b>	<b>\$ 1,798,500</b>	<b>\$ 1,833,175</b>	<b>\$ 1,833,405</b>

Figure 26: Annual Budget Revenue Summary (2017-2019)

### SIGNIFICANT REVENUE HIGHLIGHTS:

- Toll Revenue on the New Jersey Turnpike is expected to increase 0.6% compared to the 2018 budget and on the Garden State Parkway by 0.2% primarily reflecting normal growth due to the stable economic conditions and gas prices. This growth is expected despite the reopening of the Pulaski Skyway in July, 2018 and the return of traffic from the New Jersey Turnpike to the free route. In 2018, year-to-date toll revenue has exceeded budget and when adjusting for actual results, the 2019 budget represents a 0.3% increase.
- E-ZPass fees are expected to increase by \$1.5 million or 2.0% as compared to the 2018 budget due to higher administrative fees from enhanced collection efforts and an increase in monthly membership fees from a continued increase in the number of New Jersey E-ZPass account holders. In 2018, year-to-date fees have exceeded budget.

- Concession Revenue is budgeted to decline by \$6.0 million or 15%, due to the closure of service areas for renovation in 2019, as well as to reflect lower gas sales which have been under budget in 2018 and are expected to continue at the lower levels in 2019.
- Interest income is expected to increase by \$3.0 million or 13%. The 2019 budget assumes flat interest rates and invested balances compared to 2018 actuals. The 2018 actuals are expected to exceed budget.
- Miscellaneous revenue is expected to decrease by about \$6.0 million as the Authority received advance insurance payments from the Delaware River Turnpike Bridge claim during 2018 which are not expected to reoccur in 2019 for budget purposes.

<b>Spending</b>			
	<b>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>
Operating Expenses	\$ 508,125,000	\$ 570,951,000	\$ 582,071,000
Debt Service and Charges	822,989,000	795,645,000	832,826,000
Maintenance Reserve	99,255,000	134,247,000	185,025,000
Special Project Reserve	29,739,000	61,155,000	65,149,000
General Reserve	261,796,000	244,945,000	256,845,000
Supplemental Capital	50,970,000	165,628,000	126,520,000

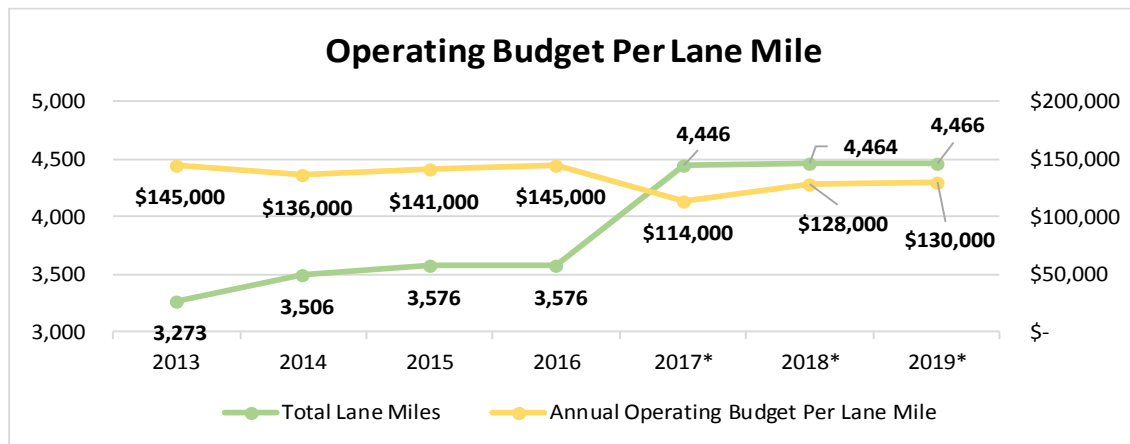
Figure 27: Annual Budget Spending Summary (2017-2019)

#### SIGNIFICANT SPENDING HIGHLIGHTS/CHALLENGES

- The 2019 Operating Expense Budget is \$582.1 million, or an increase of only 1.9%, and is driven by the increased volumes of traffic on the roadways, an increase in capacity from the lane miles added as part of the \$7 Billion CIP and the need to maintain assets in a state of good repair. The budget also provides funding for the Authority's continued commitment to improving safety for its patrons. In addition, the budget includes actual and potential wage increases, cost increases in pension and employee medical benefits as well as expected increases in property and general liability insurance premiums. The budget includes the wage impacts of the 2018 MOA's entered into with Authority's unions, in many cases funding settlement of wage increases dating back over eight years.
- The 2019 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 four 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 2019 Operating Expense Budget.
- The 2019 Debt Service Budget is increasing by over \$37.0 million to \$833 million, or about 4.7%, as compared to the 2018 Debt Service Budget. Debt service is increasing primarily due to a full year of interest payments on the \$525 million new money Turnpike Revenue Bonds expected to be issued in late 2018, as well as higher principal payments on existing bonds. By the end of 2019, the Authority is expected to have \$11.9 billion of debt outstanding. Debt Service spending currently equals 46% of the total spending included in the 2019 Annual Budget.

- The 2019 Maintenance Reserve Fund Budget is increasing by \$50.8 million, or 37.8%. The spending increase is to cover repaving as well as bridge re-decking. The \$185.0 million spending budget is necessary to continue to keep the overall aging system in a state of good repair.
- The 2019 Supplemental Capital Budget includes the carryover of the \$25 million in design projects that were approved in the Amended 2018 Budget.

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, 2018 and 2019 costs are essentially flat at around \$129,000 per lane mile.



\*2017 forward include toll plaza lane miles

Figure 28: Total Lane Miles and Operating Budget per Lane Mile (2013-2019)

When excluding the budget for costs associated with snow removal and severe weather, the 2019 budget for all other operating expenses of \$544.0 million is \$78.0 million higher than the 2012 budget for all other operating expenses of \$466.0 million, an increase of 16.7% over the six year period. This increase averages to only 2.4% per year. During this time, the Authority settled wages in 2018 with unions after eight years, significantly increased its state trooper compliment, absorbed cost increase in pension and health benefits, increased its maintenance expenditures and adopted a stable, conservative salary chargeback budgeting procedure providing for more capital dollars available. Several cost savings initiatives during this period helped offset the mentioned increases.

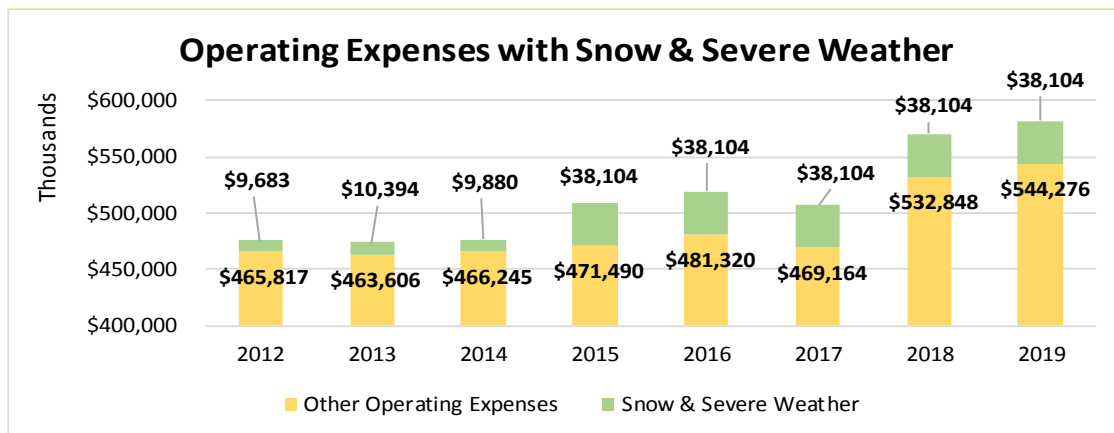


Figure 29: Operating Expenses with Snow and Severe Weather (2013-2019)



## REVENUE BUDGET

Total revenue in 2019 is budgeted at \$1,834,405,000, essentially flat in comparison to the Amended 2018 budgeted revenues, despite a more than \$7,000,000 million increase budgeted for toll revenue driven by increased traffic. It should be noted that the Amended 2018 Revenue Budget was increased by \$45,500,000 over the original 2018 Budget. Total revenue is flat due to the elimination of about \$11,000,000 in revenue not budgeted to reoccur in 2019.

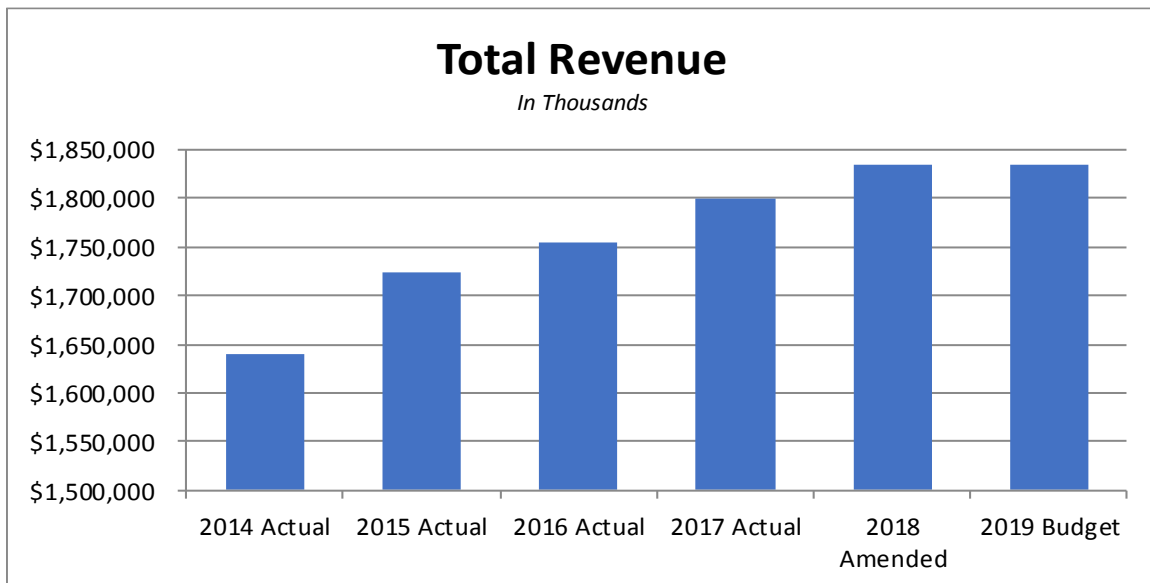


Figure 30: Total Annual Revenue (2014-2019)

Toll revenue comprises 87.6% of total revenue. Toll revenue in 2019 is budgeted at \$1,605,900,000, which represents an increase of 0.5% compared to the Amended 2018 Budget. Turnpike toll revenue is expected to increase 0.6% and Parkway toll revenue is expected to increase by 0.2% primarily due to normal growth resulting from stable economic conditions. Traffic and revenue forecasts are contained in the September 27, 2018 draft report by CDM Smith, the Authority's Traffic Engineering Consultant. It should be noted that the Authority has exceeded its original 2018 toll revenue budget through September 2018. The current forecasts used for the 2019 budget were completed after the Amended 2018 Budget was adopted and included adjustments for actual experience. The increase in the 2019 budget as compared to the Amended 2018 budget includes normal growth of about 1.3%, slightly offset by the loss of traffic on the Turnpike due to the full year opening of the Pulaski Skyway, and the impacts of one-way tolling at Exit 145 on the Parkway, compared to the prior forecast.

## OPERATING EXPENSE BUDGET

The 2019 Operating Expense Budget of \$582,071,000 is increasing by \$11,120,000, or 1.9%, compared to the Amended 2018 Operating Expense Budget. Key cost factors in the 2019 Operating Expense Budget are as follows:

- Increased medical insurance costs of \$6.7 million based upon estimated usage and medical inflation rates.
- Increased salaries & wages of approximately \$4.0 million reflecting the addition of 28 net new positions, actual wage increases and potential future wage increases after July 1, 2019.
- Increased roadway maintenance costs of \$3.3 million primarily for drainage and lighting repairs.

- Increased electronic toll collection costs of \$2.0 million due to higher credit card fees and transaction processing and collection costs driven by increased volume.
- Increased insurance costs of \$1.1 million due to expected premium increases for general liability and property insurance.
- Increased state police costs of \$1.0 million due to 23 anticipated additional troopers assigned to the roadways as well as higher wages and pension costs for existing troopers.

The proposed 2019 Operating Expense Budget is increasing by only \$11,120,000. This modest increase was achieved because the Authority is expected to achieve savings in several areas including lower transponder expenses as a significant tag swap program will be completed in mid-2019, savings from new prescription drug, dental and vision benefit contracts, the elimination of the summer season manual toll collector program through reassignment of existing staff, and lower equipment maintenance costs from the elimination of ACM machines on the Garden State Parkway mainline barriers and the installation of new toll collection equipment at various locations on both roads.

After eleven consecutive years of decline following the merger of the New Jersey Turnpike Authority and New Jersey Highway Authority, authorized headcount is once again increasing slightly (28 positions) since the low in 2014 primarily due to the need to add maintenance personnel to handle the increased roadway capacity. Authorized headcount for 2019 still remains more than 500 positions lower than the 2005 authorized headcount.

Authorized headcount since 2005 is shown below:

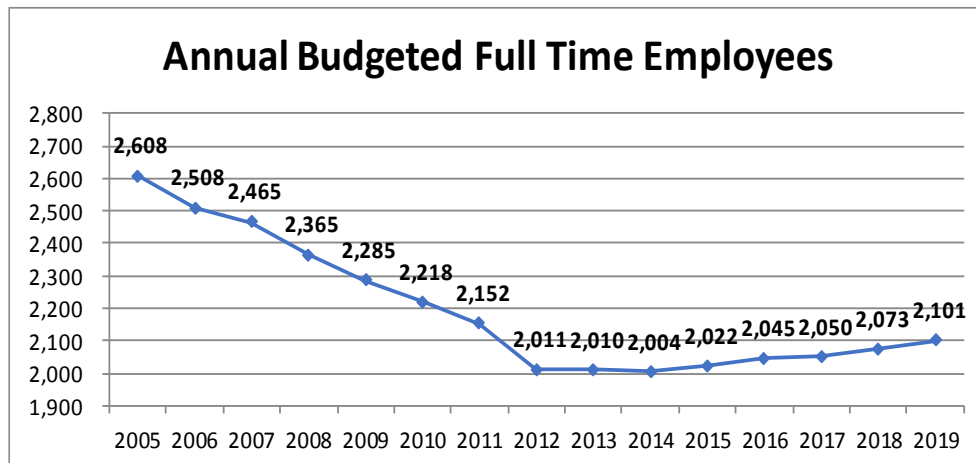
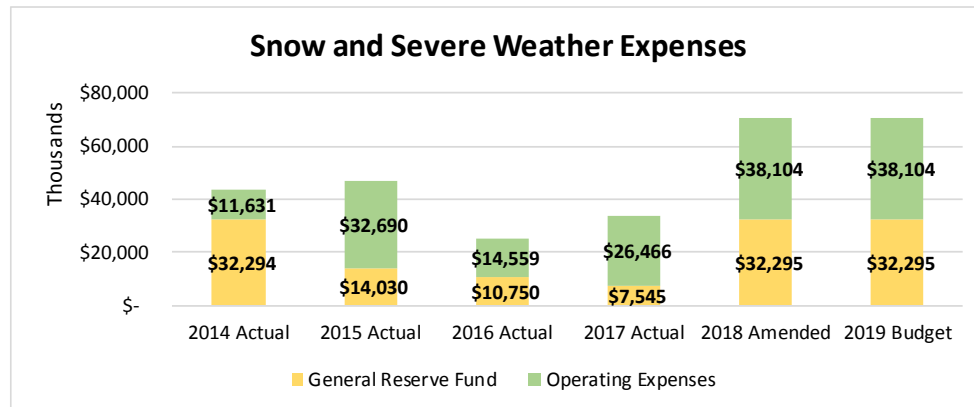


Figure 31: Authorized Headcount (2005-2019)

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 2019 as 2018, based upon the high spending levels of 2014 and 2015. In fact, the levels budgeted in 2019 have been the same for the past four years.



**Figure 32: Snow and Severe Weather Expenses (2014-2019)**

**DEBT SERVICE BUDGET**

Total Debt Service in 2019 is budgeted at \$832,826,000, which is a \$37,181,000 increase from the Amended 2018 Debt Service Budget. Debt service is increasing due to a full year of interest payments on the \$525 million of new money bonds, the final borrowing to fund the \$7 Billion CIP. By the end of 2019, the Authority is expected to have \$11.9 billion of debt outstanding. Debt Service spending currently equals 46% of the total spending included in the 2019 Annual Budget.

**CHARGES BUDGET**

The Series 2000B-G Bonds were refunded in October 2017, therefore eliminating the remarketing fees, which were the only remaining fees paid through this fund. This budget section will be eliminated entirely in the 2020 Annual Budget.

**MAINTENANCE RESERVE FUND BUDGET**

The total 2019 spending budget for the Maintenance Reserve Fund is \$185,025,000, representing an increase of \$50,778,000, or 37.8%, from 2018 budgeted levels. In 2019, the budget includes increased funding for repairs to drainage structures, and concrete barriers, with the majority of the spending increase for resurfacing and bridge re-decking. The 2019 Maintenance Reserve Fund Budget is based upon repair cycle best practices as determined by the Authority's General Consulting Engineer.

**SPECIAL PROJECT RESERVE FUND BUDGET**

The total 2019 spending budget for the Special Project Reserve Fund is \$65,149,000, representing an increase of \$3,994,000 from 2018 budgeted levels. Major projects budgeted for 2019 include major fleet augmentation, which replaces rolling stock with a value of \$50,000 or higher on a rotating basis, bridge and structure inspections, and the pavement management system. The budget also includes funding for underground storage tank replacement.

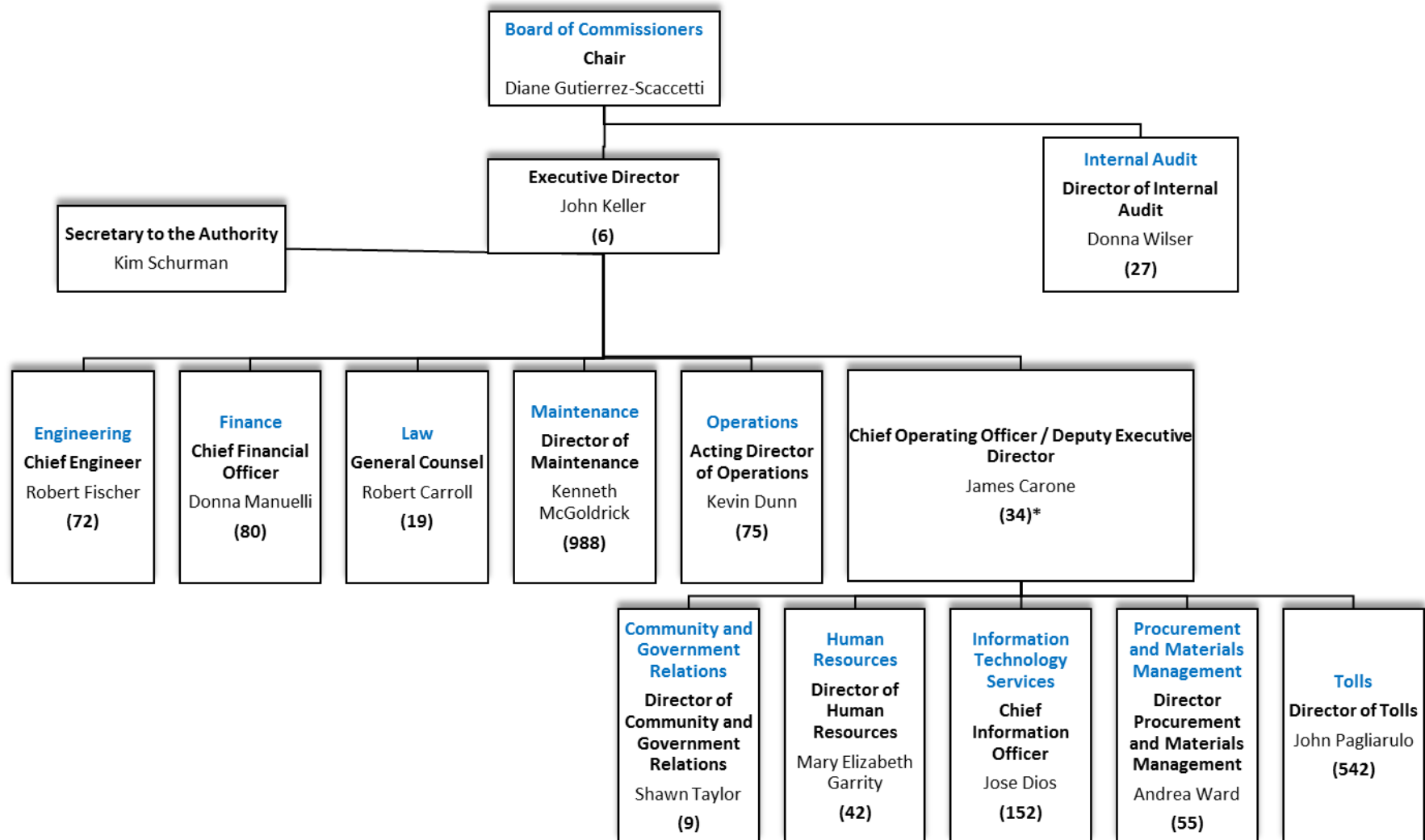
**GENERAL RESERVE FUND (INCLUDING SUPPLEMENTAL CAPITAL) BUDGET**

The total 2019 spending budget for the General Reserve Fund, which includes Supplemental Capital, is \$383,365,000, which is a decrease of \$27,208,000 from the Amended 2018 Budget primarily due to the decline in payments to the state under the State Transportation Projects Funding Agreement (2016-2021). In addition, no additional Garden State Parkway resurfacing work is included as any necessary work is all being funded from Maintenance Reserve in 2019. Funding is included in 2019 for service area improvements, reconstruction of the Westerly Hackensack River Bridge Piers on the Turnpike, and Arts Center Improvements. The 2019 Budget also includes the carry-over budget for the \$25 million in design work approved in the Amended 2018 Budget that previously did not have a funding source. The 2019 General Reserve Budget includes a first ever \$25 million transfer to the Revenue Fund Construction Account within the Construction Fund to fund the replacement of three bridges crossing the Passaic River.

**SUMMARY**

The 2019 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 2019 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 minimum unencumbered General Reserve Fund balance in excess of \$175 million, without the need for a toll increase.

## Organization Chart



Departmental full-time employee count is shown in parenthesis.

\* The 7 full-time employees in the Patron Services Department, the 8 full-time employees in the State Police department, and the 19 full time employees in the Automotive section of the Maintenance Department report directly to the COO/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.

**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. 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.

[Flow of Funds table referenced on page 157](#)

## Revenue Requirement

The Revenue Requirement under section 713(b) of the Bond Resolution states that in each calendar year Net Revenues shall at least equal the Net Revenue Requirement for such year. Under Section 101 of the Bond Resolution, Net Revenues are defined as "... for any calendar year or other period of time, the Pledged Revenues 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 Revenues 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>2017 Actual</b>	<b>2018 Est/Act</b>	<b>2019 Budget</b>
(i) Revenues	\$ 1,798,500	\$ 1,838,472	\$ 1,833,405
Operating Expenses	(508,125)	(557,951)	(582,071)
<b>Net Revenues</b>	<b>1,290,375</b>	<b>1,280,521</b>	<b>1,251,334</b>
Debt Service Requirements	(822,984)	(792,574)	(832,823)
Charges Fund	(115)	-	-
Maintenance Reserve Payments	(116,751)	(119,086)	(131,468)
Special Project Reserve Payments	(39,696)	(40,490)	(41,300)
<b>Total Requirements</b>	<b>\$ (979,546)</b>	<b>\$ (952,150)</b>	<b>\$ (1,005,591)</b>
<b>Excess Revenues</b>	<b>\$ 310,829</b>	<b>\$ 328,371</b>	<b>\$ 245,743</b>
(ii) Net Revenues	\$ 1,290,375	\$ 1,280,521	\$ 1,251,334
1.2X Debt Service	(987,581)	(951,089)	(999,388)
<b>Excess Revenues at 1.2X Debt Service</b>	<b>\$ 302,794</b>	<b>\$ 329,432</b>	<b>\$ 251,946</b>
<b>Debt Service Coverage</b>	<b>1.57</b>	<b>1.62</b>	<b>1.50</b>

Figure 34: Net Revenue Requirement (2017-2019)

Based on the above review, Net Revenues for 2018 and 2019 will be sufficient to meet the Net Revenue Requirement.

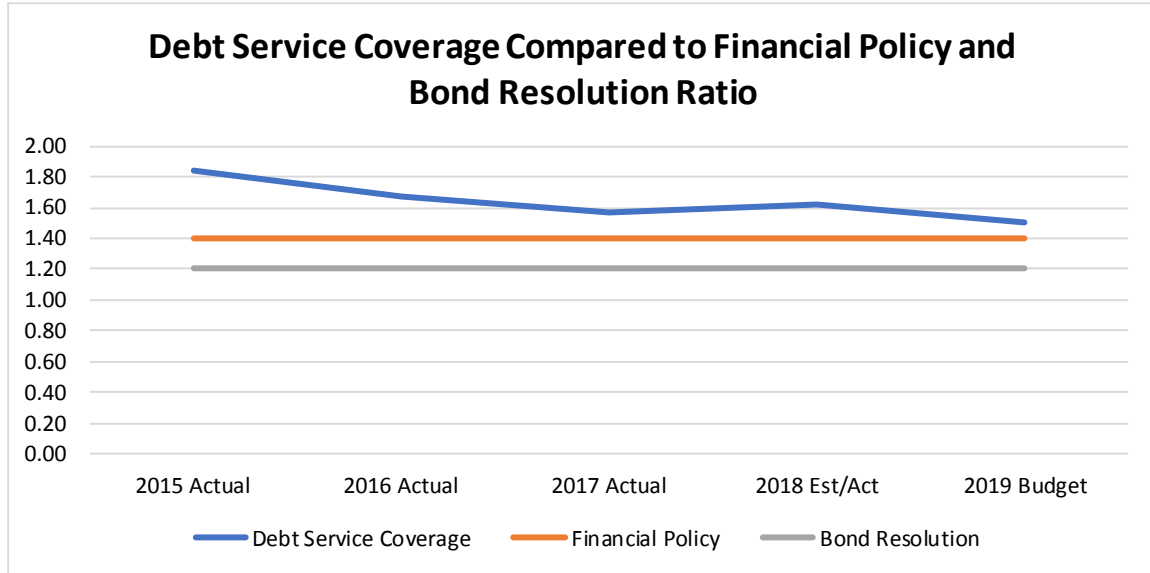


Figure 35: Debt Service Coverage Ratio Chart (2017-2019)

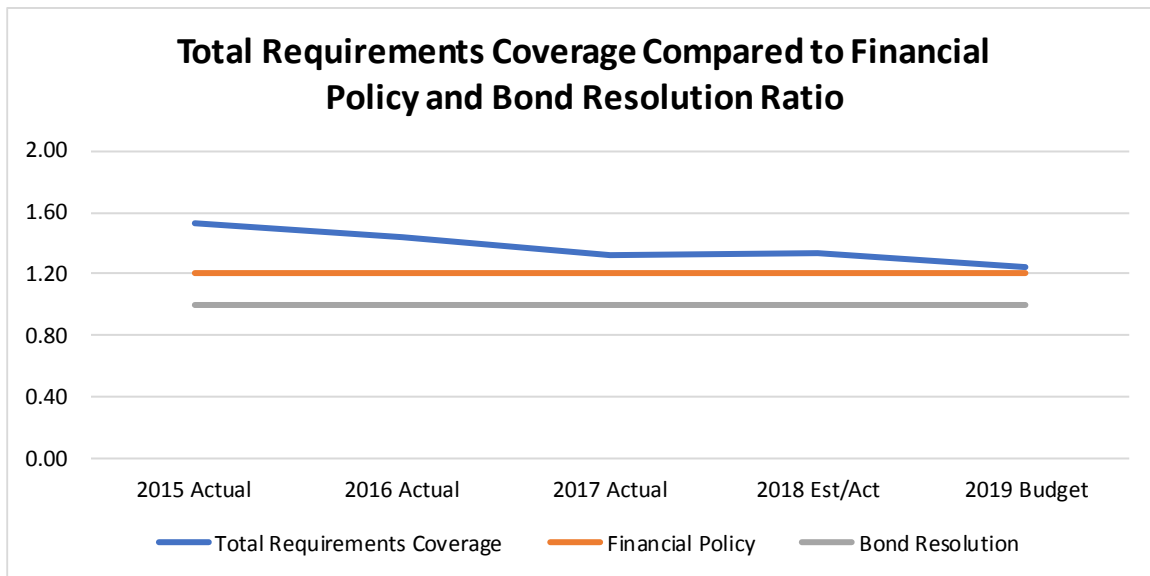


Figure 36: Total Requirements Ratio Chart (2017-2019)



## 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, contrary to the cash basis in which revenues are reported on the income statement when the cash is received and expenses are recognized when the cash is paid. 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 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 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. 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 Operating Budget. The Maintenance Reserve Fund, Special Project Reserve Fund and General Reserve Fund (including the Supplemental Capital Fund within the General Reserve Fund) may contain capitalized projects. The budget for each fund 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.

In addition to the Annual Budget required by the 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, 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, consisting of budgets for Revenue, Operating Expenses, Debt Service, Charges, Maintenance Reserve Fund, Special Project Reserve Fund, Supplemental Capital and the General Reserve Fund, is presented to the Board of Commissioners in public session for adoption at the October Board of Commissioners meeting.

A summary of the 2019 Annual Budget calendar is as follows:

Action	Date
Executive Budget Planning Meeting	5/29/18
2019 Annual Budget Preparation Kickoff	6/12/18
Distribution of Capital Budget Documents to Departments	Week of 6/18/18
Distribution of Operating Budget to Departments	Week of 6/25/18
Individual Department Budget Meetings with Finance Department	Week of 7/9/18
Response from Departments for Capital Budget	7/13/18
Capital Budget Departmental Review with Finance	Week of 7/23/18
Response from Departments for Operating Budget	7/27/18
Capital Budget Request Inter-Department Review with Departments, Finance, & Executive	Week of 7/30/18
Operating Budget Request Review with Individual Departments, Finance, & Executive	Week of 8/13/18
Capital Budget Finalization Meeting	Week of 9/10/18
Operating Budget Finalization Meeting	Week of 9/17/18
Executive Budget Final Review Meeting	Week of 9/24/18
Budget Presentation at Board Committee Meeting	10/9/18
Budget Approved at Meeting of Board of Commissioners	10/23/2018
Governor's 10-day veto period expires without Governor exercising said power	(estimated) 11/2/18

Figure 37: 2019 Annual Budget Calendar

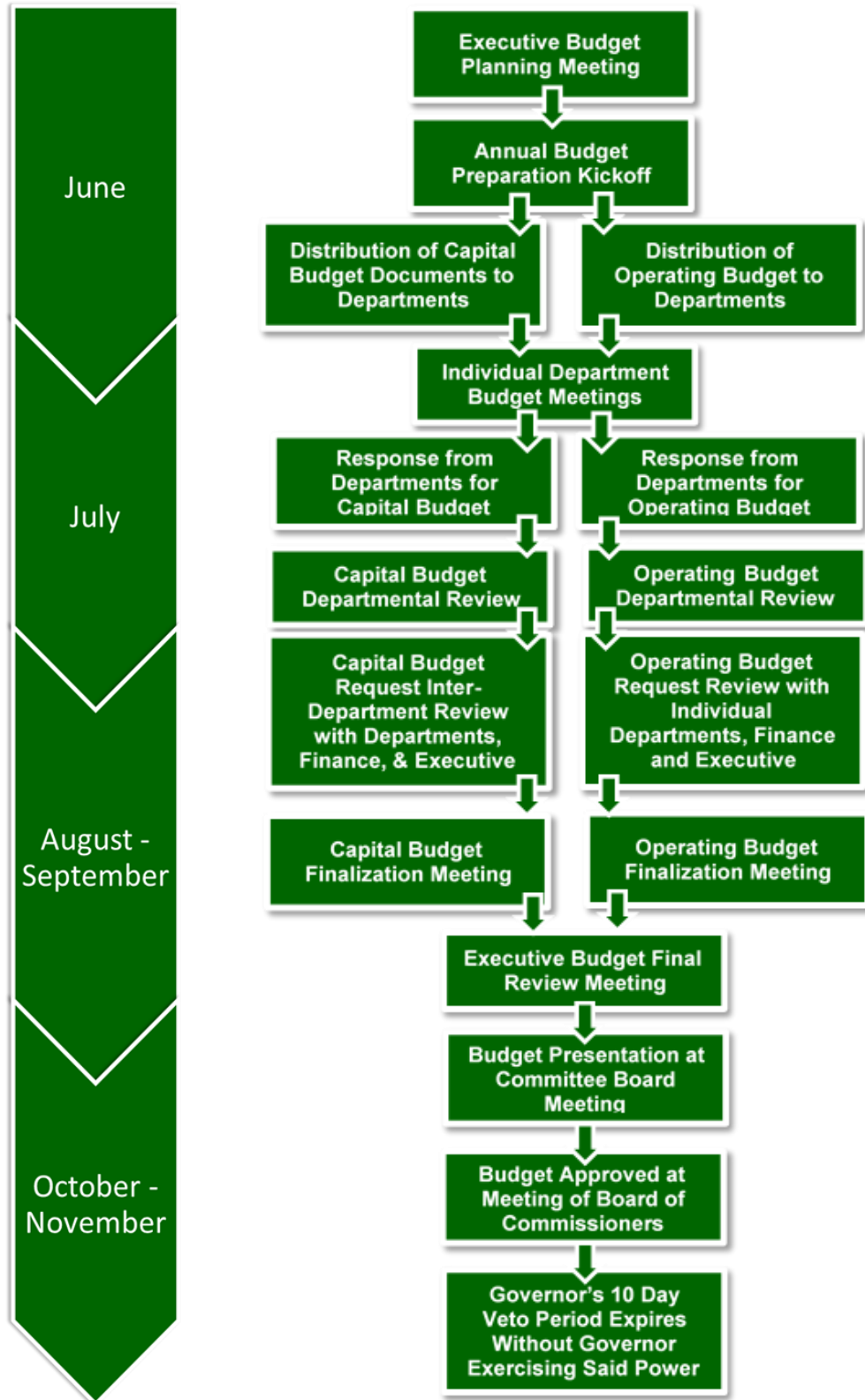


Figure 38: Budget Procedure Flow

## Summary of Major Revenues and Expenses

### Sources of Revenue

Sources of Revenue					
(In Thousands)	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Turnpike Toll Revenue	\$ 1,151,739	\$ 1,165,300	\$ 1,171,737	\$ 6,437	0.6%
Parkway Toll Revenue	428,157	\$ 433,200	434,163	963	0.2%
Other Operating Revenue	120,834	133,000	122,501	(10,499)	-7.9%
Non-Operating Revenue	97,770	101,675	105,004	3,329	3.3%
<b>Total Revenue</b>	<b>\$ 1,798,500</b>	<b>\$ 1,833,175</b>	<b>\$ 1,833,405</b>	<b>\$ 230</b>	<b>0.0%</b>

Figure 39: Sources of Revenue (2017-2019)

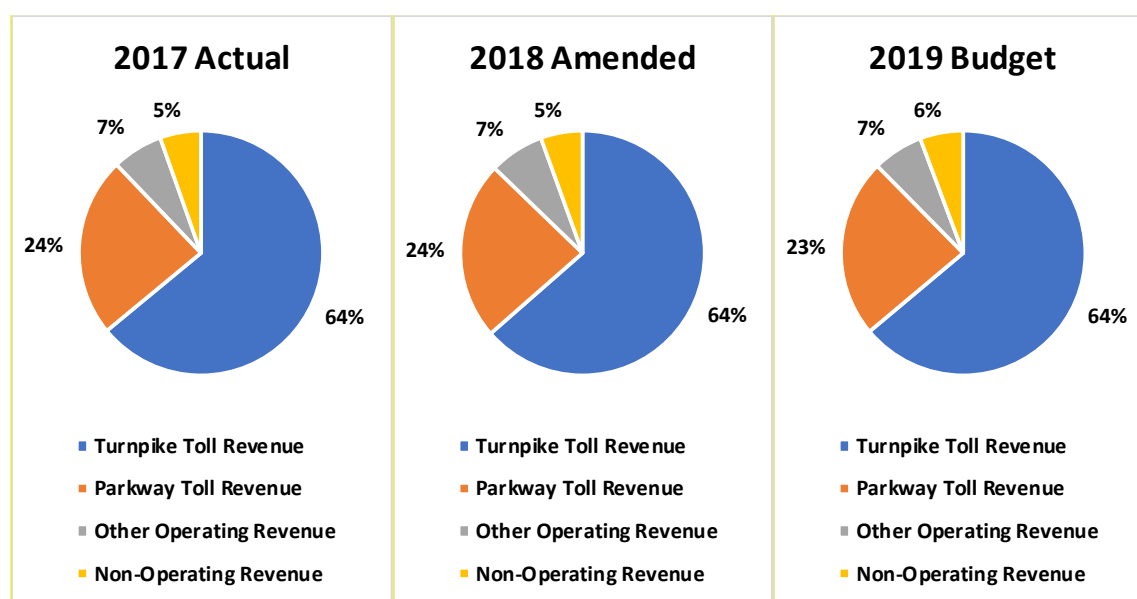


Figure 40: Sources of Revenue Percentages (2017-2019)

