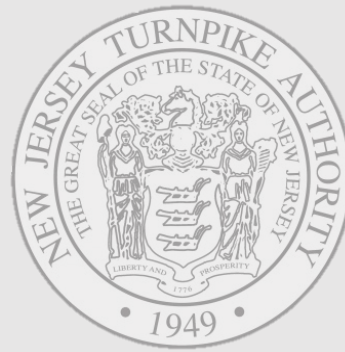


New Jersey Turnpike Authority



Annual Budget 2022

Prepared by Finance Department
Donna Manuelli, Chief Financial Officer

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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

November 23, 2021

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) 2022 Annual Budget. The Authority's Turnpike Revenue Bond Resolution, Section 710, requires the Board of Commissioners to adopt, on or before January 15th 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 2022 Annual Budget has been prepared in accordance with the Authority's Strategic Plan and its 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 2022 Annual Budget lays out, in detail, the progress that has been made since the approval of the 2020-2029 Strategic Plan. The 2022 Annual Budget includes total revenue which reflects the continued recovery from the pandemic, along with providing sufficient amounts for operating expenses, debt service and general reserve fund obligations. In addition, the 2022 Annual Budget includes the Authority's Capital Spending Program which is presented on a rolling five-year basis. The Capital Spending Program includes the revenue funded Capital Budget and the bond funded Construction Fund.

In 2022, the Revenue is budgeted at \$2.3 billion, which is a 7% increase from the 2021 budget, demonstrating a strong recovery as traffic is projected to return to about 97% of pre-pandemic levels, coupled with annual toll rate indexing at 3%, effective January 1, 2022. Operating Expenses are budgeted at \$672 million, which shows a 7.9% increase, allowing the Authority to operate and maintain the Turnpike System and honor all contractual obligations to vendors and employees. The 2022 Annual Budget includes Debt Service of \$903 million, a decrease of \$18 million over last year's budget. General Reserve spending and transfers in 2022 total nearly \$686 million and include the fulfillment of \$573 million in contractual payments to the State after all debt service payments and bond resolution revenue funded capital requirements are met.

As illustrated in the Capital Spending Program, the Authority projects design, supervision and construction contract awards to be approximately \$1 billion as per its target for the capital and construction projects. In addition, the Capital Spending Program projects a spending budget of nearly \$1 billion in 2022 from a combination of its bond and revenue funded programs. Of note, the 2022-2026 Capital Improvement Program's primary focus is the rehabilitation of 19 bridges, as well as rebuilding the Newark Bay Hudson County Extension and Turnpike capacity enhancement between Interchanges 1 and 4. This program is derived from the 2020 Long-Range Capital Plan and is funded from bond proceeds. Revenue funded projects, on the other hand, focus on maintaining a state of good repair on both roadways. Funds will be utilized largely for the resurfacing of 395 total lane miles, as well as for several New Jersey Turnpike and Garden State Parkway bridge repairs.

Throughout 2021, the Authority has continued to demonstrate its financial strength and resiliency despite COVID-19's ongoing impact on the State's unemployment rate, which remains above 7%, and its direct effect on telework. These factors have adversely effected roadway traffic, showcased by a 2021 year-to-date drop of approximately 10% when compared to 2019 traffic figures. However, there has been a gradual and steady recovery in the traffic throughout 2021, but especially since New Jersey's lifting of its travel ban in May and the state of emergency in June. When comparing the month of October 2021 to October 2019, total traffic returned to almost 96% of pre-pandemic levels.

The 2022 Annual Budget demonstrates the Authority's continued ability to prudently manage its finances, leading it on the road to a successful recovery. The 2022 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, yet safest toll roads. In addition, the 2022 Annual Budget provides bond covenant coverage that exceeds what is required by the Turnpike Revenue Bond Resolution and the Authority's Financial Management Principles and Guidelines, and meets all contractual payment obligations.

John M. Keller
Executive DirectorDonna Manuelli
Chief Financial OfficerWebsite address <http://www.njta.com>

Government Finance Officers Association Distinguished Budget Award 2021

GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**New Jersey Turnpike Authority
New Jersey**

For the Fiscal Year Beginning

January 01, 2021*Christopher P. Morill***Executive Director**

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to **New Jersey Turnpike Authority, New Jersey**, for its Annual Budget for the fiscal year beginning **January 1, 2021**. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as a financial plan, as an operations guide, and as a communications device.

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

Vision Statement

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

Mission Statement

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

Core Values

The Authority's core values are a commitment to:

Safety

Diversity

Innovation

Transparency

State of Good Repair

Customer Satisfaction

Resiliency & Sustainability

Long Term Financial Stability



Figure 1: The Turnpike and Parkway Crossing in Woodbridge

Background

The New Jersey Turnpike Authority (the "Authority") is a body corporate and politic of the State of New Jersey (the "State"). The Authority was organized and exists by virtue of the New Jersey Turnpike Act of 1948 (the "Act"), constituting Chapter 454 of the Laws of New Jersey of 1948, as amended and supplemented. 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"). As a result, the assets, liabilities, ongoing operations, expenses, and revenues of the Authority and the Highway Authority 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 an international 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, New York City, and other employment centers in the state. The Turnpike was the first toll road in New Jersey and the third in the nation when it opened in 1951.

When the Turnpike first opened in 1951, it was 118 miles in length, but has grown to 148 miles. The miles have grown over the years 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 mainline connects to the George Washington Bridge in the north and the Delaware Memorial Bridge in the south. To the east it connects with the Lincoln and Holland Tunnels, as well as the Outerbridge Crossing. Lastly, to the west, it connects with the Delaware River Turnpike Toll Bridge. Originally four lanes for its full length, the Turnpike now boasts a width of fourteen lanes in some areas.

The Parkway

The Parkway first opened to traffic in 1954 with a length of 168 miles. It is now a 173-mile limited access toll road with connections in the north to the New York State Thruway at the New York-New Jersey border near Spring Valley, New York and in the south to Route 9 near Cape May, New Jersey. The Parkway interchanges are numbered according to their distance from the southern terminus.

The northern section of the Parkway serves the metropolitan suburban areas of Bergen, Union, Essex, and Passaic Counties near Newark and New York City. The Parkway is also the principal highway route between metropolitan Newark-New York City and the New Jersey seashore. The Parkway is now as wide as 15 lanes in some areas and has a heavy truck restriction north of Interchange 105.

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 C](#) 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 target 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 ensure 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, 2026. Key highlights of the plan are as follows:

Revenue

- Toll revenue is projected by the Authority's traffic engineering consultant, CDM Smith. CDM Smith provided the Authority with a updated Traffic and Toll Revenue forecast in September 2021, which includes projected toll transactions and revenue for 2022-2030. The forecast assumes annual toll rate indexing at 3% and reflects an assumed permanent change in commuting patterns due to continuation of either full or hybrid work from home schedules that will remain post pandemic. The forecast for 2022, shows toll transactions increasing by 4% and toll revenue by 6% in comparison to 2021 estimated actuals. Starting in 2023, toll transactions are expected to increase by about 2% and revenue by 6% through 2024, with toll transactions increasing by about 1% and toll revenue by about 4% thereafter
- E-ZPass Fees are projected to increase by about 2% per year based on historical growth. The estimated actual for 2021 is significantly higher than prior years and the future years as an additional collection agency was added in 2021 and results include collection of backlog
- 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. The sequestration cut of 5.7% is constant from 2021-2030 per IRS pronouncements
- Concession revenue will be impacted by the closure and rebuilding of the Service Areas through 2025 assuming the adjoining Service Areas do not pick up the volumes lost during the closures. Concession revenue is projected to increase by about 2% per year from 2023 forward based upon projected increases in travel volume on the roadways
- Other Revenue (Investment, Miscellaneous, Arts Center) is projected to decline by approximately \$3.5 million in 2022 as compared to 2021 estimated actual results. Interest income is projected to decline due to lower than expected short-term interest rates. Miscellaneous revenue is projected to slightly increase primarily due to annual CPI increases. Arts Center revenue is slightly increasing due to an increase in naming rights payments, and amortization of pre-paid rents. After 2022, Other Revenue is increasing by 2% per year based upon historical growth rates

Operating Expenses

- Operating Expenses are projected to increase by 7.9% from 2021 to 2022, primarily driven by the increase in costs from State Police Services higher fringe benefit rates, NJ E-ZPass costs based upon increased traffic volumes and the percentage of administrative fee collections, and Insurance due to the rise in casualty insurance premiums. After 2022, Operating Expenses are projected to increase by about 3% per year, based upon assumed standard increases in salaries, pension, health benefits and other key cost categories

Net Debt Service

- Projected Net Debt Service includes interest payments on the assumed new money bond issuances of about \$1 billion per year (\$1.25 billion in 2022) to fund the Authority's various capital improvement programs. Projections assume the use of capitalized interest for a period of up to three years on each new money issuance from 2022 through 2026. In addition, projections assume the receipt of \$124 million from a forward delivery refunding which will be used to pay debt service

Maintenance Reserve Fund and the Special Project Reserve Fund

- Deposits to both the Maintenance Reserve Fund and the Special Project Reserve Fund are determined by the Authority's General Consulting Engineer, HNTB. The deposits are determined based upon necessity from the Consulting Engineer's Report dated November 2021. Maintenance Reserve Fund deposits will increase by \$10 million per year through 2025, and then will increase by 3% per year thereafter. Special Project Reserve Fund deposits will increase by 3% per year beginning in 2023

State Payments

- Includes payments under the Transportation Trust Fund Agreement, Feeder Road Maintenance Agreement, and the 2021 State Public Transportation Projects Funding Agreement, all between the Authority and the State of New Jersey, with payments subordinate to debt service payments to bondholders and bond resolution required deposits to the Maintenance Reserve Fund and the Special Project Reserve Fund. The new State Public Transportation Projects Funding Agreement started on July 1, 2021. The agreement requires payments based on the state fiscal year which begins on July 1st. The 2022 and 2023 projections include a portion of catch up payments for the state fiscal year 2023 (7/1/22 - 6/30/23)

The Authority's Financial Plan through 2026 forecasts the Authority to be in compliance with and exceed its General Bond Resolution Financial covenants, which require a minimum debt service coverage ratio of 1.20 times and total requirements coverage of at least 1.0 times. In addition, the Authority is projected to be in compliance with and also exceed 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 10% of total annual revenue as of December 31, 2021 and each subsequent year thereafter (\$230 million as of December 31, 2022 increasing to \$273 million as of December 31, 2026).

New Jersey Turnpike Authority Financial Plan							
<i>Fiscal Year Ending 12/31</i> <i>(\$ In Thousands, rounded to nearest hundred thousand)</i>	Actual 2020	Est/Act 2021	Budget 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026
Revenues							
Toll Revenues (1)							
Turnpike Tolls	\$ 1,014,900	1,473,600	1,533,800	1,622,200	1,702,400	1,776,800	1,854,500
Parkway Tolls	372,500	503,600	533,200	558,400	584,100	607,600	632,100
E-ZPass Fees	93,200	126,100	100,000	102,000	104,000	106,100	108,200
Federal Subsidy for Series 2009 F and Series 2010 A Bonds	77,800	77,000	77,000	77,000	77,000	77,000	77,000
Concession Revenue	31,700	31,900	31,500	32,100	32,800	33,400	34,100
Other Revenue	35,300	26,400	22,900	23,300	23,700	24,000	24,400
Total Revenues	\$ 1,625,400	2,238,600	2,298,400	2,415,000	2,524,000	2,624,900	2,730,300
Operating Expenses and Reserve (2)	(523,700)	(594,300)	(676,600)	(693,700)	(714,600)	(736,000)	(758,100)
Total Revenues Available for Debt Service	\$ 1,101,700	1,644,300	1,621,800	1,721,300	1,809,400	1,888,900	1,972,200
Future Debt Issuance	—	—	1,250,000	1,000,000	1,000,000	1,000,000	1,000,000
Existing Debt Service	(653,000)	(797,200)	(859,200)	(873,200)	(920,300)	(929,600)	(931,200)
Proposed DS on Future Debt Issuance	—	—	(43,800)	(112,500)	(162,500)	(212,500)	(262,500)
Proposed Capitalized Interest	—	—	43,800	112,500	162,500	150,000	150,000
Proposed Forward Delivery Refunding	—	—	124,000	—	—	—	—
Net Debt Service (3)	(653,000)	(797,200)	(735,200)	(873,200)	(920,300)	(992,100)	(1,043,700)
Total Revenues Available After Debt Service	\$ 448,700	847,100	886,600	848,100	889,100	896,800	928,500
Maintenance Reserve Fund	(134,100)	(160,000)	(200,000)	(210,000)	(220,000)	(230,000)	(236,900)
Special Project Reserve Fund	(41,300)	(50,000)	(50,000)	(51,500)	(53,000)	(54,600)	(56,300)
Net Revenues Available for General Reserve Fund	\$ 273,300	637,100	636,600	586,600	616,100	612,200	635,300
TTF Payments	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)	(22,000)
Feeder Road Maintenance Agreement	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)
2016 State Transportation Projects Funding Agreement	(129,000)	(64,500)	—	—	—	—	—
2021 State Public Transportation Projects Funding Agreement(4)	—	(175,000)	(548,000)	(605,500)	(472,500)	(487,500)	(502,500)
General Reserve Spending	(28,400)	(51,400)	(53,300)	(53,300)	(53,400)	(53,300)	(53,300)
Net Transfer to Construction Fund Account	(111,800)	(63,400)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
Funding for Salary Chargeback Bond funded Projects	—	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
Other	(3,000)	2,800	—	—	—	—	—
Net Annual General Reserve Fund Increase (Decrease)	(20,400)	251,100	(49,200)	(156,700)	5,700	(13,100)	(5,000)
Available Ending General Reserve Fund Balance (5)	\$ 339,700	590,800	541,600	384,900	390,600	377,500	372,500
Net Revenues to Debt Service Coverage Ratio	1.69	2.06	2.21	1.97	1.97	1.90	1.89
Net Revenues to Debt Service and Reserves Coverage Ratio	1.33	1.63	1.65	1.52	1.52	1.48	1.48

(1) Toll Revenue is based on CDM Smith projections from September 2021, which includes annual toll indexing at 3% effective 1/1/2022

(2) Operating Expenses and Reserve includes the operating expenses for the year and the working capital reserve of 10% of the annual budgeted operating expenses as per section 504(B) of the Bond Resolution

(3) Net Debt service includes debt service on the existing and future debt netted with the capitalized interest for the years 2022-2026 and proposed forward delivery refunding payment in 2022

(4) State Payments are based on calendar year while the State agreement is on fiscal year basis (6/30)

(5) Beginning General Reserve Fund Balance is adjusted for non-cash interfund balances

Figure 2: The Authority's Financial Plan

The Strategic Plan

The Authority adopted its first ten-year Strategic Plan (2020-2029) in 2019. The Strategic Plan, through its incorporation of the Authority's vision and mission statement, as well as its core values, provides clear direction and measurable goals for the next ten years. The Authority is working to measure, monitor, and report its performance as compared to the key goals on a quarterly basis.

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 the Authority and is a critical component of the mission statement. Ensuring safety for both customers and the Authority workforce is a focus of every project and initiative undertaken by the agency.