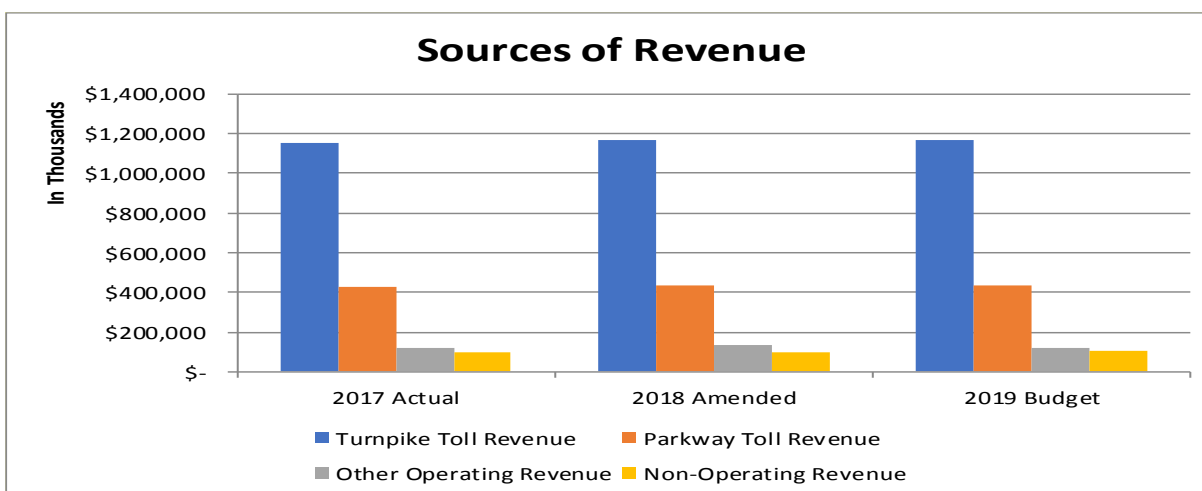


Figure 41: Sources of Revenue Graph (2017-2019)

## Allocation of Revenue

Allocation of Revenue					
<i>(In Thousands)</i>	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Operating Expenses	\$ 508,125	\$ 570,951	\$ 582,071	\$ 11,120	1.9%
Debt Service & Charges	823,100	795,645	832,823	37,178	4.7%
Maintenance Reserve Fund	116,751	119,086	131,468	12,382	10.4%
Special Project Reserve Fund	39,696	40,490	41,300	810	2.0%
General Reserve Fund	310,828	307,003	245,743	(61,260)	-20.0%
<b>Total Allocation of Revenue</b>	<b>\$ 1,798,500</b>	<b>\$ 1,833,175</b>	<b>\$ 1,833,405</b>	<b>\$ 230</b>	<b>0.0%</b>

Figure 42: Allocation of Revenue (2017-2019)

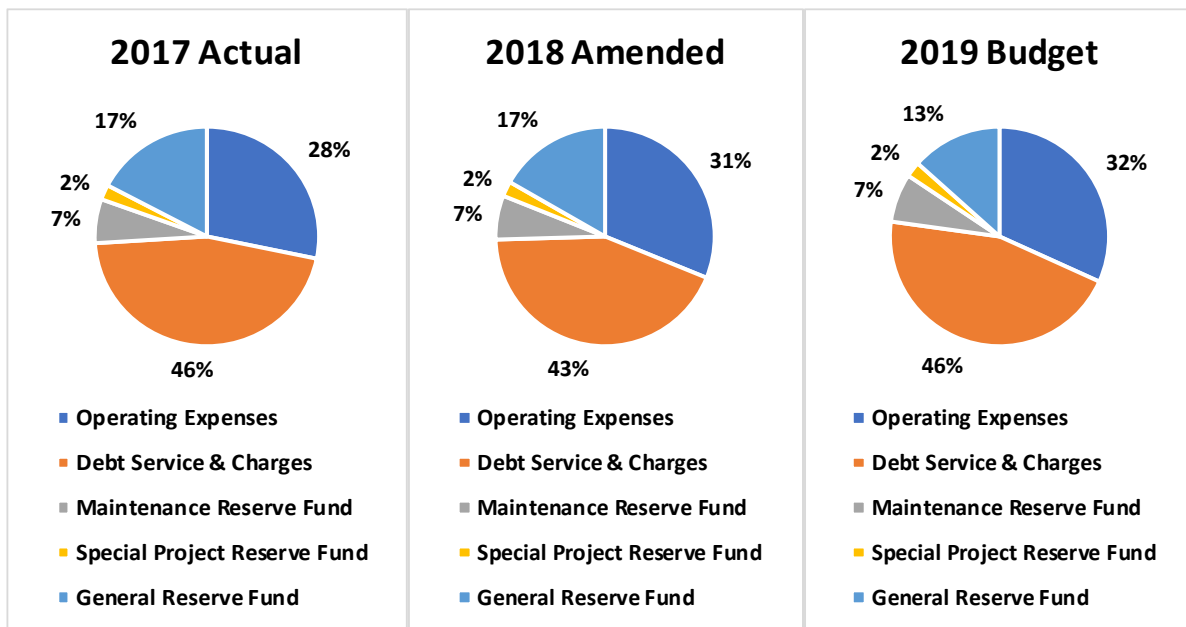


Figure 43: Allocation of Revenue Percentages (2017-2019)

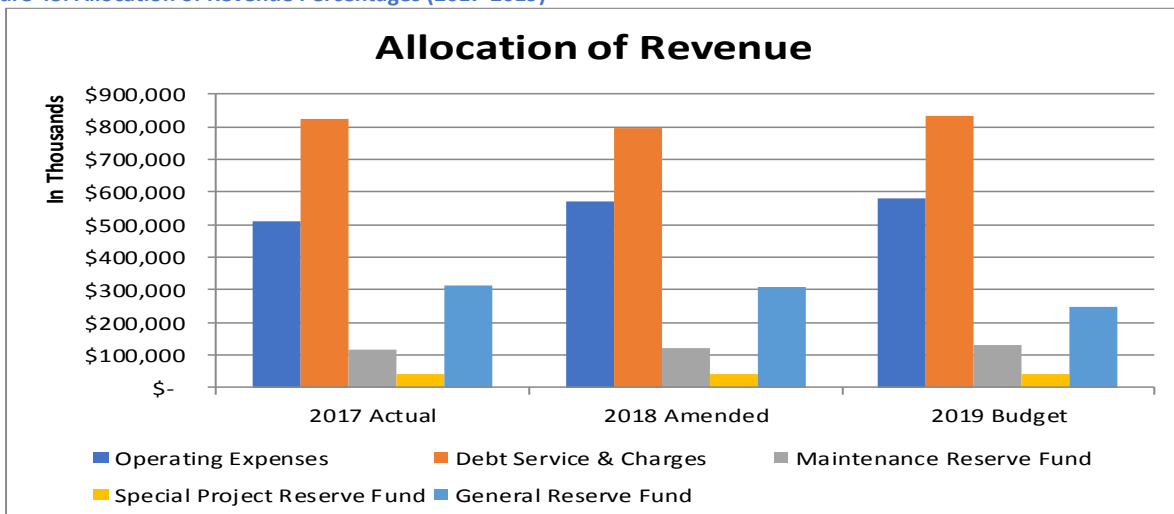


Figure 44: Allocation of Revenue Graph (2017-2019)

## Revenue

### 2019 Revenue Budget

Revenue Budget					
(In Thousands)	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Turnpike Toll Revenue	\$ 1,151,739	\$ 1,165,300	\$ 1,171,737	\$ 6,437	0.6%
Parkway Toll Revenue	428,157	433,200	434,163	963	0.2%
E-ZPass Fees	60,505	76,000	77,500	1,500	2.0%
Concessions	35,591	40,000	34,000	(6,000)	-15.0%
Miscellaneous	24,738	17,000	11,001	(5,999)	-35.3%
<b>Total Operating Revenue</b>	<b>1,700,730</b>	<b>1,731,500</b>	<b>1,728,401</b>	<b>(3,099)</b>	<b>-0.2%</b>
Federal Subsidy for Build America Bonds	76,153	76,275	76,602	327	0.4%
Interest Income	17,556	21,998	25,000	3,002	13.6%
Arts Center Revenues	4,061	3,402	3,402	-	-
<b>Total Non-Operating Revenue</b>	<b>97,770</b>	<b>101,675</b>	<b>105,004</b>	<b>3,329</b>	<b>3.3%</b>
<b>Total Revenues</b>	<b>\$ 1,798,500</b>	<b>\$ 1,833,175</b>	<b>\$ 1,833,405</b>	<b>\$ 230</b>	<b>0.0%</b>

Figure 45: Revenue Budget (2017-2019)

#### Key Assumptions:

- Toll Revenue on the New Jersey Turnpike is expected to increase by 0.6% in 2019 compared to the Amended 2018 Budget, as a result of normal growth and stable economic conditions, slightly offset by the re-opening of the Pulaski Skyway for a full year in 2019. Garden State Parkway toll revenue is expected to increase by 0.2% compared to the Amended 2018 Budget, reflecting normal growth due to the stable economic conditions and gas prices, slightly offset by impacts of one-way tolling at Exit 145.
- E-ZPass Fees are expected to increase reflecting normal growth as New Jersey E-ZPass accounts continue to rise. To date in 2018, actual E-ZPass Fees are above budget.
- Concession revenue is expected to decrease due to the closure of service areas for remodeling, and an adjustment to budget as 2018 revenue is under budget primarily due to lower gas sales.
- Interest Income is increasing in 2019. The 2019 budget assumes flat interest rates and invested balances compared to 2018 actuals. 2018 actuals are expected to exceed budget.
- Miscellaneous revenue is projected to decline primarily due to nonrecurring advance insurance payments received in 2018.

Revenue Fund Balance					
	2017 Actuals	2018 Est/Act	2019 Budget	2018 to 2019 \$ Change	2018 to 2019 % Change
Beginning Balance	\$ 58,207	\$ 58,207	\$ 58,207	-	-
Revenues	1,798,500	1,838,472	1,833,405	(5,067)	-0.3%
Expenses	(508,125)	(557,951)	(582,071)	(24,120)	4.3%
Transfers to Funds	(1,290,375)	(1,280,521)	(1,251,334)	29,187	-2.3%
<b>Ending Balance</b>	<b>\$ 58,207</b>	<b>\$ 58,207</b>	<b>\$ 58,207</b>	<b>-</b>	<b>-</b>

Figure 46: Revenue Fund Balance (2017-2019)

## Toll Statistics

### Toll Transactions by Vehicle Type and Roadway

<b>Toll Transactions by Vehicle Type and Roadway</b>					
<i>(In Thousands)</i>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018*</b>	<b>2019**</b>
New Jersey Turnpike Passenger	215,359	223,634	227,979	227,416	226,213
New Jersey Turnpike Commercial	31,238	31,860	32,686	34,196	34,895
<b>New Jersey Turnpike Total</b>	<b>246,597</b>	<b>255,494</b>	<b>260,665</b>	<b>261,612</b>	<b>261,108</b>
<b>Garden State Parkway</b>	<b>379,284</b>	<b>389,609</b>	<b>392,895</b>	<b>396,713</b>	<b>384,049</b>
<b>Total Authority Toll Transactions</b>	<b>625,881</b>	<b>645,103</b>	<b>653,560</b>	<b>658,325</b>	<b>645,157</b>

<b>Toll Transactions Growth Rate</b>					
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018*</b>	<b>2019**</b>
New Jersey Turnpike Passenger	6.4%	3.8%	1.9%	-0.2%	-0.5%
New Jersey Turnpike Commercial	4.5%	2.0%	2.6%	4.6%	2.0%
<b>New Jersey Turnpike Total</b>	<b>6.2%</b>	<b>3.6%</b>	<b>2.0%</b>	<b>0.4%</b>	<b>-0.2%</b>
<b>Garden State Parkway</b>	<b>2.4%</b>	<b>2.7%</b>	<b>0.8%</b>	<b>1.0%</b>	<b>-3.2%</b>
<b>Total Authority Toll Transactions</b>	<b>3.9%</b>	<b>3.1%</b>	<b>1.3%</b>	<b>0.7%</b>	<b>-2.0%</b>

Figure 47: Toll Transactions by Vehicle Type and Roadway (2015-2019)

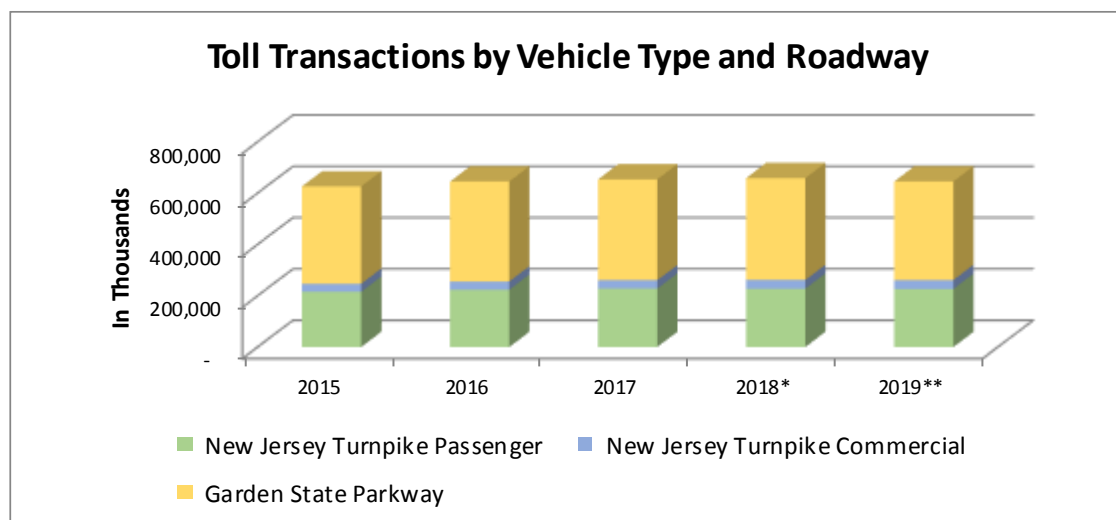
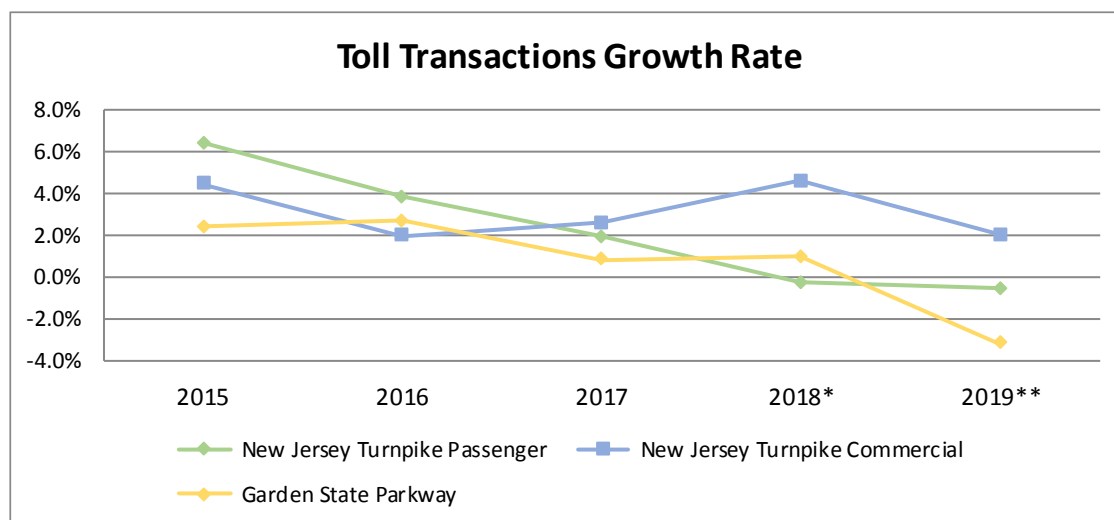


Figure 48: Total Toll Transactions (2015-2019)





**Figure 49: Toll Transactions Percent Change (2015-2019)**

\* Projected Traffic is based on actuals through July and estimates through the remainder of the year from the CDM Smith Draw Down Letter issued in March 2017 which updated the short-term projections of their Investor Grade Traffic & Revenue Study released in May 2014.

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

#### Toll Revenue by Vehicle Type and Roadway

<b>Toll Revenue by Vehicle Type and Roadway</b>					
<i>(In Thousands)</i>	2015	2016	2017	2018*	2019**
New Jersey Turnpike Passenger	745,007	776,337	780,182	795,751	794,819
New Jersey Turnpike Commercial	361,261	368,221	371,557	369,549	376,918
<b>New Jersey Turnpike Total</b>	<b>1,106,268</b>	<b>1,144,558</b>	<b>1,151,739</b>	<b>1,165,300</b>	<b>1,171,737</b>
Garden State Parkway	416,865	426,104	428,157	433,200	434,163
<b>Total Authority Toll Revenue</b>	<b>1,523,133</b>	<b>1,570,662</b>	<b>1,579,896</b>	<b>1,598,500</b>	<b>1,605,900</b>

<b>Toll Revenue Growth Rate</b>					
	2015	2016	2017	2018*	2019**
New Jersey Turnpike Passenger	7.2%	4.2%	0.5%	2.0%	-0.1%
New Jersey Turnpike Commercial	5.4%	1.9%	0.9%	-0.5%	2.0%
<b>New Jersey Turnpike Total</b>	<b>6.6%</b>	<b>3.5%</b>	<b>0.6%</b>	<b>1.2%</b>	<b>0.6%</b>
Garden State Parkway	2.2%	2.2%	0.5%	1.2%	0.2%
<b>Total Authority Toll Revenue</b>	<b>5.4%</b>	<b>3.1%</b>	<b>0.6%</b>	<b>1.2%</b>	<b>0.5%</b>

**Figure 50: Toll Revenue by Vehicle Type and Roadway (2015-2019)**

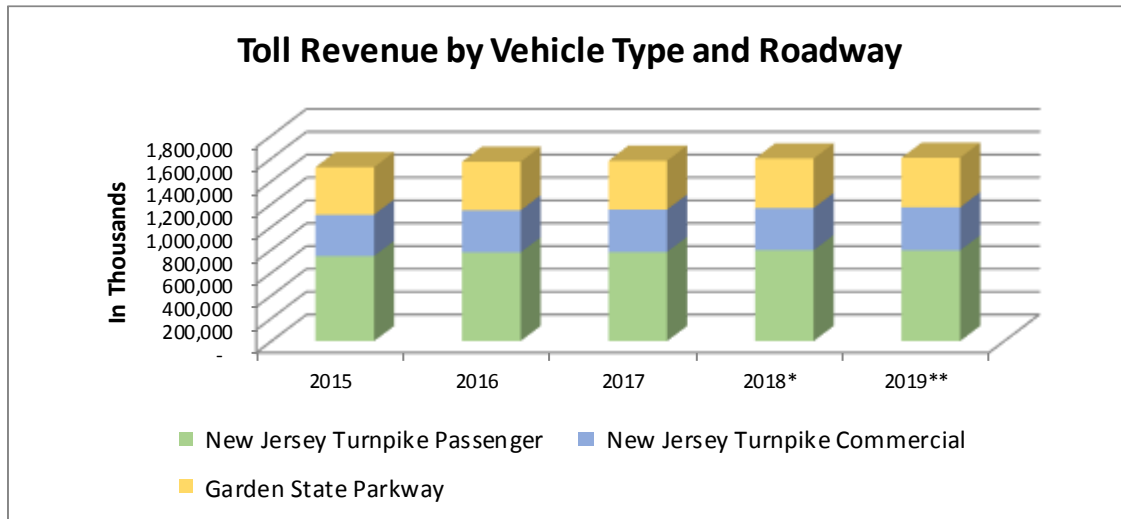


Figure 51: Total Toll Revenue (2015-2019)

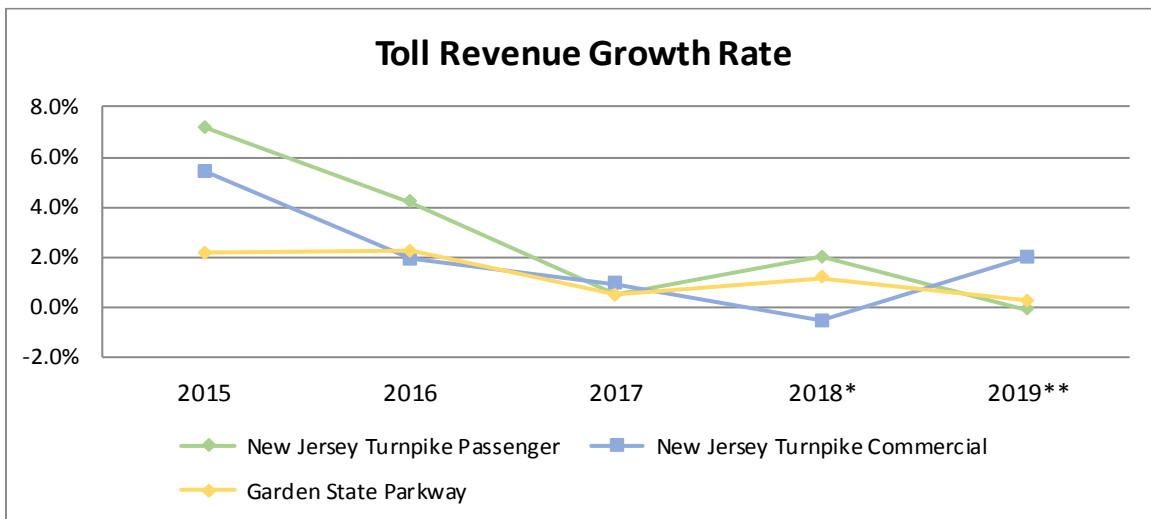


Figure 52: Toll Revenue Percent Change (2015-2019)

\* Projected Traffic is based on actuals through July and estimates through the remainder of the year from the CDM Smith Draw Down Letter issued in March 2017 which updated the short-term projections of their Investor Grade Traffic & Revenue Study released in May 2014.

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

## 2019 Operating Budget

Operating Budget by Functional Area					
	2017 Actuals	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Maintenance	\$ 203,241,000	\$ 222,966,000	\$ 230,098,000	\$ 7,132,000	3.2%
Engineering	11,891,000	9,718,000	10,822,000	1,104,000	11.4%
<b>Total Maintenance of Infrastructure</b>	<b>215,132,000</b>	<b>232,684,000</b>	<b>240,920,000</b>	<b>8,236,000</b>	<b>3.5%</b>
Toll Collection	146,151,000	171,122,000	168,721,000	(2,401,000)	-1.4%
<b>Total Toll Collection</b>	<b>146,151,000</b>	<b>171,122,000</b>	<b>168,721,000</b>	<b>(2,401,000)</b>	<b>-1.4%</b>
Operations	12,602,000	12,140,000	12,293,000	153,000	1.3%
State Police	66,626,000	86,526,000	87,517,000	991,000	1.1%
<b>Total Traffic Control &amp; State Police</b>	<b>79,228,000</b>	<b>98,666,000</b>	<b>99,810,000</b>	<b>1,144,000</b>	<b>1.2%</b>
Information Technology Services	21,722,000	23,168,000	24,796,000	1,628,000	7.0%
<b>Total Technology</b>	<b>21,722,000</b>	<b>23,168,000</b>	<b>24,796,000</b>	<b>1,628,000</b>	<b>7.0%</b>
Executive Office	1,189,000	1,095,000	1,389,000	294,000	26.8%
Law & Insurance Services	10,480,000	10,776,000	11,165,000	389,000	3.6%
Purchasing & Materials Management	9,611,000	9,486,000	7,914,000	(1,572,000)	-16.6%
Human Resources & Office Services	5,861,000	5,924,000	6,397,000	473,000	8.0%
Finance	12,754,000	12,455,000	13,730,000	1,275,000	10.2%
Community & Patron Relations	2,047,000	1,977,000	2,574,000	597,000	30.2%
Internal Audit	3,949,000	3,596,000	4,654,000	1,058,000	29.4%
<b>Total General &amp; Administrative</b>	<b>45,891,000</b>	<b>45,309,000</b>	<b>47,823,000</b>	<b>2,514,000</b>	<b>5.5%</b>
<b>Total Operating Budget</b>	<b>508,125,000</b>	<b>570,951,000</b>	<b>582,071,000</b>	<b>11,120,000</b>	<b>1.9%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

Figure 53: Operating Budget (2017-2019)

- Key cost factors in the 2019 Operating Expense Budget are as follows:
  - Medical insurance costs are increasing by approximately \$6.7 million based upon estimated usage and medical inflation rates.
  - Salaries and Wages are increasing by approximately \$4.0 million, reflecting an additional 28 net new positions, wage increases for employees and potential wage increases, after July 1, 2019.
  - Roadway maintenance is increasing by approximately \$3.3 million primarily for drainage and lighting repairs on the roadways.
  - Electronic toll collection costs are increasing by \$2.0 million due to higher credit card fees and transaction processing and collection costs driven by increased volume.
  - Insurance costs are increasing approximately \$1.1 million due to expected premium increases for general liability and property insurance as insured values increase.

- State police costs are increasing by approximately \$1.0 million due to 23 anticipated additional troopers assigned to the roadways as well as higher wages and pension costs for existing troopers.
  - Snow costs continued to be budgeted at \$38.1 million, consistent with the past four years budgets.
- The proposed 2019 Operating Expense Budget is increasing by \$11.2 million, driven by approximately \$18.1 million in increases in the key cost factors, offset by savings from lower transponder expenses as a significant tag swap program will be completed in mid-2019, savings from new prescription drug, dental and vision benefit contracts, the elimination of the summer season manual toll collector program through reassignment of existing staff, and lower equipment maintenance costs from both the elimination of Automatic Coin Machines (ACM) on the Garden State Parkway mainline barriers and the installation of new toll collection equipment at various locations on both roads.

## Budget by Functional Area

Operating Budget Functional Area Summary					
	2017 Actuals	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Maintenance of Infrastructure	\$ 215,132,000	\$ 232,684,000	\$ 240,920,000	\$ 8,236,000	3.5%
Toll Collection	146,151,000	171,122,000	168,721,000	(2,401,000)	-1.4%
Traffic Control & State Police	79,228,000	98,666,000	99,810,000	1,144,000	1.2%
Technology	21,722,000	23,168,000	24,796,000	1,628,000	7.0%
General & Administrative	45,891,000	45,309,000	47,823,000	2,514,000	5.5%
<b>Total Operating Budget</b>	<b>\$ 508,125,000</b>	<b>\$ 570,951,000</b>	<b>\$ 582,071,000</b>	<b>\$ 11,121,000</b>	<b>1.9%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

Figure 54: Budget by Functional Area (2017-2019)

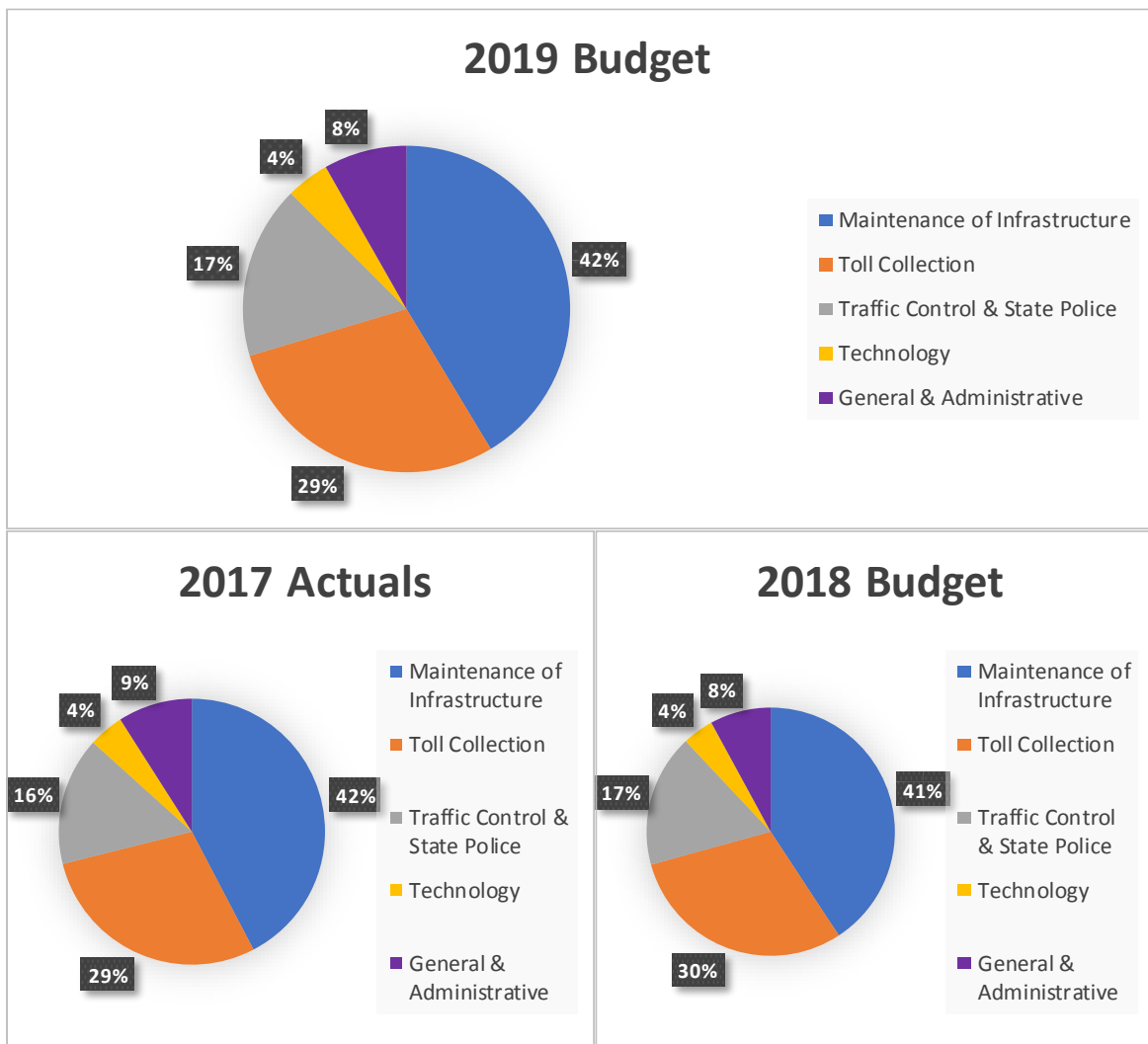


Figure 55: Budget by Functional Area Percentages (2017-2019)

## Budget by Expense Type

Operating Budget by Expense Type					
	2017 Actuals	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Personnel Costs	\$ 284,476,000	\$ 287,936,000	\$ 289,805,000	\$ 1,869,000	0.6%
Materials & Supplies	37,322,000	48,366,000	50,765,000	2,399,000	5.0%
Services	141,909,000	178,421,000	185,094,000	6,673,000	3.7%
Maintenance & Fixed Costs	26,640,000	37,197,000	39,787,000	2,590,000	7.0%
Equipment	17,778,000	19,031,000	16,620,000	(2,411,000)	-12.7%
<b>Total Operating Budget</b>	<b>\$ 508,125,000</b>	<b>\$ 570,951,000</b>	<b>\$ 582,071,000</b>	<b>\$ 11,120,000</b>	<b>1.9%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

Figure 56: Budget by Expense Type (2017-2019)

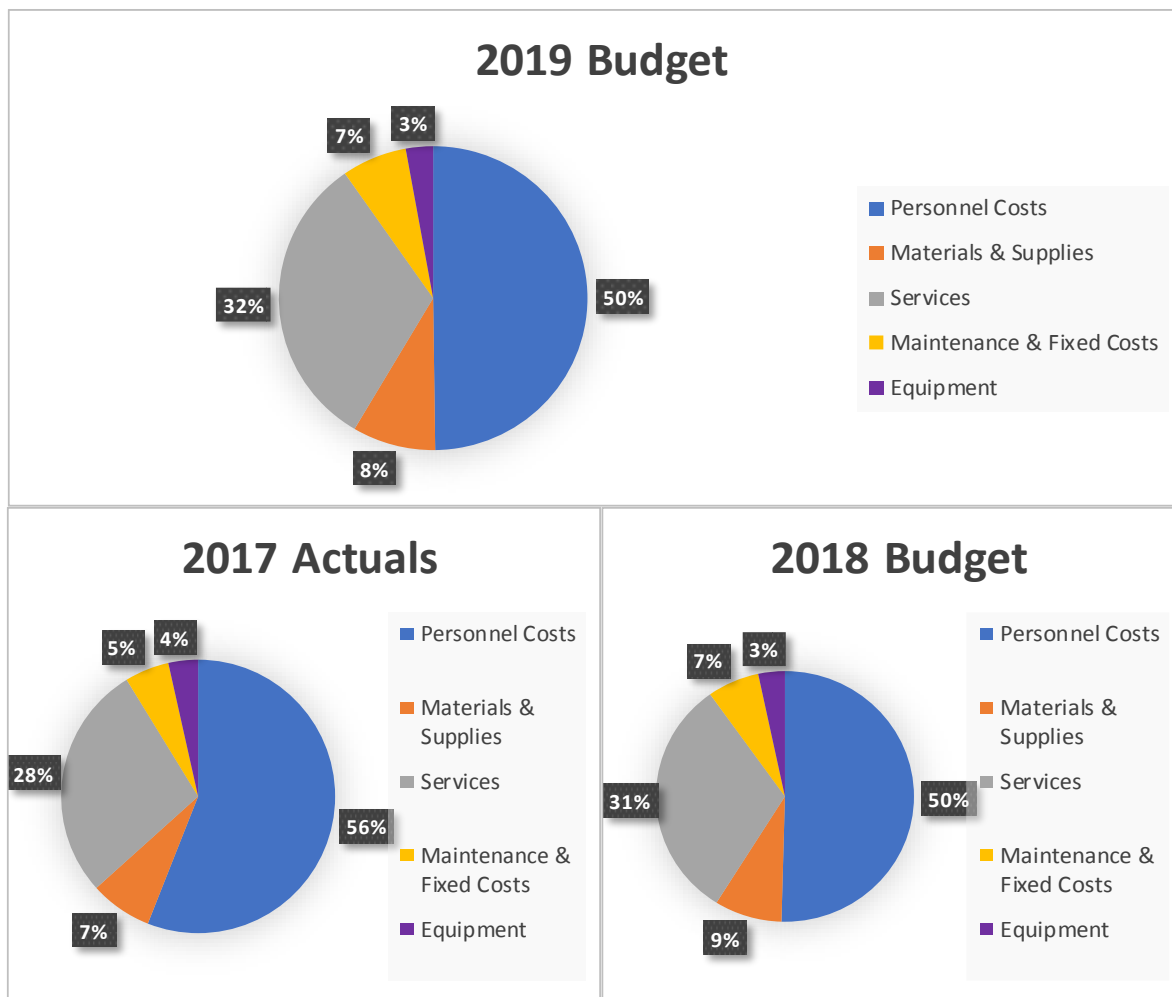


Figure 57: Budget by Expense Type Percentages (2017-2019)

## 2019 Operating Budget Summary by Line Item

Operating Budget by Line Item					
	2017 Actuals	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Salaries	\$ 168,816,000	\$ 169,973,000	\$ 174,259,000	\$ 4,286,000	2.5%
Allowances	894,000	1,070,000	1,054,000	(16,000)	-1.5%
Pension & Taxes	37,846,000	35,025,000	32,453,000	(2,572,000)	-7.3%
Employee Relations	-	-	37,000	37,000	-
Health Benefits	76,113,000	80,968,000	81,000,000	32,000	0.0%
Tuition	90,000	100,000	100,000	-	-
Training & Transportation	717,000	800,000	902,000	102,000	12.8%
<b>Total Personnel Costs</b>	<b>\$ 284,476,000</b>	<b>\$ 287,936,000</b>	<b>\$ 289,805,000</b>	<b>\$ 1,869,000</b>	<b>0.6%</b>
Printing & Office Supplies	\$ 415,000	\$ 469,000	\$ 492,000	\$ 23,000	4.9%
Vehicle Supplies	3,888,000	4,353,000	4,976,000	623,000	14.3%
Medical Supplies	16,000	78,000	79,000	1,000	1.3%
Operating Supplies	1,424,000	1,931,000	1,844,000	(87,000)	-4.5%
Toll Tickets	314,000	316,000	316,000	-	-
Utilities	10,392,000	12,662,000	13,243,000	581,000	4.6%
Snow/Ice Materials	8,100,000	10,782,000	10,782,000	-	-
Software	3,695,000	5,534,000	5,631,000	97,000	1.8%
Other Materials	8,308,000	11,375,000	11,841,000	466,000	4.1%
Landscape	132,000	141,000	139,000	(2,000)	-1.4%
Roadway	218,000	253,000	290,000	37,000	14.6%
Electronics	208,000	243,000	903,000	660,000	271.6%
Other Expenses	212,000	229,000	229,000	-	-
<b>Total Materials &amp; Supplies</b>	<b>\$ 37,322,000</b>	<b>\$ 48,366,000</b>	<b>\$ 50,765,000</b>	<b>\$ 2,399,000</b>	<b>5.0%</b>
Trooper Costs	\$ 60,808,000	\$ 79,759,000	\$ 80,642,000	\$ 883,000	1.1%
Banking Services	25,929,000	30,200,000	32,782,000	2,582,000	8.5%
Insurance	10,891,000	10,945,000	12,040,000	1,095,000	10.0%
Facilities Services	2,738,000	2,976,000	2,925,000	(51,000)	-1.7%
Legal Services	1,073,000	1,459,000	1,539,000	80,000	5.5%
Consulting Services	2,256,000	3,623,000	3,026,000	(597,000)	-16.5%
Other Professional Services	33,388,000	44,368,000	46,490,000	2,122,000	4.8%
Environmental Services	4,476,000	4,760,000	5,304,000	544,000	11.4%
Other Services	350,000	331,000	346,000	15,000	4.5%
<b>Total Services</b>	<b>\$ 141,909,000</b>	<b>\$ 178,421,000</b>	<b>\$ 185,094,000</b>	<b>\$ 6,673,000</b>	<b>3.7%</b>
Vehicle Maintenance	\$ 510,000	\$ 490,000	\$ 658,000	\$ 168,000	34.3%
Roadway Maintenance	18,159,000	29,391,000	31,909,000	2,518,000	8.6%
Bridge Maintenance	11,000	48,000	48,000	-	-
Building Maintenance	1,498,000	1,906,000	2,584,000	678,000	35.6%
Toll Booth Maintenance	149,000	158,000	76,000	(82,000)	-51.9%
Equipment Maintenance	3,848,000	4,832,000	4,069,000	(763,000)	-15.8%
Building & Equipment Rental	2,416,000	272,000	341,000	69,000	25.4%
Taxes	49,000	100,000	102,000	2,000	2.0%
<b>Total Maintenance &amp; Fixed Costs</b>	<b>\$ 26,640,000</b>	<b>\$ 37,197,000</b>	<b>\$ 39,787,000</b>	<b>\$ 2,590,000</b>	<b>7.0%</b>
Equipment	\$ 12,034,000	\$ 11,726,000	\$ 11,600,000	\$ (126,000)	-1.1%
Transponders	5,744,000	7,305,000	5,020,000	(2,285,000)	-31.3%
<b>Total Equipment</b>	<b>\$ 17,778,000</b>	<b>\$ 19,031,000</b>	<b>\$ 16,620,000</b>	<b>\$ (2,411,000)</b>	<b>-12.7%</b>
<b>Total Operating Budget by Line Item</b>	<b>\$ 508,125,000</b>	<b>\$ 570,951,000</b>	<b>\$ 582,071,000</b>	<b>\$ 11,120,000</b>	<b>1.9%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

Figure 58: Operating Budget by Line Item (2017-2019)

## Budgeted Full Time Employees

NJTA Budgeted Full-Time Employees				
Departments	2017 Actuals	2018 Amended	2019 Budget	Change from 2018 Amended
Maintenance	983	993	1,007	14
Engineering	73	73	72	(1)
Toll Collection	524	535	542	7
Operations	72	74	75	1
State Police	7	7	8	1
Information Technology Services	151	151	152	1
Executive Office	5	5	6	1
Law & Insurance Services	22	22	19	(3)
Procurement & Materials Management	63	63	55	(8)
Human Resources & Office Services	36	37	42	5
Finance	80	80	80	-
Community & Patron Relations	12	11	16	5
Internal Audit	22	22	27	5
<b>NJTA Department Total</b>	<b>2,050</b>	<b>2,073</b>	<b>2,101</b>	<b>28</b>

Figure 59: Budgeted Full Time Employees (2017-2019)

The 2018 Authorized Headcount includes 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 two nightshift crews on the Turnpike to complete repairs and perform roadway cleaning during night lane closings. The Toll Collection Department is adding full time collectors to properly staff year-found, eliminating the need to hire 100 seasonal toll collectors for a net savings to the Authority.



## 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 following: 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

#### 2018 Accomplishments:

- Continued to expand the Authority's EGIs (electronic geographic information system) with additional field data.
- 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.

#### 2019 Goals: (Link to Authority goal in parentheses)

- Expand field access to Authority's eGIS system with implementation of field devices.(State of Good Repair)
- Continue expansion of maintenance, construction and service contract to parallel all departmental functions. (State of Good Repair)
- Continue validation of automotive fleet with respect to equipment lifecycle cost with a concentration in light duty vehicles. (State of Good Repair)
- Continue implementation and build out of the Authority's Roadside Weather Information System.
- Continue restoration of roadway illumination levels. (State of Good Repair)

- Complete installation of electronic equipment accountability systems at each facility as more sites are constructed and completed. Pilot testing to commence prior to full deployment. (State of Good Repair)

<b>Maintenance Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 83,470,700	\$ 84,174,200	\$ 86,434,100	\$ 2,259,900	2.7%
Allowances	650,600	801,400	814,700	13,300	1.7%
Pension & Taxes	17,749,600	16,425,300	15,254,700	(1,170,600)	-7.1%
Health Benefits	35,696,800	38,972,200	38,074,100	(898,100)	-2.3%
Non-Overnight Travel	106,800	99,600	134,200	34,600	34.7%
Printing & Office Supplies	65,900	64,300	72,200	7,900	12.3%
Vehicle Supplies	3,883,600	4,340,700	4,964,100	623,400	14.4%
Operating Supplies	1,117,300	1,353,800	1,393,300	39,500	2.9%
Utilities	10,391,600	12,662,100	13,242,800	580,700	4.6%
Snow/Ice	8,100,100	10,781,900	10,781,900	-	-
Software	14,400	15,900	18,700	2,800	17.6%
Other Materials	6,519,600	8,859,900	9,848,300	988,400	11.2%
Landscape	131,700	140,900	139,000	(1,900)	-1.3%
Roadway	218,400	253,400	290,000	36,600	14.4%
Electronics	208,400	243,400	903,000	659,600	271.0%
Insurance	4,664,200	5,130,900	5,644,000	513,100	10.0%
Facilities Services	93,000	82,900	82,900	-	-
Consulting Services	205,100	225,600	225,600	-	-
Environmental Services	834,800	1,081,900	1,200,000	118,100	10.9%
Other Services	75,900	109,300	108,800	(500)	-0.5%
Vehicle Maintenance	346,800	347,600	407,800	60,200	17.3%
Roadway Maintenance	18,158,500	29,390,500	31,908,500	2,518,000	8.6%
Bridge Maintenance	11,100	48,400	48,400	-	-
Building Maintenance	1,498,000	1,906,200	2,500,000	593,800	31.2%
Equipment Maintenance	71,600	99,300	106,000	6,700	6.7%
Equipment Rental	2,322,900	137,200	145,800	8,600	6.3%
Equipment	6,446,200	5,000,500	5,138,200	137,700	2.8%
Other Expenses	186,900	216,800	216,800	-	-
<b>Total Operating Budget</b>	<b>203,240,500</b>	<b>222,966,100</b>	<b>230,097,900</b>	<b>7,131,800</b>	<b>3.2%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 61: Maintenance Department Operating Budget (2017-2019)**

#### **2019 Budget Highlights:**

- Salaries are increasing to fund additional positions, to cover the cost of actual and potential wage increases, and to fully fund vacant positions
- Maintenance makes up 47% of Authority salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- Operating/Other Materials are increasing due to additional/new facilities
- Electronics are increasing to cover cost of materials required to complete renovations \$50K
- Roadway maintenance is increasing due to more linestripping and guiderail repairs completed
- Building Maintenance is increasing due to cost of HQ janitorial services and additional/new facilities

Maintenance Department Budgeted Headcount				
	2017 Actuals	2018 Amended	2019 Budget	Change from 2018 Amended
Administrative Manager	1	-	-	-
Administrative Assistant	2	2	2	-
Administrative Secretary	1	1	1	-
Apprentice/Journeyman	6	6	5	(1)
Assistant Budget Coordinator	-	-	1	1
Assistant Building Maintenance Manager	1	1	1	-
Assistant Foreman	31	31	31	-
Assistant Janitorial Foreman	1	1	3	2
Assistant Landscape Specialist	1	1	1	-
Assistant Maintenance Admin Manager	-	-	1	1
Assistant Maintenance Engineer	1	1	1	-
Assistant Project Supervisor	1	1	1	-
Automotive Craftsperson 1	1	1	1	-
Automotive Foreman	3	3	3	-
Automotive Services Coordinator	1	1	1	-
Automotive Services Manager	1	1	1	-
Automotive Technician	42	42	41	(1)
Automotive Training Manager	1	1	1	-
Body Repairperson	3	3	3	-
Building Craftsperson 3	3	3	2	(1)
Building Maintenance Coordinator	1	1	-	(1)
Building Maintenance Foreman	3	3	3	-
Building Maintenance Mechanic	13	13	12	(1)
Buildings Division Coordinator	1	1	-	(1)
Buildings Maintenance Manager	1	1	1	-
Carpenter	12	12	13	1
Carpenter/Paint Foreman	2	2	2	-
Confidential Secretary	1	1	-	(1)
Construction Manager	-	-	1	1
Construction Supervisor, Maintenance	1	1	1	-
Craftsperson Assistant - Automotive	2	2	2	-
Craftsperson Field Supervisor	6	6	7	1
Craftsperson, Automotive	12	12	13	1
Crew Manager	6	6	7	1
Crew Supervisor	40	42	42	-
Deputy Director 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	16	15	(1)
Electrical Engineer	1	1	1	-
Electrician	20	20	20	-
Equipment Manager	1	1	-	(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	1	-
Field Engineer	-	-	1	1
General Foreman	6	6	7	1
General Foreman - Automotive	1	1	2	1
Heavy Equipment Operator	25	25	27	2
Inventory Quality Assurance Manager	1	1	1	-
Janitor	7	9	11	2
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	2	-	(2)
Maintenance Assistant	-	-	1	1
Maintenance Automotive Manager	1	1	1	-
Maintenance Coordinator	1	1	-	(1)
Maintenance District Coordinator	2	2	2	-
Maintenance Engineer	4	4	2	(2)
Maintenance Financial & Office Manager	1	1	1	-
Maintenance Fleet Administrator	1	1	1	-
Maintenance Office Assistant	1	1	1	-
Maintenance Person	222	222	216	(6)
Maintenance Person 1	212	215	223	8
Maintenance Person 2	15	15	15	-
Maintenance Person 3	3	3	4	1
Maintenance Person 4	6	10	10	-
Maintenance Person General	33	33	35	2
Maintenance Records Clerk	20	20	20	-
Maintenance Roadway Specialist	2	2	2	-
Maintenance Specialist - Landscape	4	4	4	-
Mason	4	4	5	1
Mechanic	-	-	4	4
Mechanic 1	37	37	37	-
Mechanic Specialist	2	2	2	-
Mechanical Craftsperson 2	16	16	17	1
One Call Coordinator Turnpike	1	1	1	-
Painter	4	4	4	-
Power Electric Foreman	5	5	5	-
Procedure Analyst	1	1	1	-
Project Analyst	1	1	1	-
Project Coordinator	-	-	1	1
Project Engineer Maintenance	-	-	1	1
Project Supervisor	11	11	8	(3)
Property Inspector	1	1	-	(1)
Roadway Foreman	16	16	17	1
Roadway Superintendent	4	4	4	-
Senior Administrative Assistant - Division	1	1	1	-
Senior Clerk	18	18	18	-
Senior Confidential Secretary	-	-	1	1
Senior Maintenance Budget Supervisor	1	1	-	(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	-
Sign Fabricator Specialist	1	1	1	-
Sign Shop Manager	1	1	-	(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>983</b>	<b>993</b>	<b>1,007</b>	<b>14</b>

Figure 62: Maintenance Department Headcount (2017-2019)

## 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 Engineering 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 Design Division is focused on delivery of the Capital Improvement Program. Specifically, the planning and design of projects within the current \$7 billion Capital Improvement Program, which include widening, bridge, roadway, interchange, and facility improvement projects. In addition to the Capital Improvements Program, the design Division is also responsible for the design of various maintenance contracts including annual bridge deck and pavement resurfacing contracts. 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, monitoring groundwater remediation systems and maintenance of water supply and wastewater treatment facilities.

### Department Organization:

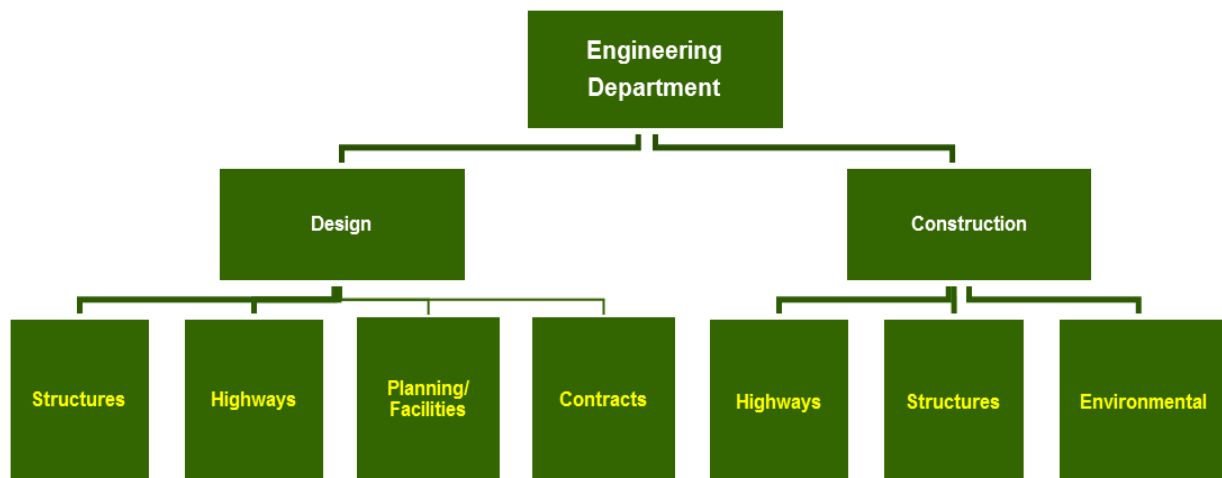


Figure 63: Engineering Department Organization Chart

### Senior Staff:

Chief Engineer: Robert J. Fischer

Deputy Chief Engineer – Construction: Michael Garofalo

Deputy Chief Engineer – Design: J. Lawrence Williams

**2018 Accomplishments:**

- Continued implementation of current \$7 Billion Capital Program.
- Increased the amount of pavement resurfacing on the Turnpike.
- Filled vacancies in the Planning/Facilities Section.
- Backfilled the two (2) Deputy Chief Engineer positions from within the Department.

**2019 Goals:**

- Finalize 20-year Capital Improvement Program.(State of Good Repair)
- Complete filling existing vacancies. (People)
- Complete development of internal procedures manual.(People)
- Award of the final contracts to complete implementation of the \$7 billion Capital Improvement Program. (State of Good Repair)
- Complete design of projects for early implementation following approval of the next Capital Improvement Program. (State of Good Repair)

<b>Engineering Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 4,276,300	\$ 2,254,800	\$ 2,752,000	\$ 497,200	22.1%
Allowances	1,200	1,200	-	(1,200)	-100.0%
Pension & Taxes	870,500	488,800	538,900	50,100	10.2%
Health Benefits	1,750,600	1,096,900	1,345,100	248,200	22.6%
Non-Overnight Travel	10,400	11,400	11,700	300	2.6%
Overnight Travel	2,000	3,500	3,500	-	-
Printing & Office Supplies	12,900	27,000	32,600	5,600	20.7%
Operating Supplies	1,400	1,900	1,900	-	-
Other Materials	400	200	200	-	-
Consulting Services	1,317,700	2,144,400	2,023,400	(121,000)	-5.6%
Environmental Services	3,639,300	3,675,000	4,100,000	425,000	11.6%
Other Services	7,800	11,700	11,700	-	-
Equipment Maintenance	-	700	700	-	-
<b>Total Operating Budget</b>	<b>11,890,500</b>	<b>9,717,500</b>	<b>10,821,700</b>	<b>1,104,200</b>	<b>11.4%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 64: Engineering Department Operating Budget (2017-2019)**

**2019 Budget Highlights:**

- Salaries are increasing to cover the cost of actual and potential wage increases and fully fund vacant positions. Headcount is reduced by one position, but salaries charged to capital projects are declining.
- Engineering makes up 1.7% of total Authority salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- Environmental Remediation is increasing due to remediation action (RA) activities timeframe ranging from 2019 through 2021, RA activities will be implemented at several sites in 2019. Additionally, with the

advancement of the Service Area improvement program, our Consultants have and will be tasked with additional responsibilities overseeing work performed by Sunoco and HMS Host.

<b>Engineering Department Budgeted Headcount</b>				
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>Change from 2018 Amended</b>
Administrative Secretary/Assistant	5	5	5	-
Assistant Engineer	6	6	4	(2)
Assistant Project Supervisor	2	2	1	(1)
CAAD Engineering Technician	1	1	1	-
Chief Engineer	1	1	1	-
Chief File Clerk	1	1	1	-
Clerk	1	1	1	-
Confidential Secretary	1	1	-	(1)
Contracts Division Manager	1	1	1	-
Coordinator, Bargaining	1	1	1	-
Deputy Chief Engineer	2	2	2	-
Engineering Administrative Aide	1	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 Engineer	12	12	19	7
Project Manager	2	2	2	-
Project Supervisor	8	8	3	(5)
Right of Way Manager	1	1	1	-
Senior CADD Engineering Technician	1	1	1	-
Senior Clerk	2	2	3	1
Senior Confidential Secretary	-	-	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 Structures Engineer	1	1	1	-
Senior Supervising Engineer	3	3	2	(1)
Supervising Engineer	2	2	2	-
<b>Total</b>	<b>73</b>	<b>73</b>	<b>72</b>	<b>(1)</b>

Figure 65: Engineering Department Headcount (2017-2019)



## 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 528 full-time employees and 550 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:

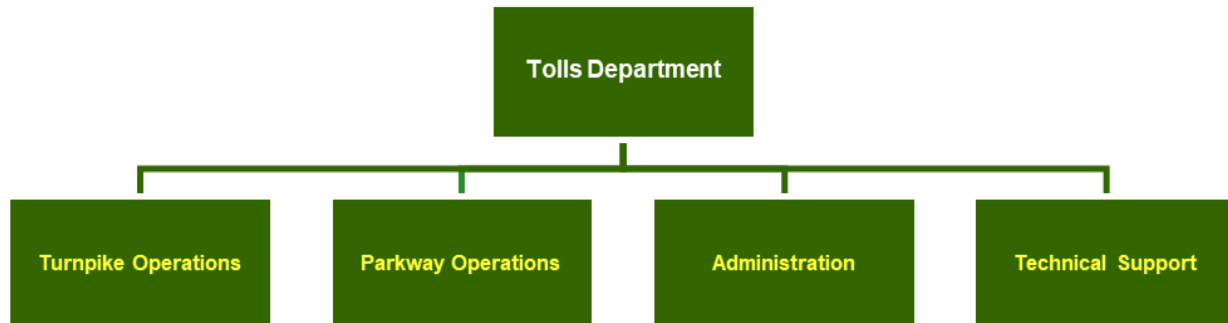


Figure 66: Tolls Department Organization Chart

### Senior Staff:

Director of Tolls: John D. Pagliarulo

Deputy Director of Tolls: F. Scott Barton

Assistant Director of Tolls – Operation: Larry D. Clarke

Assistant Director of Tolls – Training: Colleen L. Lentini

### 2018 Accomplishments:

- Transitioned to a new director after 14 years under previous leadership.
- Implementation of a new Plaza Supervisor training program to more efficiently ready candidates for duty. Created 2 new positions to better train new and less experienced toll plaza supervisors.
- Interchange 6 High-Speed EZ-PASS Exit from 1 Lane to currently to 2 Lanes going into Pennsylvania.
- Installing new abutments at Interchanges 3 and 4. Removing and installing new toll-booths, Interchange #4.
- Changing the exit configuration at Interchange 1 for the motorists exiting into Delaware.
- Implementation of a new training program to efficiently provide continued education to all personnel and enforce collector variances and protect turnpike assets.
- Implementation of a new Large Money Variance Policy.
- Worked closely with ITS to make enhancements to the collector touch screen to help reduce procedural errors.
- Demolished and remodeled #13a supervisor's office.
- Interior rehab of Toms River and Union Toll Plazas.
- Installed signage above every toll lane on TP and GSP.
- Installed new XBL signage at 16E to assist in flow of traffic to Lincoln tunnel for buses.
- New Generators installed at the following Toll Administration buildings; Toms River, Brick North, Brick South, Raritan, Clifton North, Clifton South
- New sump pump installed and drain repaired at Raritan Toll Plaza to rectify flooding issue in tunnel which houses NJTP currency and Toll equipment.
- Negotiated manpower changes and relocations due to ACM removal with IFPTE Locals 196 and Local 193.

**2019 Goals:**

- Continue to investigate and implement new enhancements to the training program by updating our videos and PowerPoint presentations.(People)
- Increase field training visits to our collectors to ensure they are receiving constant training in policy and procedures which will reduce money variances and protect turnpike assets.(Financial Strength)
- Begin a Capital Projects rehab of aging toll facilities on both roadways.(State of Good Repair)
- Install new camera systems to reduce violations and assist in protecting turnpike assets.(Financial Strength)
- Installation of High Speed EZ-Pass lanes at the New Gretna Toll Plaza.(Mobility)
- Removal of all ACM (automatic coin machines) from mainline Toll Plazas.(Mobility)

<b>Tolls Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 44,188,200	\$ 50,601,800	\$ 48,707,100	\$ (1,894,700)	-3.7%
Allowances	167,500	190,200	190,200	-	-
Pension & Taxes	10,721,500	10,889,800	9,539,100	(1,350,700)	-12.4%
Health Benefits	22,583,900	24,585,900	23,813,000	(772,900)	-3.1%
Non-Overnight Travel	492,900	485,500	485,500	-	-
Printing & Office Supplies	72,200	78,800	78,800	-	-
Operating Supplies	227,500	304,500	349,600	45,100	14.8%
Toll Tickets	314,300	316,200	316,200	-	-
Software	1,262,600	1,537,400	1,963,500	426,100	27.7%
Other Materials	414,900	545,300	876,000	330,700	60.6%
Banking Services	25,513,200	29,661,000	31,867,600	2,206,600	7.4%
Facilities Services	2,186,200	2,446,700	2,394,100	(52,600)	-2.1%
Other Professional Services	30,623,900	41,236,800	41,491,000	254,200	0.6%
Toll Booth Maintenance	66,700	76,200	76,200	-	-
Equipment Maintenance	1,556,900	853,600	1,545,800	692,200	81.1%
Equipment	14,200	7,200	7,200	-	-
ETC Transponders	5,743,900	7,305,000	5,020,000	(2,285,000)	-31.3%
<b>Total Operating Budget</b>	<b>146,150,500</b>	<b>171,121,900</b>	<b>168,720,900</b>	<b>(2,401,000)</b>	<b>-1.4%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 67: Tolls Department Operating Budget (2017-2019)**

**2019 Budget Highlights:**

- Salaries are decreasing due to the elimination of the seasonal toll collector program and an increase in salaries charged to capital projects, as toll techs will work on lane equipment replacement. Salaries include the addition of 10 full time toll collectors as well as actual and potential wage increases
- Toll Collection makes up 26% of total Authority salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- Software increasing due to additional/new software requirements for the toll collection system

- Other Materials and Equipment increasing due to increase allocation from ITS for work previously performed by outside contractor assigned to NJTA employees
- ETC Transponders decreased as fewer purchases needed after tag swap program is completed

<b>Toll Collection Department Budgeted Headcount</b>				
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>Change from 2018 Amended</b>
Administration Toll Collection Manager	1	1	1	-
Administrative Assistant	1	1	1	-
Administrative Secretary	2	2	2	-
Area Manager	6	6	6	-
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	20	21	1
Clerk 3	-	-	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 Tolls	-	-	1	1
Senior Clerk	1	1	-	(1)
Temp Toll Plaza Supervisor	-	-	1	1
Toll Collector - Parkway	136	147	142	(5)
Toll Collector - Turnpike	194	194	203	9
Toll Plaza Supervisor - Parkway	44	44	43	(1)
Toll Plaza Supervisor - Training	3	3	3	-
Toll Plaza Supervisor - Turnpike	93	93	93	-
Toll Records Clerk	4	4	4	-
Tolls Field Coordinator	2	2	2	-
<b>Total</b>	<b>524</b>	<b>535</b>	<b>542</b>	<b>7</b>

Figure 68: Tolls Department Headcount (2017-2019)

## 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 also 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:

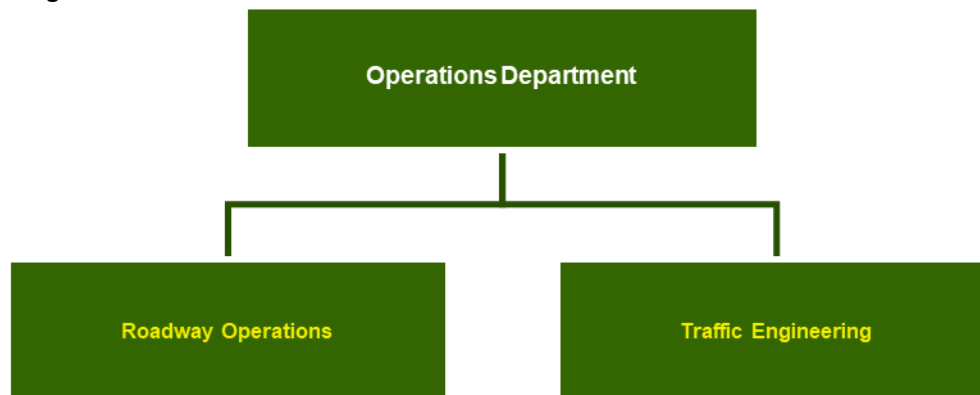


Figure 69: Operations Department Organization Chart

### Senior Staff:

Director of Operations: Kevin Dunn

Deputy Director of Operations: (Vacant)

### 2018 Accomplishments:

- Expanded the available number of taper points to over 3,000 on both roadways. This was an 85% increase in available access points to Maintenance and Contractors.
- Successfully planned and implemented necessary signing and informational systems for the grand opening on Interstate 95.
- Established a program to install hundreds of required warning signs on ramps to comply with a 2019 Federal mandate.
- Conducted and operated in both test and live environments in the Backup TMC on the 11th Floor of the NJTA Headquarters Building.
- Worked with the Tolls Department to implement new toll lane canopy signs over every Turnpike toll lane to meet driver expectation.
- Assisted in the development and execution of the NJDOT's Restore 495 volume reporting tool.
- Doubled capacity of bus processing at Turnpike Interchange 16E to support the NJDOT's Restore 495 project.

### 2019 Goals:

- Design and Implement Phase 6 of the Lane Closing Application Software.(Mobility)
- Launch real-time mobile application for towing/garage companies to reduce response times and to provide Operations with ability to track performance measures.(Mobility)

- Expand 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.(Mobility)
- Rewrite all job descriptions to update prerequisites and functionality to meet current technology and also to eliminate past redundancy from NJTA and NJHA merger.(People)
- Begin succession planning for multiple, veteran employees scheduled to retire in 2020.(People)

<b>Operations Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 6,816,900	\$ 6,400,000	\$ 6,603,600	\$ 203,600	3.2%
Allowances	20,300	23,800	23,800	-	-
Pension & Taxes	1,589,500	1,390,300	1,293,200	(97,100)	-7.0%
Health Benefits	3,196,700	3,337,400	3,227,600	(109,800)	-3.3%
Non-Overnight Travel	1,200	12,300	5,000	(7,300)	-59.3%
Overnight Travel	-	-	3,500	3,500	-
Printing & Office Supplies	12,100	10,800	10,800	-	-
Operating Supplies	2,000	1,700	2,400	700	41.2%
Other Materials	7,000	10,900	13,000	2,100	19.3%
Facilities Services	458,600	446,700	448,000	1,300	0.3%
Other Professional Services	362,600	399,600	555,000	155,400	38.9%
Other Services	104,000	104,400	104,400	-	-
Vehicle Maintenance	100	300	300	-	-
Roadway Maintenance	-	100	100	-	-
Equipment Maintenance	29,900	-	-	-	-
Equipment	1,200	1,900	1,900	-	-
<b>Total Operating Budget</b>	<b>12,602,100</b>	<b>12,140,200</b>	<b>12,292,600</b>	<b>152,400</b>	<b>1.3%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 70: Operations Department Operating Budget (2017-2019)**

**2019 Budget Highlights:**

- Salaries are increasing due to an additional authorized position as well as actual and potential wage increases
- Operations makes up 4% of Authority total salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- Travel is decreasing to more appropriately reflect travel needs
- Other Professional Services are rising due to projected increase in weather forecasting services, hazardous material cleanup, and Language Line services
- Operating Supplies are increasing due to contractually mandated uniform distribution

Operations Department Budgeted Headcount				
	2017 Actuals	2018 Amended	2019 Budget	Change from 2018 Amended
Administrative Assistant	1	1	1	-
Administrative Secretary	1	1	1	-
Assistant Manager STMC	1	1	1	-
Assistant Manager Traffic Operations	-	1	1	-
Assistant Traffic Engineer	3	3	2	(1)
Communications Dispatcher	23	23	23	-
Deputy Director of Operations	1	1	1	-
Director of Operations	1	1	1	-
Emergency Services Supervisor	1	1	1	-
Engineering Aide - Traffic	1	1	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	-
Supervisor, STMC	1	1	1	-
Traffic Control Supervisor	11	12	11	(1)
Traffic Engineer	3	3	4	1
Traffic Operations Specialist	1	1	1	-
Traffic Technician	1	1	1	-
Trailblazer Supervisor	1	1	1	-
<b>Total</b>	<b>72</b>	<b>74</b>	<b>75</b>	<b>1</b>

Figure 71: Operations Department Headcount (2017-2019)

## 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 headcount. The cost of the State Police is a contractual service.

### Department Organization:

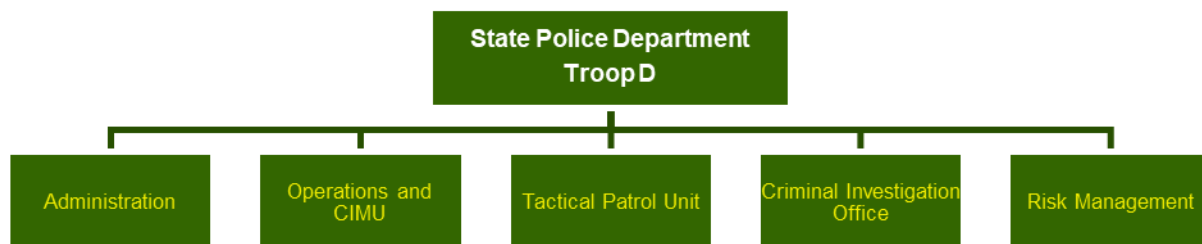


Figure 72: State Police Department Organization Chart

### Senior Staff:

Troop Commander: Major Ernie Giampietro  
 Deputy Troop Commander: Captain Andrew Smoter  
 Regional Commander: Captain Terence Carroll  
 Administration Officer: Lieutenant Stephen Karmilovich  
 Operations Officer: Lieutenant Andy Schibell  
 Integrity Officer: Lieutenant John Cunningham  
 Traffic Officer: Lieutenant Steve Slimowicz  
 Criminal Investigation Officer: Lieutenant Raymond Smink  
 Tactical Patrol Officer: Lieutenant Michael Dulin  
 Commander Newark Station: Lieutenant Donald Johnstone  
 Commander Cranbury Station: Lieutenant Joseph Costello  
 Commander Moorestown Station: Lieutenant John Smith  
 Commander Bloomfield Station: Lieutenant Roger Malone  
 Commander Holmdel Station: Lieutenant James Platten

Commander Galloway Station: Lieutenant Rufus Hay

**2018 Accomplishments:**

- In 2018 the Troop "D" Traffic Office continued conducting supplemental patrols focusing on violations known to precipitate and cause crashes. Selective details were aimed at speeding enforcement, intoxicated and distracted drivers, and seatbelt enforcement in an effort to reduce motor vehicle crashes and their resultant injuries on both roadways. 682 supplemental details have been conducted by Troop "D" members through August of 2018. Additionally, in 2018 Traffic Office staff increased supplemental detail supervision in an effort to promote increased enforcement. Through August of 2018 Troop "D" Traffic Office personnel have conducted 51 supervisory inspections. Supplemental motor vehicle stops conducted through August of 2018 increased by 3.1% over 2017 and summons issuance has increased by 3.5%.
- Employed a methodology to reduce crashes by analyzing crash location data then deploying supplemental patrol assets during the times and locations of most frequent occurrence. 152 Aggressive Driver Supplemental Patrols have been scheduled using this methodology through August of 2018. Through September of 2018, 12 fewer fatalities have been realized in both Regions as compared to the same period in 2017.
- In 2018 Troop "D" has increased speed enforcement through renewed emphasis by the Command and the issuance of personal patrol lasers. In 2018 the second round of twenty LTI TruSpeed(S) speed detection lasers were purchased and issued to Troopers bringing the number of lasers personally issued to 40 lasers, troop-wide. Speeding enforcement for Troop "D" has increased by 17% through August of 2018 as compared to the same period in 2017.
- Conducted DWI Sobriety Checkpoint and Child Passenger Safety Seat details on the Garden State Parkway.
- The Troop D Operations Office in conjunction with the NJTA purchased and implemented a fixed ALPR (Automatic License Plate Reader) for the PNC Arts Center grounds. To this date, the NJTA has purchased and installed 4 ALPR cameras and the requisite computer network/software. After a lengthy process involving the NJ State Police Criminal Justice Information System and Network Services units, the system is up and running. Training and learning how to use the system is currently ongoing. This system will provide endless opportunities going forward into the future for both the NJ State Police and the NJTA. This should prove to be invaluable. Additionally, in conjunction with the NJTA two additional security enhancements for the PNC Bank Arts Center 2018 season were put in place. To deter/prevent a vehicle ramming type of incident, the pedestrian areas in front of the Arts Center were protected with both fixed concrete and mobile collapsible barriers. Also added this season at the direction of the NJ State Police were new security cameras placed throughout the main parking lots. In lieu of recent shooting incidents in this country and around the world measures were taken to harden the rear of the Arts Center in an attempt to deter/prevent a similar event taking place.
- The NJSP Infrastructure Protection Unit Completed a Security Survey of the New NJTA Headquarters building in Woodbridge. We have not received anything to date from the unit in regards to the PNC or the STMC. However over the past year, Troop D Operations Office has worked with the NJTA and the consulting firm HNTB Corporation on an additional Threat & Vulnerability Assessment of the NJTA Headquarters and the PNC Bank Arts Center. This assessment was given to us in February of this year.
- As of August, all Troop "D" portable radios have been replaced. Working with the NJTA, we placed 263 new portable radios into service. As of this date, discussion has been had with the NJTA about replacing the car radios but as of yet, they have not been ordered.
- The Troop D Construction / Incident management Unit (CIMU) is fully staffed and trained in ICS300/400, OSHA, and incident specific FEMA training. All are equipped to respond to large scale incidents whether planned or naturally occurring. CIMU continues to work cooperatively with NJTP Emergency Services to successfully implement the Incident Command System which allows us to clear incidents in a reasonable time and safe manner. This advanced training adds a more specialized resource at the scene of major incidents. Also, this specialized training makes planning for incidents more manageable during unpredictable weather events such as hurricanes or snowstorms.