Performance Measures have been established in each of these areas:

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



Figure 3: Installation of Express E-ZPass Lanes at NJ Turnpike Interchange 18E

Financial Strength

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

Performance Measures have been established in each of these areas:

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

Mobility

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

Performance Measures have been established in each of these areas:

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



Figure 4: Capacity Enhancement of Northbound Parkway MP 30-35

State of Good Repair

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

Performance Measures have been established in each of these areas:

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



Figure 5: Installation of Trench Drain at Turnpike Interchange 14 by I-78

People

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

Performance Measures have been established in each of these areas:

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

New Jersey Turnpike Authority 2021 Accomplishments and 2022 Goals

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

The summary below highlights major accomplishments in 2021 and goals for 2022 per selective Strategic Plan performance criteria as follows:

Safety

2021 Accomplishments

- Troop D completed 52 "Click It or Ticket" and "U Text, U Drive, U Lose" details year-to-date. Completed 12 "Drive Sober or get Pulled Over" details. Troop D also conducted 15 enforcement details in the annual "I-95 Drive to Save Lives" campaign
- Troop D Criminal Investigations Office leveraged technology and other investigative means to apprehend approximately 95% of violators in which motor vehicle pursuits were terminated
- Finalized strategies for the design and construction of emergency response resources including additional helipads, access gate points, a commercial driver training site, a commercial vehicle inspection site and two new NJ State Police satellite facilities
- Designed, administered, and installed over 60 traffic control device upgrades for ramp terminals to assist in the reduction of run-off-road crashes
- Upgraded delineation of select interchanges to reduce crashes
- Improved the physical plant of the medical section by reconfiguring existing office locations of staff to improve the flow of employee visitors and enhance safety protocols

Selected Performance Measure: Crashes per million vehicle miles (MVM) traveled. Total Crash Rate per 100 MVM for the period January thru July 2021 decreased 14% on the Turnpike and 16% on the Parkway when comparing the same period in 2019

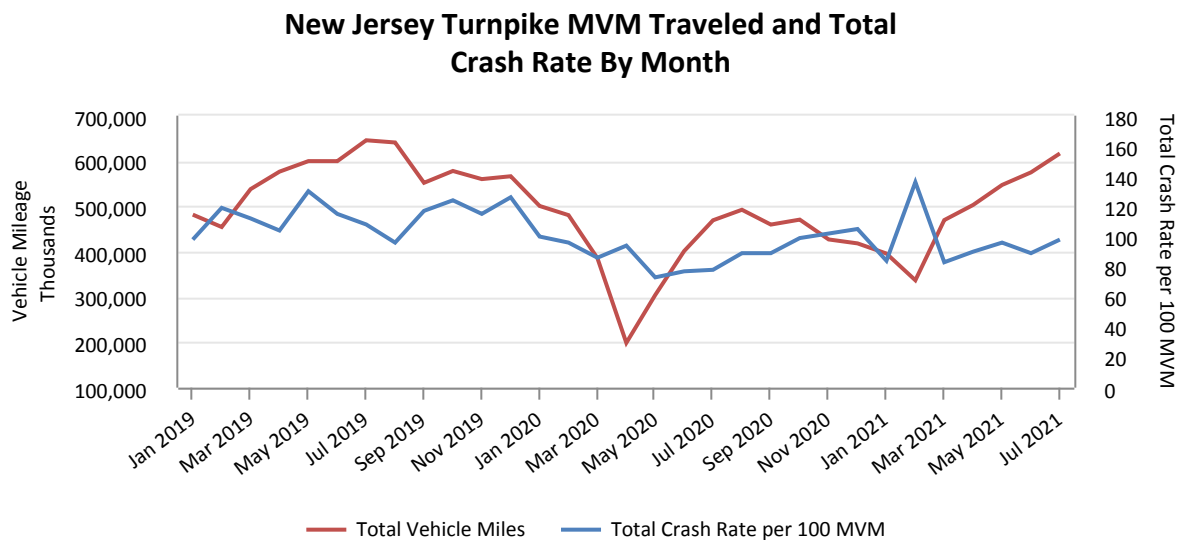


Figure 6: Turnpike MVM Traveled and Total Crash Rate by Month (Jan 2019-Jul 2021)

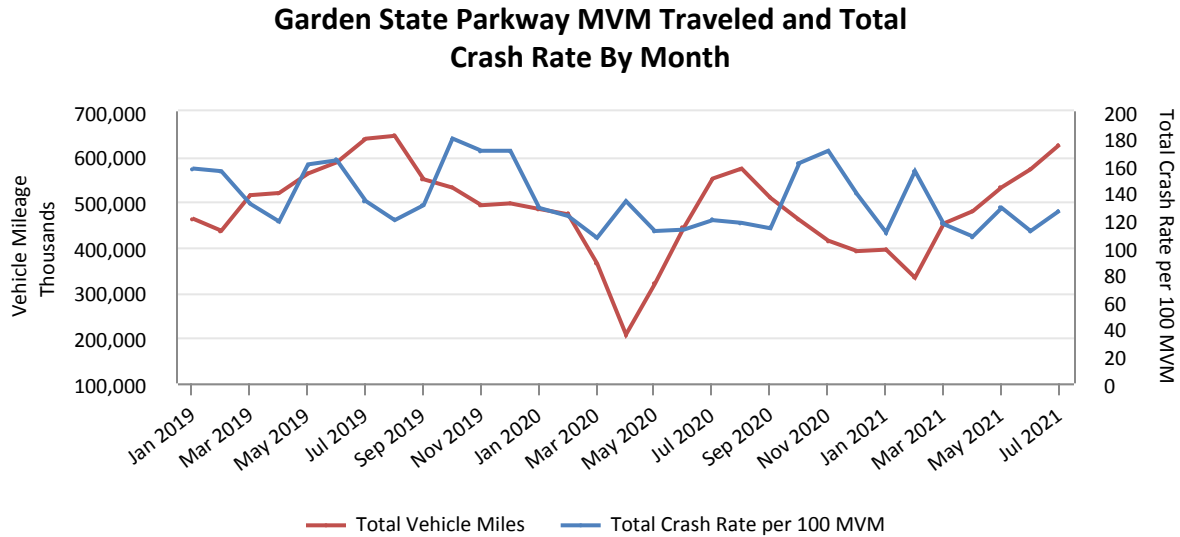


Figure 7: Parkway MVM Traveled and Total Crash Rate by Month (Jan 2019-Jul 2021)

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

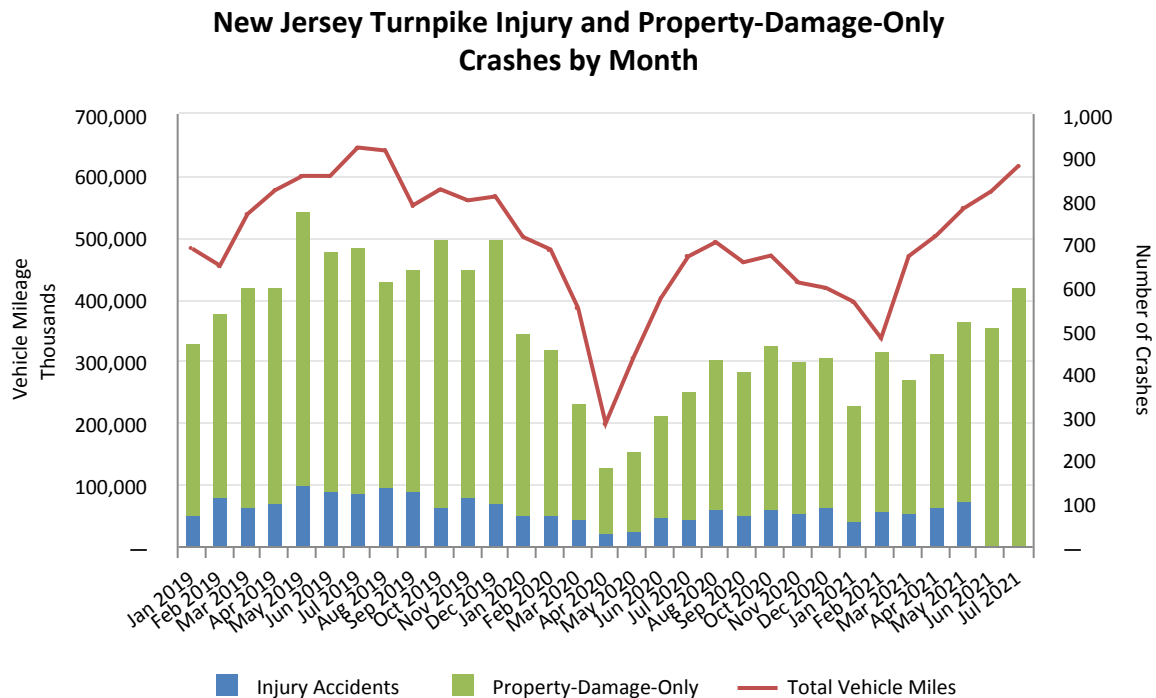


Figure 8: Turnpike Injury and Property-Damage-Only Crashes by Month (Jan 2019-Jul 2021)

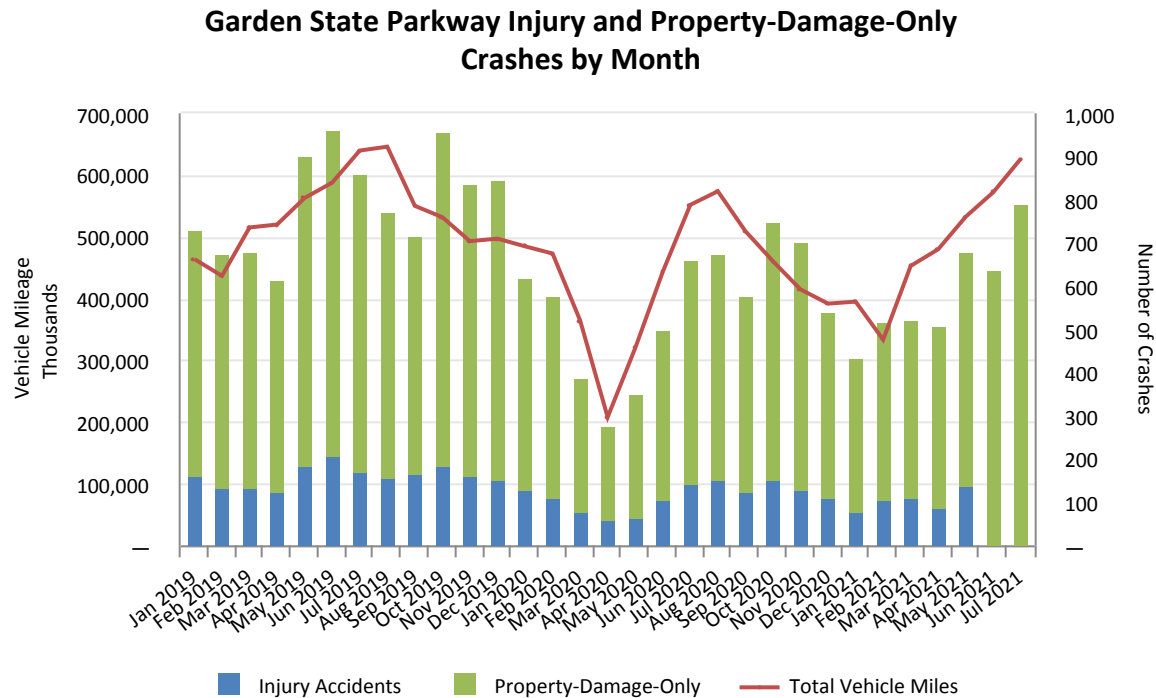


Figure 9: Parkway Injury and Property-Damage-Only Crashes by Month (Jan 2019-Jul 2021)

2022 Goals

- 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
- Provide training to increase the number of drug recognition experts, as well as increase members who are more readily trained to identify intoxicated drivers assigned to Troop D in order to specifically combat drug related DUIs
- Continue staffing Commercial Vehicle Inspection (CVI) Unit; in addition to their strict enforcement of commercial vehicle traffic enforcement, will conduct post-crash inspections on all commercial vehicles involved in serious/fatal motor vehicle accidents. Parkway CVI will increase its truck enforcement of overweight vehicles north of milepost 105
- Continue Intelligence Led Policing (ILP) and Service Area Frequent Enforcement (SAFE) details at all service areas, commuter and construction lots to detect and thwart criminal activity and apprehend criminals
- Review safety measures at Interchange 13A South Outer Turnpike (SOT) and Interchange 16W South West Turnpike (SWT)
- Publish new and modern Work Zone Safety Procedures video for contractor and Maintenance use
- Expand existing truck-mounted attenuator fleet to support work zone and emergency operations

Financial Strength

2021 Accomplishments

- On February 4, 2021, completed the issuance of \$502.5 million Series 2021A new money bonds to fund the Authority's various Capital Improvement Programs. The bonds have a final maturity of January 1, 2051 at a cost of 2.96%. This was below the budgeted cost
- On February 4, 2021, the Authority issued \$995.2 million of Series 2021B refunding bonds to fully or partially refund the Series 2012B, 2013A, 2013F, 2014A, and 2014C bonds for savings. The transaction resulted in net present value savings of approximately \$118 million or 12.9% of the refunded bonds
- Debt service coverage is expected to be 2.06 times and total requirements coverage is expected to be 1.63 times, both above Bond Resolution covenant levels and Financial Policy targets
- General Reserve Fund balances are expected to exceed the Financial Policy target of \$215 million on December 31, 2021
- S&P returned Authority's ratings outlook to Stable
- Developed and implemented new reporting based upon budgeted rolling five-year spending plans for all capital funds
- Developed and implemented a Treasury dash-board to track investment and bond performance, liquidity and borrowing needs
- Received Government Finance Officer's awards for 2019 Comprehensive Annual Financial Report and 2021 Annual Budget
- Completed the development of initial phase of new Capital Program Management System (CPMS) which will allow for enhanced budgeting, tracking and forecasting of capital project spending

Selected Performance Measure: The New Jersey Turnpike Authority's credit rating comparisons by Moody's, S&P, and Fitch. In 2021, S&P returned Authority's ratings outlook to Stable from Negative.

New Jersey Turnpike Authority Bond Ratings		
Credit Rating Agency	2020 Bond Ratings	2021 Bond Ratings
Moody's Investors Service Inc	A2 (Stable Outlook)	A2 (Stable Outlook)
S&P Global Ratings	A+ (Negative Outlook)	A+ (Stable Outlook)
Fitch Ratings	A (Positive outlook)	A (Positive outlook)

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

Figure 10: The Authority's Credit Rating

The Authority's investment grade bond ratings demonstrate a strong capacity to meet the Authority's financial obligations and represents a relatively low risk to investors.

2022 Goals

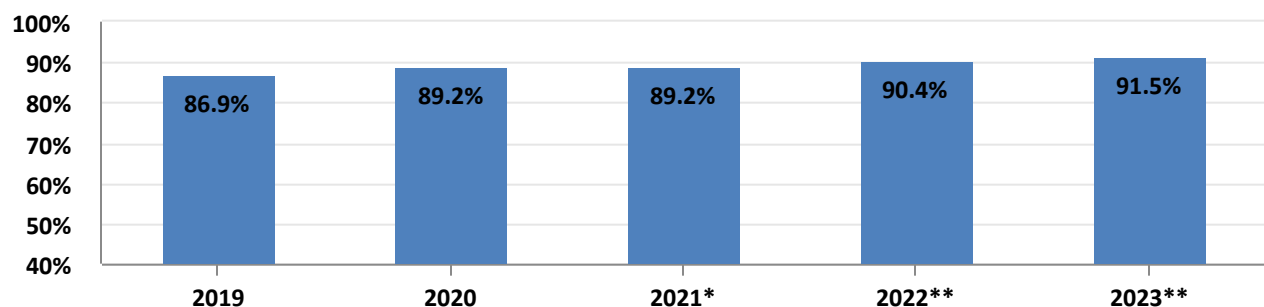
- Meet or exceed minimum General Reserve Fund Financial Policy target of 10% of budgeted revenue, which would be \$230 million as of December 31, 2022
- Improve bond ratings to provide the lowest cost of capital
- Issue up to \$1.25 billion of new money bonds in 2022 to fund the Authority's various Capital Improvement Programs
- Complete forward delivery refunding for savings and to replenish liquidity after COVID-19 revenue reductions
- Meet or exceed debt service coverage ratio covenants and Financial Policy targets
- Meet or exceed total requirements coverage ratio covenants and Financial Policy targets
- Implement first year of toll indexing on January 1, 2022
- Continue to evaluate and mitigate the Authority's critical risk exposures identified by the Risk Management Committee
- Commence Korber/HighJump enhancements project which will focus on improving the current warehouse management system as well as reducing paper documentation by utilizing handheld devices to capture signature at time of delivery as well as improve delivery tracking visibility

Mobility**2021 Accomplishments**

- Completed work on Interchanges 16E/18E to install Express E-ZPass on the SNE/NSE Roadways. This will ease congestion for trucks heading 95 North. (Routes 46, 80, GWB etc.)
- Continued to deploy enhancement features to the Traffic Permitting and Lane Closure application
- Continued installation of next generation Hybrid Changeable Messaging Signs (HCMS)
- Continued to explore enhancement and feasibility to expand installation and configuration of Dedicated Short Range Communications (DSRC) and Cellular Vehicle-to-Everything (C-V2X) radios for Vehicle-to-Infrastructure (V2I) communications across both roadways
- Implemented numerous GSP touch screen upgrades to further increase collector efficiency
- Installed 76 electric vehicle charging stations at 12 locations

Selected Performance Measure: Annual Turnpike Percentage of E-ZPass Traffic. E-ZPass usage is expected to increase on the Turnpike by 1.2% in 2022

**New Jersey Turnpike
Percentage of E-ZPass Traffic**



*Through July 31, 2021

**Estimates based on historical average trend from 2016-YTD July 2021

Figure 11: Percentage of E-ZPass Traffic (2019-2023)

2022 Goals

- Complete Traffic Count Application, which will produce an Annual Volume Report for multiple internal and external stakeholders
- Expand programs and strategies to deploy more intelligent transportation devices including traffic cameras, travel time estimations, automation, and new HCMS
- Continue installation and deployment of the HCMS
- Continue to deploy enhancement features to the Traffic Permitting and Lane Closure application
- Begin implementation of the next generation Advance Traffic Management Platform (ATMP)
- Continue to improve mobility apps and websites to enhance communications with motorists
- Continue real estate acquisitions and transfers required for the projects in the Authority's 2020 Long-Range Capital Plan

State of Good Repair**2021 Accomplishments**

- Developed and finalized the 2021-2025 Rolling Five-Year Capital Improvement Program based on the 2020 Long-Range Capital Plan
- Improved the overall condition of the mainline pavement and bridges on the Turnpike and Parkway
- Installed and implemented security enhancements and upgrades at the Authority's Tolls and Maintenance facilities
- Continued rehabbing toll booths at all mainline toll barriers and staffed ramps on the Parkway. This included new signage, Heating, Ventilation, and Cooling (HVAC) units, lighting, Dutch doors, windows, and electronic toll equipment needed to have lanes functioning properly and safely for full-service toll collection
- Continued to work on the Authority's Capital Improvement Program. As of September 30, 2021, the Authority has spent approximately \$237 million in the Construction Fund. This fund consists of the 2021-2025 Capital Improvement Program, 2019 Capital Improvement Program and the 2008 \$7 Billion Capital Improvement Program. Some of the largest expenditures included \$36 million for the Newark Bay Hudson County Extension (NBHCE) Bridge Re-decking, \$26 million for GSP Shoulder Widening from MP 30 to 35, and \$12 million for GSP Bridge Deck Reconstruction 160.6 to 161.9

Selected Performance Measure: Budgeted resurfacing lane miles decrease from 2020 to 2021 by 34.5% and increase from 2021 to 2022 by 14.5%. Budgeted lane miles declined in 2021 as work was accelerated in 2020 due to more availability of lane closings from low traffic volumes during the height of the COVID-19 pandemic. The Authority, as always, is committed to keeping their roadways in a state of good repair for patron's safety. Resurfacing miles are determined based upon established re-paving cycle targets established by the Engineering Department and the Authority's General Consulting Engineer.

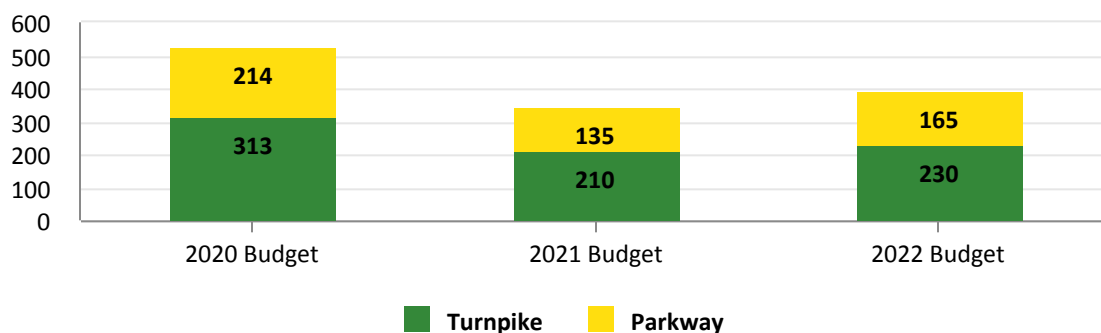
Budgeted Resurfacing Lane Miles

Figure 12: Budgeted Resurfacing Lane Miles (2020-2022)

2022 Goals

- Maintain the project delivery schedule for the 2022-2026 Rolling Five-Year Capital Improvement Program
- Maintain and continue to improve the condition of mainline pavement and bridges on the Turnpike and Parkway
- Maintain and continue to improve the condition of Authority Lighting and Drainage systems
- Continue priority locations for storm and bridge drain cleaning including ditch line cleaning and reshaping
- Modernize pavement marking program to provide long-lasting pavement markings, which will reduce maintenance cycles
- Upgrade UPS facility for one of the active-active data centers
- Continue software implementation Phase IV of the CPMS in relation to project administration
- Begin implementing Phase II of the Enterprise Asset Management (EAM) Program in relation to maintenance operations and management
- Continue to update disaster recovery and business continuity plans
- Continue installation and implementation of security enhancements and upgrades at Authority facilities on a prioritized risk basis

People**2021 Accomplishments**

- Continued to monitor Equal Pay Act compliance, in conjunction with General Counsel, initiating corrective actions when appropriate to ensure meeting the 2018 Equal Pay Act (EPA) requirements
- Updated and created new innovative ways of training toll collectors/supervisors in real life settings
- Upgraded collector and supervisor manual on the Turnpike
- Promulgated changes to the NJ E-ZPass customer service experience by improving manual, voice and website processes. Launched the New Jersey E-ZPass mobile application
- In continued response to COVID-19, monitored, assessed and updated where necessary the Authority's Employee Health and Safety Program to protect Authority employees and facilities
- Enhanced the information guides for the Turnpike and Parkway to provide useful and updated information to our customers
- Expanded training remotely to satisfy management and employee needs
- Implemented an Applicant Tracking System which acts as onboarding and policy software
- Conducted successful training sessions for over 800 Maintenance employees in partnership with Rutgers University to provide national certifications
- The Troop D Construction Incident Management Unit (C.I.M.U.), trained 415 Authority maintenance workers in Traffic Incident Management Systems (T.I.M.S.) and 180 supervisors as Traffic Control Coordinators (T.C.C.)

Selected Performance Measure: Total authorized positions are essentially flat over the three-year period.

Total Authorized Positions

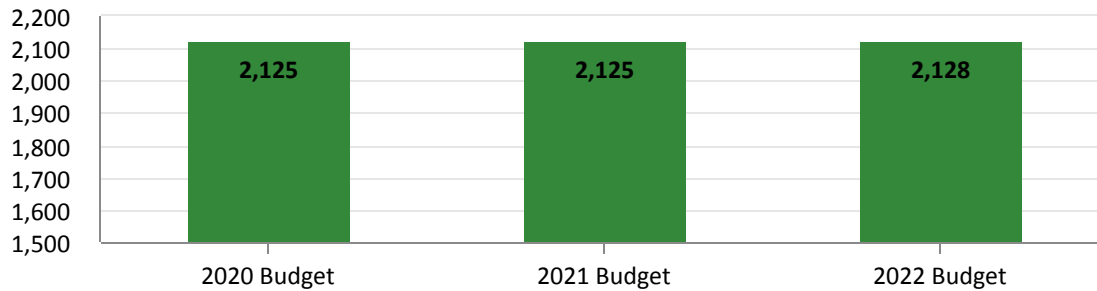


Figure 13: Total Authorized Positions Budgeted (2020-2022)

2022 Goals

- Continue to emphasize Sexual Harassment and Diversity training; provide on-site personal instruction on proper employee conduct standards and the effective avoidance of offending co-worker sensibilities through improper or insensitive conduct
- Human Resources, in collaboration with the Operations Department, to implement new manager/supervisor training with a concentration on employment and labor relations
- Create and develop diversity and inclusion training for the workforce
- Advocate internally and externally on transportation and labor policies affecting the Authority
- Continue response to COVID-19, to monitor, assess and update where necessary the Authority's Employee Health and Safety Program for the protection of Authority facilities and employees
- Continue to streamline and monitor Authority policies and procedures for further efficiencies
- Implement policy and training software
- Develop the Authority employee handbook
- Continue to update the Authority policy book to ensure adherence to the latest state and federal regulations and laws
- Continue to offer various training modules to employees and supervisory staff of the Authority to further the professional and technical development of the workforce

Key Financial Metrics

Toll Revenue as % of Operating Revenue

This ratio is calculated by dividing the Authority's Toll Revenue by Operating Revenue. The ratio remains consistent over the period which indicates that the primary component of the Authority's operating revenue continues to be from tolls. The 2022 Budget for Toll Revenue assumes toll rate indexing at 3% effective January 1, 2022. It also assumes normal growth in non-Toll Operating Revenue from increases in E-ZPass membership as well as higher concession revenue from the increase in traffic volumes.

Toll Revenue as % of Operating Revenue			
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget
Toll Revenue	\$ 1,387,400	1,920,700	2,067,000
Operating Revenue	1,524,900	2,048,200	2,211,100
Toll Revenue as % of Operating Revenue	90.98%	93.78%	93.48%

Figure 14: Toll Revenue as % of Operating Revenue (2020-2022)

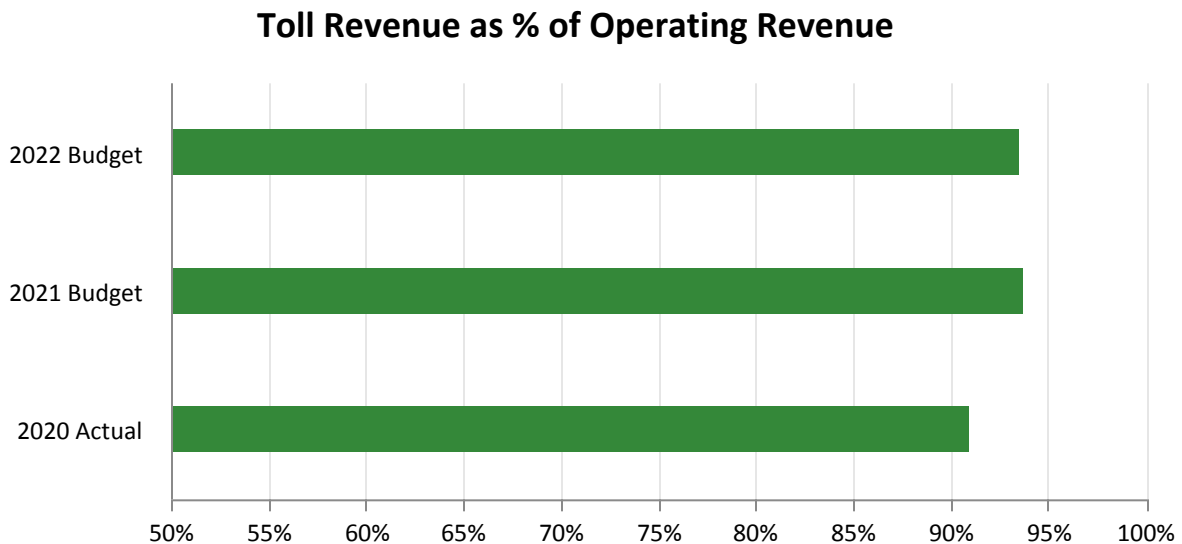


Figure 15: Toll Revenue as % of Operating Revenue Graph (2020-2022)

Operating Margin Ratio

This ratio is calculated by dividing the budgeted operating income by the budgeted operating revenue. This ratio demonstrates the Authority's operating efficiency and capacity to pay for its operating expenses. The ratio is budgeted to remain the same between 2021 and 2022 despite the budgeted increase in operating expenses due to a relative increase in operating revenue.

Operating Margin Ratio			
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget
Operating Revenue	\$ 1,524,900	2,048,200	2,211,100
Operating Expenses- Revenue Fund	(520,900)	(622,300)	(671,600)
Operating Income	\$ 1,004,000	1,425,900	1,539,500
Operating Margin Ratio	0.66	0.70	0.70

Figure 16: Operating Margin Ratio (2020-2022)

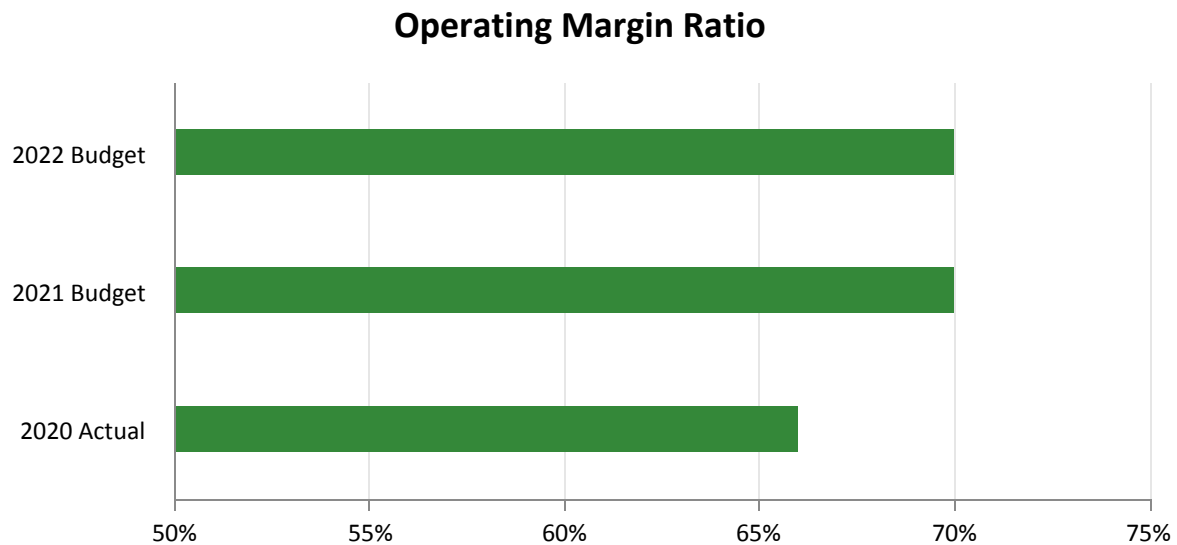


Figure 17: Operating Margin Ratio Graph (2020-2022)

Cost Recovery Ratio

This ratio is calculated by dividing operating revenue by total operating expenses. This ratio is a key indicator of the financial performance of the Authority. The Authority's ratio exceeds 1.0 times, which demonstrates that the Authority's operating revenue exceeds its operating expenses, providing funds to cover debt service and other requirements.

Cost Recovery Ratio			
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget
Operating Revenue	\$ 1,524,900	2,048,200	2,211,100
Operating Expenses - Revenue Fund	(520,900)	(622,300)	(671,600)
Cost Recovery Ratio	2.93	3.29	3.29

Figure 18: Cost Recovery Ratio (2020-2022)

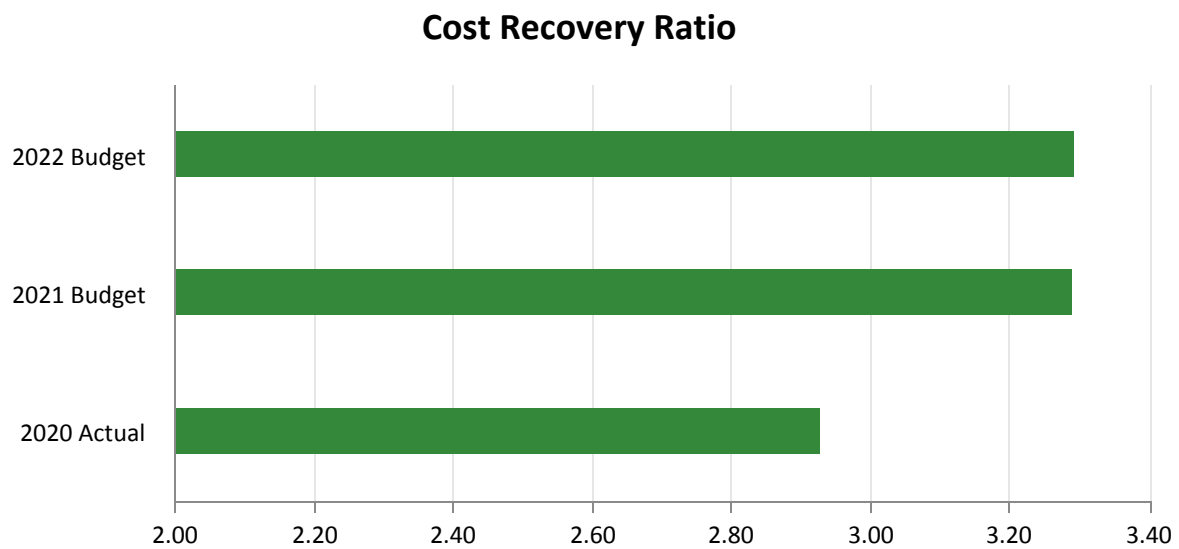


Figure 19: Cost Recovery Ratio Graph (2020-2022)

Average Toll/Transaction — Turnpike

This ratio is calculated by dividing the toll revenue generated by the total number of toll transactions on the Turnpike. The average toll per transaction is budgeted to increase in 2022 due to the anticipated 3% toll rate increase effective January 1, 2022.

Average Toll Per Transaction — Turnpike			
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget
Toll Revenue — Turnpike	\$ 1,014,900	1,415,000	1,533,800
Toll Transactions — Turnpike	198,700	232,900	247,100
Turnpike	\$ 5.11	6.08	6.21

Figure 20: Average Toll/Transaction — Turnpike (2020-2022)

Average Toll/Transaction — Parkway

This ratio is calculated by dividing the toll revenue generated divided by the total number of toll transactions on the Parkway. The average toll per transaction is budgeted to increase in 2022 due to the anticipated 3% toll rate increase effective January 1, 2022.

Average Toll Per Transaction — Parkway			
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget
Toll Revenue — Parkway	\$ 372,500	505,800	533,200
Toll Transactions — Parkway	308,500	355,900	362,000
Parkway	\$ 1.21	1.42	1.47

Figure 21: Average Toll/Transaction- Parkway (2020-2022)

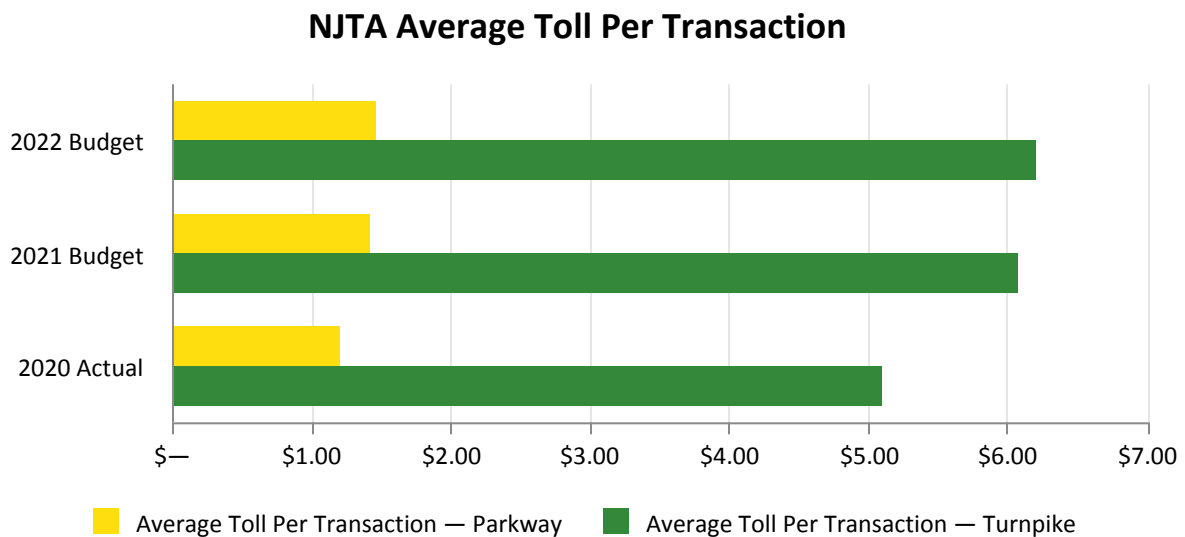


Figure 22: Average Toll/Transaction — Turnpike/Parkway Graph (2020-2022)

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 a toll rate increase and an increase in traffic, assuming there are no additional lane miles. The toll revenue per lane mile is budgeted to increase in 2022 due to the toll rate indexing at 3% effective January 1, 2022 and a gradual recovery of traffic.