- Given the amount of construction projects, long and short term, we have strived to maintain a high level of safety. The Troopers assigned to CIMU understand the importance of safety on a job site. It starts during the initial phase of the Pre Construction meeting. Safety is stressed to the Contractor, Engineers, and Traffic Control Coordinators during this meeting. Once work commences, CIMU Troopers assigned to closings utilize tool box talks/meetings with Traffic Control Coordinators, Machine Operators, and Laborers to relay the importance of job site safety. As part of the ongoing safety program, we have worked together to develop a Work Zone Safety Committee that meets regularly to discuss emerging issues and how to make job sites safer.
- Troop D operations has successfully completed 290 details and assignments as of 9/30/2018. Many involving route security and the movement of the President on and off the Turnpike/Parkway. As well as many other dignitaries both foreign and domestic inclusive of the United Nations General Assembly.
- Provided for the safety and security of patrons at 48 PNC Art Center functions to date. Culminating in the arrest of over 588 individuals resulting in 647 charges and 180 Investigations.
- Continuation of established security post at new NJTA headquarters.
- Troop D mobile command post has been refurbished for use during all deployments.
- Procurement of six "Glove Boxes" for every Troop D Station. These devices are instrumental in the safe handling of hazardous materials such as evidence of crimes. Most notably fentanyl.
- Continued efforts in Troop D Intelligence Initiatives, specifically Intelligence Led Policing (ILP) details, as of September 1, 2018, Troop "D" CIO has conducted 253 ILP Details which have resulted in 172 Investigations, 241 Arrests, the seizure of \$61,618.00 In Controlled Dangerous Substances and \$50,733.00 in U.S. currency. Some notable arrests are:
- Successfully complied with new State directives regarding Criminal Justice (bail) Reforms specifically with the procurement of laptop computers. Additionally, an internal policy was developed in consultation with the Command where the DSG or Senior Det. I in a Station will A2 approve all investigation reports. If necessary the station DSG or senior detective will respond off duty to the SP station closest to their residence to conduct the approval process. There have been few instances in 2018 where CIO was not already involved in the investigation and this policy has not resulted in excessive overtime hours, nor has it been over burdensome.
- Bloomfield Station has been the only station which has received attention in reference to improving audio issues in the interview room at the new stations.
- Supervision enhancement in the Criminal Investigations Office has been improved at all levels. Specifically, each Zone Supervisor is now tasked to complete the significant events for their respective Zone each month. The Unit Head and/or Assistant will compile both reports for submission to the Command. In addition, a new DSFC Zone Supervisor Monthly Report is now required from the each DSFC Zone Supervisor. This new report, which will be completed by the third Friday of each month, will ensure all investigation reports listed on the significant event report are reviewed by the Zone DSFC and the following information is addressed:
- Whether or not a detective was recalled for the investigation. If so, did the detective generate a supplemental investigation report and properly document his or her response, were all investigative leads pursued, and what investigative steps remain.
- Whether the subject was lodged in jail: If so, document the date the reports were approved and if they were completed within the 48 hour time frame.
- Through expansion of the Field Intelligence Officer Program, information obtained from routine arrests was analyzed and disseminated to the appropriate law enforcement agencies. As of September 1, 2018, Troop "D" CIO has produced 38 Info-share Intelligence reports, an increase of 58% from last year. Seven of these reports generated (Gang member ID reports) which were disseminated to the Street Gangs Unit for further follow up.
- Training accomplishments:
- Completion of the 100 yard Rifle Range
- Completion of the CIRT (Critical Incident Response Training) Shoot house

- Range Staff qualified approximately 900 members with the duty issued handgun
- Range staff qualified approximately 500 members with the duty issued rifle
- Range Staff qualified 358 members in CIRT
- Obtained a school bus for tubular assault training
- Conducted SIMS exercises at the PNC and NJTPKA Service Areas
- Assisted Risk Management with individual Trooper training as a result of MVR related proficiencies

**2019 Goals:**

- Continue Supplemental Traffic Details and Supervisory Inspections throughout 2019, continuing emphasis on speeding enforcement, intoxicated and distracted drivers, and seatbelt enforcement. (Safety)
- 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. (Safety)
- Institute monthly Toll Plaza Speeding Enforcement details. (Safety)
- Purchase and issue 20 additional LTI TruSpeed(S) speed detection lasers bringing the total number issued to personnel to 60 lasers. (Safety)
- Conduct a 40-hour Child Passenger Safety Seat Technician School and obtain CPS certification for twenty additional Troopers. (Safety)
- Conduct a Basic Crash Investigation course in February of 2019 and an Advanced Crash Investigation Course in March of 2019 providing in-depth crash investigation training to 60 additional Troopers. (Safety)
- Conduct at least two DWI Sobriety Checkpoints. (Safety)
- Increase staffing to fill numerous vacant positions (Safety)
- Upon any increase in staffing, enhance staffing of Commercial vehicle inspection teams to reduce truck related incidents and roadway damage resulting from overweight vehicles as well as parking issues within the service areas. (Safety)
- Continue safety and security efforts for the PNC Bank Arts Center including full use of recently installed ALPR system to aid in safety and counter-terrorism and investigative efforts. (Safety)
- Continue Intelligence Led Policing (SAFE) and Quality of Life Details at all Service Areas, commuter and construction lots to detect and thwart criminal activity and apprehend criminals. (Safety)
- Serve as a liaison with Federal, State, and Local law enforcement agencies regarding crimes committed on the roadways and the surrounding jurisdictions. (Safety)
- 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 DWI and specifically drug related DWI. (Safety)
- Improve audio issues (Interview room soundproofing) at all new stations other than Bloomfield. (Safety)
- Field Intelligence Officer Program: Based on the geographic location of New Jersey, the toll roads of Troop "D" provide a link to the major cities and population centers on the East Coast of the United States. In addition to the law abiding citizens, the roadways of Troop "D" are a conduit for the criminal element and those seeking to harm others through traditional crimes and terrorism. Through expansion of the Field Intelligence Officer Program, information obtained from routine arrests will be analyzed and disseminated to the appropriate law enforcement agencies. (Safety)
- Acquire and improve our aging console and vehicle radio systems. (Safety)
- Training goals and Training Facility improvements: (Safety)

- Troop D Orientation
- Rifle Qualifications
- Pistol Qualifications
- Periodic CIRT exercise
- Update Shoot house (paint - more rooms – observation tower)
- New bathroom facility added to the range
- Complete the generator project at the range
- Continued individualized training for our members
- Continued joint training exercises with TEAMS, K9, Amtrak and outside local departments
- EVOC instructing as per the Colonel's request
- Continue on strengthening ALPR project with the addition and installation of additional cameras throughout the Troop D region. (Safety)
- Continue security upgrades at the PNC Arts Center. (Safety)
- Procurement of an additional Polaris Off-Road vehicle for patrol purposes at the PNC Arts Center and other remote NJTA property areas. (Safety)
- Explore future upgrades to Troop D Command Bus. (Safety)
- Install, replace or repair security gates at all NJSP Buildings. (Safety)

<b>State Police Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 506,000	\$ 510,300	\$ 613,100	\$ 102,800	20.1%
Trooper Costs	60,808,300	79,759,200	80,642,200	883,000	1.1%
Pension & Taxes	113,500	108,600	120,100	11,500	10.6%
Health Benefits	228,300	262,900	299,700	36,800	14.0%
Non-Overnight Travel	2,900	2,100	3,000	900	42.9%
Printing & Office Supplies	55,700	56,000	64,000	8,000	14.3%
Vehicle Supplies	4,000	12,000	12,000	-	-
Medical Supplies	4,100	69,700	69,700	-	-
Operating Supplies	34,200	38,400	34,300	(4,100)	-10.7%
Software	1,300	1,800	1,800	-	-
Other Materials	770,200	783,400	841,500	58,100	7.4%
Consulting Services	10,600	10,700	24,100	13,400	125.2%
Vehicle Maintenance	162,900	142,300	250,000	107,700	75.7%
Equipment Maintenance	24,800	38,300	40,300	2,000	5.2%
Equipment Rental	-	1,000	1,000	-	-
Equipment	3,899,400	4,729,200	4,500,000	(229,200)	-4.8%
<b>Total Operating Budget</b>	<b>66,626,200</b>	<b>86,525,900</b>	<b>87,516,800</b>	<b>990,900</b>	<b>1.1%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 73: State Police Department Operating Budget (2017-2019)**

#### **2019 Budget Highlights:**

- Salaries are increasing to cover the cost of an additional authorized position transferred into the department during 2018, actual and potential wage increases, and to fully fund vacant positions
- State Police (excluding trooper costs) makes up less than 1% of pensionable salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018

budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.

- The Authority is expecting an increase of 30 troopers to the Detachment making the total number of troopers assigned to the Turnpike and Parkway equal to 405
- Trooper Costs are increasing by \$800,000.00 for increased salary, benefits, etc related to the increased number of troopers
- The 2019 budget assumes an approximate 1% increase in trooper compensation and a 31% increase in pension costs

<b>State Police Department Budgeted Headcount</b>				
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>Change from 2018 Amended</b>
Assistant Police Services Manager	-	-	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	-
<b>Total</b>	<b>7</b>	<b>7</b>	<b>8</b>	<b>1</b>

Figure 74: State Police Department Headcount (2017-2019)

## Information Technology Services

### Department Description:

The Information Technology 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 meet this goal and deliver value added services and products.

### Department Organization:

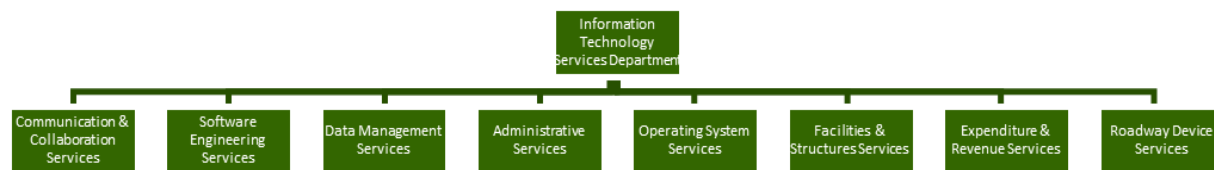


Figure 75: ITS Department Organization Chart

### Senior Staff:

Chief Information Officer: Jose Dios

Assistant Director, Software Engineering: Ning Ding

Assistant Director, Data Management Services: Stanley J. Ciszewski

### 2018 Accomplishments:

The ITS Team continues to place safety, finance, mobility, talent, and good state of repair at the center of all IT activities to ensure leading edge technology services and products are delivered in a secure, cost effective, and timely manner. These services and products benefit the motorist and employee. Milestone highlights of major 2018 projects are listed below and categorized accordingly by their defined operational area. Successful implementation of a product and / or service is the result of efficient and effective teamwork across the department's eight service teams.

#### *Financial Strength*

- Completed Phase I of the E-ZPass Customer Service Center Contract.
- Began Phase II of the E-ZPass Customer Service Center Contract.
- Continued to operate and manage the Active Management Model.
- Continued to improve all technology contract terms and conditions.
- Continued to leverage key supplier relationships to consolidate maintenance and licensing agreements, thus reducing Total Cost of Ownership.
- Utilized available capital funds in the most efficient and expeditious manner by ensuring on-time, on-budget delivery of major initiatives.
- Met operating expense objectives.
- Achieved monthly procurement objectives as outlined in the ITS 2018 procurement plan.
- Executed a multiyear cellular Master Lease Agreement with two major carriers.

*State of Good Repair*

- Continued to prioritize and complete remediation activities identified in recent IT Security Assessment.
- Introduced a comprehensive employee security training program.
- Continued to update and activate disaster recovery and business continuity plans.
- Replaced UPSs at various critical locations throughout both roadways to reduce the risk of power interruptions.
- Completed Data Center Refresh Program at the Traffic Management Center.
- Continued network upgrades (wired and wireless) to ensure additional capacity as necessary on both roadways.
- Continued technology installations in new buildings as part of the Facilities Improvement Program.
- Migrated stand-alone databases into a highly available, redundant computing environment.

*People*

- Enhanced Commuter Aid Dispatch Software.
- Began implementation of subpoena and OPRA administration software.
- Completed State Police Troop D portable & console upgrade.
- Began collaboration with Human Resources in evaluating, documenting, and implementing a digital transformation enhancing employee self-service, recruitment, and onboarding.
- Continued document management deployment as an enterprise-wide cost-effective solution.
- Completed in depth analysis of business rules governing the next generation Capital Project Management System.
- Developed and implemented a secure mobile strategy which inspired social and team collaboration in a digital workspace.
- Completed 800MHz radio installations in NJTA vehicle fleet.

*Mobility*

- Introduced microservices software delivery practice to enhance the current service-oriented architecture.
- Began Road Weather Information System (RWIS) Program.
- Continued to improve Traffic Permitting & Lane Closure software.

*State of Good Repair*

- Completed in depth analysis of the business rules governing vehicle maintenance as part of Phase I, of the Enterprise Asset Management Program.
- Completed in depth analysis of the business rules governing technology service tickets.

*Mobility*

- Completed lane controller upgrade on the Garden State Parkway.
- Continued equipment installation and software implementation in the Production Toll Lane System Refresh Program.
  - Finalized software configuration of High-Speed E-ZPass on both roadways.
  - Removed Automatic Coin Machines, on the mainline, on the Garden State Parkway.

*People*

- Filled ITS vacancies.
- Maintained high level of leadership visibility and energy with the ITS team and across NJTA.

- Continued to implement an active succession plan by positioning the next generation of ITS leaders in challenging and visible roles.

**2019 Goals:***Financial Strength*

- Complete Phase II of the E-ZPass Customer Service Center Contract.
- Continue to operate and manage the Active Management Model.
- Continue to improve all technology contract terms and conditions.
- Continue to leverage key supplier relationships to consolidate maintenance and licensing agreements, thus reducing Total Cost of Ownership.
- Continue to utilize available capital funds in the most efficient and expeditious manner by ensuring on-time and on-budget delivery of major initiatives.
- Continue to meet operating expense objectives.
- Continue to achieve monthly procurement objectives as outlined in the ITS 2019 procurement plan.

*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 employee security training program.
- Continue network upgrades (wired and wireless) to ensure additional capacity as necessary on both roadways.

*People*

- Begin State Police Troop D mobile radio upgrade.
- Complete installation and configuration of subpoena and OPRA administration software.

*People*

- 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.

*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.

*State of Good Repair*

- Continue installation and configuration of the first Enterprise Asset Management module.

*Mobility*

- Continue to install and improve critical components of the Production Toll Lane System.
- Install and configure multiprotocol readers on both roadways.

*People*

- Continue to fill ITS vacancies.

- Continue to maintain high level of leadership visibility and energy with the ITS team and across NJTA.
- Continue to implement an active succession plan by positioning the next generation of ITS leaders in challenging and visible roles.

<b>Information Technology Services Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 8,731,400	\$ 6,050,200	\$ 8,187,885	\$ 2,137,685	35.3%
Allowances	29,200	28,100	-	(28,100)	-100.0%
Pension & Taxes	2,070,300	1,386,600	1,602,436	215,836	15.6%
Health Benefits	3,142,200	2,703,400	3,995,340	1,291,940	47.8%
Non-Overnight Travel	18,000	60,000	55,000	(5,000)	-8.3%
Overnight Travel	300	-	45,000	45,000	-
Printing & Office Supplies	22,100	22,700	23,000	300	1.3%
Operating Supplies	21,400	205,500	20,000	(185,500)	-90.3%
Software	2,416,900	3,978,900	3,646,500	(332,400)	-8.4%
Other Materials	572,800	1,164,500	250,000	(914,500)	-78.5%
Consulting Services	-	288,000	-	(288,000)	-100.0%
Other Professional Services	827,500	1,630,000	3,000,000	1,370,000	84.0%
Other Services	1,800	1,100	1,200	100	9.1%
Equipment Maintenance	2,122,700	3,592,100	1,909,200	(1,682,900)	-46.9%
Equipment Rental	83,700	117,300	160,000	42,700	36.4%
Equipment	1,661,200	1,940,000	1,900,000	(40,000)	-2.1%
<b>Total Operating Budget</b>	<b>21,721,500</b>	<b>23,168,400</b>	<b>24,795,561</b>	<b>1,627,161</b>	<b>7.0%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 76: ITS Department Operating Budget (2017-2019)**

#### **2019 Budget Highlights:**

- Salaries are increasing to cover the cost of one additional authorized position, actual and potential wage increases and fully fund vacant positions. Salaries charged to capital projects are decreasing based on less staff time spent on capital projects in 2019
- Information Technology Services makes up 8% of Authority total salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- Operating Supplies and Other Materials are decreasing due to equipment required for toll lane maintenance still being under warranty
- Equipment Maintenance is decreasing due to removal of ACM's from Parkway mainline which will reduce ACM maintenance, and lower toll system maintenance as new system is being installed
- Professional Services are increasing as radio support is a new operating cost requiring outside consultants



Information Technology Services Department Budgeted Headcount				
	2017 Actuals	2018 Amended	2019 Budget	Change from 2018 Amended
Administrative Secretary	2	2	2	-
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	-
Collaboration Services Manager	1	1	1	-
Communications Systems Analyst	1	1	-	(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	1	-	(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	1	-	(1)
ITS Admin Support Specialist	1	1	1	-
ITS Aide	1	1	1	-
ITS Coordinator	1	1	1	-
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	1	-	(1)
Program Analyst	1	1	1	-
Programmer	2	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	2	-
Systems Administrator	4	4	4	-
Systems Supervisor Parkway	2	2	2	-
Technology Device Technician	59	59	60	1
Technology Device Technician Supervisor	8	8	7	(1)
Telecom Systems Administrator	1	1	1	-
TEM Manager	1	1	-	(1)
Toll Equipment Supervisor	1	1	1	-
User Support Administrator	1	1	-	(1)
Voice Engineer	1	1	2	1
Windows Platform Support Manager	1	1	1	-
<b>Total</b>	<b>151</b>	<b>151</b>	<b>152</b>	<b>1</b>

Figure 77: ITS Department Headcount (2017-2019)

## 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 functioning of the Authority, including coordination and prioritization of policy, strategic planning, 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 operations and Authority initiatives.

### Department Organization:

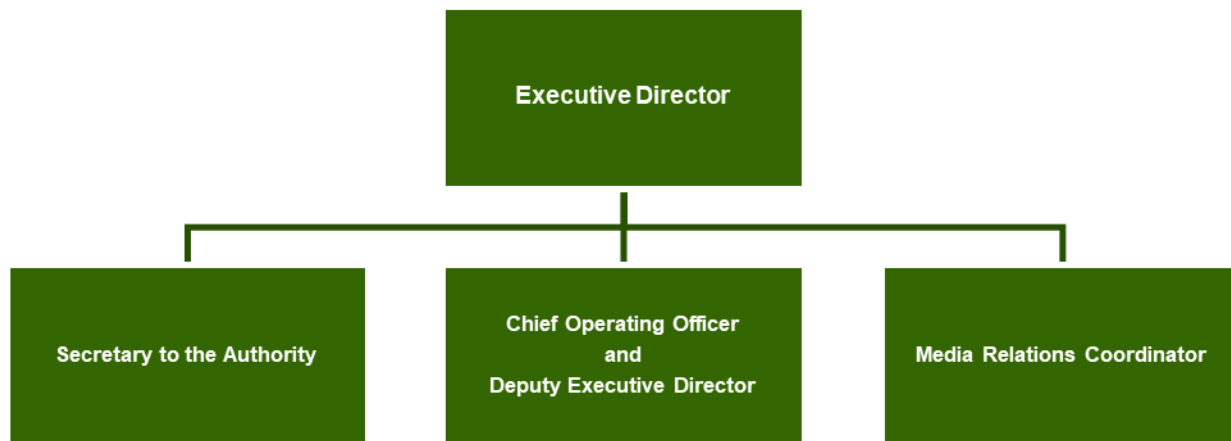


Figure 78: Executive Offices Department Organization Chart

### Senior Staff:

Executive Director: John Keller

Deputy Executive Director: James Carone

Secretary to the Authority: Kim Schurman

### 2018 Accomplishments:

- Entered into 25-year contracts with HMSHost Toll Roads Inc. to provide Food Services at Authority Service Areas and Sunoco Retail LLC to Provide Fuel Services at Authority Service Areas. As a result of the contracts, a combined \$215 million will be invested by HMSHost and Sunoco in the service areas in the next seven (7) years providing, among other things, nine (9) new restaurant buildings and major refurbishments of six (6) other restaurant buildings.
- Seamless transition to new management team, as new Executive Director and Deputy Executive Director are long term Authority employees
- Successfully negotiated wage agreement with all unions

**2019 Goals:**

- Adopt and begin implementation of Authority's 10-Year Strategic Plan. (Financial Strength)
- Successfully negotiate work rules with all unions to result in an approved MOA. (People)
- Adopt 20 year long-range Capital Plan. (State of Good Repair)

<b>Executive Office Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 658,400	\$ 577,000	\$ 777,800	\$ 200,800	34.8%
Pension & Taxes	151,400	125,500	152,300	26,800	21.4%
Health Benefits	304,500	315,200	380,200	65,000	20.6%
Non-Overnight Travel	200	1,400	1,400	-	-
Printing & Office Supplies	6,700	7,400	4,500	(2,900)	-39.2%
Other Professional Services	59,300	59,300	60,000	700	1.2%
Other Services	8,700	9,500	12,800	3,300	34.7%
<b>Total Operating Budget</b>	<b>1,189,200</b>	<b>1,095,300</b>	<b>1,389,000</b>	<b>293,700</b>	<b>26.8%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 79: Executive Offices Department Operating Budget (2017-2019)**

**2019 Budget Highlights:**

- Includes a Deputy Executive Director replacing a staff member on mobility assignment
- Executive Office makes up .5% of total Authority
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.

<b>Executive Offices Department Budgeted Headcount</b>				
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>Change from 2018 Amended</b>
Administrative/Executive Assistant	1	1	1	-
Chief Operating Officer & Deputy Executive Director	1	1	1	-
Executive Director	1	1	1	-
Media Relations Coordinator	1	1	1	-
Mobility Assignment	-	-	1	1
Secretary to the Authority	1	1	1	-
<b>Total</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>1</b>

**Figure 80: Executive Offices Department Headcount (2017-2019)**

## Law

### Department Description:

The Law Department manages all legal, insurance and real estate matters for the Authority as well as EEO and SBE compliance. Duties include providing or supervising the provision of legal advice to the Authority's departments, supervising and managing of outside counsel, insurance and risk management consultant, insurance brokers and third party administrators. The departmental budget includes all insurance costs other than property, professional liability, OCIP and worker's compensation, which are budgeted elsewhere.

### Department Organization:

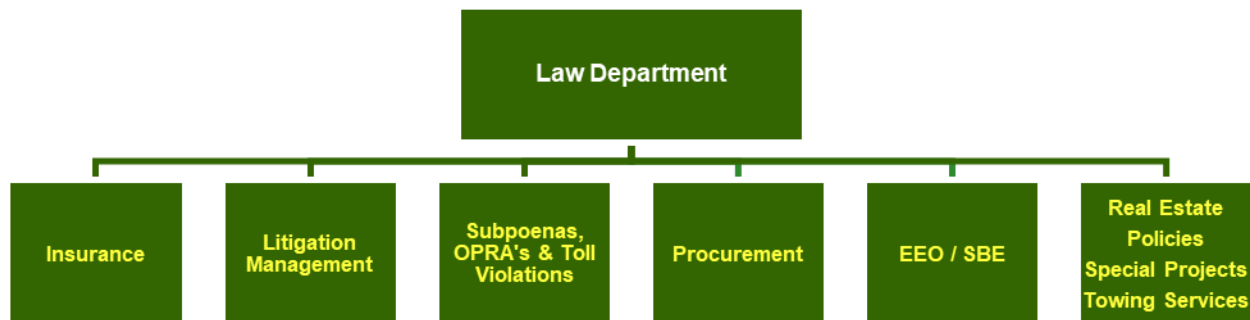


Figure 81: Law Department Organization Chart

### Senior Staff:

Director of Law: Robert J. Carroll  
 Deputy General Counsel: (Vacant)  
 Assistant Director of Law: Ann Monica

### 2018 Accomplishments:

- Obtained a total of \$6 million as partial payment of insurance claim resulting from Delaware River Turnpike Bridge damage in January 2017.
- Continued all necessary real estate right of way acquisitions and transfers with NJDOT 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.
- Identified and sold surplus real estate, producing \$205,800 in closed sales and/or executed contracts of sale.
- Investigated 29 EEO complaints (through September 7th).
- Processed 390 OPRA requests and 238 Subpoenas (through September 7th).
- Completed 4 successful bid protests.
- Consummated new Outside Counsel and Special Counsel contracts.

### 2019 Goals:

- Restructure program of taking civil action against toll violators.(Financial Strength)
- Continue to evaluate and mitigate the Authority's critical risk exposures identified by the Risk Management Committee. (Financial Strength)
- Complete implementation of the Authority's document retention schedule.(People)

- Continue to identify and market surplus real estate.(Financial Strength)
- Work with Human Resources and other departments to increase workforce diversity; expand outreach. (People)
- Work with Human Resources to continue/expand Sexual Harassment and Diversity training. (People)
- Increase litigation management by 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 creating a master plan to prioritize the Authority's enterprise risk management goals, including a timetable for implementing all goals, actions and recommendations identified in the master plan. (Financial Strength)
- Continue real estate acquisitions and transfers as a result of the Authority's \$7 Billion CIP. (Mobility)
- Implement software to manage OPRA, subpoenas and litigation hold. (People)

<b>Law Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 1,683,500	\$ 1,899,500	\$ 1,726,300	\$ (173,200)	-9.1%
Pension & Taxes	416,300	466,200	338,100	(128,100)	-27.5%
Health Benefits	837,200	831,800	843,800	12,000	1.4%
Non-Overnight Travel	9,700	10,700	10,700	-	-
Printing & Office Supplies	24,500	28,100	28,100	-	-
Insurance	6,226,800	5,814,500	6,396,000	581,500	10.0%
Law Services	1,073,100	1,459,400	1,538,700	79,300	5.4%
Other Professional Services	153,700	159,100	174,600	15,500	9.7%
Other Services	5,900	6,900	6,900	-	-
Taxes	49,300	99,700	101,700	2,000	2.0%
<b>Total Operating Budget</b>	<b>10,480,000</b>	<b>10,775,900</b>	<b>11,164,900</b>	<b>389,000</b>	<b>3.6%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 82: Law Department Operating Budget (2017-2019)**

#### **2019 Budget Highlights:**

- Salaries are decreasing due to a reduction in authorized headcount of three positions, partially offset by actual and potential wage increase, as well as the elimination of salaries charged to capital projects
- Law makes up 1% of total Authority salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- The Authority's liability insurance premiums are projected to increase approximately 10% in 2019 for upcoming policy renewals
- Other professional services increased as our insurance & risk management consultant costs are projected to increase

<b>Law Department Budgeted Headcount</b>				
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>Change from 2018 Amended</b>
Acting General Counsel	-	-	1	1
Administrative Assistant	1	1	1	-
Administrative Secretary	1	1	1	-
Assistant Director of Law	1	1	-	(1)
Attorney	8	8	6	(2)
Claims Coordinator	1	1	1	-
Compliance Manager	1	1	1	-
Confidential Secretary	1	1	1	-
Coordinator	1	1	1	-
Deputy General Counsel	1	1	-	(1)
Director of Law	-	-	1	1
Document Services Coordinator	1	1	1	-
Equal Employment Opportunity Officer	1	1	1	-
General Counsel	1	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>22</b>	<b>19</b>	<b>(3)</b>

Figure 83: Law Department Headcount (2017-2019)

## 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 three primary functional areas: 1) Procurement; 2) Materials Management and 3) Office/Mail Services. 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, Property Control and Surplus Personal Property Sales and Office Services. Offices Services distributes mail to Authority facilities.

### Department Organization:

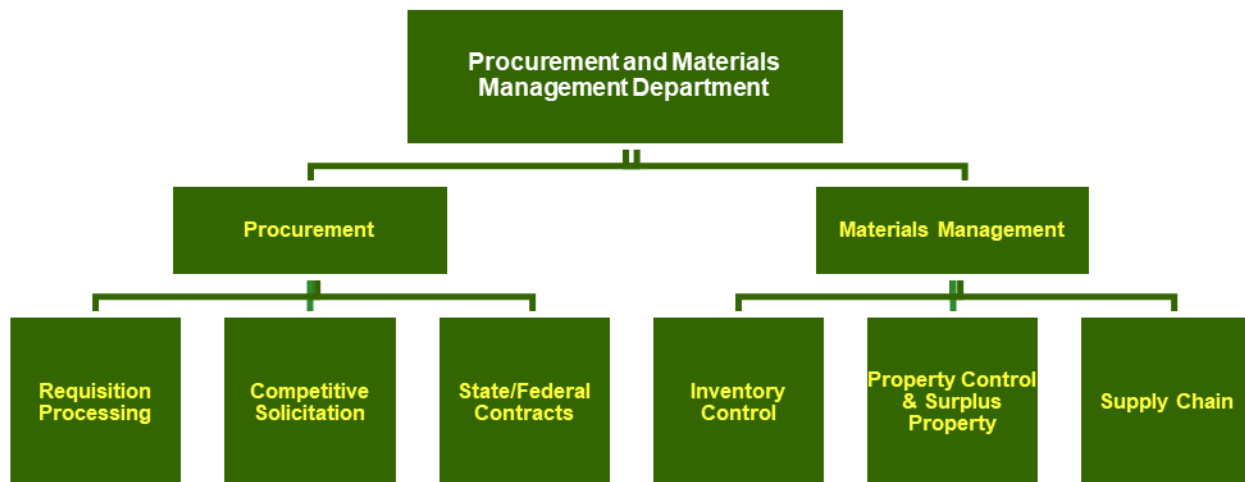


Figure 84: Procurement and Materials Management Department Organization Chart

### Senior Staff:

Director of Procurement and Materials Management: Andrea E. Ward

### 2018 Accomplishments:

- To date, completed approximately 40 public bid solicitations including complex procurements such as: contracts for Roadway Treated and Untreated Salt (with contracts in excess of \$10 million), Snow Removal and Salting Services for locations on both Roadways and Violation Enforcement Cameras (all requiring reviews by the Office of State Comptroller); In addition, completed solicitations for 10 professional services contracts including Payment Processing Services (a new outsourcing for the Authority), Outside Counsel (to several law firms including Authority Counsel, Conflicts Counsel and Special Counsel),



Management Services for Interchange No. 8A Park and Ride Facility and Professional Liability and Property Liability Insurance Broker Services.

- Successful implementation of “Direct Connect” in PeopleSoft Financials to electronically source Purchase Orders for the Authority’s office supplies using the WB Mason State contract. The Authority’s on-hand inventory levels of office supplies have been significantly reduced as a result. The turn-around time for office supply orders has been drastically reduced as well, with most orders being processed by the vendor in one to two working days compared to five to seven days.
- Conducted three Surplus personal property sales with proceeds that total approximately \$1 Million (third sale is scheduled for November 2018 and proceeds are estimated).
- Continued implementation of “Bid Express” which is the electronic bidding system for the competitive solicitations of goods and services. In 2018, 17/40 requests for bid included either mandatory or optional for electronic submissions. (Electronic bids were submitted for 6 contracts.)

#### **2019 Goals:**

- Restructure implementation of Bid Express for public bids (requiring mandatory electronic submission for select contracts) and commence the electronic process for professional service contracts by end of 2019.(People)
- Commence searchable vendor data base via the updated Authority website by fall of 2019.(People)
- Commence the addition of photos to the item master in PeopleSoft Financials to assist users when ordering stock items. There are currently over 6000 different items held in Inventory. Adding photos has been suggested over the years by requestors in the field. The goal is to start with all snow related items.(People)
- Participate in the implementation of the Authority’s new Enterprise Asset Management (EAM) system. 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).(Financial Strength)
- Implement the Return Materials Authorization (RMA) process in PeopleSoft Financials to automatic 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 will provide improved systematic tracking of items returned to Inventory.(People)

<b>Procurement &amp; Materials Management Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 5,682,200	\$ 5,389,800	\$ 4,609,600	\$ (780,200)	-14.5%
Allowances	13,700	13,700	13,700	-	-
Pension & Taxes	1,248,900	1,186,000	902,700	(283,300)	-23.9%
Health Benefits	2,511,700	2,773,400	2,253,000	(520,400)	-18.8%
Non-Overnight Travel	2,100	2,600	2,600	-	-
Printing & Office Supplies	10,400	15,000	15,000	-	-
Operating Supplies	8,000	6,700	11,200	4,500	67.2%
Other Materials	1,100	800	800	-	-
Consulting Services	2,900	-	-	-	-
Other Services	103,700	45,400	53,400	8,000	17.6%
Equipment Maintenance	600	200	200	-	-
Equipment Rental	2,600	10,000	10,000	-	-
Equipment	-	30,000	30,000	-	-
Other Expenses	23,400	12,300	12,300	-	-
<b>Total Operating Budget</b>	<b>9,611,300</b>	<b>9,485,900</b>	<b>7,914,500</b>	<b>(1,571,400)</b>	<b>-16.6%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 85: Procurement and Materials Management Department Operating Budget (2017-2019)**

**2019 Budget Highlights:**

- Salaries are decreasing due to a reduction in the 2019 headcount from the transfer of the mailroom staff and responsibilities to the Human Resources Department, partially offset by actual and potential wage increases, and the elimination of salaries changed to capital projects.
- Procurement and Materials Management make up 3% of total Authority salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- Operating Supplies increasing due to the need for labels need for operation success of the warehouse - these will be an inventory stock item going forward. Previously these were charged to the project for year one

<b>Procurement &amp; Materials Management Department Budgeted Headcount</b>				
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>Change from 2018 Amended</b>
Assistant Buyer	1	1	1	-
Assistant Manager, Inventory Control	-	-	2	2
Assistant Office Services Manager	1	1	-	(1)
Buyer	3	3	5	2
Clerk	1	1	-	(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	1	-	(1)
Inventory and Materials Supervisor	8	8	6	(2)
Inventory Records Clerk	1	1	1	-
Maintenance Records Clerk	2	2	2	-
Office Services Assistant	2	2	-	(2)
Parts/Inventory Counter Clerk	13	13	14	1
Print & Supply Specialist	1	1	-	(1)
Procurement Coordinator	1	1	1	-
Procurement Specialist	2	2	2	-
Procurements Specialist Manager	1	1	-	(1)
Property & Materials Supervisor	3	3	2	(1)
Property Control Manager	1	1	1	-
Property Control Specialist	1	1	1	-
Purchasing Manager	1	1	1	-
Senior Clerk	1	1	1	-
Senior Mail/ Messenger/Shipping Clerk	2	2	-	(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	1	-	(1)
Supply Chain Manager	1	1	1	-
Tolls Inventory and Staffing Manager	1	1	1	-
<b>Total</b>	<b>63</b>	<b>63</b>	<b>55</b>	<b>(8)</b>

Figure 86: Procurement and Materials Management Department Headcount (2017-2019)

## 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

Assistant Director of Human Resources: Kevin Burke

Assistant Director of Human Resources – Policy & Training: Brenda Coleman-Caldwell

### 2018 Accomplishments:

- Provided mandatory training (including sexual harassment) for all employees
- Implemented intake process for various complaints
- Developed HR Calendar of events for the year
- Updated Job Descriptions
- Established a filing program for the HR department
- Revamped the on boarding process

### 2019 Goals:

- Implement Open Enrollment Online(People)
- Implement software for DA-1/Disciplinary letter/Grievance tracking.(People)
- Roll out group orientation for all new hires.(People)
- Continuation of the first phase of the overhaul of the HR department's filing system (hardcopy and electronic).(People)
- Roll out of Employee Recognition Program.(People)

- Continuation of the job description project.(People)
- Implement basic supervision training for promotions, all departments.(People)

<b>Human Resources &amp; Office Services Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 3,004,200	\$ 3,015,700	\$ 3,240,400	\$ 224,700	7.5%
Allowances	6,000	7,000	7,000	-	-
Pension & Taxes	719,100	676,600	634,600	(42,000)	-6.2%
Employee Relations	-	-	32,000	32,000	-
Health Benefits	1,446,100	1,541,300	1,583,800	42,500	2.8%
Tuition	89,700	100,000	100,000	-	-
Non-Overnight Travel	68,200	109,300	139,300	30,000	27.4%
Printing & Office Supplies	94,600	117,200	119,100	1,900	1.6%
Medical Supplies	12,000	8,600	9,000	400	4.7%
Operating Supplies	8,000	9,600	11,200	1,600	16.7%
Other Materials	21,100	9,200	10,100	900	9.8%
Consulting Services	6,400	46,600	64,100	17,500	37.6%
Other Professional Services	262,300	133,300	277,400	144,100	108.1%
Environmental Services	2,300	2,600	3,500	900	34.6%
Other Services	2,000	2,400	2,600	200	8.3%
Building Maintenance	-	-	84,000	84,000	-
Toll Booth Maintenance	82,300	82,100	-	(82,100)	-100.0%
Equipment Maintenance	25,500	45,300	66,900	21,600	47.7%
Equipment	11,400	17,200	12,200	(5,000)	-29.1%
<b>Total Operating Budget</b>	<b>5,861,200</b>	<b>5,924,000</b>	<b>6,397,200</b>	<b>473,200</b>	<b>8.0%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 88: Human Resources and Office Services Department Operating Budget (2017-2019)**

#### **2019 Budget Highlights:**

- Salaries are increasing due to actual and potential wage increases and a net increase in headcount. Mailroom staff and responsibilities were transferred into Human Resources from PMM, while safety staff and responsibilities were transferred from HR to Internal Audit.
- Human Resources and Office Services makes up 2% of Authority salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- Addition of an Employee Relations budget to support Authority promotional items
- Increase in Training and Transportation costs to cover the increase in investment for training for all Authority employees, especially supervisory and management training
- Operating Supplies are increasing to cover legally required carbon monoxide detectors Authority wide, as well as new print shop equipment supplies for proper operation
- Consulting services are increasing due to services required by safety staff related to Silica oversight based on OSHA requirements
- Increase in Building Maintenance to cover rising costs associated with maintenance contracts
- Equipment Maintenance has increased as print shop equipment are increasingly requiring repairs

<b>Human Resources &amp; Office Services Department Budgeted Headcount</b>				
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>Change from 2018 Amended</b>
Administrative Manager	-	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	3	-
Director of Human Resources	1	1	1	-
Employment Manager	1	1	1	-
Human Resources Clerk	1	1	1	-
Human Resources Generalist	3	3	2	(1)
Human Resources Manager	1	1	-	(1)
Human Resources Project Coordinator	-	-	1	1
Human Resources Specialist	1	1	1	-
Junior Printer	2	2	3	1
Manager - Safety Programs	1	1	-	(1)
Nurse	1	1	2	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	2	-	(2)
Senior Benefits Manager	1	1	1	-
Senior Clerk	1	1	1	-
Senior Human Resources Generalist	4	4	4	-
Senior Human Resources Manager	1	1	-	(1)
Senior Mail Clerk	-	-	2	2
Senior Nurse	1	1	1	-
Senior Printer	2	2	2	-
Senior Safety Inspector	1	1	-	(1)
Senior Secretary Parkway	-	-	1	1
<b>Total</b>	<b>36</b>	<b>37</b>	<b>42</b>	<b>5</b>

Figure 89: Human Resources and Office Services Department Headcount (2017-2019)

## Finance

### Department Description:

The Finance Department is responsible for all fiscal matters of the Authority. The department ensures compliance with trust agreements, manages the Authority's resources, structures financial plans to maintain debt service coverage, and works with all departments to manage costs. Overall financial policies and reporting requirements are dictated by the terms of the Authority's Bond Resolution, and also 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 the Authority's \$7 Billion CIP.