Toll Revenue Per Lane Mile			
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget
Toll Revenue — Turnpike	\$ 1,014,900	1,415,000	1,533,800
Toll Revenue — Parkway	372,500	505,800	533,200
Toll Revenue — Authority	\$ 1,387,400	1,920,800	2,067,000
Lane Miles — Turnpike	2,427	2,427	2,427
Lane Miles — Parkway	2,050	2,050	2,050
Lane Miles — Authority	4,477	4,477	4,477
Revenue per Lane Mile — Turnpike	\$ 418	583	632
Revenue per Lane Mile — Parkway	182	247	260
Revenue per Lane Mile — Authority	\$ 310	429	462

Figure 23: Toll Revenue/Lane Mile (2020-2022)

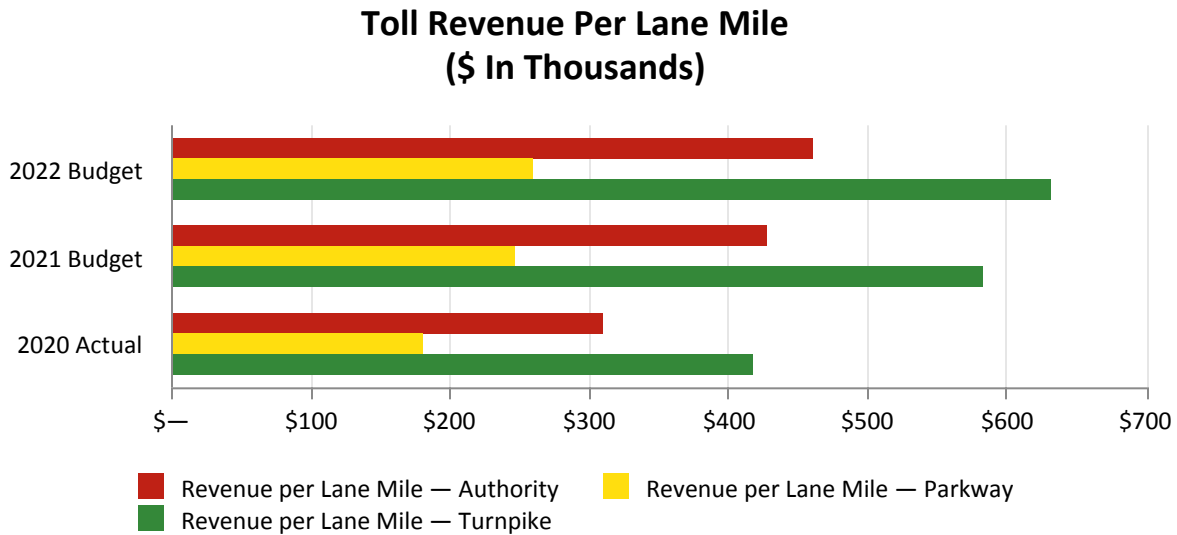


Figure 24: Toll Revenue/Lane Mile Graph (2020-2022)

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 2021 and 2022 budgets assume full spending of the snow budget, funding all vacancies, and wage increases for all union contracts. The increase in toll revenue per lane mile far exceeds the increase shown below as toll revenue per lane mile is budgeted to increase by \$33/mile, while operating costs are budgeted to increase by only \$11/mile.

Operating Cost Per Lane Mile			
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget
Operating Expenses — Revenue Fund	\$ 520,900	622,300	671,600
Lane Miles — Authority	4,477	4,477	4,477
Operating Cost Per Lane Mile — Authority	\$ 116	139	150

Figure 25: Operating Cost/Lane Mile (2020-2022)

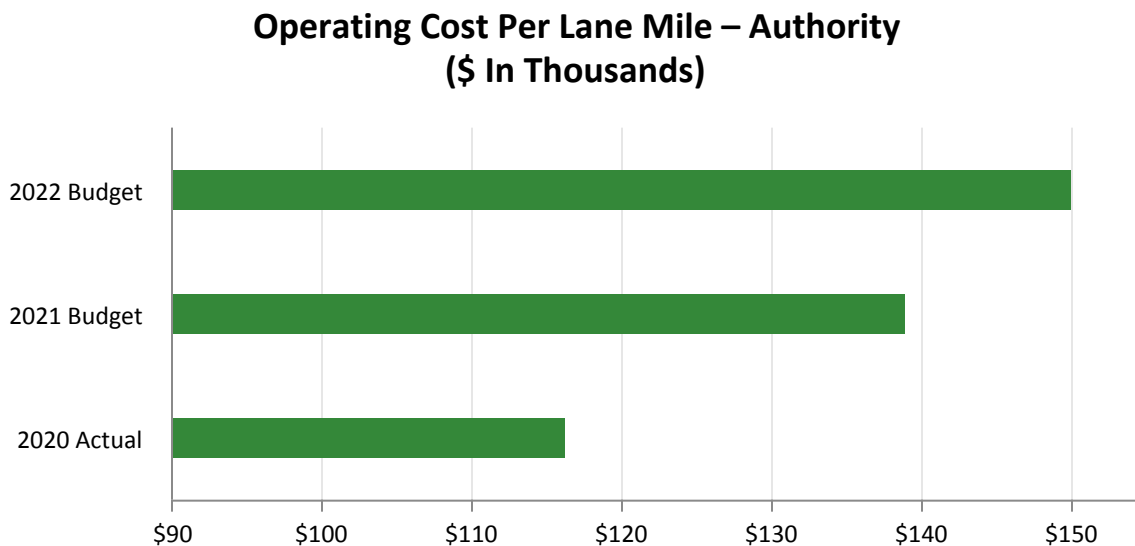


Figure 26: Operating Cost/Lane Mile (2020-2022)

Debt/Lane Mile

This ratio shows the Authority's bond indebtedness per lane mile as of December 31st each year. Debt per lane mile is expected to increase in 2022, as the Authority issues more bonds to fund its CIP's. Even though debt per lane mile will increase, the Authority's toll revenue will also increase, providing a strong repayment source for the additional debt needed to fund capital needs. This is demonstrated by the Debt Service Coverage Ratio which is budgeted to increase to 2.21 in 2022 from a budgeted 1.66 in 2021.

Debt per Lane Mile			
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget
Bond Indebtedness, net	\$ 11,314,500	12,159,500	12,793,800
Lane Miles — Authority	4,477	4,477	4,477
Debt per Lane Mile — Authority	\$ 2,527	2,716	2,858

Figure 27: Debt/Lane Mile (2020-2022)

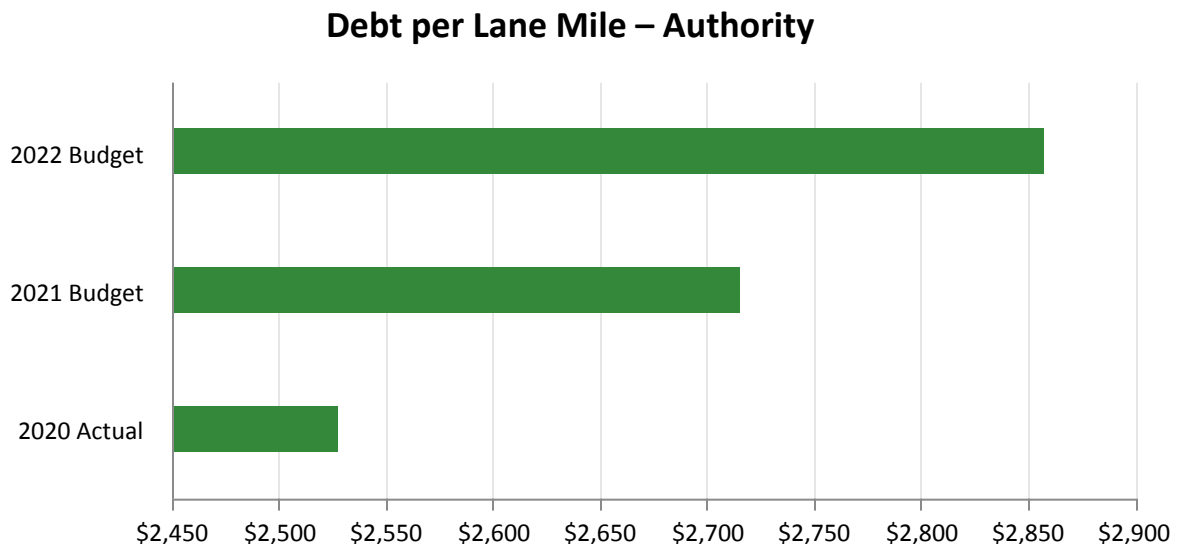


Figure 28: Debt/Lane Mile Graph (2020-2022)

Executive Summary

The Authority operates two well-established highways. Both roadways make up the backbone of north-south travel in New Jersey, with the Turnpike considered a critical link within the I-95/Northeast Corridor. The roads serve a densely populated and 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 premier toll roads like the Turnpike and the Parkway into a single agency was no small order. Almost 20 years later, the singular agency continues to be recognized as a first-class agency among its peers in the transportation and tolling industries. The Authority is consistently ranked at the top of toll road agencies in the United States for both vehicle miles traveled and toll revenue.

During 2021, the Authority demonstrated resilience in gradually recovering from the financial impacts created by the COVID-19 pandemic. The Authority's prudent financial and operational planning has allowed it not only to continue to meet, but also exceed all its financial obligations even during the peak of the pandemic. The 2022 Annual Budget has been developed in accordance with the Authority's mission contained in the Strategic Plan, the 2020 Long-Range Capital Plan, and the 2020 toll rate increase plan, including 3% indexing, which was designed to provide a stable funding source for capital needs. The 2022 Annual Budget also addresses state of good repair needs and safety for both customers and employees. The Authority can meet its funding needs and obligations in 2022, despite the prolonged impacts of the pandemic.

Throughout 2021, but especially since May, the Authority has seen improvements in traffic and revenue each month as a result of the state lifting its travel advisory in May and state of emergency in June. Toll revenue is expected to increase an average of 7.6% compared to the 2021 budget, due to traffic continuing to recover closer to pre-pandemic levels, and toll rate indexing at 3%, effective January 1, 2022. The 2022 toll revenue budget is based upon projections contained in an updated Traffic and Revenue forecast by CDM Smith as of September 2021. The updated forecast includes both the assumed continuing impacts of COVID-19 and the 3% toll rate indexing. Considering these two factors, CDM Smith projects a 3.4% increase in 2022 for toll transactions and a 7.6% increase in toll revenue on the Turnpike as compared to 2021 estimated results. Regarding the Parkway, CDM Smith projects, in 2022, a 3% increase in toll transactions and a 5.9% increase in toll revenue, as compared to 2021 estimated results.

Operating Expenses are budgeted to increase by 7.9%, which includes significant increases in contractual salaries and pension for State Police, insurance premiums primarily related to cyber insurance, and NJ E-ZPass costs based upon percentage of administrative fee collections and higher electronic toll transaction processing charges and credit card fees to coincide with a 5% increase in traffic. When excluding these items, Operating Expenses are budgeted to increase by only 3% primarily due to contractual salary increases, and projected increases in health benefits and pension, software licensing fees, and bridge inspection and consulting service costs. Authorized full-time positions remain essentially flat at 2,128.

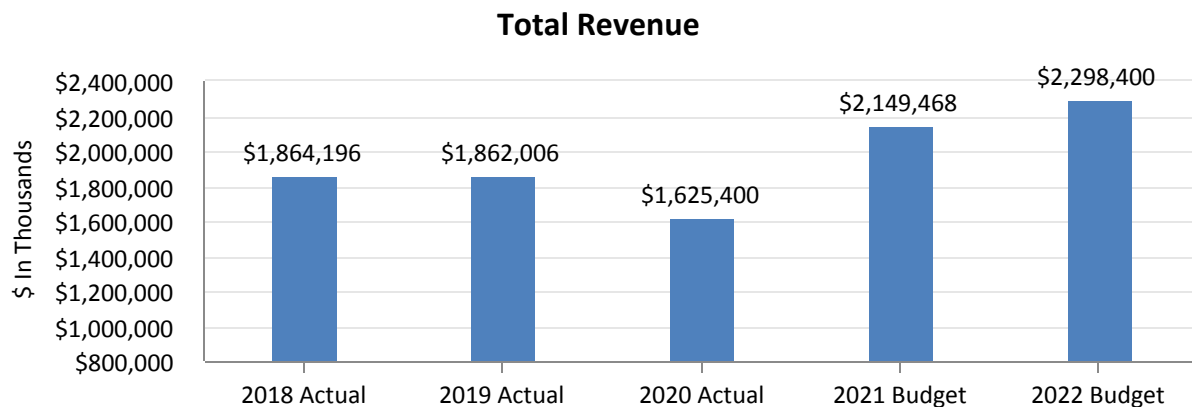
Most notably, the 2022 Annual Budget includes nearly \$1 billion for spending under its Capital Spending Program. The Capital Spending Program includes bond funded as well as revenue funded capital projects. It is expected that the capital investment in these projects will boost mobility and improve safety for generations of New Jersey drivers to come. The 2022 Annual Budget provides sufficient revenue and bond proceeds to meet capital spending needs. Finally, the 2022 Annual Budget projects debt service coverage of 2.21 times, and total requirements coverage of 1.65 times, each above both Bond Resolution covenants and financial policy targets.

2022 ANNUAL BUDGET SUMMARY

Revenue			
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget
Toll Revenue	\$ 1,387,400	1,920,800	2,067,000
Other Revenue	238,000	228,700	231,400
Total	\$ 1,625,400	2,149,500	2,298,400

Figure 29: Annual Budget Revenue Summary (2020-2022)

Total revenue in 2022 is budgeted at \$2.3 billion, a 6.9% increase in comparison to the 2021 budgeted total revenue, primarily due to the increase in traffic, toll rate indexing at 3%, increase in E-ZPass membership and administrative fees, partially offset by anticipated lower interest income.

**Figure 30: Total Annual Revenue (2018-2022)**

Total revenue in 2022 is budgeted to increase by \$148.9 million, or 6.9%, compared to the 2021 budget. Toll revenue comprises 89.9% of total revenue. Toll revenue in 2022 is budgeted at \$2.1 billion, which represents an increase of 7.6% compared to the 2021 budget. Other revenue, which makes up 10.1% of total revenue, is budgeted to increase by \$2.7 million, or 1.2%, as budgeted increases in E-ZPass fees are partially offset by budgeted declines in interest income.

SIGNIFICANT REVENUE HIGHLIGHTS

- Toll revenue on the Turnpike is expected to increase by 8.4% and by 5.4% on the Parkway when compared to the 2021 budget, representing an overall 7.6% increase. This increase is primarily due to traffic increases as travel patterns continue to return to pre-pandemic levels and toll indexing at 3%, effective January 1, 2022. Traffic and toll revenue have seen significant improvements since the state lifted its travel advisory in May 2021 and the state of emergency in June 2021.
- CDM Smith's September 2021 Traffic and Revenue Forecast increased the prior toll revenue forecast by about \$20 million between 2022 and 2023, but decreased the prior toll revenue forecast by about \$76 million between 2024 and 2026, due to the lingering and lasting impacts of the pandemic on travel, commuting for work and the economy. Notably, the September 2021 forecast reflects the extended telecommuting impacts to commuter traffic. The forecast is also based on unemployment rates remaining above 4% until 2030, economists' predictions of gradual but protracted growth, and employee's preference for partial telecommuting. The updated forecast now projects a total reduction in traffic of about 3% in 2022 (compared to 2019), an improvement from the prior estimate of about a 7% reduction (compared to 2019).
- All other revenue sources in total are up about \$2.7 million, compared to the 2021 budget, due mainly to E-ZPass fees that are expected to increase, reflecting current trends in administrative fee collections and growth in membership fees. This is partially offset by lower investment income due to the assumption of continued low short-term investment rates.

OPERATING EXPENSE

In 2022 operating expenses are budgeted at \$671.6 million, which is an increase of \$49.3 million, or 7.9%, compared to the 2021 budget. Three key cost factors included in the 2022 budget alone account for \$30.7 million of the \$49.3 million increase and are as follows:

- State Police Services costs are budgeted to increase by approximately \$17.6 million based on a significant pension increase, along with increases in salary, health benefits and allowances
- Insurance is increasing \$2.4 million; mainly due to the rise in casualty insurance premiums spiking from the threat of cyberattacks
- NJ E-ZPass costs are budgeted to increase by \$10.7 million, or more than 12%, due primarily to increased amounts payable to Conduent, based upon percentage of administrative fee collections (more than offset by increased revenue), and higher E-ZPass transaction processing and credit card fees to coincide with a 5% increase in traffic

While operating expenses are budgeted to increase by 7.9% for 2022, which exceeds the average annual increase of 4.2%, operating expenses, excluding the three key cost factors, are only increasing by 3%, which is below the average annual increase. This remaining 3% increase totals \$18.6 million and is driven primarily by contractual wage increases and projected increases in employee health benefits and pension, software licensing fees, fuel and utility costs, and bridge inspection and consulting costs.

Expenses			
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget
Operating Expense and Reserve *	\$ 523,700	624,600	676,600
Debt Service	659,200	920,757	902,853
General Reserve	297,340	395,841	685,845

*Operating Expenses and Reserve includes the operating expenses for the year and the working capital reserve of 10% of the annual budgeted operating expenses as per section 504(B) of the Bond Resolution.

Capital Budget			
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget
Maintenance Reserve Fund	\$ 165,364	185,292	219,787
Special Project Reserve Fund	35,836	73,912	76,137
Supplemental Capital Program	72,021	73,380	74,950
Passaic River Bridges Program	8,747	—	—

Construction Fund			
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget
2022-2026 Capital Improvement Program	\$ 1,450	227,356	351,630
2019 Capital Improvement Program	102,376	268,136	172,507
2008 \$7 Billion Capital Improvement Program	154,851	146,034	74,160

Figure 31: Annual Budget Spending Summary (2020-2022)

SIGNIFICANT SPENDING HIGHLIGHTS/CHALLENGES

- Operating Expenses in 2022 are budgeted at \$671.6 million, which includes three key items with significant increases totaling about \$30.6 million
 - State Police Services costs are budgeted to increase by approximately \$17.6 million based on a significant pension increase, along with increases in salaries, health benefits and allowances
 - Insurance is increasing \$2.4 million; mainly due to the rise in casualty insurance premiums spiking from the threat of cyberattacks
 - NJ E-ZPass costs are budgeted to increase by \$10.7 million, or more than 12%, due primarily to increased amounts payable to Conduent, based upon percentage of administrative fee collections (more than offset by increased revenue), and higher E-ZPass transaction processing charges and credit card fees to coincide with a 5% increase in traffic
- The 2022 Annual Budget includes essentially flat full-time authorized positions at 2,128, including five contingent positions
- Operating Expenses include \$38.1 million budgeted for snow and severe weather costs, which represents the budget level that has been maintained for the past seven years. The number and severity of weather events is unpredictable and could put pressure on Operating Expenses. 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 also could put pressure on Operating Expenses
- Debt Service is decreasing in 2022 due to a nearly \$30 million decrease in interest expense. The 2022 budget provides for a full year of interest payments on the assumed new money bond issuance in 2022 of \$500 million and a half-year of interest payments for new money bond issuance of \$750 million to fund the Authority's various capital programs. There is an increase in principal payments of approximately \$12 million when comparing the 2022 budget to the 2021 budget. When comparing the 2022 budget to 2021 actual, principal payments are increasing by about \$147 million because principal payments were refinanced in June 2020. The interest expense will decrease in 2022 due to maturities and the refunding of Series 2012B, 2013A, 2013F, 2014A, and 2014C Bonds. Of the total debt service, \$735 million is budgeted to be paid from net revenue, while \$124 million will be paid from a forward delivery payment and \$44 million from capitalized interest
- The General Reserve includes funding for extraordinary weather events, contractual state payments, and transfers for revenue funded capital projects that are part of the Supplemental Capital Program in the Construction Fund. The most significant increase in budgeted spending comes from payments totaling \$548 million under the new State Public Transportation Projects Funding Agreement for New Jersey that began on July 1, 2021. This includes a portion of catch up payments for the State Fiscal year 2023 based on the new agreement
- The Capital Spending Program (Capital Budget and Construction Fund) totals over \$5.8 billion between 2022 through 2026, or an average of \$1.2 billion of spending per year. Spending is made up of 29% from revenue and 71% from bond proceeds. The Capital Spending Program includes the revenue funded programs in the Maintenance Reserve Fund, the Special Project Reserve Fund, and the Supplemental Capital Program (collectively known as the Capital Budget). It also includes the bond funded programs in the Construction Fund, which include the 2022-2026 Capital Improvement Program, which is derived from the 2020 Long-Range Capital Plan, the 2019 Capital Improvement Program, and the 2008 \$7 Billion Capital Improvement Program. The Construction Fund includes projects which maintain a state of good repair, improve safety, and provide capacity enhancements

Operating Expense by Functional Area

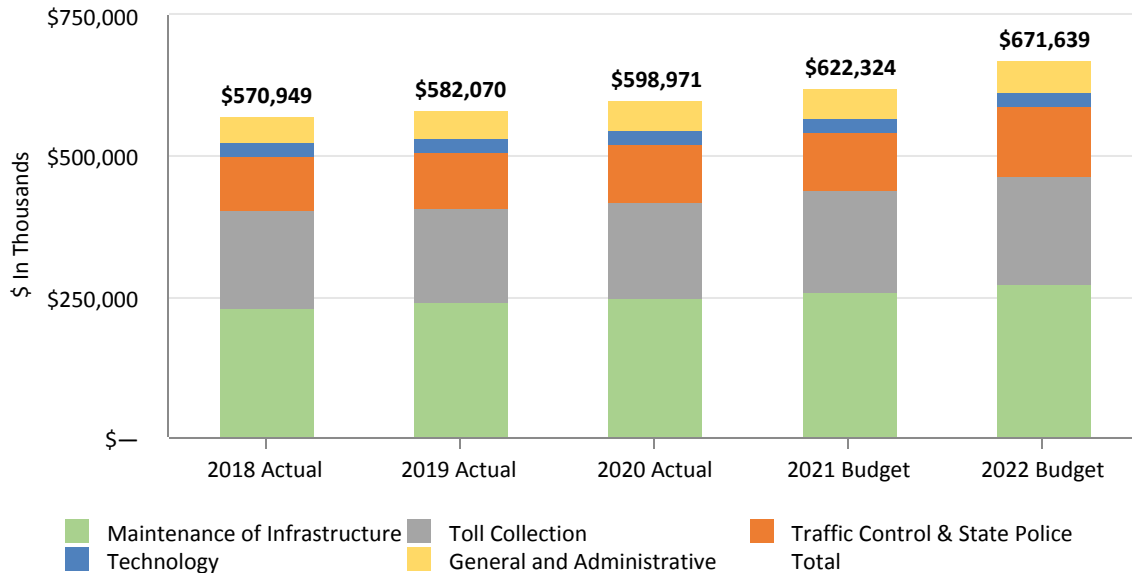


Figure 32: Operating Expense by Functional Area (2018-2022)

Authorized full-time positions in 2022 are essentially flat compared to 2021, and are 237 positions lower than in 2008. Since the low in 2014, the Authority has added 124 positions primarily due to the need to add maintenance personnel to handle the increased roadway capacity enhancements created by the capital improvement programs.

Authorized positions since 2008 are shown below:

Authorized Full-Time Positions

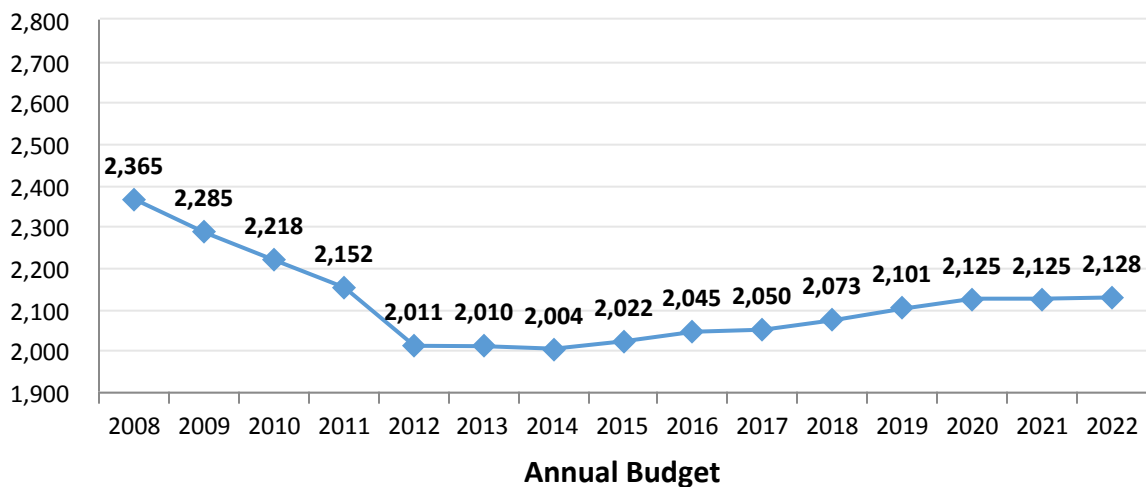


Figure 33: Authorized Positions (2008-2022)

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 2022 as 2021, based upon the high spending levels of 2014 and 2015. In fact, the levels budgeted in 2022 have been the same for the past seven years, despite increases in labor, material and outside contractor costs.

Snow and Severe Weather Expenses

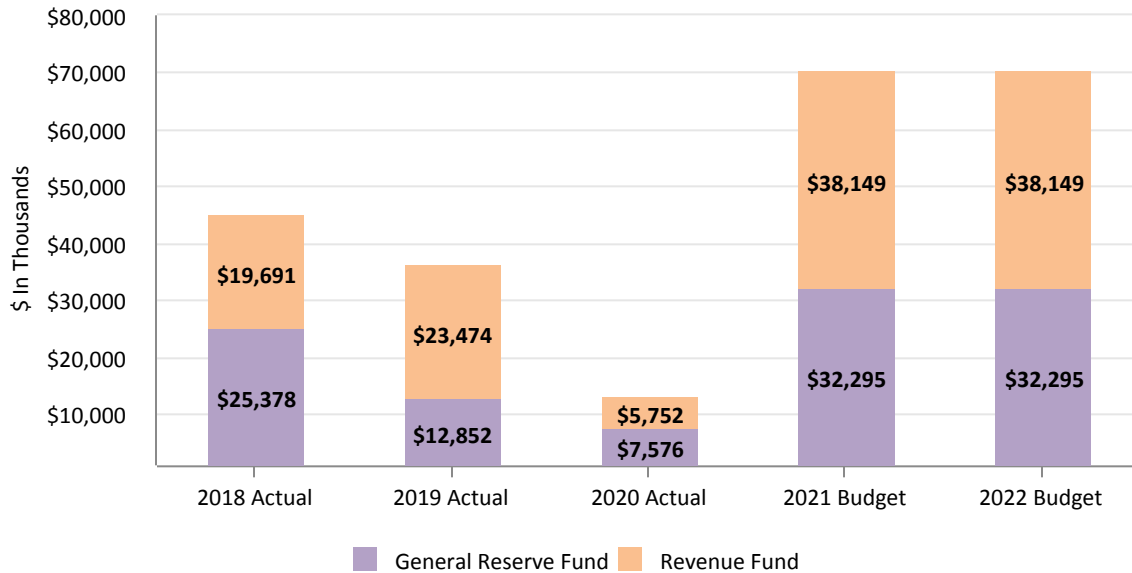


Figure 34: Snow and Severe Weather Expenses (2018-2022)

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 in those areas under its direct control. The total lane miles below includes mainlines, shoulders, ramps, and toll plaza lane miles.

Operating Expense Per Lane Mile

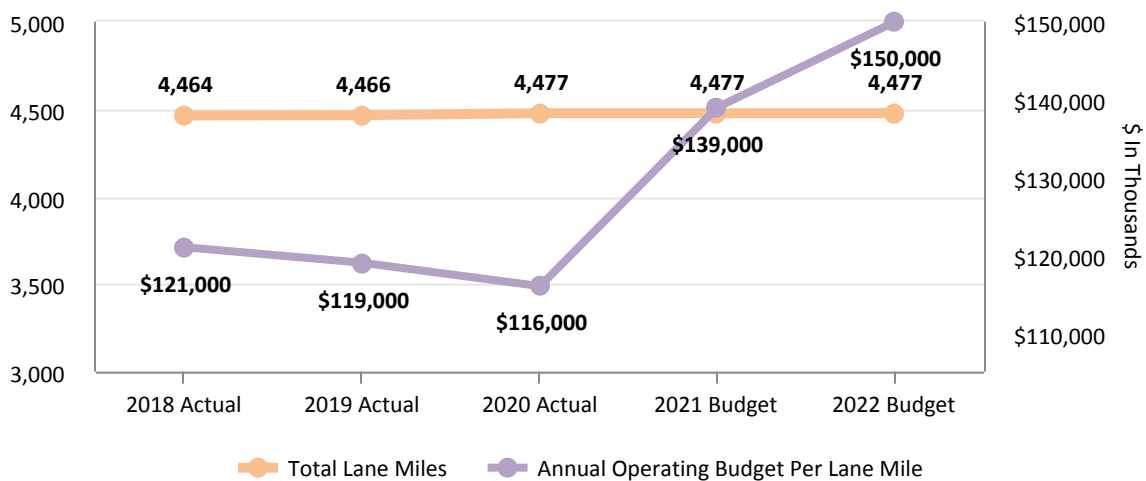


Figure 35: Total Lane Miles and Operating Expense Per Lane Mile (2018-2022)

DEBT SERVICE

Total Debt Service in 2022 is budgeted at \$902.9 million, which is about a \$17.9 million decrease from the 2021 budget, mainly due to a decrease in interest expense. The budget provides for the interest payments on the assumed new money bond issuance of \$500 million in January 2022 and of \$750 million in July 2022 to fund the Authority's various capital programs. Principal payments on existing bonds are also increasing by about \$12 million. By the end of 2022, the Authority is expected to have \$11.3 billion of debt outstanding. Debt Service equals 39% of the total budgeted revenue in 2022 and represents the single largest spending component of the 2022 Annual Budget. Of the total debt service, \$735.1 million is budgeted to be paid from net revenue, while \$124 million will be paid from a forward delivery payment and \$43.8 million from capitalized interest (bond proceeds).

GENERAL RESERVE

The General Reserve has a budget of \$685.8 million, which is a increase of \$290 million from its 2021 budget. This includes \$626 million in spending and \$60 million in net transfers. The most significant increase comes from payment totaling \$548 million for the new State Public Transportation Projects Funding Agreement effective July 1, 2021. The agreement is on the state fiscal year basis (July 1st - June 30th). The budgeted payment of \$548 million represents one-half of \$350 million for the state Fiscal Year(FY) 2022 payment and one-half of \$746 million for the state FY 2023 payment. This includes a portion of catch up payments for the state FY 2023, based on the new agreement. In addition to the new agreement, this budget includes payment of \$22 million for the Transportation Trust Fund (TTF) Agreement and \$2.5 million for the Feeder Road Maintenance Agreement.

In addition to the above spending, the budget for General Reserve also includes \$32.3 million for the state of emergency events, \$15 million in reserves for Other Post-Employment Benefits (OPEB), and \$60 million in net transfers to the Construction Fund to cover the 2022 budgeted spending plans for the 2022 Supplemental Capital Program and internal costs allocated to bond funded capital projects.

CAPITAL BUDGET (REVENUE FUNDED)

The 2022 Capital Budget includes the Maintenance Reserve Fund, the Special Projects Reserve Fund, and the Supplemental Capital Program. The Capital Budget primarily supports the spending for the maintenance of both the roadways and bridges, scheduled fleet augmentation, several multi-year capital program projects such as pavement repairs, replacement of toll collection equipment, etc. The work in the Maintenance Reserve Fund and Special Projects Reserve Fund is funded from the Authority's revenue after paying for the operating expenses and debt service. These two funds are separate funds established by the Authority's Bond Resolution. The work in the Supplemental Capital Program is funded by the transfers from the General Reserve Fund. This program is a separate account in the Construction Fund. The Construction Fund is established by the Authority's Bond Resolution.

1. MAINTENANCE RESERVE FUND

The Maintenance Reserve Fund primarily supports spending for the maintenance and resurfacing of roadways and bridges on both the Turnpike and Parkway. These projects have a combined spending budget for 2022 of \$220 million, and a rolling five-year spending plan of \$1.1 billion. The spending budget for 2022 is increasing by 19% compared to 2021, and includes funding primarily for Bridge Construction, Preservation, and Security, and Pavement Resurfacing. The 2022 Maintenance Reserve Fund also includes projects moved from the Special Project Reserve Fund and Supplemental Capital Program for Facilities, including major building and roofing replacements.

2. SPECIAL PROJECT RESERVE FUND

The Special Project Reserve Fund has a 2022 spending budget of over \$76 million and a rolling five-year spending plan of nearly \$267 million. The spending for 2022 is increasing 3% compared to 2021. The 2022 Special Project Reserve Fund provides spending for the Authority's major scheduled fleet replacement program. The increase in Fleet in 2022 is due to vehicle delivery delays rolled over from 2021. Technology Improvements is increasing with the implementation of Capital Program Management System and the Phase 2 of the Enterprise Asset Management System. Maintenance of Infrastructure is increasing mainly due to the Turnpike Westerly Alignment Capacity Enhancement Study, while Facilities are decreasing as projects will be budgeted in the Maintenance Reserve Fund in 2022.

3. SUPPLEMENTAL CAPITAL PROGRAM (CONSTRUCTION FUND – REVENUE FUNDED)

The Supplemental Capital Program has a 2022 spending budget of almost \$75 million and a rolling five-year spending plan of more than \$315 million. The spending budget for 2022 is increasing by 2% compared to 2021. The 2022 Supplemental Capital Program includes funding to continue several necessary multi-year projects including pavement resurfacing on the Parkway, as well as other roadway improvements, including \$12 million for the design of the Tremley Point Connector Road. There is \$17 million for the Vauxhall and Brookdale South Service Areas included in the 2022 Supplemental Capital Program as well.