### Department Organization:

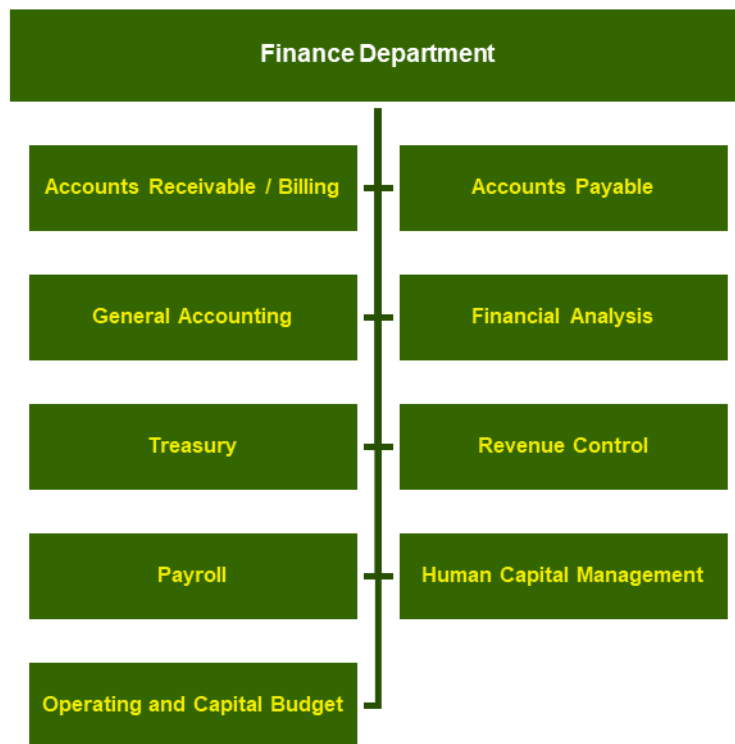


Figure 90: Finance Department Organization Chart

### Senior Staff:

Chief Financial Officer: Donna Manuelli

Assistant Director of Finance: Mukta Puranik

**2018 Accomplishments:**

- Successfully procured new contract for ISF (insufficient fund) processing.
- Identified and sold over \$850,000 worth of surplus land and equipment.
- Improved the Authority's days cash on hand to 656 (FY 2017) and current ratio to 2.04 (FY 2017).
- Reached target of general reserve balance of \$150.0 million.
- Successfully received \$5 million from our insurance claim for physical damage of the Delaware River Turnpike Bridge which was closed from January 20, 2017 to March 9, 2018.
- Procured and implemented Wdesk by Workiva, to help improve collaboration, increase efficiency and boost the accuracy of our reports.

**2019 Goals:**

- Issue \$525 million of new money bonds in 2019 to provide additional funding for the \$7 Billion CIP.(Financial Strength)
- Purchase and install cash recyclers at toll plazas to reduce the cost of courier and counting fees. (Financial Strength)
- Procure and implement a more robust budgeting module that integrates with our current ERP system.(People)
- Procure a new contract with a merchant service provider and integrate their services with our current E-ZPass CSC (customer service center) contractor, Conduent.(Financial Strength)
- Reach target of general reserve budget of \$175.0 million.(Financial Strength)
- Review and update Finance Department policies and procedures. Implement leading practices and document current workflows.(People)
- Optimize current report writing tool NVision to accelerate and improve financial reporting.(People)
- Continue to review processes to maximize collection of toll violations. (Financial Strength)

<b>Finance Department Operating Budget</b>					
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 6,240,200	\$ 6,176,800	\$ 6,702,400	\$ 525,600	8.5%
Allowances	500	300	500	200	66.7%
Pension & Taxes	1,476,000	1,245,400	1,312,500	67,100	5.4%
Health Benefits	2,968,400	2,986,600	3,275,900	289,300	9.7%
Non-Overnight Travel	2,400	700	700	-	-
Printing & Office Supplies	27,100	29,500	29,500	-	-
Other Materials	400	300	700	400	133.3%
Banking Services	415,500	538,800	914,200	375,400	69.7%
Consulting Services	484,100	687,700	518,400	(169,300)	-24.6%
Other Professional Services	1,099,000	749,600	932,000	182,400	24.3%
Other Services	39,200	38,900	43,300	4,400	11.3%
Other Expenses	1,300	-	-	-	-
<b>Total Operating Budget</b>	<b>12,754,100</b>	<b>12,454,600</b>	<b>13,730,100</b>	<b>1,275,500</b>	<b>10.2%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 91: Finance Department Operating Budget (2017-2019)**



**2019 Budget Highlights:**

- Salaries are increasing due to the cost of actual and potential wage increases and fully funded vacant positions. Salaries charged to capital projects have been eliminated in 2019.
- Finance makes up 4% of total Authority salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- Other Professional Services are increasing due to a contractual increase for Segal Company, KPMG, CDM Smith and other various financial related service consultants, as well as anticipated consultant work to update the policy and procedures manual.
- Banking Services are increasing due to additional trustee fees as well as a correction in 2019 to include banking fees budgeted in the toll collection department in 2018

Finance Department Budgeted Headcount				
	2017 Actuals	2018 Amended	2019 Budget	Change from 2018 Amended
Accounting Manager, General Ledger	1	1	1	-
Accounting Manager, Internal Control	1	1	1	-
Accounts Clerk	1	1	2	1
Accounts Payable Manager	1	1	1	-
Accounts Receivable Analyst	1	1	1	-
Accounts Receivable Manager	1	1	1	-
Accounts Receivable Supervisor	1	1	-	(1)
Administrative Assistant	1	1	1	-
Assistant Comptroller	-	-	1	1
Assistant Director of Finance	1	1	-	(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	1	-	(1)
Cash Manager	1	1	1	-
Cash Toll Audit Manager	1	1	1	-
Chief Financial Officer	1	1	1	-
Clerk 1, 70	1	1	1	-
Confidential Secretary	1	1	1	-
Coordinator - Bargaining	1	1	1	-
Data Analyst	3	3	3	-
Deputy Chief Financial Officer	1	1	-	(1)
Disbursements Clerk	1	1	1	-
Disbursements Section Supervisor	2	2	2	-
Financial Analyst	1	1	2	1
Financial Manager	2	2	2	-
Financial Resources Specialist	1	1	-	(1)
Human Capital Management Analyst	2	2	1	(1)
Human Capital Management Manager	1	1	1	-
Human Capital Management Specialist	1	1	2	1
Junior Accountant	4	4	4	-
Junior Accounting Analyst	13	13	15	2
Payroll Administrator/Manager	1	1	1	-
Payroll Analyst	-	-	2	2
Payroll Coordinator	3	3	2	(1)
Revenue Control Manager	1	1	-	(1)
Senior Accounts Clerk	1	1	1	-
Senior Accounts Payable Supervisor	1	1	1	-
Senior Budget Supervisor	2	2	2	-
Senior Clerk	6	6	5	(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	2	3	1
Variance Analyzer Coordinator	2	2	2	-
<b>Total</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>-</b>

Figure 92: Finance Department Headcount (2017-2019)

## 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:

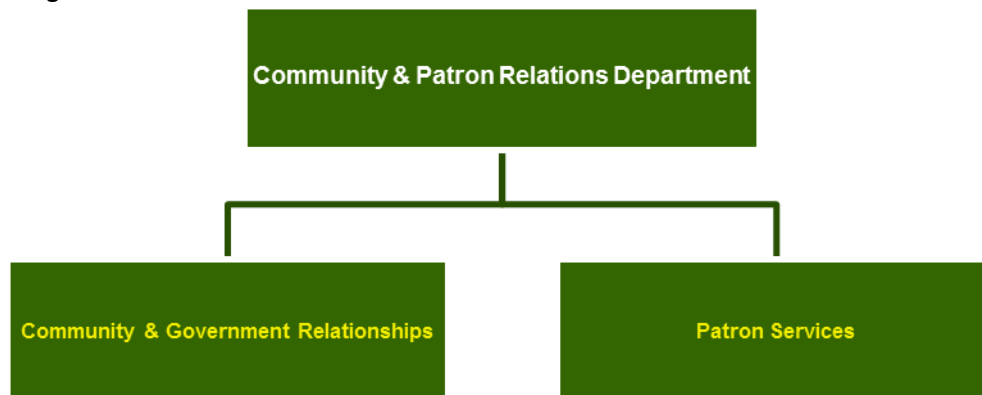


Figure 93: Community and Patron Relations Department Organization Chart

### Senior Staff:

Director of Community and Government Relations: Shawn Taylor

Patron Services Manager: Erika Vargas-Garrison

Customer Services Manager: Denise DeSante

### 2018 Accomplishments:

- Extended the Academy bus agreement by 10 years and received a \$1.25 million capital contribution for park & ride improvements
- Completed negotiation of successor operating agreements with HMSHost, the Authority's food service provider on the New Jersey Turnpike and Garden State Parkway and Sunoco, the Authority's fuel service provider on the New Jersey Turnpike and Garden State Parkway.
- Commencement of Phase I Service Area Redevelopment projects for the Thomas Edison, Alexander Hamilton, Monmouth, Brookdale North service areas.

- 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.

#### 2019 Goals:

- Appear at local public meetings concerning Authority engineering projects (State of Good Repair)
- 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)
- Reconstruction or 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 seven (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>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 1,128,500	\$ 1,012,100	\$ 1,418,700	\$ 406,600	40.2%
Allowances	200	300	500	200	66.7%
Pension & Taxes	227,100	219,700	277,800	58,100	26.4%
Employee Relations	-	-	5,000	5,000	-
Health Benefits	456,700	519,900	693,400	173,500	33.4%
Non-Overnight Travel	100	-	1,300	1,300	-
Printing & Office Supplies	5,000	5,400	7,800	2,400	44.4%
Consulting Services	229,200	220,000	170,000	(50,000)	-22.7%
<b>Total Operating Budget</b>	<b>2,046,800</b>	<b>1,977,400</b>	<b>2,574,500</b>	<b>597,100</b>	<b>30.2%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 94: Community and Patron Relations Department Operating Budget (2017-2019)**

#### 2019 Budget Highlights:

- Salaries increasing to reflect the creation of the Community and Government Relations Department in mid-2018 as well as actual and potential wage increases. One position (contract manager) is being added in 2018.
- Community and Government Relations and Patron Services make up 1% of total Authority salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- Increased operating expenses due to the full year implementation of the Community and Government Relations Department and the costs related to sustain positive public relations

<b>Community &amp; Patron Relations Budgeted Headcount</b>				
	<b>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>Change from 2018 Amended</b>
Administrative Secretary	-	-	1	1
Assistant Customer Service Manager	2	2	2	-
Assistant Patron Services Manager	1	1	1	-
Community & Government Relations Specialist	-	-	1	1
Contract Services Supervisor	1	1	1	-
Customer Service Manager	1	1	1	-
Director Community & Government Relations	-	-	1	1
Marketing Coordinator	1	1	1	-
Patron Services Contract Manager	-	-	1	1
Patron Services Manager	1	1	1	-
Receptionist	2	1	2	1
Senior Clerk	1	1	1	-
Senior Patron Services Aide	2	2	2	-
<b>Total</b>	<b>12</b>	<b>11</b>	<b>16</b>	<b>5</b>

Figure 95: Community and Patron Relations Department Headcount (2017-2019)

## 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:

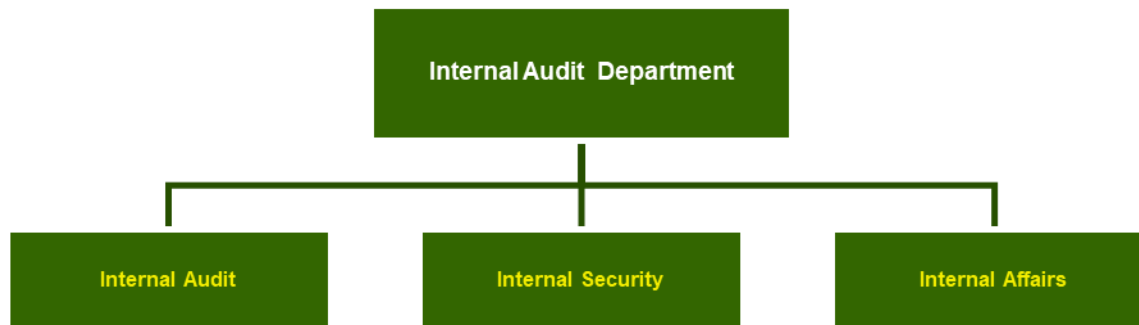


Figure 96: Internal Audit Department Organization Chart

### Senior Staff:

Director of Internal Audit: Donna Wilser  
 Deputy Director of Internal Audit: Tracey Walters  
 Senior Security Manager: Thomas McGowan

### 2018 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 and monetary recoveries of over \$1.5 million.
- Identified major IT audit projects and provided training to Audit staff supporting these initiatives.
- 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.

### 2019 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 2019 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.(People)

- 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>2017 Actuals</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Salaries	\$ 2,429,600	\$ 1,910,600	\$ 2,486,300	\$ 575,700	30.1%
Allowances	4,700	4,000	4,000	-	-
Pension & Taxes	492,000	415,700	486,900	71,200	17.1%
Health Benefits	989,500	1,040,800	1,215,200	174,400	16.8%
Non-Overnight Travel	100	-	-	-	-
Printing & Office Supplies	5,300	6,300	6,300	-	-
Operating Supplies	4,200	9,000	20,000	11,000	122.2%
Other Services	500	1,200	1,200	-	-
Equipment Maintenance	16,400	202,600	400,000	197,400	97.4%
Equipment Rental	6,400	6,000	24,000	18,000	300.0%
Equipment	-	-	10,000	10,000	-
<b>Total Operating Budget</b>	<b>3,948,700</b>	<b>3,596,200</b>	<b>4,653,900</b>	<b>1,057,700</b>	<b>29.4%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 97: Internal Audit Department Operating Budget (2017-2019)**

#### **2019 Budget Highlights:**

- Salaries are increasing to cover the cost of actual and potential wage increases, increased headcount, fully funded vacancies 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 in late 2018 to allow for timely internal investigations
- Internal Audit makes up 1.5% of total Authority salaries
- Taxes/Pension and Health Benefits are allocated based on departmental salaries and are being allocated at a rate 19.58% and 48.88%, respectively. In total, Taxes/Pension are budgeted to decline, as the 2018 budget for payroll taxes was too high. Health Benefits are increasing due to a significant increase in medical insurance costs.
- Operating Supplies are increasing due to the acquisition of a new badge processing machine and the related equipment
- Equipment Maintenance is increasing due to ongoing gate maintenance and systems service contract

Internal Audit Department Budgeted Headcount				
	2017 Actuals	2018 Amended	2019 Budget	Change from 2018 Amended
Acting Director Internal Audit	-	-	1	1
Audit Manager	1	1	1	-
Auditor	3	3	3	-
Case Manager	1	1	1	-
Clerk	2	2	2	-
Confidential Secretary	2	2	2	-
Deputy Director Internal Audit	1	1	1	-
Director Internal Audit	1	1	-	(1)
Manager - Safety Programs	-	-	1	1
Safety Manager	-	-	2	2
Security Inspector	1	1	1	-
Security Officer	2	2	2	-
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>22</b>	<b>27</b>	<b>5</b>

Figure 98: Internal Audit Department Headcount (2017-2019)



## Capital and General Reserve Spending Budgets

The Authority considers its Capital Budget to consist of projects included in the Maintenance Reserve Fund, Special Project Reserve Fund, and Supplemental Capital (a part of the General Reserve Fund) budgets. These budgets include total spending of \$376 million in 2019. All projects submitted for consideration for funding in the 2019 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 2019 Capital Budget projects by category is as follows:

<u>Category</u>	<u>% of Total Capital Budget Funding</u>
Age or Condition of Existing	71%
Public Safety	12%
Generates Revenues	9%
Employee Health & Safety	2%
Synergy with Other Projects	2%
Strategic Goal	2%
Regulatory Mandate	1%
Public Benefit	1%
Frequent Problems	1%

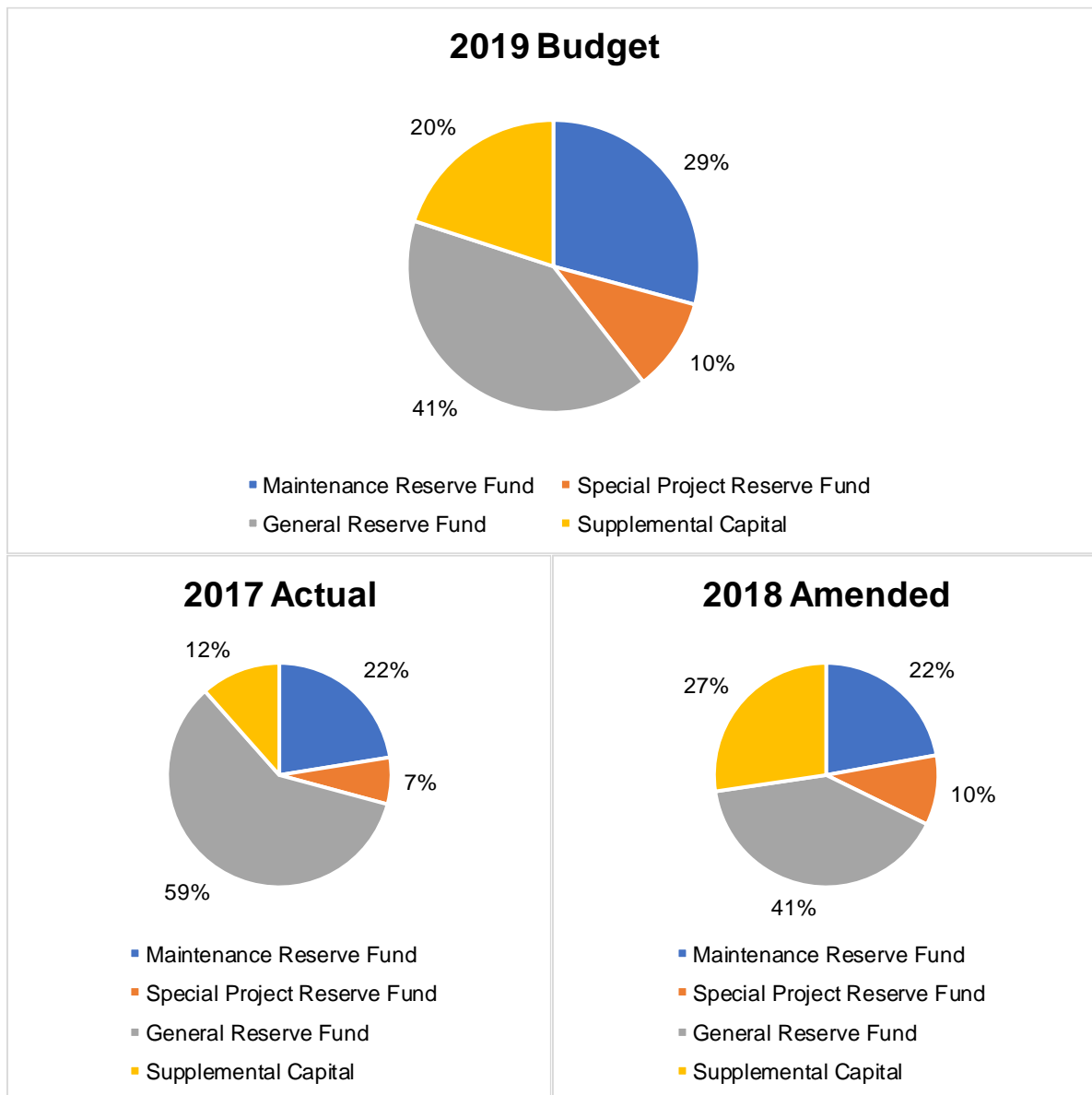
Approximately 71% of the total funding for 2019 is intended to maintain assets in a state of good repair. This includes bridge repair, roadway resurfacing projects and facility improvements. The Authority continues to increase its funding to maintain the roadways in a state of good repair. In 2019 the 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 12% of the total 2019 Capital Budget funding 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.

<b>Capital and General Reserve Funds Budget</b>					
	<b>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Maintenance Reserve Fund	\$ 99,255,000	\$ 134,247,000	\$ 185,025,000	\$ 50,778,000	37.8%
Special Project Reserve Fund	29,739,000	61,155,000	65,149,000	3,994,000	6.5%
General Reserve Fund	261,796,000	244,945,000	256,845,000	11,900,000	4.9%
Supplemental Capital	50,970,000	165,628,000	126,520,000	(39,108,000)	-23.6%
<b>Total Capital and General Reserve</b>	<b>\$ 441,760,000</b>	<b>\$ 605,975,000</b>	<b>\$ 633,539,000</b>	<b>\$ 27,564,000</b>	<b>4.5%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 99: Total Capital and General Reserve Funds Budget (2017-2019)**



**Figure 100: Total Capital and General Reserve Funds Percentages (2017-2019)**

<b>Capital Budget Spending by Project Type</b>					
	<b>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Bridge And Structure Inspections	\$ 8,580,000	\$ 9,968,000	\$ 7,761,000	\$ (2,207,000)	-22.1%
Bridge Repairs	41,594,000	87,661,000	109,150,000	21,489,000	24.5%
Concrete Barrier Repairs	144,000	6,866,000	11,100,000	4,234,000	61.7%
Drainage Structure Repairs	1,335,000	5,224,000	10,000,000	4,776,000	91.4%
Emergency Maintenance	8,570,000	10,100,000	10,100,000	-	-
Other Roadway Improvements	14,907,000	46,621,000	24,039,000	(22,582,000)	-48.4%
Resurfacing	37,631,000	70,130,000	67,930,000	(2,200,000)	-3.1%
Roadway Lighting Repairs	-	14,750,000	15,195,000	445,000	3.0%
Shoulder Restoration	-	10,000,000	10,000,000	-	-
<b>Total Roadway</b>	<b>\$ 112,761,000</b>	<b>\$ 261,320,000</b>	<b>\$ 265,275,000</b>	<b>\$ 3,955,000</b>	<b>1.5%</b>
Facility Improvements	46,040,000	48,279,000	42,115,000	(6,164,000)	-12.8%
Fleet Upgrades	10,888,000	10,800,000	11,720,000	920,000	8.5%
Service Areas And Arts Center	-	4,174,000	19,766,000	15,592,000	373.6%
Technology Improvements	10,275,000	36,457,000	37,818,000	1,361,000	3.7%
<b>Total Non-Roadway</b>	<b>\$ 67,203,000</b>	<b>\$ 99,710,000</b>	<b>\$ 111,419,000</b>	<b>\$ 11,709,000</b>	<b>11.7%</b>
<b>Total Capital Budget Spending</b>	<b>\$ 179,964,000</b>	<b>\$ 361,030,000</b>	<b>\$ 376,694,000</b>	<b>\$ 15,664,000</b>	<b>4.3%</b>

<b>Capital Budget Funding Sources</b>					
	<b>2017 Actual</b>	<b>2018 Amended</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Amended</b>	<b>% Change from 2018 Amended</b>
Maintenance Reserve	\$ 99,255,000	\$ 134,247,000	\$ 185,025,000	\$ 50,778,000	37.8%
Special Project Reserve	29,739,000	61,155,000	65,149,000	3,994,000	6.5%
Supplemental Capital	50,970,000	165,628,000	126,520,000	(39,108,000)	-23.6%
<b>Total Funding Sources</b>	<b>\$ 179,964,000</b>	<b>\$ 361,030,000</b>	<b>\$ 376,694,000</b>	<b>\$ 15,664,000</b>	<b>4.3%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 101: Capital Budget Spending and Funding (2017-2019)**

Some highlights for the Capital Budget include:

- An increase in over 75% 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.
- An increase of 24.5% for Turnpike and Parkway bridge repairs. The authority will repair 59 more bridge decks in 2019 than in 2018.
- New funding of \$10.0 million for shoulder restoration design between mileposts 30 and 35 on the Parkway, an important safety project.
- Increased funding of \$15.6 million for the AUtority'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 48.2 to 54 and from mileposts 103.5 to 116.10. Southbound lanes will be resurfaced from mileposts 116.10 to 122. Interchanges 1, 14, 15W, 16W, 18W will be resurfaced. Resurfacing for the Turnpike is a total of 290 lane miles.
- The New Jersey Turnpike is scheduled to have 69 bridge decks repaired.
- The Garden State Parkway northbound lanes will be resurfaced from milepost 138.3 to 142.5. The Garden State Parkway southbound lanes will be resurfaced between mileposts 80.8 to 81.75, 110.9 to 111.1, 115.2 to 115.8, 119.2 to 122.8, and 159.5 to 160.6. The Toms River Northbound Toll Plaza and the Brick Northbound and Southbound Toll Plazas will be resurfaced for 3 lane miles. Ramps at interchanges 98, 114, 123, 124, 131, 135, 138, 139, 143, 144, 145, 147, 157, and 159 will be resurfaced for a total of 17 lane miles. Resurfacing for the Parkway is a total of 74 lane miles.
- The Garden State Parkway is scheduled to have 31 bridge decks repaired.

Maintenance Reserve Fund Spending Budget					
	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Bridge And Structure Inspections	\$ 8,580,000	-	-	-	-
Bridge Repairs	41,594,000	59,965,000	68,700,000	8,735,000	14.6%
Concrete Barrier Repairs	144,000	6,847,000	11,100,000	4,253,000	62.1%
Drainage Structure Repairs	1,335,000	4,796,000	10,000,000	5,204,000	108.5%
Emergency Maintenance	8,570,000	10,100,000	10,100,000	-	-
Other Roadway Improvements	1,401,000	-	2,000,000	2,000,000	-
Resurfacing	37,631,000	39,539,000	67,930,000	28,391,000	71.8%
Roadway Lighting Repairs	-	13,000,000	15,195,000	2,195,000	16.9%
<b>Total Roadway</b>	<b>\$ 99,255,000</b>	<b>\$ 134,247,000</b>	<b>\$ 185,025,000</b>	<b>\$ 50,778,000</b>	<b>37.8%</b>
<b>Total Maintenance Reserve Fund</b>	<b>\$ 99,255,000</b>	<b>\$ 134,247,000</b>	<b>\$ 185,025,000</b>	<b>\$ 50,778,000</b>	<b>37.8%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

Figure 102: Maintenance Reserve Fund Projects (2017-2019)

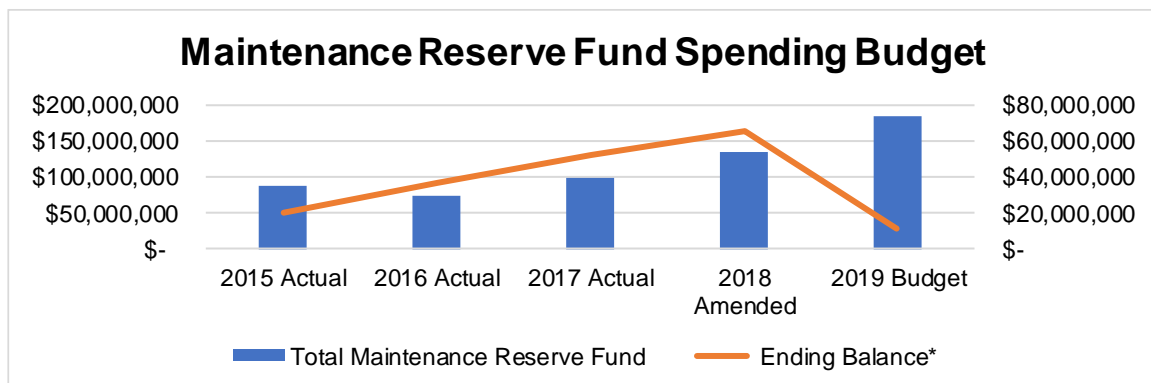


Figure 103: Maintenance Reserve Fund Budget Graph (2015-2019)

<b>Maintenance Reserve Fund Balance</b>					
	<b>2017 Actual</b>	<b>2018 Est/Actual</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Est/Actual</b>	<b>% Change from 2018 Est/Actual</b>
Beginning Balance	\$ 34,412,000	\$ 51,908,000	\$ 65,040,000	\$ 13,132,000	25.3%
Transfer from Revenue Fund	116,751,000	119,086,000	131,468,000	12,382,000	10.4%
Project Expenses	(99,255,000)	(105,954,000)	(185,025,000)	(79,071,000)	74.6%
<b>Ending Balance*</b>	<b>\$ 51,908,000</b>	<b>\$ 65,040,000</b>	<b>\$ 11,483,000</b>	<b>\$ (53,557,000)</b>	<b>-82.3%</b>

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

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

**Figure 104: Maintenance Reserve Fund Balance (2017-2019)**

The following is a detailed list of the projects included in the 2019 Maintenance Reserve Fund Spending Budget:

<b>Maintenance Reserve Fund 2019</b>		
<b>Project #</b>	<b>Project Name</b>	<b>2019 Budget</b>
030C00001E	Drainage Structure Repair	\$ 7,000,000
030C00001M	Drainage Structure Repair	3,000,000
030C00002	Concrete Barrier Repairs	11,100,000
<i>030C00003E</i>	<i>Roadway Lighting Upgrade</i>	<i>10,000,000</i>
030C00004	P0.00 Emergency Repairs	1,600,000
030C00005E	Major Roadway Repairs	1,000,000
030C00005M	Major Roadway Repairs	1,000,000
030C0003M	Roadway Lighting Repairs	5,195,000
030C10001E	TPK - Bridge Repairs	33,500,000
030C10002E	TPK - Resurfacing	43,000,000
030C20001E	GSP-Bridge Repairs	35,200,000
030C20005E	GSP- Resurfacing	24,930,000
039999999	Emergency Maintenance	8,500,000
<b>Total Maintenance Reserve Fund</b>		<b>\$ 185,025,000</b>

*New projects are italicized*

**Figure 105: Maintenance Reserve Fund 2019 Projects**

<b>Maintenance Reserve Fund</b>		
<b>Project #</b>	<b>Project Name</b>	<b>Project Description</b>
030C00001E	Drainage Structure Repair	Provide resources for the design and construction of scheduled major reconstruction, repairs and improvements of drainage facilities/culverts.
030C00001M	Drainage Structure Repair	Provide resources for the design and construction of scheduled major reconstruction, repairs and improvements of drainage facilities with costs greater than \$50,000.00. Increase and maintain the Authority's compliance with NJDEP guidelines managed by the Maintenance Department. This includes advanced recon and other programs as well as funds for immediate repairs.
030C00002	Concrete Barrier Repairs	Provides for a dedicated funding source to allow for the annual maintenance and upgrade of 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. Includes design, construction and supervision.
030C00003E	Roadway Lighting Upgrade	Design, Construction and Supervision of the full replacement of series lighting on the New Jersey Turnpike, managed by the Engineering Department. This work is related to the Engineering Capital Plan.
030C00003M	Roadway Lighting Repairs	Funding for repairs and improvements of the roadway lighting systems on the New Jersey Turnpike and Garden State Parkway with costs greater than \$50,000 and are managed by the Maintenance Department. This work includes arc flashing, LED light fixture replacement, and the potential supplementation of trade staff. This project also includes funding for design, permitting, purchasing and construction resource for the replacement of Utility Owned (Flat Rate) Lighting at GSP Interchanges 102, 105, 109, 114, 117, 118, 120, PNC Arts Center and Cheesequake SA to Authority Owned LED Lighting per AASHTO and Authority guidelines.
030C00004	P0.00 Emergency Repairs	Funding for the completion of the emergency repairs to the Delaware River Turnpike Bridge (NJTA Structure P0.00) as well as structural monitoring.
030C00005E	Major Roadway Repairs	Funding for design, permitting, purchasing and construction resources to address immediate and scheduled major reconstruction and replacement of roadway and structural assets. This funding source is now divided between the Maintenance Department and Engineering Department.
030C00005M	Major Roadway Repairs	Funding for design, permitting, purchasing and construction resources to address immediate and scheduled major reconstruction and replacement of roadway and structural assets. This funding source is now divided between the Maintenance Department and Engineering Department.
030C10001E	TPK - Bridge Repairs	Inspection, design, construction and construction supervision for repairs of New Jersey Turnpike bridges - includes 69 bridge repairs for 2019.
030C10002E	TPK - Resurfacing	Provides a dedicated funding source for annual roadway resurfacing program for the New Jersey Turnpike based upon evaluation results. This funding allows surface course pavement to be maintained in a safe and serviceable condition for the benefit of patrons. In 2019, the New Jersey Turnpike lanes will be resurfaced northbound and southbound between mileposts 0 to 3.1 for 25 lane miles; between mileposts 48.2 and 54 for 63 lane miles; between mileposts 103.5 and 122 and interchanges 15W, 16W, 18W, 1 for 208 lane miles - resulting in a total of 271 lane miles being resurfaced.

030C20001E	GSP-Bridge Repairs	Inspection, design, construction and construction supervision for repairs of Garden State Parkway bridges - includes 31 bridge repairs for 2019.
030C20005E	GSP- Resurfacing	Provides a dedicated funding source for annual roadway resurfacing program for the Garden State Parkway based upon evaluation results. Funding levels allows the pavement to be maintained in a safe and serviceable condition for the benefit of patrons. In 2019, the Garden State Parkway northbound lanes will be resurfaced from milepost 138.3 to 142.5 for 25 lane miles. The Toms River Northbound Toll Plaza and the Brick Northbound and Southbound Toll Plaza will be resurfaced for 3 lane miles. Ramps at interchanges 98,114,123,124,131, 135, 138, 139,143,144, 145,147,157,159 will be resurfaced for a total of 17 lane miles. The Garden State Parkway southbound lanes will be resurfaced between mileposts 80.8 to 81.75; 110.9 to 111.1; 115.2 to 115.8; 119.2 to 122.8; and 159.5 to 160.6 for a total of 29 lane miles. This work will result in a total of 74 lane miles being resurfaced.
039999999	Emergency Maintenance	Emergency/Unanticipated roadway, bridge or structure maintenance as approved by Executive Staff.

**Figure 106: Maintenance Reserve Fund Project Descriptions**

## Special Project Reserve Fund

Approximately \$22.9 million (35%) is budgeted for Facility Improvements, \$16.4 million (25%) on Roadway Improvements, \$14.1 million (22%) on Technology Improvements and \$11.7 million (18%) on Fleet Upgrades.