CAPITAL IMPROVEMENT PROGRAMS (CONSTRUCTION FUND – BOND FUNDED)

The 2022 Construction Fund includes the bond funded programs within the Construction Fund. The Construction Fund currently includes the 2022-2026 Capital Improvement Program, which was derived from the 2020 Long-Range Capital Plan, approved in May 2020, the 2019 Capital Improvement Program, approved in April 2019, and the 2008 \$7 Billion Capital Improvement Program approved in October 2008. These programs are funded through bond proceeds derived from the issuance of Turnpike Revenue Bonds.

1. 2022-2026 CAPITAL IMPROVEMENT PROGRAM

The 2020 Long-Range Capital Plan was approved by the Board of Commissioners in May 2020. The 2022-2026 Capital Improvement Program was developed from that plan and focuses on maintaining the existing infrastructure in a state of good repair and targets capacity improvements in critical areas where congestion is already an issue. This program has a 2022 spending budget of \$352 million and a rolling five-year spending plan of \$3.7 billion. The spending budget for 2022 is increasing by about 55%, compared to 2021, for bridge repairs on both roadways and the design of the capacity enhancements on the Newark Bay-Hudson County Extension and Turnpike Interchanges 1 through 4.

2. 2019 CAPITAL IMPROVEMENT PROGRAM

This program was approved by the Board of Commissioners in April 2019 and includes capital improvement projects focusing on bridge deck improvements, shoulder widening, and replacement of hybrid changeable message signs. The 2022 spending budget for the 2019 Capital Improvement Program is over \$172 million and has a rolling five-year spending plan of \$352 million. The 2022 spending budget is almost \$96 million less than the \$268 million budgeted for 2021, representing a decrease of 36%. This decrease is due to the substantial completion of projects in 2021.

3. 2008 \$7 BILLION CAPITAL IMPROVEMENT PROGRAM

This program was approved by the Board of Commissioners in October 2008. In September 2018, the program was amended to extend the end date of the program to award new contracts until December 31, 2020. The 2022 spending budget is \$74 million with a rolling five-year spending plan of \$102 million. The 2022 spending budget is decreasing almost 50% from the 2021 spending budget of \$146 million, representing the winding down of this Capital Improvement Program as many projects are completed or are nearing completion. The 2008 \$7 Billion Capital Improvement Program includes current active projects such as the Newark Bay-Hudson County Extension redecking and Interchange Improvements.

SUMMARY

The 2022 Annual Budget provides the necessary funds to operate and maintain the Turnpike and Parkway, two of the most critical and busiest toll roads in the United States at a service and safety level that meets or exceeds leading practices standards. In addition, funds are provided to meet all debt service obligations to bondholders and all contractual payment obligations. The 2022 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 Financial Management Principles and Guidelines, including maintaining a minimum general reserve balance of 10% of the 2022 budgeted revenue (\$230 million).

Leadership

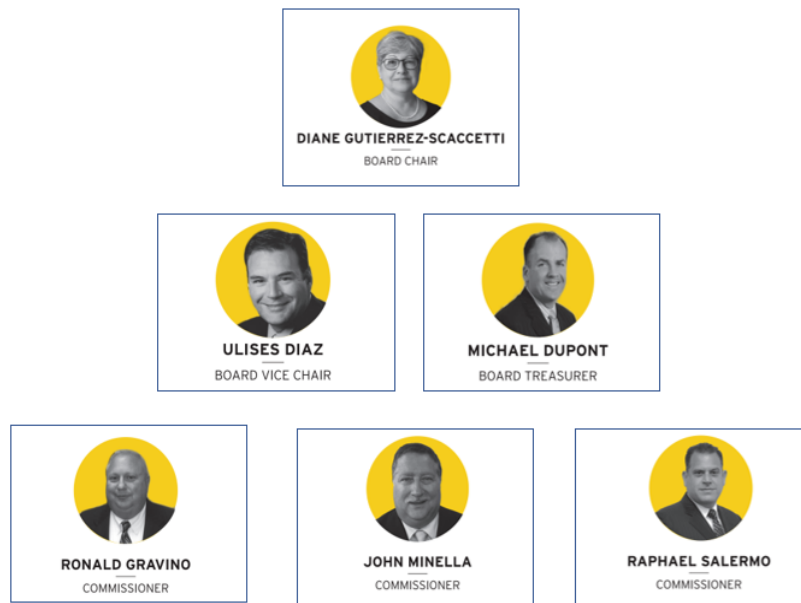
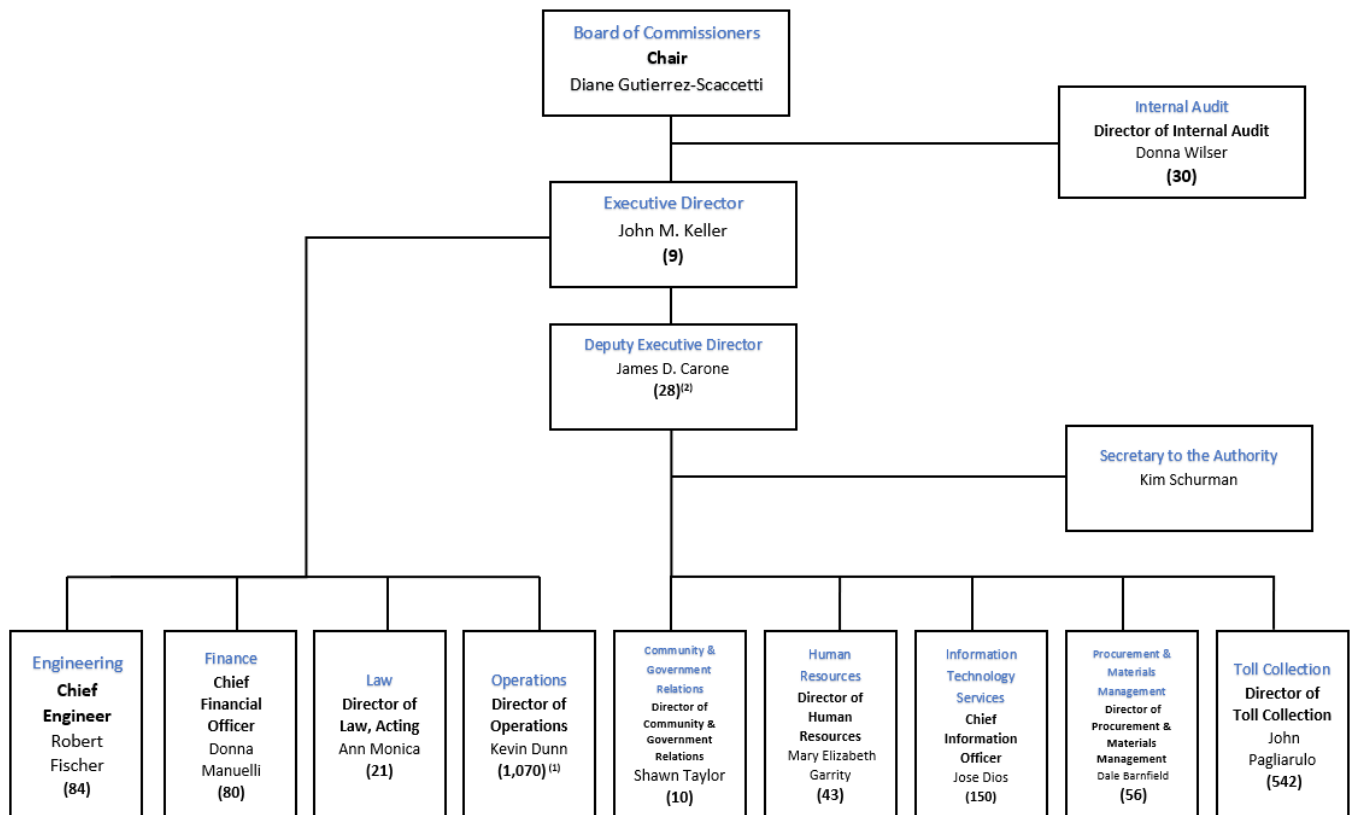


Figure 36: Leadership Chart
Organization Chart



- Departmental full-time employee count is shown in parenthesis
- In addition to the above authorized positions, there are 5 contingency positions budgeted
- (1) Operations includes the Maintenance Division (982) and the Traffic Division (88)
- (2) The 28 full-time employees in the State Police Department report directly to the Deputy Executive Director. This department is not shown in the above organization chart

Figure 37: 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."

In addition, 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 toll revenues, fees, rents, charges and other income and receipts derived from the operation of the Turnpike System. Operating expenses are for operation, maintenance, repairs, ordinary replacement and ordinary reconstruction of the Turnpike System and ordinary acquisition of equipment for the Turnpike System.

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

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

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

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

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

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

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

Flow of Funds table referenced in [Appendix C](#) under Financial Management Principals and Guidelines

Revenue Requirement

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

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

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

Net Revenue Requirement			
<i>(\$ In Thousands)</i>	2020 Actual	2021 Est/Act	2022 Budget
Revenue	\$ 1,625,400	2,238,600	2,298,400
Operating Expenses and Reserve *	(523,700)	(594,300)	(676,600)
Net Revenue	\$ 1,101,700	1,644,300	1,621,800
Net Debt Service **	(659,200)	(797,200)	(735,200)
Maintenance Reserve Payments	(134,100)	(160,000)	(200,000)
Special Project Reserve Payments	(41,300)	(50,000)	(50,000)
Total Requirements	\$ (834,600)	(1,007,200)	(985,200)
Excess Revenue	\$ 267,100	637,100	636,600
Net Revenue	1,101,700	1,644,300	1,621,800
1.2X Debt Service	(791,000)	(956,600)	(882,200)
Excess Revenue at 1.2X Debt Service	\$ 310,700	687,700	739,600
Debt Service Coverage	1.67	2.06	2.21

*Operating Expenses and Reserve includes the operating expenses for the year and the working capital reserve of 10% of the annual budgeted operating expenses as per section 504(B) of the Bond Resolution

**Net Debt Service includes debt service on the existing and future debt netted with the capitalized interest for the years 2022-2026 and proposed forward delivery refunding payment in 2022.

Figure 38: Net Revenue Requirement (2020-2022)

Based on the above review, Net Revenue for 2021 and 2022 will be sufficient to meet the Net Revenue Requirement.

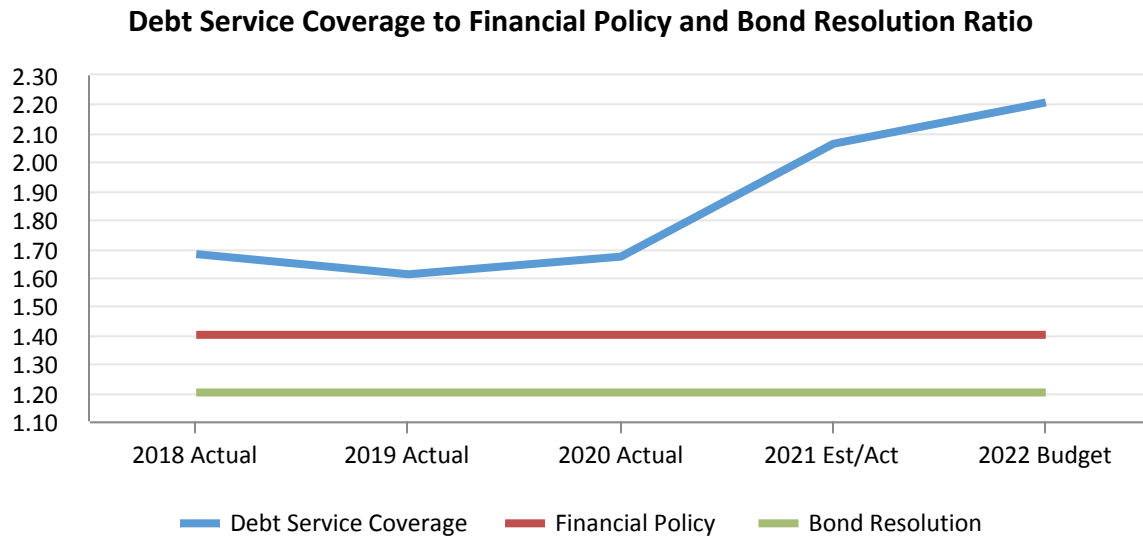


Figure 39: Debt Service Coverage Ratio Chart (2018-2022)

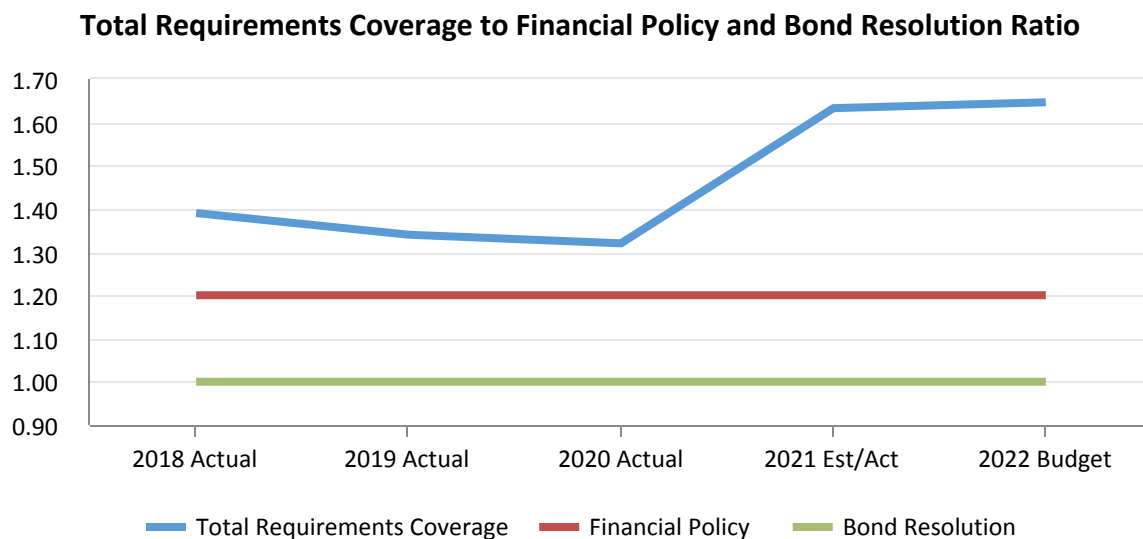


Figure 40: Total Requirements Coverage Ratio Chart (2018-2022)

Basis of Budgeting

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

- Depreciation and Amortization
- Accretion
- Change in Fair Market Value of Investments
- GASB 53 Interest Rate Swap Adjustments
- OPEB Annual Required Contribution (except for current pay retiree benefits and reserves for OPEB which are budgeted)
- GASB 49 Pollution Remediation Liability Reserve

The Authority's Annual Budget provides the basis for expenditures during the year. The Authority operates on a calendar-year basis. No fewer than 40 days before the end of the year, the Authority must submit a Preliminary Budget of operating expenses and reserves to the Trustee as required by the Bond Resolution. The budget is subject to the Trustee's examination, and the Authority is required to comply with all reasonable requests from the Trustee for classifications and clarifications. The Bond Resolution also specifies that each Annual Budget must include funding for operating expenses and reserves and provisions for deposits to the Maintenance Reserve Fund and the Special Project Reserve Fund. The Preliminary Budget and the Annual Budget may provide additional information, as the Authority may determine, and each shall contain a certificate from the Consulting Engineer approving the Preliminary Budget and the Annual Budget, as the case may be. In addition to the information required by the Bond Resolution, the Authority's Annual Budget also includes its Revenue, Debt Service, Debt Reserve, and General Reserve budgets as well as the Capital Program Spending Budget. The Capital Program Spending Budget includes all revenue funded and bond funded capital projects and is presented on a rolling five-year basis since 2021.

The Annual Budget must be adopted by the Commissioners of the Authority by January 15th 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 15th 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 consistent with the Authority's By-Laws 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, effective January 1, 2021 is \$20,000 and includes equipment valued over \$20,000 or any purchase related to a capital project whose project value exceeds \$20,000. Based on this policy, there are no capitalized assets included in the 2022 Operating Expense Budget, Debt Service Fund, Debt Reserve Fund, and the General Reserve Fund budgets. The Maintenance

Reserve Fund, Special Project Reserve Fund, and Construction Fund (including both revenue and bond funded accounts) contain capitalized projects and may contain some expense projects. The budget for these funds groups projects into expense projects (if applicable) and capitalized projects in accordance with the Authority's capitalization policy.

As previously noted, the Authority's financial statements are presented as an enterprise fund with the activity of the Bond Resolution Funds shown on schedules to the financial statements. The Authority's Annual Budget is prepared based upon the Bond Resolution Funds. A schedule is added in [Appendix B](#) of this book to include the non-cash items such as depreciation and amortization to match with the Authority's financial statements. Over the past several years the Authority has implemented several GASB pronouncements which has resulted in non-cash accounting entries to follow the Generally Accepted Accounting Principles (GAAP). This schedule presents an estimated non-cash impact of these GASB implementations on the 2022 Budget.

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

Budget Procedure

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

A summary of the 2022 Annual Budget calendar is as follows:

Action	Date
<u>Commencement of 2022 Budget</u>	
Executive Budget Planning Meeting	6/9/2021
2022 Annual Budget Preparation Kickoff	6/10/2021
<u>Capital and Construction Budget</u>	
Distribution of Capital Budget Documents to Departments	6/22/2021
Individual Department Budget Meetings with Finance Department Capital	Week of 7/6/2021
Response of Capital Budget Documents from Departments	7/14/2021
Construction Budget Request Review with Departments, Finance and Executive	8/6/2021
Capital Budget Request Review with Departments, Finance and Executive	8/12/2021
Capital and Construction Budget Finalization Meeting	10/27/2021
<u>Operating Budget</u>	
Distribution of Operating Budget Documents to Departments	7/16/2021
Response from Departments for Operating Budget	8/6/2021
Operating Budget Request Review with Individual Departments, Finance and Executive	8/24/2021
Operating Budget Finalization Meeting	10/27/2021
Preliminary Operating Budget filed with Trustee	11/19/2021
<u>Finalization of 2022 Budget</u>	
Executive Budget Final Review Meeting	10/27/2021
Budget Presentation at Board Committee Meeting	11/9/2021
Budget Approved at Meeting of Board of Commissioners	11/23/2021
Governor's 10-day veto period expires without Governor exercising said power	(estimated) 12/9/2021

Figure 41: 2022 Annual Budget Calendar



Figure 42: 2022 Budget Procedure Flow

Summary of Major Revenues and Expenses

Sources of Revenue

Sources of Revenue					
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Turnpike Toll Revenue	\$ 1,014,900	1,415,000	1,533,800	118,800	8.4%
Parkway Toll Revenue	372,500	505,800	533,200	27,400	5.4%
Other Operating Revenue	137,500	127,500	144,100	16,600	13.0%
Non-Operating Revenue	100,500	101,200	87,300	(13,900)	(13.7)%
Total Revenue	\$ 1,625,400	2,149,500	2,298,400	148,900	6.9%

Figure 43: Sources of Revenue (2020-2022)

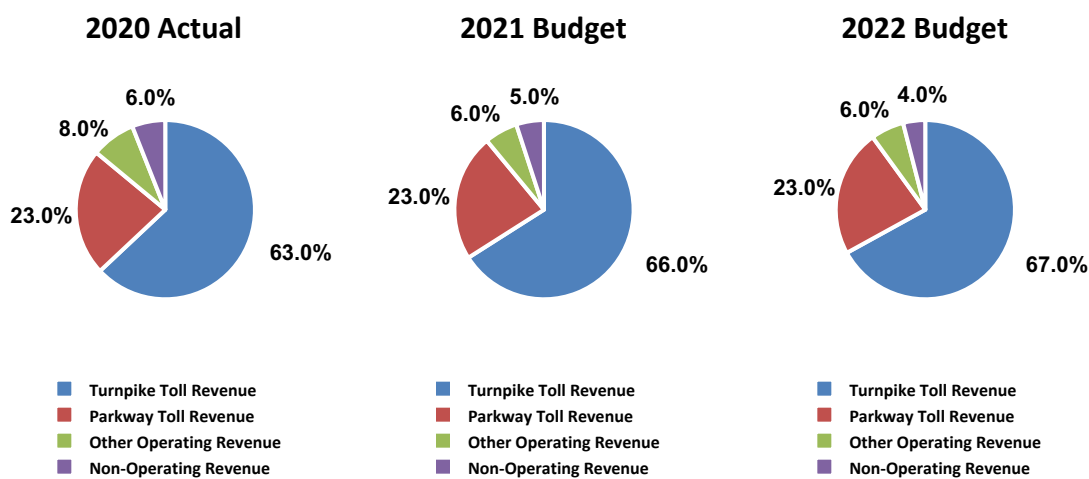


Figure 44: Sources of Revenue Percentages (2020-2022)

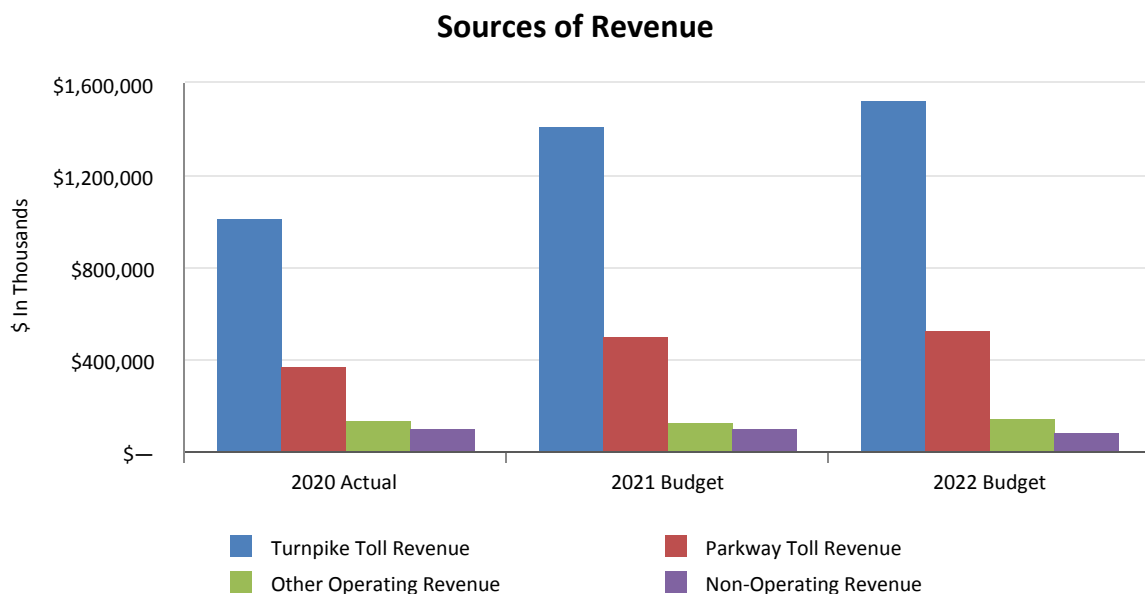


Figure 45: Sources of Revenue Graph (2020-2022)

Allocation of Revenue

Allocation of Revenue					
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Operating Expenses and Reserve *	\$ 523,700	624,600	676,600	52,000	8.3%
Net Debt Service **	653,000	920,800	735,200	(185,600)	(20.2)%
Maintenance Reserve Fund	134,100	160,000	200,000	40,000	25.0%
Special Project Reserve Fund	41,300	50,000	50,000	—	—%
General Reserve	273,300	394,100	636,600	242,500	61.5%
Total Allocation of Revenue	\$ 1,625,400	2,149,500	2,298,400	148,900	6.9%

*Operating Expenses and Reserve includes the operating expenses for the year and the working capital reserve of 10% of the annual budgeted operating expenses as per section 504(B) of the Bond Resolution.

**Net Debt Service includes debt service on the existing and future debt netted with the capitalized interest for the years 2022-2026 and proposed forward delivery refunding payment in 2022.

Figure 46: Allocation of Revenue (2020-2022)

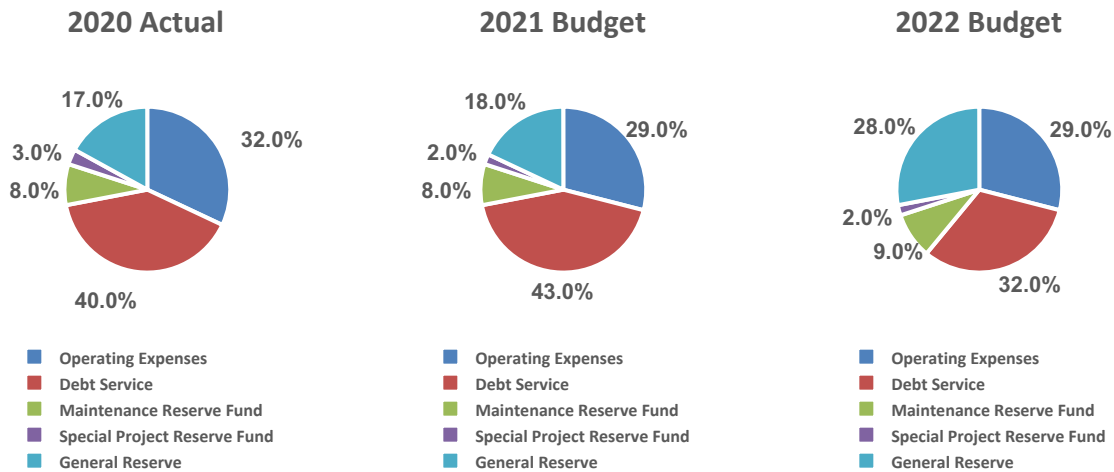


Figure 47: Allocation of Revenue Percentages (2020-2022)

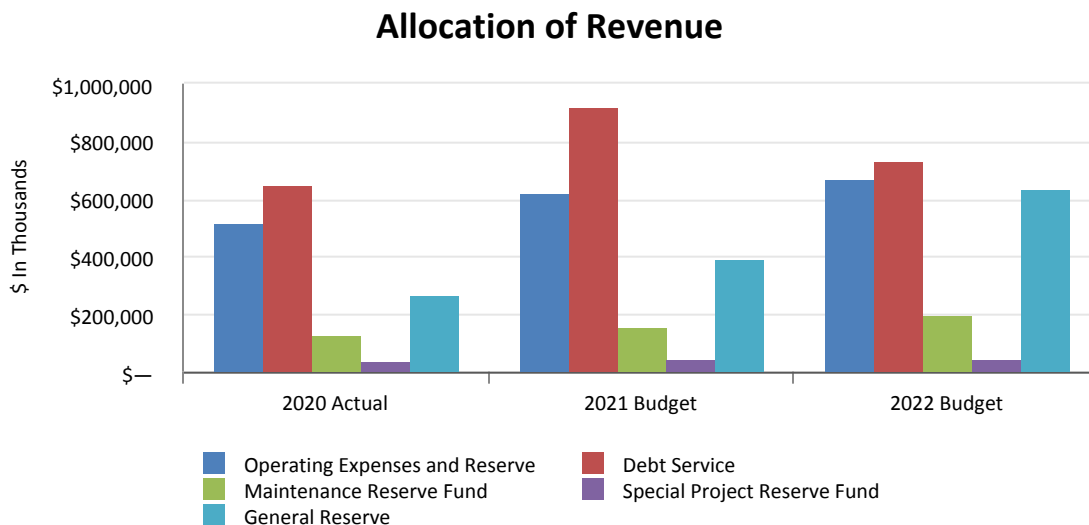


Figure 48: Allocation of Revenue Graph (2020-2022)

Revenue

2022 Revenue Budget

Revenue					
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Turnpike Toll Revenue	\$ 1,014,900	1,415,000	1,533,800	118,800	8.4%
Parkway Toll Revenue	372,500	505,800	533,200	27,400	5.4%
E-ZPass Fees	93,200	84,500	100,000	15,500	18.3%
Concession Revenue	31,700	31,000	31,500	500	1.6%
Miscellaneous Revenue	12,600	12,000	12,600	600	5.0%
Total Operating Revenue	\$ 1,524,900	2,048,300	2,211,100	162,800	7.9%
Federal Subsidy for Build America Bonds	77,800	77,000	77,000	—	—%
Interest Income	19,100	20,000	6,000	(14,000)	(70.0)%
Arts Center Revenues	3,600	4,200	4,300	100	2.4%
Total Non-Operating Revenue	\$ 100,500	101,200	87,300	(13,900)	(13.7)%
Total Revenue	\$ 1,625,400	2,149,500	2,298,400	148,900	6.9%

Figure 49: Revenue Budget (2020-2022)

Key Assumptions:

- Toll revenue is expected to increase by 8.4% on the Turnpike and increase by 5.4% on the Parkway in 2022 as compared to the 2021 budget. The increases are primarily due to the anticipated increase in traffic from continued recovery of traffic after COVID-19 pandemic declines and the toll rate indexing at 3% effective January 1, 2022. The 2022 toll revenue budget was derived from a report done by the Authority's traffic engineering consultant in September 2021. To date in 2021, toll revenue is above budget due to increased travel and the gradual return to office since the travel advisory was lifted on May 19, 2021 and the state of emergency was lifted on June 4, 2021
- E-ZPass fees are expected to increase due to the increase in the number of E-ZPass accounts and to reflect current trends in administrative fee collections. To date in 2021, actual E-ZPass fees are above budget
- Concession revenue is expected to slightly increase in part due to continued increases in travel and sales volumes which are recovering from COVID-19 lows as more patrons are anticipated to visit the service areas on both roadways. This improvement is slightly offset by the closing of up to three service areas for renovations. To date in 2021, concession revenue is above budget
- Interest Income is expected to decrease in 2022. The 2022 budget assumes similar market conditions with low interest rates as has occurred in 2021 but was not budgeted in 2021. Invested balances are expected to be slightly lower in 2022. The invested balances in 2021 were higher than 2020, but the rates were so much lower that there was a sharp decrease in 2021 investment income. As such, 2021 actuals are expected to be significantly under budget
- Miscellaneous revenue is projected to slightly increase primarily due to annual CPI increases for certain leases, and an increase in accident report fees and rental revenue
- Arts Center Revenue is projected to slightly increase due to an increase in the Live Nation Minimum Annual Guaranteed Rent

Revenue Fund Balance					
(\$ In Thousands)	2020 Actual	2021 Est/Act	2022 Budget	\$ Δ from 2021 Est/Act	% Δ from 2021 Est/Act
Beginning Balance	\$ 57,100	59,900	62,200	2,300	3.8%
Revenues	1,625,400	2,238,600	2,298,400	59,800	2.7%
Expenses	(520,900)	(592,000)	(671,600)	(79,600)	13.4%
Transfers to Funds	(1,101,700)	(1,644,300)	(1,621,800)	22,500	(1.4)%
Ending Balance	\$ 59,900	62,200	67,200	5,000	8.0%

Figure 50: Revenue Fund Balance (2020-2022)

Toll Statistics

Toll Transactions by Vehicle Type and Roadway — 2021 Budget

Toll Transactions by Vehicle Type and Roadway					
<i>(In Thousands)</i>	2018 Actual	2019 Actual	2020 Actual	2021 Budget*	2022 Budget**
Passenger	230,500	233,500	166,300	202,100	214,800
Commercial (1)	34,300	34,300	32,300	30,900	32,300
New Jersey Turnpike Total	264,800	267,800	198,600	233,000	247,100
Garden State Parkway (2)	389,800	386,800	308,500	355,900	362,000
Total Authority Toll Transactions	654,600	654,600	507,100	588,900	609,100

Toll Transactions Growth Rate					
	2018 Actual	2019 Actual	2020 Actual	2021 Budget*	2022 Budget**
Passenger	1.1%	1.3%	(28.8)%	21.5%	6.3%
Commercial (1)	4.9%	—%	(5.8)%	(4.3)%	4.5%
New Jersey Turnpike Total	1.6%	1.1%	(25.8)%	17.3%	6.1%
Garden State Parkway (2)	(0.8)%	(0.8)%	(20.2)%	15.4%	1.7%
Total Authority Toll Transactions	0.2%	—%	(22.5)%	16.1%	3.4%

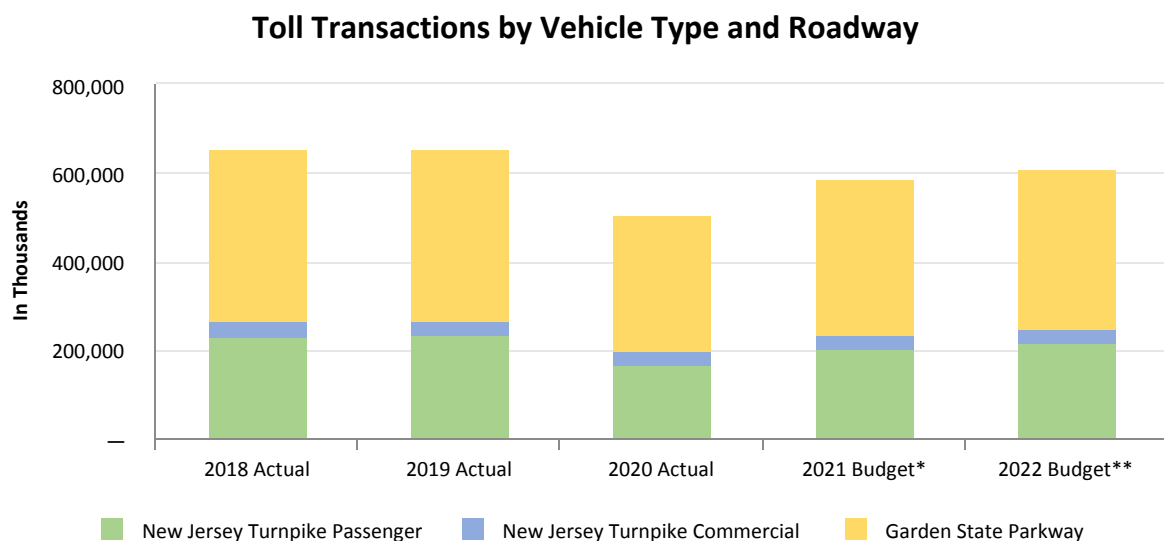
(1)Commercial vehicles include buses

(2)Commercial vehicles (including buses) are not shown separately as they account for less than 4% of total

*Projected traffic is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected traffic is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 51: Toll Transactions by Vehicle Type and Roadway — 2021 Budget (2018-2022)