Special Project Reserve Fund Spending Budget					
	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Bridge And Structure Inspections	-	\$ 9,968,000	\$ 7,761,000	\$ (2,207,000)	-22.1%
Drainage Structure Repairs	-	428,000	-	(428,000)	-100.0%
Other Roadway Improvements	8,219,000	11,230,000	8,649,000	(2,581,000)	-23.0%
<b>Total Roadway</b>	<b>\$ 8,219,000</b>	<b>\$ 21,626,000</b>	<b>\$ 16,410,000</b>	<b>\$ (5,216,000)</b>	<b>-24.1%</b>
Facility Improvements	3,691,000	20,069,000	22,927,000	2,858,000	14.2%
Fleet Upgrades	10,888,000	10,800,000	11,720,000	920,000	8.5%
Technology Improvements	6,941,000	8,660,000	14,092,000	5,432,000	62.7%
<b>Total Non-Roadway</b>	<b>\$ 21,520,000</b>	<b>\$ 39,529,000</b>	<b>\$ 48,739,000</b>	<b>\$ 9,210,000</b>	<b>23.3%</b>
<b>Total SPRF Spending</b>	<b>\$ 29,739,000</b>	<b>\$ 61,155,000</b>	<b>\$ 65,149,000</b>	<b>\$ 3,994,000</b>	<b>6.5%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

Figure 107: Special Project Reserve Fund Budget (2017-2019)

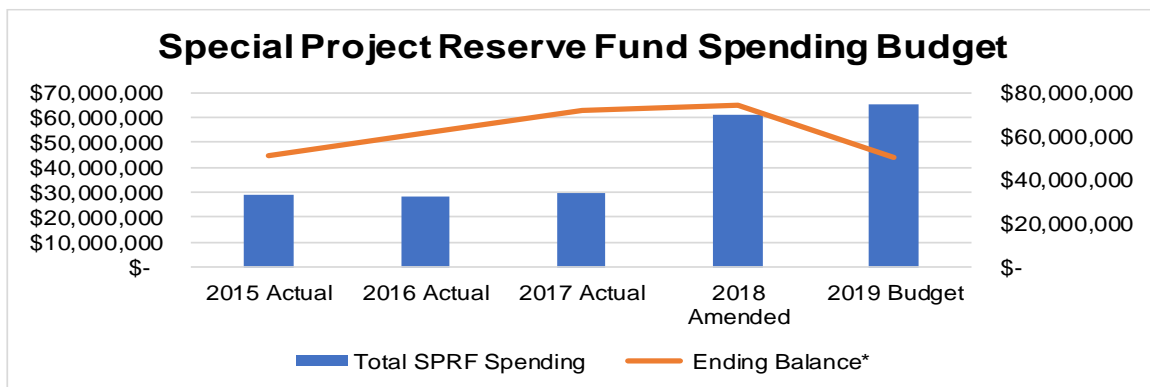


Figure 108: Special Project Reserve Fund Budget Graph (2015-2019)

Special Project Reserve Fund Balance					
	2017 Actual	2018 Est/Actual	2019 Budget	\$ Change from 2018 Est/Actual	% Change from 2018 Est/Actual
Beginning Balance	\$ 61,596,000	\$ 71,552,000	\$ 74,341,000	\$ 2,789,000	3.9%
Transfer from Revenue Fund	39,695,000	40,490,000	41,300,000	810,000	2.0%
Project Expenses	(29,739,000)	(37,701,000)	(65,149,000)	(27,448,000)	72.8%
<b>Ending Balance*</b>	<b>\$ 71,552,000</b>	<b>\$ 74,341,000</b>	<b>\$ 50,492,000</b>	<b>\$ (23,849,000)</b>	<b>-32.1%</b>

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

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

Figure 109: Special Project Reserve Fund Balance (2017-2019)



<b>Special Projects Reserve Fund 2019</b>		
<b>Project #</b>	<b>Project Name</b>	<b>2019 Budget</b>
040C00003	Replacement of Underground Storage Tanks	\$ 831,000
040C00008	Turnpike Milepost 29 Grade Separated U Turn	589,000
040C00011	Major Sign & Safety Replacement & Improvements	450,000
040C00013	Law Dept Software Enhancements	100,000
040C00015	Enterprise Asset Management	1,800,000
040C00020	Security Remediation	1,500,000
040C00024	Major Fleet Augmentation - Tractors	800,000
040C00034	Maintenance Department Material Storage Facilities	350,000
040C00035	GSP Maintenance Winter Subyard Trailer Replacement	550,000
040C00038	Design of Stormwater Pump Replacement & Bldg. Reno , TPK MP 92 -Int. 11	325,000
040C00039	Design Replacement of the Water Supply System at the Vince Lombardi Service Area on the Turnpike	145,000
040C00040	Design/Construction Salt Shed TMD 6 Elizabeth	4,200,000
040C00043	Water Tower Upgrades at Service Areas 1N & 4N	47,000
040C00045	Service Area 3S Pump Station Force Main Upgrade	653,000
040C00046	Service Area 6S Wastewater Pre Treatment Plant	1,350,000
040C00048	Construction of Pavement Markings for Service Areas	750,000
040C00050	GSP Interchange 127 SBE Merge Improvements	210,000
040C00052	Data Collection Hardware	50,000
040C00055	Radio Tower Backup Power	210,000
040C00058	HR Software Improvements & Implementation	750,000
040C00059	Capex GIS Project Planning	350,000
040C00063	Guide Sign and Guiderail Improvements for I-95 to NJTPK Redesignation	2,511,000
040C00064	Pre-Engineered Buildings	4,000,000
040C00065	Building Renovations	5,500,000
040C00066	GSP Toll Lane Traffic Light Replacement	360,000
040C00067	Enterprise Planning and Budgeting Module	750,000
040C00068	Backup Storage	1,900,000
040C00069	UPS Replacement – Holmdel State Police Barracks	500,000
040C00070	TPK Regulatory Signage	500,000
040C00071	Capital Program Management Software	1,000,000
040C07021	Major Fleet Augmentation	3,100,000
040C07021D	Major Fleet Augmentation Dump Trucks	4,800,000
040C07021L	Major Fleet Augmentation Loaders	600,000
040C07021T	Major Fleet Augmentation Tandem Dump Trucks	1,920,000
040C07021U	Major Fleet Augmentation - Trades Utility Trucks	500,000
040C08056	Traffic Permitting & Lane Closure Application	350,000
040C17027	Major Building Improvements	752,000
	<b>Total Capitalized Projects</b>	<b>\$ 45,053,000</b>

040E00001	Maintenance Studies & Scoping	\$ 500,000
040E00004	Toll Facility Study	100,000
040E00006	Remedial Investigation & Remedial Action at Chromate Sites	1,044,000
040E00007	Building Demolition	500,000
040E00009	Preparation of Jurisdictional Limits Maps	173,000
040E00024	Horizontal Curve Warning Signs - Study	317,000
040E00026	Rutgers Assignment - Maintenance software	200,000
040E00030	Pavement Markings for Turnpike Service Areas - Study	270,000
040E00032	Culvert Inspections	5,000
040E00033	Pavement Management	1,000,000
040E00034	Special Maintenance & Protection of Traffic (MPT) Plans for GSP North	325,000
040E00036	ITS and Lighting Design Document Updates. Engineering Department Document Updates	815,000
040E00037	Interchange 114 Traffic Signal Study	9,000
040E00039	Permitting - Bass River Maintenance Yard	100,000
040E00046	E-ZPass Contract Implementation	1,600,000
040E00047	On Call Traffic and Revenue Study	250,000
040E00048	Preliminary AET Study	250,000
040E00050	NJDEP General Permitting for Road & Structure Maintenance	206,000
040E00051	Polices and Procedure Manual Update	100,000
040E00052	Emergency Access Turnpike SN 23.4	200,000
040E00053	GSP 130-132 Crash Mitigation Study	250,000
040E00054	Server Upgrade	100,000
040E00055	Cell Tower Security	200,000
040E00056	Direct to Plate System, Cron	82,000
040E00057	Fire Alarm	200,000
040E10018	Bridge and Structure Inspections	7,761,000
040E10062	Engineering Studies	752,000
040E18054	On Call Traffic Services Engineer	590,000
040E18068	NBHCE Capacity Study	197,000
49999999	Contingency	2,000,000
	<b>Total Expensed Projects</b>	<b>\$ 20,096,000</b>
	<b>Total Special Projects Reserve Fund</b>	<b>\$ 65,149,000</b>

*New projects are italicized*

**Figure 110: Special Project Reserve Fund Project**

Special Projects Reserve Fund		
Project #	Project Name	Project Description
<b>Capitalized Projects</b>		
040C00003	Replacement of Underground Storage Tanks	Preparation of Plans & Specifications for replacing Underground Storage Tanks (UST) at GSP Maintenance Districts 1, 2 & 3. Design in 2017; Construction & Tank Removal will take place in 2018 and 2019. This is in line with the initiative to upgrade NJTA UST's as part of the tank management program.
040C00008	Turnpike Milepost 29 Grade Separated U Turn	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.
040C00011	Major Sign & Safety Replacement & Improvements	Funding for design, permitting, purchasing and construction resources for replacement or new installs of roadside signage and safety features with costs greater than \$50,000.
040C00013	Law Dept Software Enhancements	This project will enable the Authority to procure software, services, and hardware that will support managing the Open Public Records Act and subpoena process.
040C00015	Enterprise Asset Management	The Authority uses a computerized maintenance management system, Spear 4i, for maintenance of fleet, roadway, building maintenance, and snow events. Spear 4i is an old client server application which is no longer manufactured and has limited vendor support. The vendor does not support any upgrades or patches and the Authority has outgrown its usefulness. In 2018, ITS and HNTB conducted multiple discovery sessions with Maintenance, Finance, PMM, ITS, and Internal audit to capture the business requirements. The results of this report, along with vendor interviews has narrow down the product selection. In 2018, a PO will be issued to INFOR and this project will continue into 2019. In addition, the Track-It system which is currently used by ITS and Building Maintenance will be upgraded to a more robust software package. After the discovery process, JIRA has been selected. A PO will be issued in 2018 and work will continue into 2019.
040C00020	Security Remediation	Funding to remediate security vulnerabilities exposed during the 2016 security assessment and KPMG audit. Improvements include but are not limited to databases and software applications. This procurement includes software, hardware, and services. The current SAN is not encrypted. This project has the potential to reduce IBM project costs for 2020 and 2021.
040C00024	Major Fleet Augmentation - Tractors	Designated program for tractor replacement.
040C00034	Maintenance Department Material Storage Facilities	Funding for design, permitting, purchasing and construction resources for a storage facility for equipment, materials, etc.
040C00035	GSP Maintenance Winter Subyard Trailer Replacement	Funding for design, permitting, purchasing and construction resources for the replacement of the seasonal Maintenance facility and associated site work at this location for Pleasant Plains trailer replacement.
040C00038	Design of Stormwater Pump Replacement & Bldg. Reno , TPK MP 92 -Int. 11	The preparation of plans and specifications to replace the existing Pump House at MP 92 on the Turnpike.
040C00039	Design Replacement of the Water Supply System at the Vince Lombardi Service Area on the Turnpike	Preparation of plans and specifications for the replacement of the water supply system at the Vince Lombardi Service Area on the Turnpike.
040C00040	Design/Construction 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. Upon completion of the plans and specifications a construction contract is anticipated to be awarded and construction supervision OPS will be issued. It is anticipated that all work will be completed in 2019.

040C00043	Water Tower Upgrades at Service Areas 1N & 4N	Funding to upgrade the water towers at Service Areas 1N & 4N.
040C00045	Service Area 3S Pump Station 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 the replacement of the plant which is past its useful life. Many components have reached the end of their lifespans and cannot be replaced. The air supply system is expensive to operate and breaks annually. The SBR system will be replaced by a smaller system that will allow the plant to meet new township sewage quality standards.
040C00048	Construction of Pavement Markings for Service Areas	Improvements to Turnpike service areas pavement markings, except for 12S. Adding truck stalls, channelization and numbering. Advancing design by Operations to construction. Operations and Maintenance are working together.
040C00050	GSP Interchange 127 SBE Merge Improvements	Reconfigure southbound entrance ramp from Route 440 and Smith Street to improve merging conditions on GSP Southbound.
040C00052	Data Collection Hardware	This project will replace 20-year old traffic data collection equipment that has surpassed its useful service life. This will also implement complementary devices to ensure accurate data and appropriately calibrated hardware. Up-to-date data collection processes will ensure accurate and timely reporting to other Authority departments and external stakeholders.
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. Expect completion in 2018 - possible carryover contingent on lead times.
040C00058	HR Software Improvements & Implementation	Funding to purchase, implement, configure, and/or install various HR centric software solutions which are required to streamline and automate many manual processes in the HR department to address the KPMG review. This project will provide funding for services, software, and hardware.
040C00059	Capex GIS Project Planning	The Authority requires additional services to continue enhancement of the CAPEX solution. This includes expanding features to allow a broader range of Authority staff, consultants, and contractors to access data.
040C00063	Guide Sign and Guiderail Improvements for I-95 to NJTPK Redesignation	To comply with congressional legislation, adds/replaces guide signs within 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 120.7 in order to facilitate accel and decel between roadways and a more level transition. New Z-turn for TMD 3 at MP 58.4.
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 Change of Plan 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, enhancement, etc.
040C00065	Building Renovations	Preparation of plans and specifications for the construction of a new trades building as well as a new vehicle storage building at Turnpike Maintenance District 7. Also to include the renovation of the Sign Shop at PMD 5 Telegraph Hill. Construction to take place in 2020 and includes work at ND, Print Shop, and Smith Street.

040C00066	GSP Toll Lane Traffic Light Replacement	Funding for design, permitting, purchasing and construction resources for all Parkway toll lanes to replace open/closed highway traffic signals with LED Red X/Green Down Arrow Lane-Use Signals.
040C00067	Enterprise Planning and Budgeting Module	To procure and implement an Oracle based planning and budgeting module that integrates with PeopleSoft. This has replaced PeopleSoft budgeting module.
040C00068	Backup Storage	The Authority 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.
040C00069	UPS Replacement – Holmdel State Police Barracks	This project will replace the UPS at Holmdel State Police. Since upgrading Cranbury in 2018, this facility is the only State Police facility which does not have a stable UPS. All other State Police buildings have reliable power. The current UPS is the original UPS installed when the building was built and is now end-of-life and end-of-support. This procurement includes hardware, software, and services.
040C00070	TPK Regulatory Signage	Funding for design, permitting, purchasing and construction resources for the construction of approximately 60 ground-mounted and 15 overhead regulatory signs on Turnpike Roadway. This will occur mileposts 0 to 1 and from IC 9-15E.
040C00071	Capital Program Management Software	This project request will allow ITS to procure professional services from an analyst to document the business requirements from ITS, Finance, and Engineering in order to publish a software RFP for the next capital program.
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	Annual purchase of twenty two (22) single axle dump trucks to maintain current lifecycle levels. (Vehicles have a twelve (12) year life cycle). Replace models that have exhausted their life expectancy.
040C07021L	Major Fleet Augmentation Loaders	Designated annual program for Loader replacement.
040C07021T	Major Fleet Augmentation - Tandem Dump Trucks	Annual purchase of twenty two (22) single axle dump trucks to maintain current lifecycle levels. (Vehicles have a twelve (12) year life cycle). Replace models that have exhausted their life expectancy.
040C07021U	Major Fleet Augmentation - Trades Utility Trucks	Designated annual program for Trades Utility Vehicles.
040C08056	Traffic Permitting & Lane Closure Application	Operations has identified new enhancements to the enterprise-wide traffic permitting and lane closure system. This project will fund these enhancements.
040C17027	Major Building Improvements	Major reconstruction, replacement and improvements to Authority's buildings with a project cost greater than \$50,000. Buildings include Elizabeth Car Wash and GSP tollbooth requiring major reconstruction, among others.
<b>Expensed Projects</b>		
040E00001	Maintenance Studies & Scoping	The study of various maintenance projects. The consultant will assist the maintenance department in properly studying, scoping, and quantifying projects on a immediate or scheduled basis. Including scoping, studying, feasibility, permitting, etc. This includes a snow storm man power study, Interchange 8 study, generator testing, and under 1 ton truck study.
040E00004	Toll Facility Study	Study the Authority's toll plazas on both roadways to determine the optimal lane type and configuration for future toll plaza improvements.
040E00006	Remedial Investigation & Remedial Action 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.

040E00007	Building Demolition	Funding for design, construction and construction supervision for demolition of various existing Authority assets. Assets include the former NJTA Headquarters at Interchange 9 in addition to other assets that may be identified in the future.
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.
040E00024	Horizontal Curve Warning Signs - Study	FHWA has a December 31, 2019 compliance date for the required installation of warning signs for horizontal curves. Almost every ramp terminal the Authority owns is retrofitted into preexisting urban areas or other environmental constraints resulting in ramps with low operating speeds. With these operational prerequisites satisfied, FHWA requires the warning signing on these ramps. Begun in 2017, the remaining effort is to collect inclinometer readings on identified ramps south of Woodbridge on both roads. This data will be transformed into construction documents. Estimated costs include data collection and design.
040E00026	Rutgers Assignment - Maintenance software	Continual improvements to the Rutgers application. This is a Maintenance and ITS project. This project is necessary until EAM is completed.
040E00030	Pavement Markings for Turnpike Service Areas - Study	All service areas would benefit from a refurbishment or replacement of pavement markings to provide channelization to meet driver expectation. In addition, the NJSP request that the truck stalls be alphanumerically numbered for faster response during incidents. A small number of regulatory signs in both size and quantity to support the pavement markings may be required. For the majority of service areas, pavement markings will be contained to the parking areas where HMS and Marriott will NOT have influence of their expected improvements. Increasing the amount of truck parking at each service area is an intended goal.
040E00032	Culvert Inspections	Inspection program of large culverts on the New Jersey Turnpike and Garden State Parkway.
040E00033	Pavement Management	Funding to 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.
040E00034	Special Maintenance & Protection of Traffic (MPT) Plans for GSP North	There are several common corridors or toll plazas where Maintenance and Protection of Traffic (MPT) Standard Drawings cannot apply. These locations are the bypass lanes to toll plazas, the Driscoll Bridge and the GSP between Woodbridge and Paramus. A collection of MPT site-specific drawings will be created and approved for use by the Maintenance Department and any contractor. Designers would benefit from these drawings reducing design costs. A reference document would be created in perpetuity; possibly as an Appendix to the NJTA Manual on Traffic Control in Work Zones.

040E00036	ITS and Lighting Design Document Updates. Engineering Department Document Updates	Revisions to sections 7 and 8 of the Design Manual and associated standard drawings and specifications to reflect current practices.
040E00037	Interchange 114 Traffic Signal Study	To study alternatives for the modification of the traffic signal at the IC 114 off ramp traffic signal. Improvements will be the responsibility of Monmouth County.
040E00039	Permitting - Bass River Maintenance Yard	In order for Maintenance to replace the existing trailer or move staff into the State Police Building, Bass River site must be reviewed to determine unpermitted activities that likely have occurred, required actions to make this site compliant and if the existing building can be used by Maintenance staff or if a new trailer can be installed. Based on the analysis, it will be decided if permitting is feasible and/or cost beneficial. The GSP Interchange 41 permit states any change of use at Bass River State Police Barracks requires the completion of an application with the Commission. This project involves feasibility study.
040E00046	E-ZPass Contract Implementation	Continual assistance for the implementation of the Authority's E-ZPass contract. Specifically Phase 2.
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.
040E00050	NJDEP General Permitting for Road & Structure Maintenance	Prepare application plans and documents for submission to NJDEP for the purposes of securing a general permits for Authority activities associated with roadway and structure maintenance and repairs that temporarily impact fresh water wetlands and flood hazard areas.
040E00051	Polices and Procedure Manual Update	KPMG will review and suggest lead practices, help documentation of the Authority's Financial Polices. Cherry Road will assist the Authorities Financial department in completing a policy manual with work flows and screenshots.
040E00052	Emergency Access Turnpike 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.
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.
040E00054	Server Upgrade	The current ERP development system is reaching end of support in 2019. The plan is to move ERP and Toll Collection software to new servers. The upgrade costs will active adequate CPU cores to run these applications (the hardware was purchased in the past).
040E00055	Cell Tower Security	Tower security is an ongoing concern. Many vendors enter Authority property to maintain their equipment without proper authorization. This project will begin the process of securing the tower assets with cameras, fencing, swipe cards, etc.
040E00056	Direct to Plate System, Cron	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 the film processor. The current plate system is obsolete and repairs will become impossible. New system will also save money on film and chemicals.
040E00057	Fire Alarm	This project will allow the Authority to procure new fire alarms panels or modules. A small portion of this funding will be spent by ITS for software, hardware, support, and services. However, Safety will take the lead in prioritizing and upgrading the sites thus communications occurs over the Authority network and not the Verizon POTS network which is no longer support.

040E10018	Bridge and Structure Inspections	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. Some studies include monitoring of Interchanges 1-6 on the NJ Turnpike, retaining wall analysis at loading dock.
040E18054	On Call Traffic Services Engineer	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.
040E18068	NBHCE Capacity Study	Funding for a study related to options for increasing the capacity of the NBHCE and associated next steps.
49999999	Contingency	Provides additional funding for increased project needs or unanticipated projects that fit the description of an eligible Special Project Reserve Fund project as approved by Executive Staff.

**Figure 111: Special Project Reserve Fund Project Descriptions**



## General Reserve Fund

The General Reserve Fund includes \$179.5 million (70%) for contractual state payments, including the State Transportation Projects Funding Agreement payments of \$154.0 million, which include the \$25 million additional payment under the Amended State Transportation Projects Funding Agreement. The 2019 budget also includes \$32.3 million (13%) for Extraordinary Events, which are generally costs for state of emergency weather events, and a first ever \$25 million transfer to the Revenue Funded Construction Fund Account to finance three bridge rehabilitation projects that cross the Passaic River. The 2019 budget also includes all reimbursable projects which net to zero spending and any projects with an associated capital contribution to be received from third parties under contractual arrangements.

General Reserve Fund Spending Budget					
	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Extraordinary Events	\$ 7,545,000	\$ 32,295,000	\$ 32,295,000	-	-
Claim Settlements	3,000,000	4,000,000	4,000,000	-	-
Other Post-Employment Benefits	17,500,000	15,000,000	15,000,000	-	-
Bond Cost of Issuance	1,403,000	600,000	1,000,000	400,000	66.7%
Miscellaneous Expenditures	2,000	50,000	50,000	-	-
State Payments	232,500,000	193,000,000	179,500,000	(13,500,000)	-7.0%
Transfer to Construction Fund	-	-	25,000,000	25,000,000	-
Reimbursable Expenditures	22,776,000	18,790,300	5,263,000	(13,527,300)	-72.0%
<b>Total GRF Expenditures</b>	<b>\$ 284,726,000</b>	<b>\$ 263,735,300</b>	<b>\$ 262,108,000</b>	<b>\$ (1,627,300)</b>	<b>-0.6%</b>
Recoveries from Reimbursable Expenditures	(12,930,000)	(13,790,300)	(5,263,000)	8,527,300	-61.8%
Capital Contributions to General Reserve Projects	(10,000,000)	(5,000,000)	-	5,000,000	-100.0%
<b>Total GRF Expenditures Net of Recoveries</b>	<b>\$ 261,796,000</b>	<b>\$ 244,945,000</b>	<b>\$ 256,845,000</b>	<b>\$ 11,900,000</b>	<b>4.9%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation
- Totals may not add due to rounding

Figure 112: General Reserve Fund Budget (2017-2019)

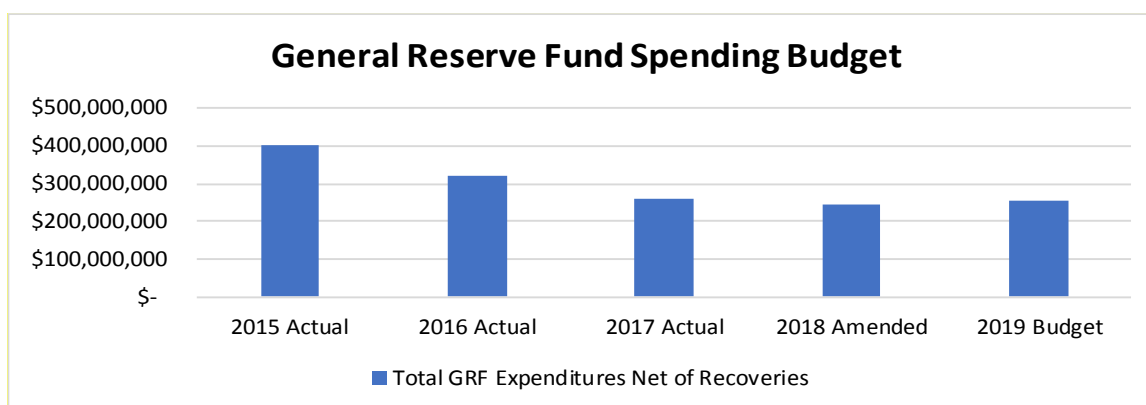


Figure 113: General Reserve Fund Budget Graph (2015-2019)

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 in 2019 as well. The General Reserve Fund balance has declined as projected due to increased debt service requirements from the funding of the \$7 Billion CIP, and remains at or above projected levels.

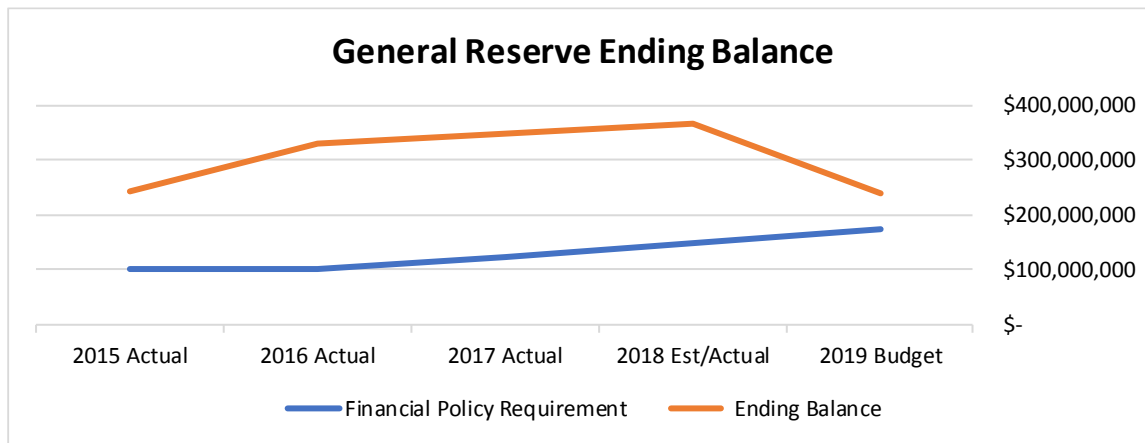


Figure 114: General Reserve Fund Budget Graph (2015-2019)

General Reserve Fund Balance					
	2017 Actual	2018 Est/Actual	2019 Budget	\$ Change from 2018 Est/Actual	% Change from 2018 Est/Actual
Beginning Balance	\$ 331,093,000	\$ 348,373,000	\$ 368,350,000	\$ 19,977,000	5.7%
Transfer from Revenue Fund	310,828,000	328,371,000	245,743,000	(82,628,000)	-25.2%
Capital Reserve	19,218,000	-	10,500,000	10,500,000	-
General Reserve Fund Expenditures	(261,796,000)	(244,945,000)	(256,845,000)	(11,900,000)	4.9%
Supplemental Capital Expenditures	(50,970,000)	(63,449,000)	(126,520,000)	(63,071,000)	99.4%
<b>Ending Balance*</b>	<b>\$ 348,373,000</b>	<b>\$ 368,350,000</b>	<b>\$ 241,228,000</b>	<b>\$ (127,122,000)</b>	<b>-34.5%</b>

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

- 2017 and 2018 amounts have been reclassified to match 2019 presentation
- Totals may not add due to rounding

Figure 115: General Reserve Fund Balance (2017-2019)

A detailed list of line items contained in the 2019 General Reserve Fund Spending Budget are shown below:

<b>General Reserve Projects 2019</b>		
<b>Project #</b>	<b>Project Name</b>	<b>2019 Budget</b>
<i>080C20022</i>	<i>Monmouth SA Park &amp; Ride Improvements</i>	\$ 200,000
<i>080C20022R</i>	<i>Monmouth SA Park &amp; Ride Improvements Capital Contribution</i>	(200,000)
080E00014	Bond Cost of Issuance	1,000,000
080E07000	Extraordinary Events	32,295,000
080E07007	Transportation Trust Fund	22,000,000
080E07015	Feeder Road Reimbursement NJDOT	3,500,000
080E07137	State Transportation 2016-2021	154,000,000
080E07990	Claim Settlements	4,000,000
080E07991	Other Post-employment benefits	15,000,000
080E07997	Arbitrage Expense	50,000
080E17028	PTC Delaware River Bridge (painting, seismic retrofit, etc.)	2,000,000
080E17028R	PTC Delaware River Bridge (painting, seismic retrofit, etc.) - Reimbursable	(2,000,000)
080E17029	PTC Delaware River Bridge	2,000,000
080E17029R	PTC Delaware River Bridge Reimbursable	(2,000,000)
<i>080E17033</i>	<i>PTC Repaint and Improvements</i>	1,263,000
<i>080E17033R</i>	<i>PTC Repaint and Improvements - Reimbursable</i>	(1,263,000)
<i>08999997</i>	<i>Transfer to Construction Fund</i>	25,000,000
<b>Total General Reserve Projects</b>		<b>\$ 256,845,000</b>

*New projects are italicized*

**Figure 116: General Reserve Fund Projects**

General Reserve Fund		
Project #	Project Name	Project Description
080C20022	Monmouth SA Park & Ride Improvements	Bus pullover lanes will be added to both the northbound and southbound service roads and enhancements will be made to the Academy Bus transportation area. The work will include grading, paving, drainage, lighting, signing, striping, and landscaping.
080C20022R	Monmouth SA Park & Ride Improvements Capital Contribution	Bus pullover lanes will be added to both the northbound and southbound service roads and enhancements will be made to the Academy Bus transportation area. The work will include grading, paving, drainage, lighting, signing, striping, and landscaping.
080E00014	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.
080E07000	Extraordinary Events	To pay for the cost of major weather or other events when there is a declared state of emergency.
080E07007	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.
080E07015	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.
080E07137	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.
080E07990	Claim Settlements	To fund reserve for the Authority's self-insured retention on claims related to property, general liability, and/or auto liability.
080E07991	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.
080E07997	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.

080E17028	PTC Delaware River Bridge	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	Reimbursement of Design of Contract No. T100.216 for Bridge Painting and seismic retrofit, structural steel repairs, catwalk repairs, and installation of security gates
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 Reim	Reimbursement to be received from the Pennsylvania Turnpike.
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	Reimbursement to be received from the Pennsylvania Turnpike.
08999997	<i>Transfer to Construction Fund</i>	<i>From 2019 to 2022 the General Reserve Fund will transfer \$25 million per year to the Revenue Funded Construction Account in the Construction Fund, totaling \$100 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 Revenue Funded Construction Account include the Passaic River Bridge, the Laderman Bridge and the Washington Bridge.</i>

Figure 117: General Reserve Fund Project Descriptions

## Supplemental Capital Fund

Approximately \$63.8 million (50%) is budgeted for Roadway Improvements, \$23.7 million (19%) for Technology Improvements, \$19.8 million (16%) for Service Areas and Arts Center Improvements and \$19.2 million (15%) for Facility Improvements.

Supplemental Capital Spending					
	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Bridge Repairs	-	27,696,000	40,450,000	12,754,000	46.0%
Concrete Barrier Repairs	-	19,000	-	(19,000)	-100.0%
Other Roadway Improvements	5,287,000	35,391,000	13,390,000	(22,001,000)	-62.2%
Resurfacing	-	30,591,000	-	(30,591,000)	-100.0%
Roadway Lighting Repairs	-	1,750,000	-	(1,750,000)	-100.0%
Shoulder Restoration	-	10,000,000	10,000,000	-	-
<b>Total Roadway</b>	<b>\$ 5,287,000</b>	<b>\$ 105,447,000</b>	<b>\$ 63,840,000</b>	<b>\$ (41,607,000)</b>	<b>-39.5%</b>
Facility Improvements	42,349,000	28,210,000	19,188,000	(9,022,000)	-32.0%
Service Areas And Arts Center	-	4,174,000	19,766,000	15,592,000	373.6%
Technology Improvements	3,334,000	27,797,000	23,726,000	(4,071,000)	-14.6%
<b>Total Non-Roadway</b>	<b>\$ 45,683,000</b>	<b>\$ 60,181,000</b>	<b>\$ 62,680,000</b>	<b>\$ 2,499,000</b>	<b>4.2%</b>
<b>Total Supplemental Capital</b>	<b>\$ 50,970,000</b>	<b>\$ 165,628,000</b>	<b>\$ 126,520,000</b>	<b>\$ (39,108,000)</b>	<b>-23.6%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

Figure 118: Supplemental Capital Fund Budget (2017-2019)

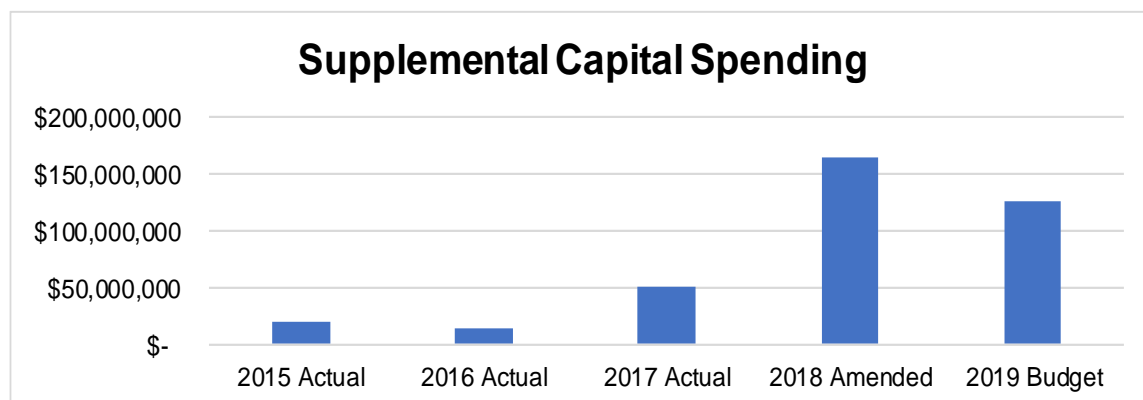


Figure 119: Supplemental Capital Fund Budget Graph (2015-2019)

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

Supplemental Capital 2019		
Project #	Project Name	2019 Budget
080C00001	Toll Plaza Utility Building Improvements at GSP 117 Keyport	\$ 1,445,000
080C00002	Replacement Toll Booths for Turnpike & Parkway	650,000
080C00003	Major Backup Generator Replacement	3,600,000
080C00004	Replacement of Concrete Abutments at Interchanges 3 & 4 (15 lanes)	969,000
080C00005	Toll Facility Repairs & Improvements	3,601,000
080C00006	Slope Stabilization	435,000
080C00007	Hybrid Changeable Message Sign Replacement Project	480,000
080C00008	Interchange Improvements	39,000
080C00012	Road Weather Information Systems (RWIS)	3,870,000
080C00013	Production Toll Lane System Refresh	10,500,000
080C00015	Gate Repair and Replacement	3,330,000
080C00016	Turnpike Interchange 6 Express E-ZPass Improvements	1,000,000
080C00018/ 080C20021	Service Area Redevelopment Owners Rep (Includes 080C20021)	2,524,000
080C00019	Arts Center Traffic Signals and Parking Lot Expansion/Int 14b Traffic Signal	523,000
080C00022	Bridge Fender Reconstruction	3,000,000
080C00023	Reconstruction of the Westerly Hackensack River Bridge Piers	12,225,000
080C00024	TPK Int. 14B Canopy Replacement (accident damage)	1,027,000
080C00028	Interchange 18E High Speed EZ Pass/Interchange 16E Improvements	1,156,000
080C00029	Horizontal Curve Warning Signs Installation	3,774,000
080C00030	Traffic Software Upgrade & Improvements	1,250,000
080C00032	Motorola Portable Radios NJSP	1,500,000
080C00033	State Police Body Cameras	500,000
080C00034	CR 50 Improvements	625,000
080C00035	Roadside Appurtenances	2,000,000
080C00036	I-78 Pavement Repairs	1,600,000
080C00037	Concept Development and Preliminary Engineering for the Rehabilitation/Replacement of Various bridges	1,000,000
080C00038	Rehabilitation of Br. Nos. W107.87, E107.88 and 84.24N&S	225,000
080C00039	TPK Redecking Str. No. 87.27S (NSI)	500,000
080C00040	Bridge Deck Reconstruction	3,000,000
080C00041	GSP Weathering Steel Guiderail Replacement	1,000,000
080C00042	Foundation Imp. To Three Bridges at Str. No. N2.01	750,000
080C00043	NWC/CNW Ramp	2,500,000
080C00044	Bridge Lengthening of Str. Nos. 30.75 and 33.94	2,000,000
080C00045	GSP Str. No. 160.7N to 161.9N (6 Bridges both NB and SB)	8,250,000
080C00046	GSP Shoulder Widening and Reconstruction MP 30 to 35	9,500,000
080C00047	Service Area -HMS Host & Sunoco	12,200,000
080C07019	Major Roofing Replacements	600,000
080C07033	Security Systems/C Cure	1,400,000
080C07052	Network Infrastructure Improvements	75,000



080C07117	HVAC & Boiler Replacement Program	4,000,000
080C07118	Arts Center Parking Lot Lighting	166,000
080C17034	Non-Vegetative Management	350,000
080C18028	Morris Canal Bridge	3,895,000
080C20019	Commuter Park and Ride Design & Construction (Int. 58)	2,400,000
080C20020	Toll Plaza Cash Recyclers	1,030,000
080C27033	Arts Center Improvements	9,753,000
080C27033R	Arts Center Improvements (Reimbursable)	(4,877,000)
080E00020	NBHCE Pulaski Skyway - stand-by	180,000
08999999	Contingency	5,000,000
<b>Total Supplemental Capital</b>		<b>126,520,000</b>

Figure 120: Supplemental Capital Fund Projects

Supplemental Capital		
Project #	Project Name	Project Description
080C00001	Toll Plaza Utility Building Improvements at GSP 117 Keyport	Toll Plaza Utility building improvements at GSP Interchange 117 (Keyport). The existing building condition is poor and in need of repair or replacement. This work will improve conditions for staff as well as IT equipment.
080C00002	Replacement Toll Booths for Turnpike & Parkway	Design, construction and purchase of toll booths. Surplus existing toll booths identified through design will be rehabilitated. Stock of short supply will be procured.
080C00003	Major Backup Generator Replacement	Funding for design, permitting, purchasing and construction resources for facility and site improvements in coordination with our overall generator replacement program.
080C00004	Replacement of Concrete Abutments at Interchanges 3 & 4 (15 lanes)	Design, construction and supervision of toll island bumper block rehabilitation.
080C00005	Toll Facility Repairs & Improvements	Toll Plaza Site rehabilitation. Design, construction and supervision. Prior work cited GSP Interchange 142 and TPK Interchanges 1, 14B, and 15E as well as Treadle repairs at GSP and TPK toll plazas.
080C00006	Slope Stabilization	Stabilization of slope for Heards Brook on the property of the NJTA Headquarters building
080C00007	Hybrid Changeable Message Sign Replacement Project	Funding for the procurement, design, construction and supervision to replace legacy Changeable Message Signs on the Turnpike.
080C00008	Interchange Improvements	Implementation of Improvements at GSP interchanges.
080C00012	Road Weather Information Systems (RWIS)	Joint effort between ITS, Operations, and Engineering. This project will provide for the procurement of hardware, software, support, and installation services, in addition to engineering design, construction, and supervision services for the installation of approximately 24 weather stations on the Parkway and Turnpike. This procurement includes hardware, software, and services.
080C00013	Production Toll Lane System Refresh	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.

080C00015	Gate Repair and Replacement	Funding for design, permitting, purchasing and construction resource for the New Jersey Turnpike Interchange 11 pilot install for new railroad style ramp gates in order to improve the process of closing the roadway for repairs and maintenance.
080C00016	Turnpike Interchange 6 Express E-ZPass Improvements	Implement dual Express E-Zpass lanes in the eastbound and westbound directions at the Interchange 6 toll plaza.
080C00018	Service Area Redevelopment Owners Rep	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
080C00019	Arts Center Traffic Signals and Parking Lot Expansion/Int 14B Traffic Signal	The traffic patterns inside the Arts Center are the reverse of customary travel violating driver expectancy. Traffic signals are proposed at the termini of both the northbound and southbound ramps into the Arts Center at the East-West Road. These signals will implement accustomed traffic patterns for both the summer concert season and the non-summer season. An additional overhead lane-use signal system is proposed to support event operations and special traffic patterns. In addition, the traffic signal on the northbound side will need to remove traffic islands and reconstruct the boundaries of the intersection allowing for the option to expand the South Main Parking Lot. Signal work and parking lot only. The existing Interchange 14B traffic signal is original and dates to 1954 with original geometry not designed for present-day volumes. Furthermore, the traffic islands create counterintuitive right-of-way assignment that may violate driver expectancy. The removal of the islands and the creation of a T-intersection recommends a complete pavement repair of the intersection outside the toll plaza. The traffic signal and pavement repairs are estimated at \$5,000,000. REQUEST THIS PROJECT BE COMBINED WITH 080C00019. SAME SCOPE OF WORK AND WILL BE PROCURED AS PART OF THE SAME OPS.
080C00021	GSP Central Interchange Lighting Installation	Funding for design, permitting, purchasing and construction resource for the replacement of Utility Owned (Flat Rate) Lighting at GSP Interchanges 102, 105, 109, 114, 117, 118, 120, PNC Arts Center and Cheesequake SA to Authority Owned LED Lighting per AASHTO and Authority guidelines.
080C00022	Bridge Fender Reconstruction	Inspection and design for the 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.
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 Int. 14B Canopy Replacement (accident damage)	Funding to repair damage at Turnpike Interchange 14B Canopy caused by a motor vehicle accident. Some funds may be recovered through insurance claims.

080C00026	Additional Resurfacing on the Garden State Parkway	Provides for a dedicated funding source for annual roadway resurfacing program based upon evaluation results. Funding this project at the levels shown above will allow pavement to be maintained in a safe and serviceable condition and for the benefit of patrons.
080C00027	Interchange 14B Traffic Signal	The existing interchange is original and dates to 1954 with original geometry not designed for present-day volumes. Furthermore, the traffic islands create counterintuitive right-of-way assignment that may violate driver expectancy. The removal of the islands and the creation of a T-intersection recommends a complete pavement repair of the intersection outside the toll plaza. The traffic signal and pavement repairs are estimated at \$5,000,000.
080C00028	Interchange 18E High Speed EZ Pass/Interchange 16E Improvements	As a result of the study to remedy the AM peak period bus queueing at Interchange 16E, a long-term proposal for Interchanges 16E/18E is to create a high-speed bypass for Interchange 18E and allow 18E cash customers use the remaining toll plaza at 16E. A ramp would be constructed to allow traffic to return to the SNE Roadway.
080C00029	Horizontal Curve Warning Signs Installation	Install warning signs on GSP and TPK ramps as recommended in studies completed. Construction will be completed through a Maintenance contract and two Engineering contracts.
080C00030	Traffic Software Upgrade & Improvements	This project will provide funding for a pilot project to automate sign control based on traffic conditions. It will also upgrade the ITMS sign control system to the latest version. Lastly, Operations and ITS have identified the need for the creation of a Traffic Volume/Traffic count application. The application will provide for enhanced traffic count data integration, management, and reporting capabilities. This project will continue into 2019. In addition, this project will address the shortcomings of the Sensys data and explore DSRC products.
080C00032	Motorola Portable Radios	The existing mobile radios in NJSP vehicles and approved NJTA vehicles are end of life and are no longer supported by the vendor. Currently there is a need for approximately 350 mobile radios. The existing mobile radios are analog and will not function on the new NJSP P25 Phase 2 radio system currently being deployed by NJSP. The new radios will be fully compatible with the NJSP P25 Phase 2 system.
080C00033	State Police Body Cameras	State Police Project to install body cameras on Troopers. This procurement includes hardware, software, and services.
080C00034	CR 50 Improvements	Lowering CR 50 at GSP MP 112.1 due to bridge hit. Project will be completed through agreement with Monmouth County.
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 Development and Preliminary Engineering for the Rehabilitation/Replacement of Various bridges	Design, construction and supervision for the rehabilitation or replacement of two severely deteriorated, structurally deficient Turnpike Bridge Nos. 33.94, W110.42, W111.48, 112.72B, and 117.20 NO and SO.
080C00038	Rehabilitation of Br. Nos. W107.87, E107.88 and 84.24N&S	Design, construction and supervision for continued rehabilitation of the NJ Turnpike Passaic River Bridge Nos. W107.87, E107.88 and 84.24N&S
080C00039	TPK Redecking Str. No. 87.27S (NSI)	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.
080C00040	Bridge Deck Reconstruction	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 E109.92B along the easterly extension of the Turnpike.
080C00041	GSP Weathering Steel Guiderail Replacement	The Parkway is comprised of weather steel guide rail systems. 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.
080C00042	Foundation Imp. To Three Bridge Piers at Str. No. N2.01	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 Turnpike Str. No. N2.01.
080C00043	NWC/CNW RAMP	Installation of permanent toll collection in conjunction of the opening of the American Dream project.
080C00044	Bridge Lengthening of Str. Nos. 30.75 and 33.94	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.
080C00045	GSP Str. No. 160.7N to 161.9N (6 Bridges both NB and SB)	Design, construction and supervision for 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.
080C00046	GSP Shoulder Widening and Reconstruction MP 30 to 35	A traffic demand evaluation was completed for this section of the GSP and concluded that the section of the Parkway between Interchange 30 to 35 will not need additional capacity (widening) until 2035. However, safety and maintenance improvements to this area are necessary for this section to be consistent with the other safety improvements recently completed under the \$7Billion Capital Investment Program. This project provides for the construction of standard width shoulders, multiple bridge replacements, drainage and roadside area improvements.
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.
080C07019	Major Roofing Replacements	Funding for design, permitting, purchasing, investigation, building commissioning and construction resources for all Authority Buildings, facilities and building structures with costs over \$50,000.00. Facilities include service areas, toll department facilities, maintenance yards, etc.

080C07033	Security Systems/C Cure	Continual deployment of distress and security devices on the New Jersey Turnpike and Garden State Parkway. This project will be shared between ITS and Security. This procurement includes hardware, software, support, and services
080C07052	Network Infrastructure Improvements	Continuation of installing wireless, switching, and routing equipment as well as terminating / installing fiber in locations where communications are required along the New Jersey Turnpike and Garden State Parkway. The equipment and material will connect the Intelligent Transportation Data Points (signs, cameras and sensors) back to the Authority's network. This procurement includes hardware, software, and services.
080C07117	HVAC & Boiler Replacement Program	Funding for design, permitting, purchasing and construction resources to continue the Maintenance Departments Authority wide HVAC equipment replacement program. Facilities include toll department facilities, maintenance yards, etc.
080C07118	Arts Center Parking Lot Lighting	Upgrade of the lighting, fiber and associated improvements in the parking lot at the PNC Bank Arts Center
080C17034	Non-Vegetative Management	This contract provides a pervious asphaltic ground surfacing to combat vegetation growth adjacent to Authority roadways. Selected areas are chosen based on priority, significant man-hours and resources are spent on maintenance, and/or place our employees in potentially unsafe conditions.
080C18028	Morris Canal Bridge	Design, Supervision and Construction of vehicular bridge over the Morris Canal; connecting Jersey Avenue and Phillips Street in Jersey City.
080C20019	Commuter Park and Ride Design & Construction (Int. 58)	Funding is required for the Authority to reimburse Ocean County for the design and construction of a new Park & /Ride facility at MP 58 on the Parkway. The design costs (maximum of \$400k) are to be paid upon completion of the design & the construction costs (\$2 million) are to be paid monthly based on construction progress
080C20020	Toll Plaza Cash Recyclers	Funding for the purchase of money counting machines for each toll plaza to be used in the collector bank out process. Machines include a vault that secures funds until picked up by armored car company. The machines also transmit electronically a verified money count to the Authority's bank that is credited the same day to the Authority's account.
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 including 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.

080C27033R	Arts Center Improvements (Reimbursable)	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 including 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. Reimbursement by Live Nation is equal to 50% of total project costs.
080E00020	NBHCE Pulaski Skyway - stand-by	To provide stand-by wrecker service due to the lack of shoulders on the Hudson County Bay Extension during the operation of the LCS (Lane Controller System).
08999999	Contingency	Provides additional funding for the increased projected needs or unanticipated projects that fit the description of an eligible Supplemental Capital project as approved by Executive Staff.

**Figure 121: Supplemental Capital Fund Project Descriptions**

## Construction Fund

### Capital Improvement Program

The New Jersey Turnpike Authority's 10-year, \$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 \$7.6 billion of par value Turnpike Revenue Bonds to fund the program. Approximately \$525 million of additional bonds are expected to be issued by the end of 2018, which will be the final bond issuance needed to fully fund the program.

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

<b>Capital Improvement Program Project Summary</b>			
<b>Tier I Project Groups</b>	<b>Current Budget</b>	<b>Spent or Committed Through 8/31/18</b>	<b>Percentage of Budget</b>
Turnpike Interchange 6-9 Widening	\$ 2,194,149,000	\$ 2,134,132,000	97.3%
Bridge Construction, Preservation & Security	1,636,762,000	1,503,077,000	91.8%
Roadway Improvements	817,533,000	795,210,000	97.3%
Interchange Improvements	1,101,431,000	1,033,642,000	93.8%
Facilities Improvements	660,125,000	658,446,000	99.7%
Parkway Mileposts 35-80 Widening*	590,000,000	573,594,000	97.2%
<b>Capital Improvement Program Total</b>	<b>\$ 7,000,000,000</b>	<b>\$ 6,698,101,000</b>	<b>95.7%</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 122: Capital Improvement Program Projects Summary

<b>Construction Fund Balance</b>					
	<b>2017 Actual</b>	<b>2018 Est/Actual</b>	<b>2019 Budget</b>	<b>\$ Change from 2018 Est/Actual</b>	<b>% Change from 2018 Est/Actual</b>
Beginning Cash and Investments	\$ 282,587,000	\$ 482,164,000	\$ 688,285,000	\$ 206,121,000	42.7%
Bond Proceeds	600,000,000	525,000,000	-	(525,000,000)	-100.0%
Interest Income	5,277,000	2,000,000	2,000,000	-	-
Spending	(405,700,000)	(320,879,000)	(260,412,884)	60,466,116	-18.8%
<b>Ending Available Cash and Investments*</b>	<b>\$ 482,164,000</b>	<b>\$ 688,285,000</b>	<b>\$ 429,872,116</b>	<b>\$ (258,412,884)</b>	<b>-37.5%</b>

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

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding



Figure 123: Construction Fund Balance (2017-2019)

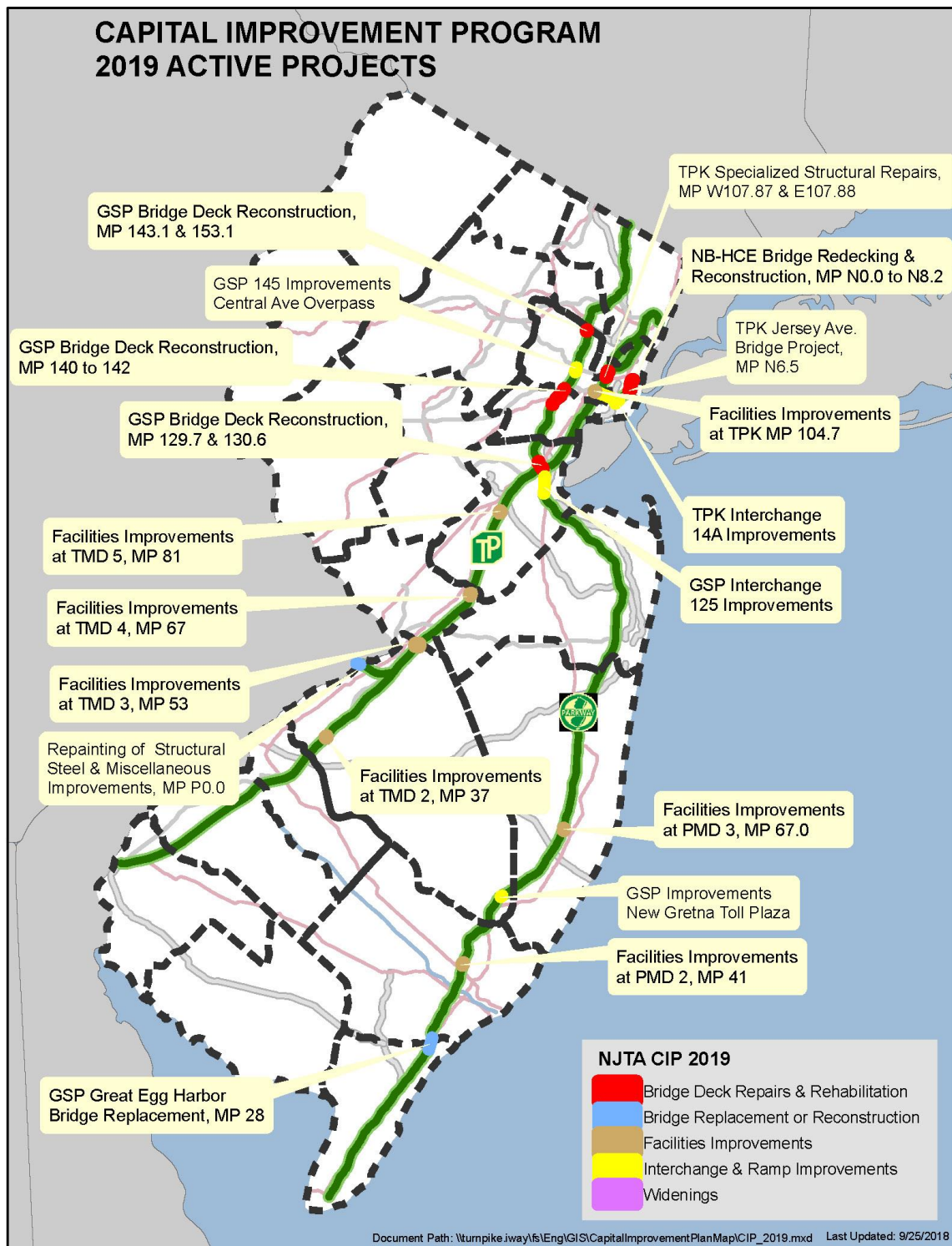


Figure 124: Map of Capital Improvement Program Active Projects

Funding for the \$7 Billion CIP began with the issuance of \$160 million of Series 2008A Subordinate Bond Anticipation Notes. In April 2009, the Authority issued \$1.75 billion of Turnpike Revenue Bonds, which included \$1.375 billion of Federally Taxable, Issuer Subsidy, Build America Bonds, which were authorized under the American Recovery and Reinvestment Act of 2009. The Authority was one of the first issuers in the country to take advantage of this financing option. Financing of the program has continued through 2018, at an average net interest cost below the budgeted 5%.

**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 – 2012
  - 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.
- 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 minor reductions have been incorporated into the operating budget.

#### 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 2018.
- 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.

##### 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 2018.
- 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 minor reductions have been incorporated into the operating budget.

##### 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 2015
- 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. Facilities Improvements Phase II**

- 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 on-going
- 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.

#### **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 – December 2015
- 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 – June 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.

#### **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.

#### **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 budget status is shown below:

<b>Capital Improvement Program Projects</b>				
<b>Project</b>	<b>Current Budget</b>	<b>Total Expended or Committed</b>	<b>Future Anticipated Additional Expenses</b>	<b>% Spent &amp; Committed</b>
Turnpike Int 6-9 Widening	2,135,300,000	2,134,100,000	1,200,000	99.9%
<b>Total Turnpike Interchange 6-9 Widening</b>	<b>\$ 2,135,300,000</b>	<b>\$ 2,134,100,000</b>	<b>\$ 1,200,000</b>	<b>99.9%</b>
Bridge Painting Phase I	105,600,000	104,900,000	700,000	99.3%
Deck Reconstruction Phase I	200,500,000	200,500,000	-	100.0%
Bridge Preservation & Security	92,800,000	92,300,000	500,000	99.5%
Deck Reconstruction Phase II	146,400,000	141,900,000	4,500,000	96.9%
Bridge Painting Phase II	65,200,000	63,100,000	2,100,000	96.8%
Int 16E-18E Bridge Improvement	15,100,000	15,100,000	-	100.0%
TP Hackensack East Bridge Rehab	136,500,000	131,600,000	4,900,000	96.4%
NBHCE Bridge Redecking	489,200,000	326,800,000	162,400,000	66.8%
TP Special Bridge Structure	8,700,000	8,700,000	-	100.0%
Parkway Bass River Bridge	76,400,000	76,300,000	100,000	99.9%
Pky Mullica River Bridge	49,400,000	49,400,000	-	100.0%
Parkway Substructure Repairs	33,500,000	33,200,000	300,000	99.1%
Great Egg Harbor/Drag Channel	265,900,000	259,100,000	6,800,000	97.4%
<b>Total Bridge Construction, Preservation &amp; Security</b>	<b>\$ 1,685,200,000</b>	<b>\$ 1,502,900,000</b>	<b>\$ 182,300,000</b>	<b>89.2%</b>
Drainage Improvements	62,200,000	61,700,000	500,000	99.2%
Imp Roadway Appurtenances	41,600,000	41,500,000	100,000	99.8%
Median Barrier Improvements	48,200,000	48,100,000	100,000	99.8%
Sign Replacements Phase I	142,000,000	141,900,000	100,000	99.9%
Sign Replacements Phase II	155,000,000	124,800,000	30,200,000	80.5%
Turnpike/Parkway So Improve	15,900,000	15,900,000	-	100.0%
Turnpike Widening Int 16W to Int 18W	-	-	-	-
Parkway Mainline Shoulder Imp	366,700,000	361,300,000	5,400,000	98.5%
Median Barrier Improvements Phase II	16,000,000	-	-	-
<b>Total Roadway Improvements</b>	<b>\$ 847,600,000</b>	<b>\$ 795,200,000</b>	<b>\$ 36,400,000</b>	<b>93.8%</b>
Facilities Improvements Phase II	417,000,000	399,300,000	17,700,000	95.8%
TP Int 8A to Rte 130 Connect	7,000,000	7,000,000	-	100.0%
TPK Int 14A Reconstruction	290,500,000	284,800,000	5,700,000	98.0%
Pky I/C 41 Improvements	23,800,000	23,800,000	-	100.0%
Pky I/C 142 Improvements	700,000	700,000	-	100.0%
Parkway Int 44 Improvements	29,000,000	29,000,000	-	100.0%
Parkway Int 9, 10 & 11 Improve	92,300,000	85,800,000	6,500,000	93.0%
Parkway Int 125 Phase I	98,900,000	94,200,000	4,700,000	95.2%
GSP I/C 88 Improvements	97,900,000	97,900,000	-	100.0%
Parkway Int 91 Improvements	11,600,000	11,300,000	300,000	97.4%
<b>Total Interchange Improvements</b>	<b>\$ 1,068,700,000</b>	<b>\$ 1,033,800,000</b>	<b>\$ 34,900,000</b>	<b>96.7%</b>
Salt Storage Facilities	17,600,000	17,600,000	-	100.0%
Facilities Improvements Phase I	654,700,000	640,800,000	13,900,000	97.9%
<b>Total Facilities Improvements</b>	<b>\$ 672,300,000</b>	<b>\$ 658,400,000</b>	<b>\$ 13,900,000</b>	<b>97.9%</b>
Parkway Widening Phase Int 63-80	129,900,000	129,800,000	100,000	99.9%
Parkway Widening Phase Int 35 -63	461,000,000	443,800,000	17,200,000	96.3%
<b>Total Parkway Widening</b>	<b>\$ 590,900,000</b>	<b>\$ 573,600,000</b>	<b>\$ 17,300,000</b>	<b>97.1%</b>
<b>10 Year CIP Total:</b>	<b>\$ 7,000,000,000</b>	<b>\$ 6,698,000,000</b>	<b>\$ 286,000,000</b>	<b>95.7%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation
- Totals may not add due to rounding

Figure 125: Capital Improvement Program Projects

Individual projects within the \$7 Billion CIP with spending by year is shown below:

Capital Improvement Program Spending						
Project	Project Name	LTD Expenses as of 12/31/2017	2018 Spending	2019 Spending	2020 and future Spending	Total CIP Spending
39018001	Turnpike Int 6-9 Widening	2,125,616,695	3,484,606	1,275,000	-	2,130,376,301
Total Turnpike Interchange 6-9 Widening		\$ 2,125,616,695	\$ 3,484,606	\$ 1,275,000	-	\$ 2,130,376,301
39001008	Bridge Painting Phase I	104,893,451	-	-	-	104,893,451
39001010	Deck Reconstruction Phase I	199,484,946	280,329	78,000	-	199,843,275
39001011	Bridge Preservation & Security	72,332,666	11,235,760	7,734,000	-	91,302,426
39001033	Deck Reconstruction Phase II	100,556,677	19,489,558	20,846,566	-	140,892,801
39001034	Bridge Painting Phase II	56,990,004	7,469,164	30,154	-	64,489,322
39011002	Int 16E-18E Bridge Improvement	15,147,165	-	-	-	15,147,165
39011012	TP Hackensack East Bridge Rehab	131,471,843	-	-	-	131,471,843
39011025	NBHCE Bridge Redecking	185,494,042	80,566,500	112,420,000	98,162,369	476,642,911
39011028	TP Special Bridge Structure	7,241,754	15,000	-	-	7,256,754
39021004	Parkway Bass River Bridge	76,339,823	4,309	-	-	76,344,132
39021015	Pky Mullica River Bridge	49,392,352	-	-	-	49,392,352
39021020	Parkway Substructure Repairs	33,223,601	-	-	-	33,223,601
39021036	Great Egg Harbor/Drag Channel	214,132,168	26,957,000	15,319,000	100,000	256,508,168
Total Bridge Construction, Preservation & Security		\$ 1,246,700,492	\$ 146,017,620	\$ 156,427,720	\$ 98,262,369	\$ 1,647,408,201
39002003	Drainage Improvements	60,240,213	1,270,298	-	-	61,510,511
39002016	Imp Roadway Appurtenances	41,388,870	-	-	-	41,388,870
39002017	Median Barrier Improvements	48,120,819	-	-	16,000,000	64,120,819
39006014	Sign Replacements Phase I	136,832,870	(618,992)	-	-	136,213,878
39006019	Sign Replacements Phase II	119,829,450	4,270,000	28,055,000	30,000,000	182,154,450
39009036	Turnpike/Parkway So Improve	15,817,437	-	-	-	15,817,437
39018032	Turnpike Widening Int 16W to Int 18W	-	-	-	-	-
39022023	Parkway Mainline Shoulder Imp	351,382,239	1,099,009	5,660,841	-	358,142,088
Total Roadway Improvements		\$ 773,611,897	\$ 6,020,315	\$ 33,715,841	\$ 46,000,000	\$ 859,348,052
39003035	Facilities Improvements Phase II	288,149,216	33,515,415	55,934,262	144,488,278	522,087,171
39013005	TP Int 8A to Rte 130 Connect	6,149,167	-	-	-	6,149,167
39013027	TPK Int 14A Reconstruction	258,593,046	19,402,000	100,000	-	278,095,046
39023006	Pky I/C 41 Improvements	22,627,345	193,000	-	-	22,820,345
39023007	Pky I/C 142 Improvements	654,796	-	-	-	654,796
39023009	Parkway Int 44 Improvements	28,802,539	2,218	-	-	28,804,756
39023022	Parkway Int 9, 10 & 11 Improve	81,034,721	3,505,798	1,023,774	-	85,564,293
39023024	Parkway Int 125 Phase I	53,021,871	22,163,500	4,820,999	26,984,499	106,990,870
39023029	GSP I/C 88 Improvements	97,269,377	65,000	-	-	97,334,377
39023030	Parkway Int 91 Improvements	2,504,709	1,500,000	-	-	4,004,709
Total Interchange Improvements		\$ 838,806,787	\$ 80,346,930	\$ 61,879,035	\$ 171,472,777	\$ 1,152,505,530
39003040	Salt Storage Facilities	17,550,923	-	-	-	17,550,923
39005013	Facilities Improvements Phase I	559,504,301	59,800,000	5,600,000	-	624,904,301
Total Facilities Improvements		\$ 577,055,224	\$ 59,800,000	\$ 5,600,000	-	\$ 642,455,224
39028018	Parkway Widening Phase Int 63-80	126,820,248	2,845	-	-	126,823,093
39028031	Parkway Widening Phase Int 35 -63	408,161,987	25,206,324	1,515,289	6,200,000	441,083,599
Total Widening of Garden State Parkway		\$ 534,982,234	\$ 25,209,169	\$ 1,515,289	\$ 6,200,000	\$ 567,906,692
Total Capital Improvement Program Spending		\$ 6,096,773,330	\$ 320,878,640	\$ 260,412,884	\$ 321,935,146	\$ 7,000,000,000

- 2017 and 2018 amounts have been reclassified to match 2019 presentation

- Totals may not add due to rounding

Figure 126: Capital Improvement Program Project Spending By Year

## Revenue Funded Construction Account Spending Budget

### Revenue Funded Construction Account

The New Jersey Turnpike Authority's Revenue Funded Construction Account within the Construction Fund was authorized by the Board in 2017. From 2019 to 2022 the General Reserve Fund will transfer \$25 million per year to the Revenue Funded Construction Account, totaling \$100 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 Revenue Funded Construction Account 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 refinancings during 2017 that have significantly decreased the annual interest payments on outstanding bonds resulting in debt savings to the Authority.

Revenue Funded Construction Account Spending Budget					
	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Bridge Repairs	467,000	2,717,000	15,390,000	12,673,000	466.4%
<b>Total Revenue Funded Construction</b>	<b>\$ 467,000</b>	<b>\$ 2,717,000</b>	<b>\$ 15,390,000</b>	<b>\$ 12,673,000</b>	<b>466.4%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation
- Totals may not add due to rounding

Figure 127: Revenue Funded Construction Account Spending By Year

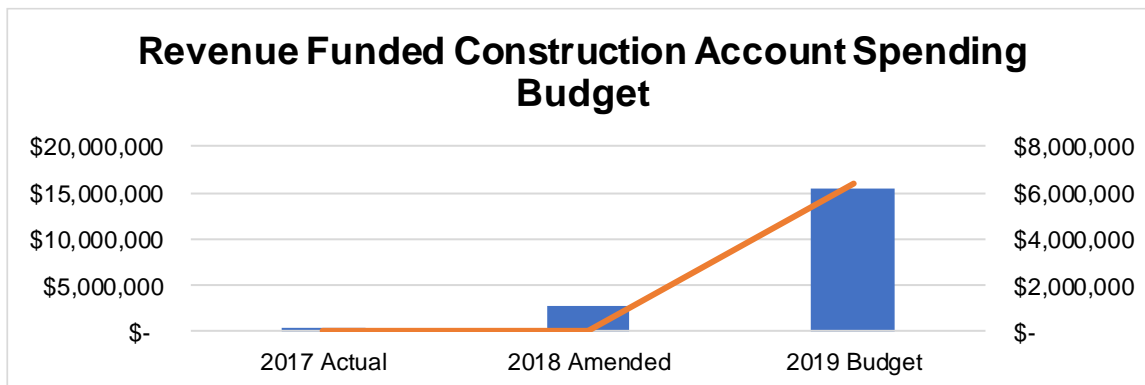


Figure 128: Revenue Funded Construction Account Spending Chart

Revenue Funded Construction Account					
	2017 Actual	2018 Est/Actual	2019 Budget	\$ Change from 2018 Est/Actual	% Change from 2018 Est/Actual
Opening Balance	-	-	-	-	-
Transfer from General Reserve Fund	-	-	25,000,000	25,000,000	-
Due to General Reserve Fund	467,000	2,717,000	(3,184,000)	(5,901,000)	-217.2%
Expenditures	(467,000)	(2,717,000)	(15,390,000)	(12,673,000)	466.4%
<b>Ending Balance</b>	<b>-</b>	<b>-</b>	<b>\$ 6,426,000</b>	<b>\$ 6,426,000</b>	<b>100.0%</b>

- 2017 and 2018 amounts have been reclassified to match 2019 presentation
- Totals may not add due to rounding

Figure 129: Revenue Funded Construction Account Fund Balance

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

Revenue Funded Construction Account		
Project #	Project Name	2019 Budget
391R00001	Passaic River Bridge Rehab	2,740,000
391R00002	Laderman Bridge Repair Project	6,150,000
391R00003	Washington Bridge Repair Project	6,500,000
<b>Total Revenue Funded Construction</b>		<b>\$ 15,390,000</b>

Figure 130: Revenue Funded Construction Account Projects Budget

Revenue Funded Construction Account		
Project Number	Project Name	Description
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 131: Revenue Funded Construction Account Projects Description

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

Revenue Funded Construction Account				
Project Name	Current Budget	Total Expended or Committed	Future Anticipated Additional Expenses	% Spent & Committed
Passaic River Bridge Rehab	\$ 70,000,000	\$ 6,400,000	\$ 63,600,000	9.1%
Laderman Bridge Repair Project	15,000,000	2,122,000	12,878,000	14.1%
Washington Bridge Repair Project	15,000,000	909,000	14,091,000	6.1%
<b>Total Revenue Funded Construction</b>	<b>\$ 100,000,000</b>	<b>\$ 9,431,000</b>	<b>\$ 90,569,000</b>	<b>9.4%</b>

- Totals may not add due to rounding

Figure 132: Revenue Funded Construction Account Expended and Future Spending

## Debt

### 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 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.
- 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”.

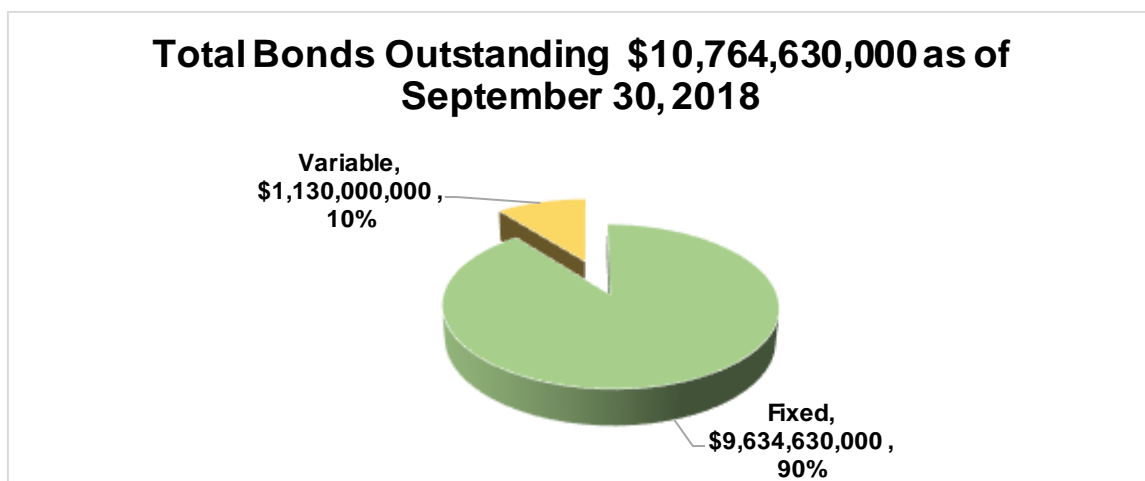


Figure 133: Total Outstanding Bond

## Bond Indebtedness

Bond Indebtedness					
Bond Series	Amount Outstanding September 30, 2018	Refunded Or Acquired And Canceled In Current Year	Mandatory Redemption / Sinking Fund Installments	Projected Debt Issuance	Amount Outstanding December 31, 2019
Series 2004 C-2	132,850,000	-	-	-	132,850,000
Series 2005 A	173,650,000	-	-	-	173,650,000
Series 2005 B	32,500,000	-	(32,500,000)	-	-
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	804,435,000	-	(158,435,000)	-	646,000,000
Series 2013A	312,100,000	-	(5,620,000)	-	306,480,000
Series 2013F	90,880,000	-	-	-	90,880,000
Series 2014A	1,000,000,000	-	-	-	1,000,000,000
Series 2014C	201,860,000	-	(3,130,000)	-	198,730,000
Series 2015A	92,500,000	-	-	-	92,500,000
Series 2015B	50,000,000	-	-	-	50,000,000
Series 2015C	43,750,000	-	-	-	43,750,000
Series 2015D	43,750,000	-	-	-	43,750,000
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	-	-	-	400,000,000
Series 2017D	179,375,000	-	-	-	179,375,000
Series 2017E	359,680,000	-	-	-	359,680,000
Series 2017F	167,845,000	-	(1,340,000)	-	166,505,000
Series 2017G	726,640,000	-	-	-	726,640,000
Series 2018 A*	-	-	-	525,000,000	525,000,000
Premiums and discounts	899,933,000	-	-	-	899,933,000
<b>Total Bond Indebtedness</b>	<b>\$ 11,664,563,000</b>	<b>-</b>	<b>\$ (201,025,000)</b>	<b>\$ 525,000,000</b>	<b>\$ 11,988,538,000</b>

\*Amounts are projected

Figure 134: Bond Indebtedness



## Aggregate Bond Debt Service Requirement

Aggregate Bond Debt Service Requirements			
Fiscal Year Ending 12/31	Principal	Interest	Total Debt Service (1)
2018(2)	201,025,000	590,241,594	791,266,594
2019(2)	228,205,000	578,367,620	806,572,620
2020	249,395,000	567,846,172	817,241,172
2021	278,700,000	557,924,345	836,624,345
2022	289,050,000	546,097,541	835,147,541
2023	304,350,000	533,722,754	838,072,754
2024	355,750,000	520,189,183	875,939,183
2025	374,280,000	501,905,363	876,185,363
2026	391,550,000	483,481,134	875,031,134
2027	411,630,000	463,978,642	875,608,642
2028	423,310,000	443,427,203	866,737,203
2029	426,005,000	422,207,977	848,212,977
2030	443,210,000	401,301,668	844,511,668
2031	464,765,000	379,753,768	844,518,768
2032	503,570,000	356,515,518	860,085,518
2033	543,420,000	332,402,718	875,822,718
2034	528,413,000	306,580,918	834,993,918
2035	541,447,000	278,731,525	820,178,525
2036	555,979,000	245,641,140	801,620,140
2037	598,532,000	207,745,595	806,277,595
2038	631,404,000	168,113,905	799,517,905
2039	674,732,000	124,761,360	799,493,360
2040	773,078,000	78,374,740	851,452,740
2041	184,080,000	26,363,200	210,443,200
2042	192,250,000	18,198,600	210,448,600
2043	95,890,000	9,667,800	105,557,800
2044	100,610,000	4,950,000	105,560,000
<b>Total Bond Debt Service</b>	<b>\$ 10,764,630,000</b>	<b>\$ 9,148,491,985</b>	<b>\$ 19,913,121,985</b>

**Notes:**

(1) Total Debt Service does not include debt service from the potential \$525 million 2018A new money issuance.

(2) Does not agree to the 2018 and 2019 Debt Service Fund Budget as the budget includes debt service on projected new money issuance in 2018 .

Figure 135: Aggregate Bond Debt Service Requirement

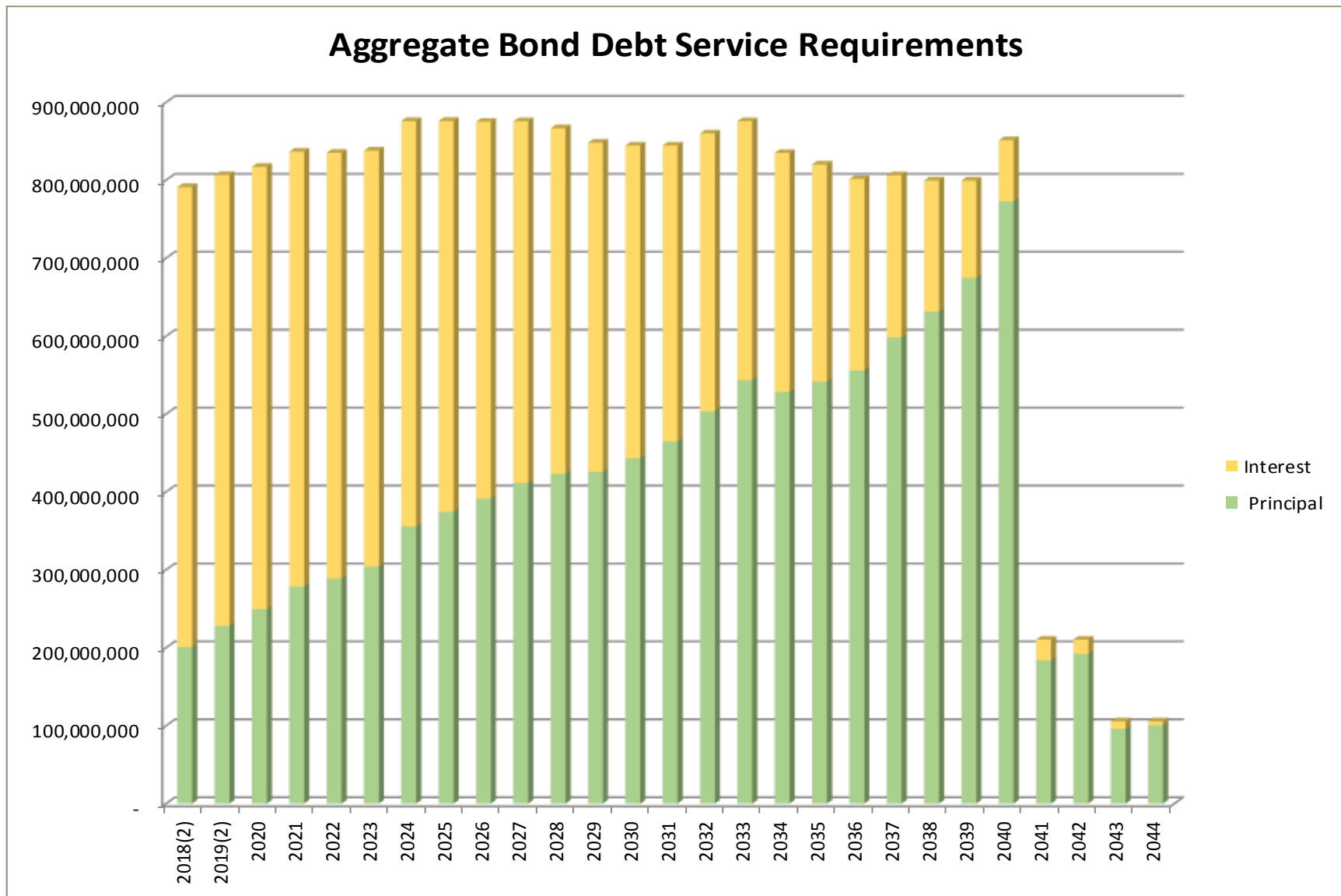


Figure 136: Aggregate Bond Debt Service Requirement Graph

## Debt Services Fund Budget

Debt Services Fund Budget					
	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
2000 Series B-G (1)	\$ 14,790,000	-	-	-	-
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	34,063,000	-	(34,063,000)	-
2005 Series D1-4	10,959,000	10,959,000	10,959,000	-	-
2009 Series E	9,188,000	-	-	-	-
2009 Series F	101,943,000	101,943,000	101,943,000	-	-
2009 Series G	20,081,000	-	-	-	-
2009 Series H	12,978,000	1,835,000	38,530,000	36,695,000	-
2009 Series I	5,225,000	-	-	-	-
2010 Series A	131,387,000	131,387,000	131,387,000	-	-
2012 Series A	6,894,000	581,000	581,000	-	-
2012 Series B	39,772,000	198,207,000	95,335,000	(102,872,000)	-
2013 Series A	70,450,000	19,293,000	18,213,000	(1,080,000)	-
2013 Series B (1)(3)	55,719,000	-	-	-	-
2013 Series C (1)(3)	150,287,000	-	-	-	-
2013 Series D 2-3 (1)(3)	2,686,000	-	-	-	-
2013 Series E 2-3 (1)(3)	1,734,000	-	-	-	-
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 B 2-3 (1)(3)	1,618,000	-	-	-	-
2014 Series C	10,093,000	13,223,000	59,022,000	45,799,000	-
2015 Series A (1)(2)(3)	3,362,000	3,929,000	32,129,000	28,200,000	-
2015 Series B (1)(3)	1,898,000	1,891,000	18,016,000	16,125,000	-
2015 Series C (1)(3)	1,732,000	1,728,000	15,828,000	14,100,000	-
2015 Series D (1)(3)	1,733,000	1,729,000	15,828,000	14,099,000	-
2015 Series E	36,413,000	36,413,000	36,413,000	-	-
2015 Series F (1)(3)	2,944,000	2,926,000	2,926,000	-	-
2015 Series G (1)(3)	989,000	988,000	988,000	-	-
2015 Series H (1)(3)	1,957,000	1,951,000	1,951,000	-	-
2016 Series A	7,312,000	7,312,000	7,312,000	-	-
2016 Series B (1)(3)	3,020,000	3,060,000	3,060,000	-	-
2016 Series C (1)(3)	1,982,000	2,040,000	2,040,000	-	-
2016 Series D (1)(3)	2,020,000	1,995,000	1,995,000	-	-
2017 Series A	21,240,000	29,409,000	29,409,000	-	-
2017 Series B	12,870,000	31,304,000	31,304,000	-	-
2017 Series C (1)(3)	3,265,000	18,967,000	18,967,000	-	-
2017 Series D (1)(3)	1,264,000	7,340,000	7,340,000	-	-
2017 Series E	849,000	18,833,000	17,983,000	(850,000)	-
2017 Series F	254,000	6,966,000	6,963,000	(3,000)	-
2017 Series G	847,000	31,327,000	30,480,000	(847,000)	-
2018 New Money - A (4)	-	4,375,000	26,250,000	21,875,000	-
<b>Total Debt Service Fund</b>	<b>\$822,989,000</b>	<b>\$795,645,000</b>	<b>\$832,823,000</b>	<b>\$37,178,000</b>	<b>4.7%</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 billion to fund the \$7 billion capital program with interest at 5%.

Figure 137: Debt Service Fund Budget

The Debt Service Fund Budget is increasing in 2019 due to higher required principal payments on existing bonds. The 2019 budget assumes a full year of interest payment for the \$525 million of the new money Turnpike Revenue Bonds to provide additional funds for the \$7 billion CIP at an interest rate of 5%.

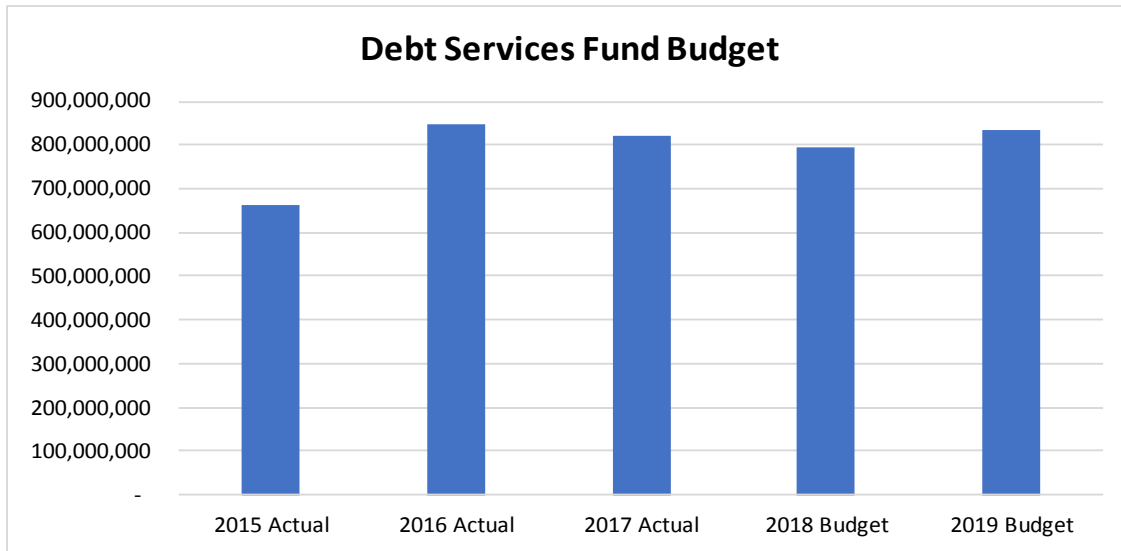


Figure 138: Debt Service Fund Budget Graph (2015-2019)

Debt Service Fund Balance					
	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Beginning Balance	\$ 197,740,000	\$ 218,475,000	\$ 201,025,000	\$ (17,450,000)	-
Revenue Transfers	822,984,000	792,574,000	806,573,000	13,999,000	-
Interest Expense	(604,509,000)	(591,549,000)	(578,368,000)	13,181,000	-
Principle Payments	(197,740,000)	(218,475,000)	(201,025,000)	17,450,000	-
<b>Ending Balance</b>	<b>\$ 218,475,000</b>	<b>\$ 201,025,000</b>	<b>\$ 228,205,000</b>	<b>\$ 27,180,000</b>	<b>13.5%</b>

Figure 139: Debt Service Fund Balance (2017-2019)

### Debt Reserve Fund

No spending budget is required for the Debt Reserve Fund, as no draws on the Debt Reserve Fund are anticipated for 2019. The Authority does expect to issue up to \$525 million of new money Turnpike Revenue Bonds in 2018 which would increase the debt reserve requirement as estimated below. Any increase in the Debt Reserve requirement will be funded with bond proceeds.

Debt Reserve Fund Balance					
	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Beginning Balance	\$ 589,325,000	\$ 598,830,000	\$ 609,405,000	\$ (10,575,000)	-
Bond Proceeds	9,505,000	10,575,000	-	10,575,000	-
<b>Ending Balance</b>	<b>\$ 598,830,000</b>	<b>\$ 609,405,000</b>	<b>\$ 609,405,000</b>	<b>-</b>	<b>-</b>

Figure 140: Debt Reserve Fund Balance (2017-2019)

## Charges Fund Budget

The Series 2000B-G Bonds were refunded in October 2017, and therefore eliminating the remarketing fees. These fees were the only fees required to be paid from this fund.

Charges Fund Budget					
Bond Series	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
2000B-G	\$ 117,000	-	-	-	-
<b>Total Charges Fund</b>	<b>\$ 117,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Figure 141: Total Charges Fund Budget (2017-2019)

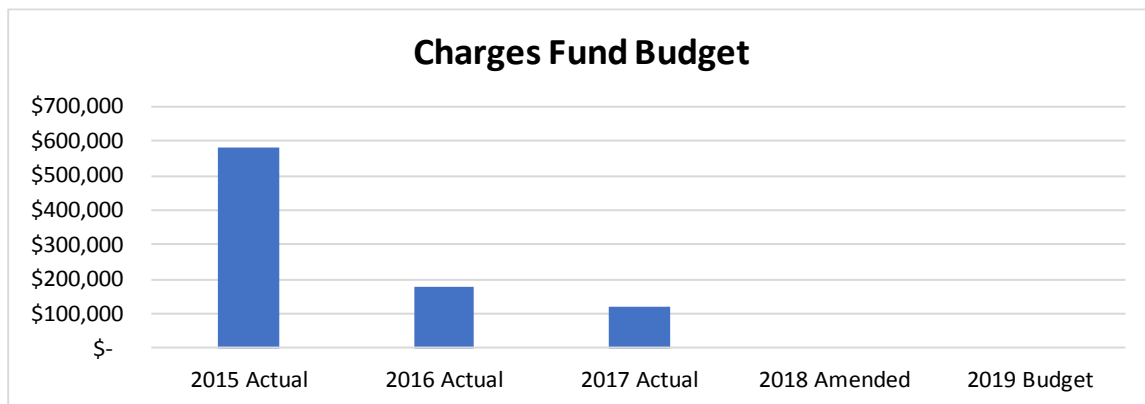


Figure 142: Total Charges Fund Budget Graph (2015-2019)

Charges Fund Balance					
	2017 Actual	2018 Amended	2019 Budget	\$ Change from 2018 Amended	% Change from 2018 Amended
Beginning Balance	\$ 2,000	-	-	-	-
Interfund Transfers	115,000	-	-	-	-
Payments	(117,000)	-	-	-	-
<b>Ending Balance</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Figure 143: Charges Fund Balance (2017-2019)

## Appendices

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

**HNTB Corporation**  
The HNTB Companies  
Infrastructure Solutions

9 Entin Road  
Suite 202  
Parsippany, NJ 07054

Telephone (973) 434-3100  
Facsimile (973) 434-3101  
www.hntb.com

October 16, 2018



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

Re: Order for Professional Services No. A3584  
General Consulting Engineering Services  
Review of Final 2019 Annual Budget  
Turnpike Revenue Bond Resolution

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 reviewed the New Jersey Turnpike Authority's Final 2019 Annual Budget.

HNTB hereby approves the New Jersey Turnpike Authority's Final 2019 Annual Budget. The Final 2019 Annual Budget includes:

• Operating Expense Budget	\$582,071,000
• Debt Service Budget	\$832,826,000
• Charges Fund Budget	\$0
• Maintenance Reserve Fund Spending Budget	\$185,025,000
• Special Project Reserve Fund Spending Budget	\$65,149,000
• Supplemental Capital Fund Spending Budget	\$126,520,000
• General Reserve Fund Spending Budget	\$256,845,000

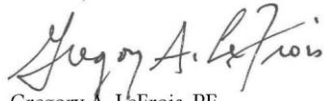
In addition, the Final 2019 Annual Budget includes the following deposits:

• Maintenance Reserve Fund	\$131,468,000
• Special Projects Reserve Fund	\$41,300,000
• General Reserve Fund	\$245,743,000

John M. Keller, PE  
October 16, 2018  
Page 2 of 2

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,

A handwritten signature in cursive script, reading "Gregory A. LeFrois".

Gregory A. LeFrois, PE  
Senior Vice President  
Project Manager

Copy: Donna Manuelli, CFO, NJTA

GAL/lp

## Appendix B 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

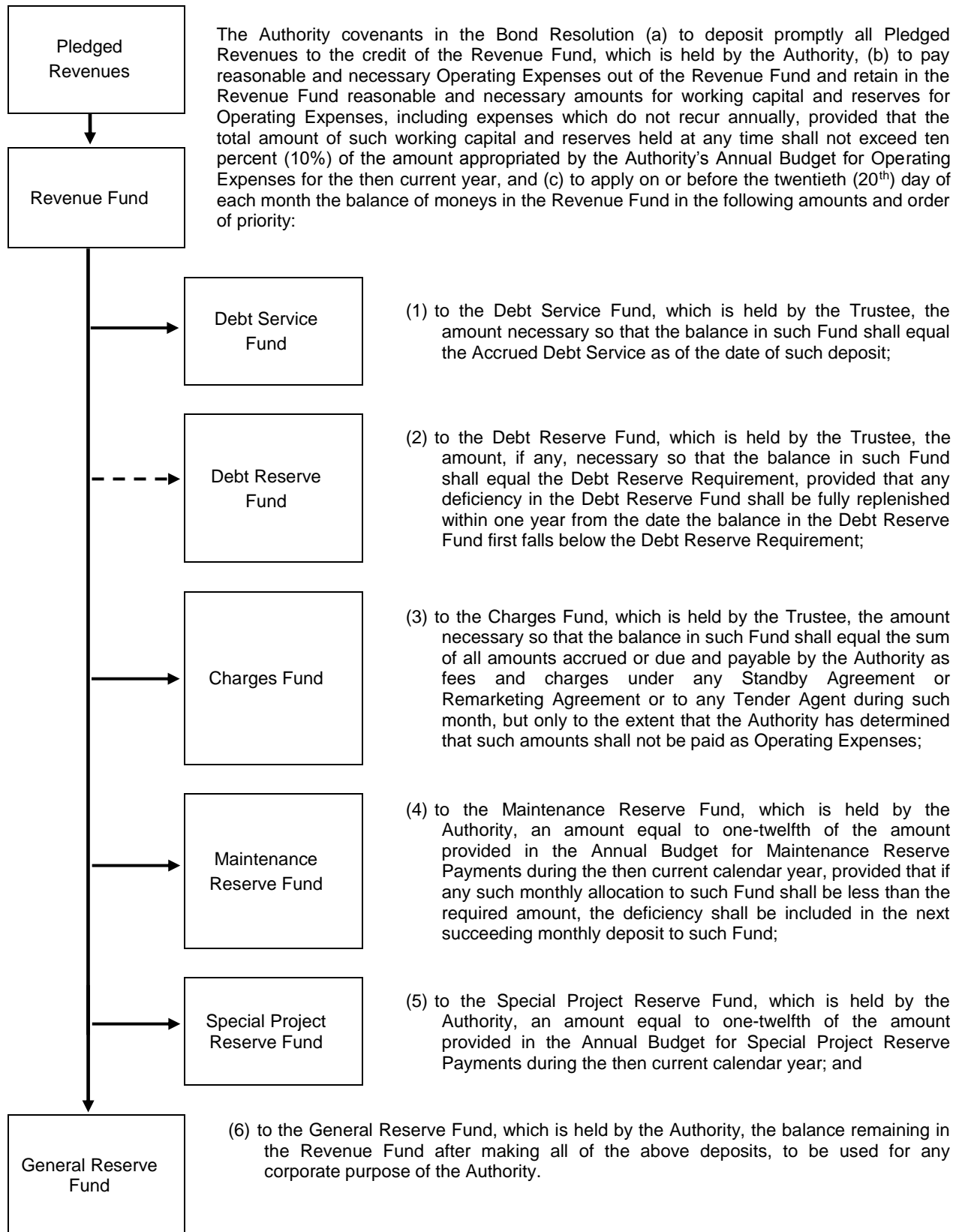
and cause such books, records and accounts to be annually audited by a nationally recognized firm of Certified Public Accountants. The Authority shall record all transactions consistent with the provisions of the Bond Resolution, including the provisions relating to all Funds and Accounts established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

## New Jersey State Highway System

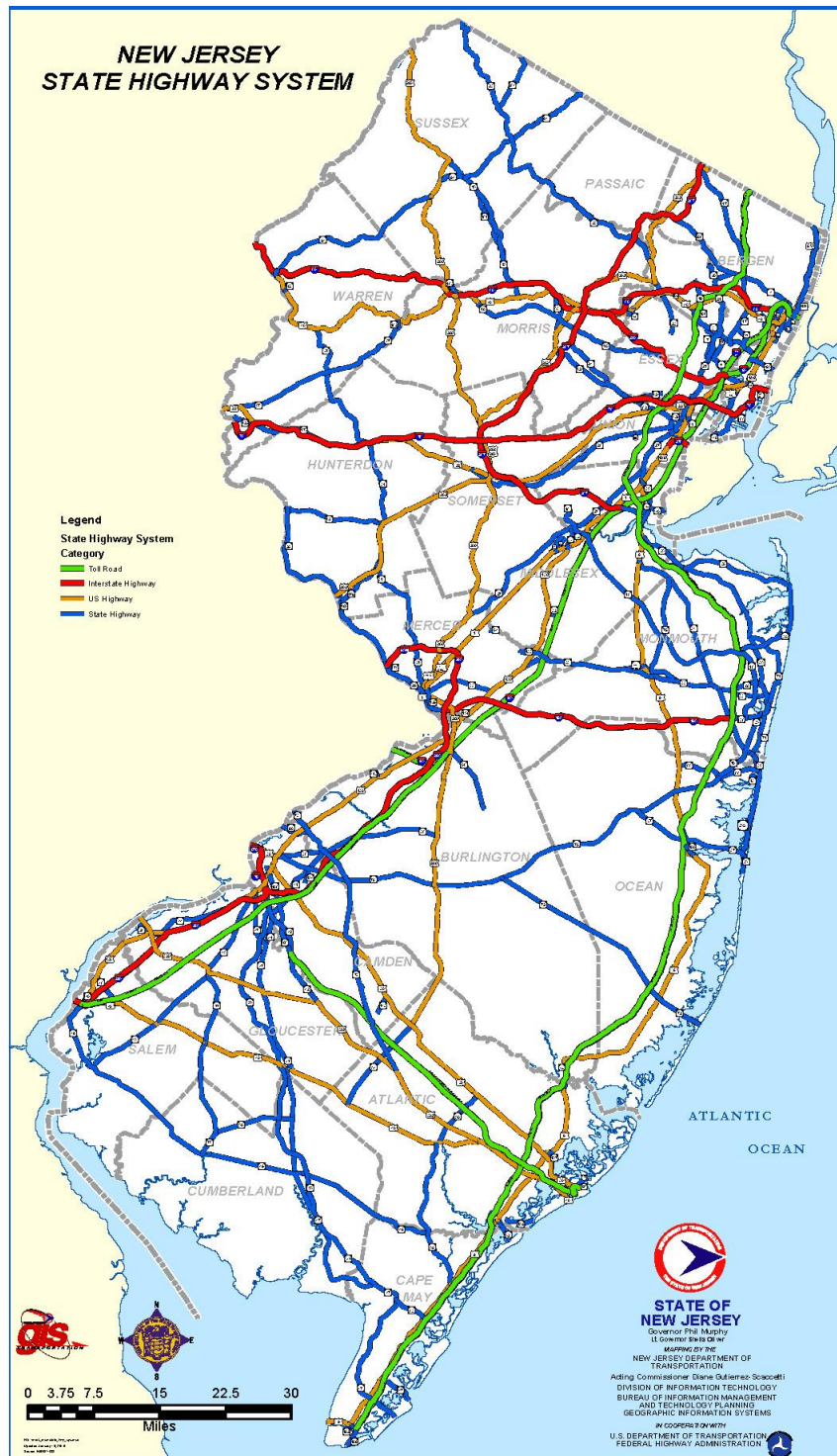


Figure 144: Map of New Jersey State Highway System

### 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 2018 includes approximately 2,423 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 2,041 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 15 of New Jersey's 21 counties, they include: Atlantic, Bergen, Burlington, Camden, Cape May, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Ocean, Passaic, Salem and Union. 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, 2017, the latest data published. Additionally, Monmouth, Ocean, Atlantic and Cape May counties experience seasonal population growth as the Jersey Shore is a popular destination site for vacationers from neighboring States and around the World. While the State has seen a population growth of 2.4% over the time period 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 3.7%. Whereas counties that neither roadway passes through increased by an average of only 0.2%. These statistics demonstrate the importance of the roadways to the State's overall economic well-being.

Population by County				
County	2017 Population	2010 Population	Increase (Decrease)	% Change
Cumberland	152,538	156,898	(4,360)	-2.8%
Hunterdon	125,059	128,349	(3,290)	-2.6%
Morris	499,693	492,276	7,417	1.5%
Somerset	335,432	323,444	11,988	3.7%
Sussex	141,682	149,265	(7,583)	-5.1%
Warren	106,798	108,692	(1,894)	-1.7%
<b>Counties Not Served by Either Roadway</b>	<b>1,361,202</b>	<b>1,358,924</b>	<b>2,278</b>	<b>0.2%</b>
Atlantic	269,918	274,549	(4,631)	-1.7%
Cape May	93,553	97,265	(3,712)	-3.8%
Monmouth	626,351	630,380	(4,029)	-0.6%
Ocean	597,943	576,567	21,376	3.7%
Passaic	512,607	501,226	11,381	2.3%
<b>Counties Served by Parkway Only</b>	<b>2,100,372</b>	<b>2,079,987</b>	<b>20,385</b>	<b>1.0%</b>
Camden	510,719	513,657	(2,938)	-0.6%
Gloucester	292,206	288,288	3,918	1.4%
Hudson	691,643	634,266	57,377	9.0%
Mercer	374,733	366,513	8,220	2.2%
Salem	62,792	66,083	(3,291)	-5.0%
<b>Counties Served by Turnpike Only</b>	<b>1,932,093</b>	<b>1,868,807</b>	<b>63,286</b>	<b>3.4%</b>
Bergen	948,406	905,116	43,290	4.8%
Burlington	448,596	448,734	(138)	0.0%
Essex	808,285	783,969	24,316	3.1%
Middlesex	842,798	809,858	32,940	4.1%
Union	563,892	536,499	27,393	5.1%
<b>Counties Served by Both Roadways</b>	<b>3,611,977</b>	<b>3,484,176</b>	<b>127,801</b>	<b>3.7%</b>
<b>All Counties Served by Parkway</b>	<b>5,712,349</b>	<b>5,564,163</b>	<b>148,186</b>	<b>2.7%</b>
<b>All Counties Served by Turnpike</b>	<b>5,544,070</b>	<b>5,352,983</b>	<b>191,087</b>	<b>3.6%</b>
<b>Total</b>	<b>9,005,644</b>	<b>8,791,894</b>	<b>213,750</b>	<b>2.4%</b>

Figure 145: New Jersey Population by County

## Employment

Employment growth is a key indicator of service and economic growth. The total number of residents who both reside and work in New Jersey is 3,553,070 and the number of residents who commute to work out of state is 554,658. According 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 2009-2013 five year average of where the residences of each county are employed as reported by the New Jersey State Data Center. Overall, 13.5% of New Jersey state workers are employed out of state while more than 79% of employees working out of state are living in counties served by the New Jersey Turnpike. Further, only 7.1% 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	57,746	1,873	96.9%	3.1%
Hunterdon	58,387	4,840	92.3%	7.7%
Morris	227,443	18,688	92.4%	7.6%
Somerset	150,450	11,855	92.7%	7.3%
Sussex	68,709	5,266	92.9%	7.1%
Warren	47,580	4,265	91.8%	8.2%
<b>Counties Not Served by Either Roadway</b>	<b>610,315</b>	<b>46,787</b>	<b>92.9%</b>	<b>7.1%</b>
Atlantic	119,725	4,075	96.7%	3.3%
Cape May	40,540	2,170	94.9%	5.1%
Monmouth	263,740	35,323	88.2%	11.8%
Ocean	226,019	9,522	96.0%	4.0%
Passaic	203,593	17,134	92.2%	7.8%
<b>Counties Served by Parkway Only</b>	<b>733,892</b>	<b>64,149</b>	<b>92.0%</b>	<b>8.0%</b>
Camden	187,407	46,332	80.2%	19.8%
Gloucester	109,309	27,399	80.0%	20.0%
Hudson	223,100	96,430	69.8%	30.2%
Mercer	156,274	16,575	90.4%	9.6%
Salem	23,562	4,553	83.8%	16.2%
<b>Counties Served by Turnpike Only</b>	<b>699,652</b>	<b>191,289</b>	<b>78.5%</b>	<b>21.5%</b>
Bergen	339,069	99,542	77.3%	22.7%
Burlington	187,535	30,777	85.9%	14.1%
Essex	294,344	46,334	86.4%	13.6%
Middlesex	340,858	45,150	88.3%	11.7%
Union	227,680	26,555	89.6%	10.4%
<b>Counties Served by Both Roadways</b>	<b>1,389,486</b>	<b>248,358</b>	<b>84.8%</b>	<b>15.2%</b>
<b>All Counties Served by Parkway</b>	<b>2,243,103</b>	<b>316,582</b>	<b>87.6%</b>	<b>12.4%</b>
<b>All Counties Served by Turnpike</b>	<b>2,089,138</b>	<b>439,647</b>	<b>82.6%</b>	<b>17.4%</b>
<b>Total</b>	<b>3,433,345</b>	<b>550,583</b>	<b>86.2%</b>	<b>13.8%</b>

Figure 146: 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.

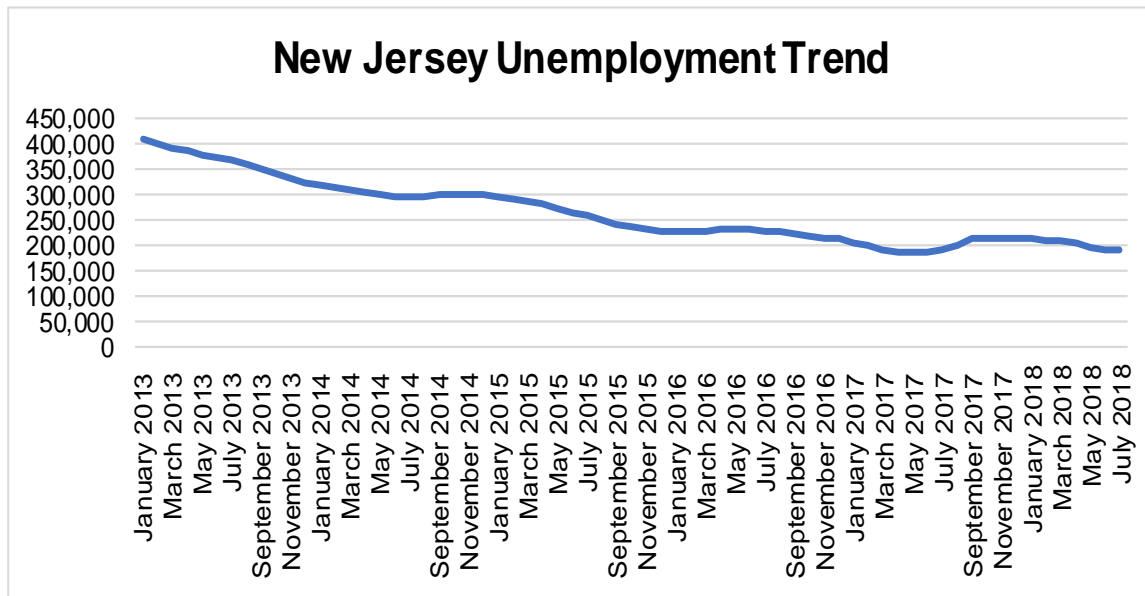


Figure 147: New Jersey Employment Totals (2013-2018)

Employment in the 21 counties in New Jersey increased 4,300 and unemployment decreased by 15,800 between 2016 and 2017. The county reporting the largest increase in employment was Camden, which reported an increase of 1,900 jobs. Camden was followed by Burlington and Middlesex at 1,700, and Gloucester 1,100. The top 5 counties reporting a decrease in unemployment were Bergen and Middlesex, which reported a decrease of 1,500 unemployed, followed by Essex at 1,400 and Passaic and Union at 1,200.

New Jersey Employment by County						
County	2016 Employed	2017 Employed	Change	2016 Unemployed	2017 Unemployed	Change
Atlantic	115,100	112,400	(2,700)	9,200	8,700	(500)
Bergen	464,000	464,500	500	20,300	18,800	(1,500)
Burlington	222,900	224,600	1,700	10,400	9,600	(800)
Camden	241,900	243,800	1,900	14,000	13,100	(900)
Cape May	42,600	42,800	200	4,600	4,300	(300)
Cumberland	62,100	61,800	(300)	5,000	4,600	(400)
Essex	350,100	349,500	(600)	22,400	21,000	(1,400)
Gloucester	143,300	144,400	1,100	7,600	7,200	(400)
Hudson	346,200	346,800	600	17,000	15,900	(1,100)
Hunterdon	62,600	62,400	(200)	2,500	2,300	(200)
Mercer	190,700	190,700	-	8,700	8,200	(500)
Middlesex	422,500	424,200	1,700	19,600	18,100	(1,500)
Monmouth	316,100	317,100	1,000	14,700	13,600	(1,100)
Morris	250,900	250,400	(500)	10,200	9,500	(700)
Ocean	257,300	258,100	800	14,100	13,100	(1,000)
Passaic	231,100	231,500	400	15,200	14,000	(1,200)
Salem	28,400	28,100	(300)	1,900	1,800	(100)
Somerset	167,000	166,700	(300)	7,100	6,600	(500)
Sussex	72,100	72,000	(100)	3,600	3,300	(300)
Union	264,200	263,700	(500)	14,400	13,200	(1,200)
Warren	54,300	54,200	(100)	2,600	2,400	(200)
<b>Total</b>	<b>4,305,400</b>	<b>4,309,700</b>	<b>4,300</b>	<b>225,100</b>	<b>209,300</b>	<b>(15,800)</b>

Figure 148: 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 2017. New Jersey has now seen six 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.

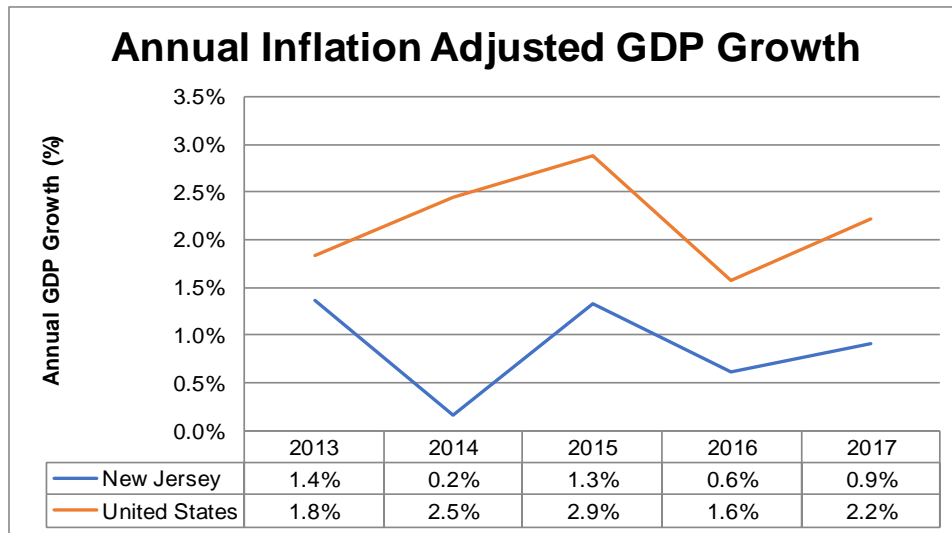
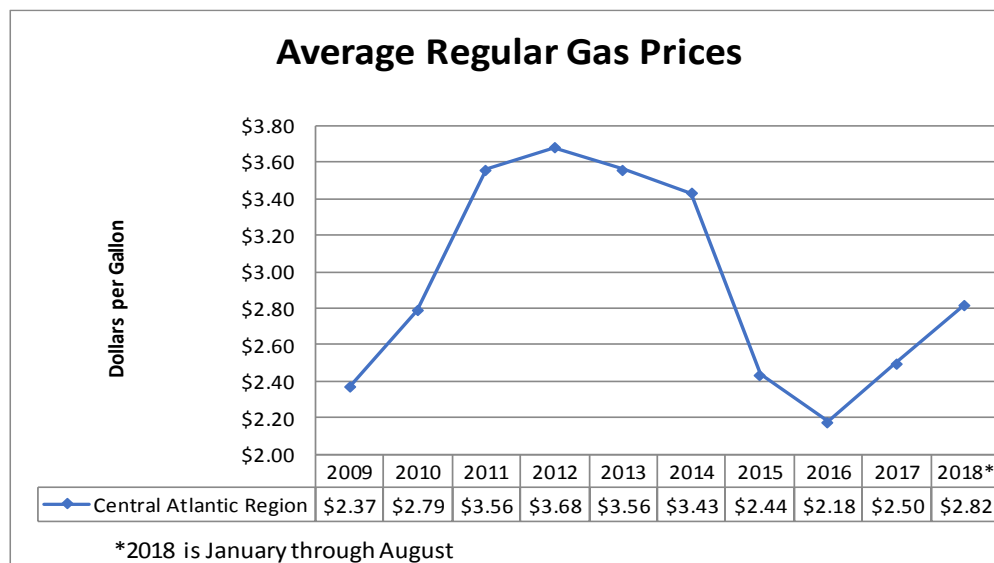


Figure 149: Annual Inflation Adjusted GDP Growth (2013-2017)

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 a national average of \$2.82 per gallon in 2019. 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. Even if fuel prices rise to \$2.82 they will still be lower than the average price over the last ten years.



\*2018 is through August

Figure 150: Average Annual Regular Gasoline Prices (2008-2018)

## Weather

Snowfall can have a major effect on the Authority's Operating Budget for the fiscal year. In 2018, the Authority spent approximately \$41 million on snow removal through September. In 2015 spending of \$46 million was the highest amount in Authority history, while snow removal costs for 2018 are comparable. The 2017-2018 winter was the snowiest since 2013/2014 and had an average winter temperature of 33.9°. According to annual snowfall totals compiled by the New Jersey State Climatologist, snowfall has varied wildly over the previous five 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.

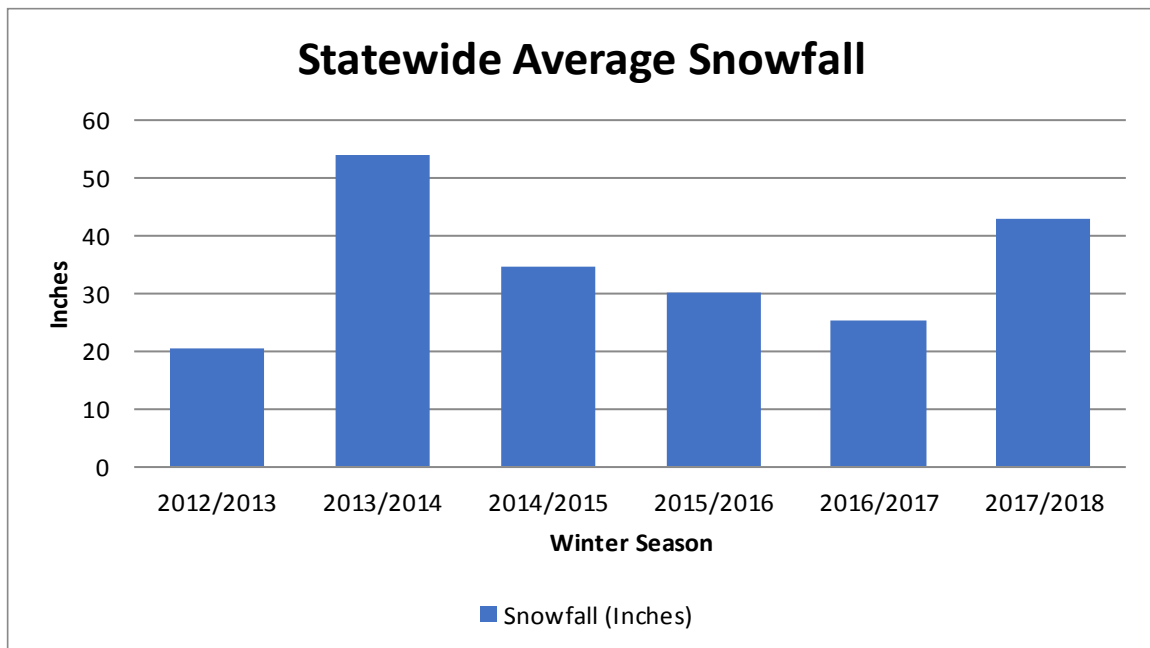


Figure 151: Statewide Average Snowfall by Season (2012-2018)

## 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** – The Authority's 10 year, \$7 billion program to increase investment in projects focused on capacity, state of good repair, safety and security. The program is funded by the issuance of Turnpike Revenue Bonds, of which \$6.75 billion worth of bonds have been issued.

**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.

HEADCOUNT – A statement or description of the number of employees for a specific time period in each department.

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.

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** State Transportation 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