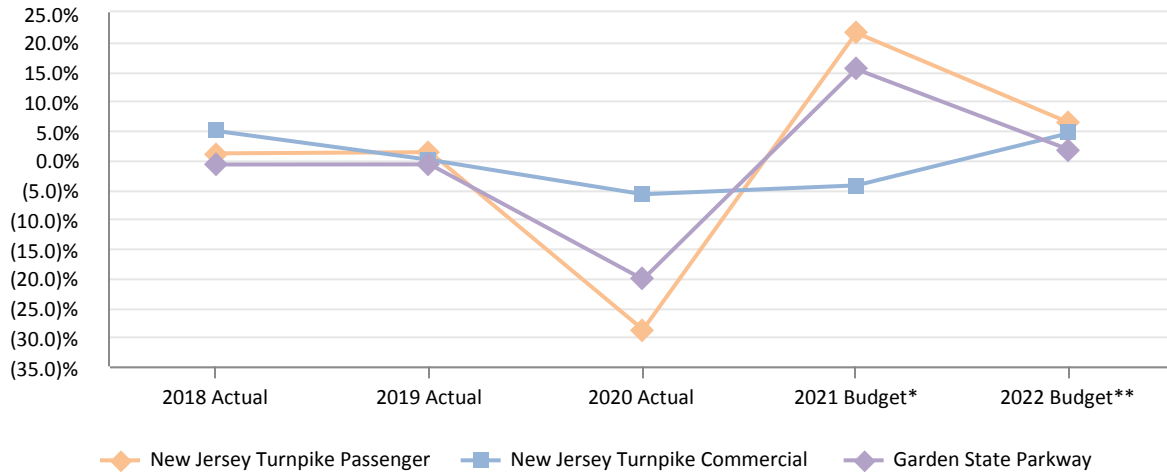


*Projected Traffic is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected traffic is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 52: Total Toll Transactions — 2021 Budget (2018-2022)

Toll Transactions Growth Rate



*Projected Traffic is based on the October 6, 2020 CDM Smith Drawn Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected traffic is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 53: Toll Transactions Growth Rate — 2021 Budget (2018-2022)

Toll Revenue by Vehicle Type and Roadway — 2021 Budget

Toll Revenue by Vehicle Type and Roadway					
(\$ In Thousands)	2018 Actual	2019 Actual	2020 Actual	2021 Budget*	2022 Budget**
Passenger	\$ 809,000	816,300	633,500	963,300	1,049,800
Commercial (1)	370,400	360,200	381,400	451,700	484,000
New Jersey Turnpike Total	\$ 1,179,400	1,176,500	1,014,900	1,415,000	1,533,800
Garden State Parkway (2)	433,000	435,800	372,500	505,800	533,200
Total Authority Toll Revenue	\$ 1,612,400	1,612,300	1,387,400	1,920,800	2,067,000

Toll Revenue Growth Rate					
	2018 Actual	2019 Actual	2020 Actual	2021 Budget*	2022 Budget**
Passenger	3.7%	0.9%	(22.4)%	52.1%	9.0%
Commercial (1)	(0.3)%	(2.8)%	5.9%	18.4%	7.2%
New Jersey Turnpike Total	2.4%	(0.2)%	(13.7)%	39.4%	8.4%
Garden State Parkway (2)	1.1%	0.6%	(14.5)%	35.8%	5.4%
Total Authority Toll Revenue	2.1%	—%	(13.9)%	38.4%	7.6%

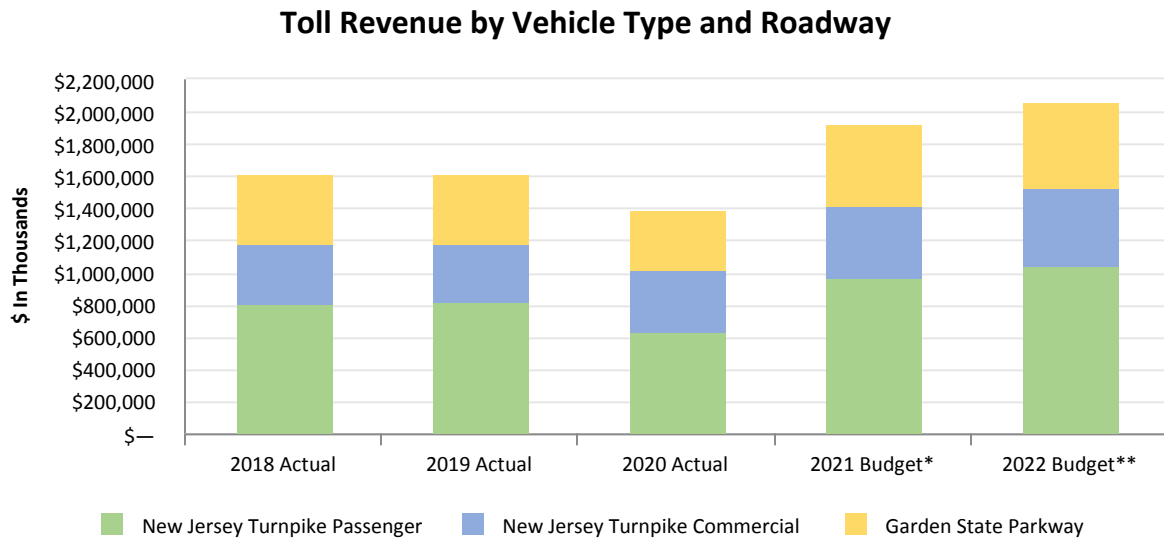
(1) Commercial vehicles include buses

(2) Commercial vehicles (including buses) are not shown separately as they account for less than 4% of total

*Projected revenue is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected revenue is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

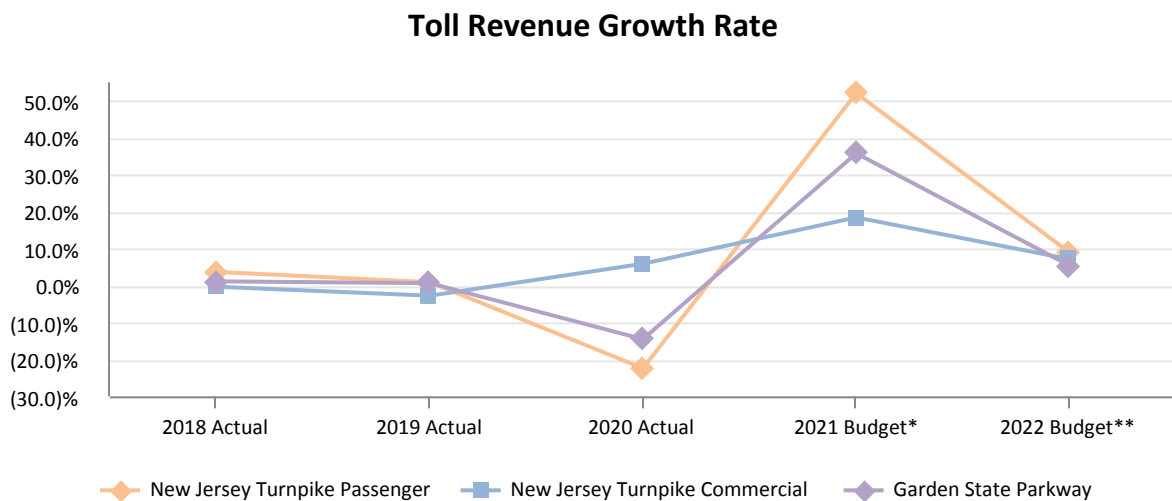
Figure 54: Toll Revenue by Vehicle Type and Roadway — 2021 Budget (2018-2022)



*Projected revenue is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected revenue is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 55: Total Toll Revenue — 2021 Budget (2018-2022)



*Projected revenue is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected revenue is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 56: Toll Revenue Growth Rate — 2021 Budget (2018-2022)

The COVID-19 pandemic caused unprecedented reductions in toll transactions in 2020. Because of this, the 2020 actuals are an anomaly in the data and this should be considered when comparing previous and future years.

Toll Transactions by Vehicle Type and Roadway — 2021 Estimated Actuals

Toll Transactions by Vehicle Type and Roadway					
<i>(In Thousands)</i>	2018 Actual	2019 Actual	2020 Actual	2021 Est/Act*	2022 Budget**
Passenger	230,500	233,500	166,300	204,000	214,800
Commercial (1)	34,300	34,300	32,300	34,900	32,300
New Jersey Turnpike Total	264,800	267,800	198,600	238,900	247,100
Garden State Parkway (2)	389,800	386,800	308,500	351,600	362,000
Total Authority Toll Transactions	654,600	654,600	507,100	590,500	609,100

Toll Transactions Growth Rate					
	2018 Actual	2019 Actual	2020 Actual	2021 Est/Act*	2022 Budget**
Passenger	1.1%	1.3%	(28.8)%	22.7%	5.3%
Commercial (1)	4.9%	—%	(5.8)%	8.0%	(7.4)%
New Jersey Turnpike Total	1.6%	1.1%	(25.8)%	20.3%	3.4%
Garden State Parkway (2)	(0.8)%	(0.8)%	(20.2)%	14.0%	3.0%
Total Authority Toll Transactions	0.2%	—%	(22.5)%	16.4%	3.1%

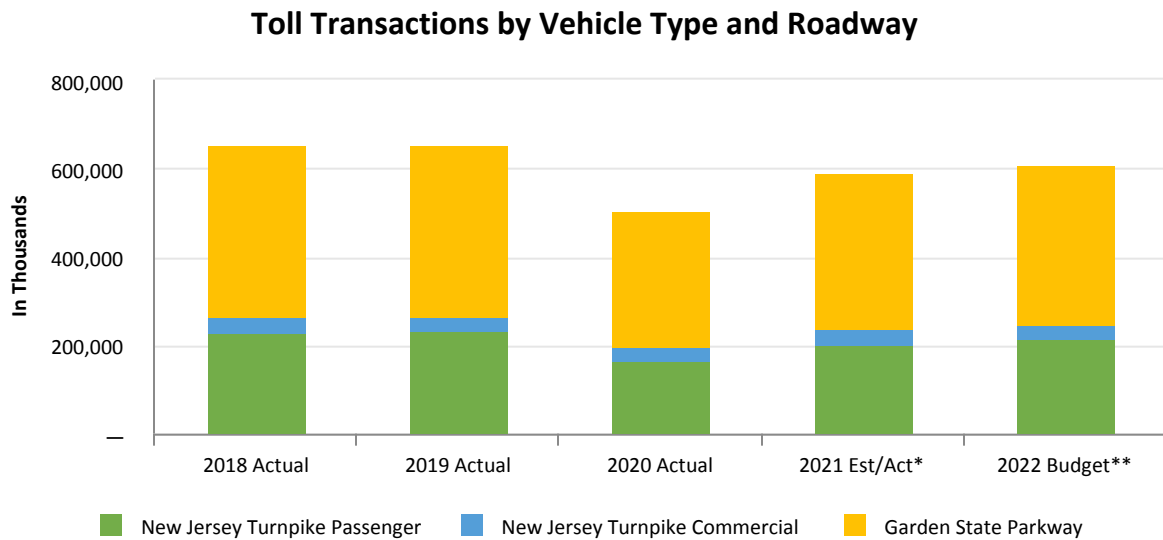
(1) Commercial vehicles include buses

(2) Commercial vehicles (including buses) are not shown separately as they account for less than 4% of total

*Projected revenue is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected revenue is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 57: Toll Transactions by Vehicle Type and Roadway — 2021 Estimated Actuals (2018-2022)

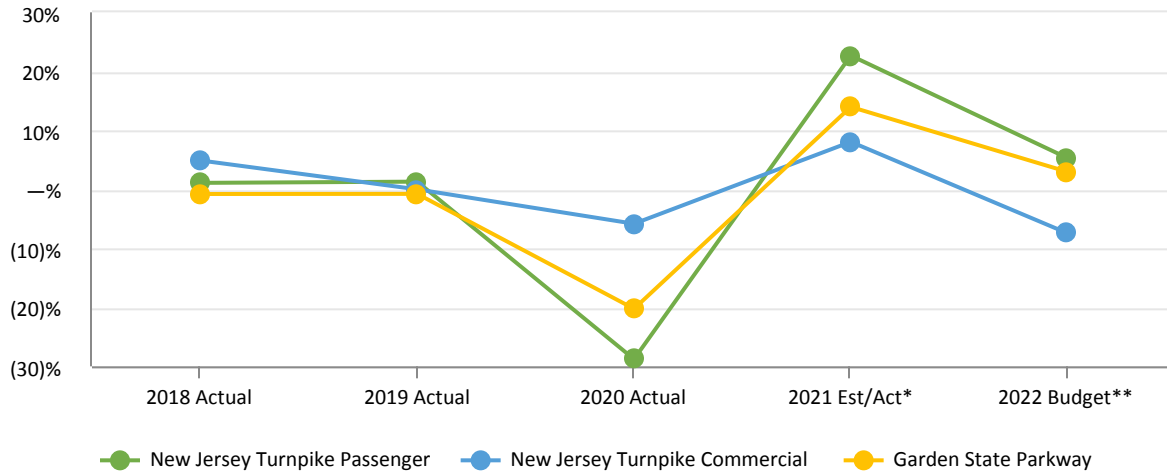


*Projected revenue is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected revenue is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 58: Total Toll Transactions — 2021 Estimated Actuals (2018-2022)

Toll Transactions Growth Rate



*Projected revenue is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected revenue is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 59: Toll Transactions Growth Rate — 2021 Estimated Actuals (2018-2022)

When comparing the 2021 estimated/actuals to the 2020 actuals, the graphs above show that toll transactions did significantly increase in 2021, as toll transactions and travel continued to recover from the impacts of COVID-19. Further, this significant growth in 2021 is impacting the toll transaction growth rate between 2022 budget and 2021 estimated/actuals, which shows the growth rate is declining. This is due to the fact that there was significant recovery in 2021. The projected growth rate of 3.1% in 2022, while lower than 2021, is actually higher than the actual growth rates in 2018 and 2019.

Toll Revenue by Vehicle Type and Roadway - 2021 Estimated Actuals

Toll Revenue by Vehicle Type and Roadway					
(\$ In Thousands)	2018 Actual	2019 Actual	2020 Actual	2021 Est/Act*	2022 Budget**
Passenger	\$ 809,000	816,300	633,500	975,400	1,049,800
Commercial (1)	370,400	360,200	381,400	498,200	484,000
New Jersey Turnpike Total	\$ 1,179,400	1,176,500	1,014,900	1,473,600	1,533,800
Garden State Parkway (2)	433,000	435,800	372,500	503,600	533,200
Total Authority Toll Revenue	\$ 1,612,400	1,612,300	1,387,400	1,977,200	2,067,000

Toll Revenue Growth Rate					
	2018 Actual	2019 Actual	2020 Actual	2021 Est/Act*	2022 Budget**
Passenger	3.7%	0.9%	(22.4)%	54.0%	7.6%
Commercial (1)	(0.3)%	(2.8)%	5.9%	30.6%	(2.9)%
New Jersey Turnpike Total	2.4%	(0.2)%	(13.7)%	45.2%	4.1%
Garden State Parkway (2)	1.1%	0.6%	(14.5)%	35.2%	5.9%
Total Authority Toll Revenue	2.1%	—%	(13.9)%	42.5%	4.5%

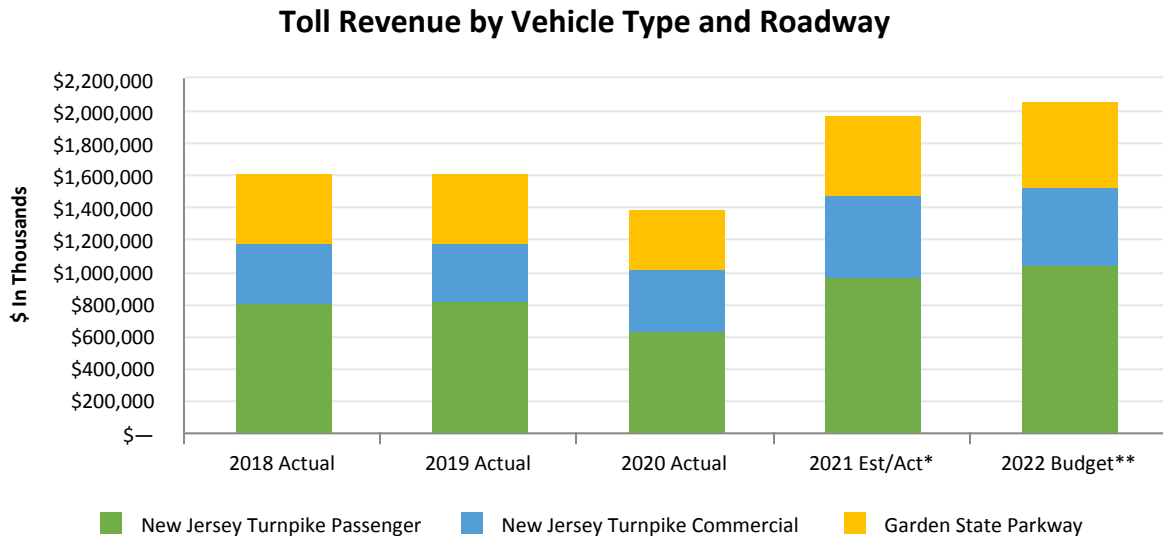
(1) Commercial vehicles include buses

(2) Commercial vehicles (including buses) are not shown separately as they account for less than 4% of total

*Projected revenue is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected revenue is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 60: Toll Revenue by Vehicle Type and Roadway — 2021 Estimated Actuals (2018-2022)

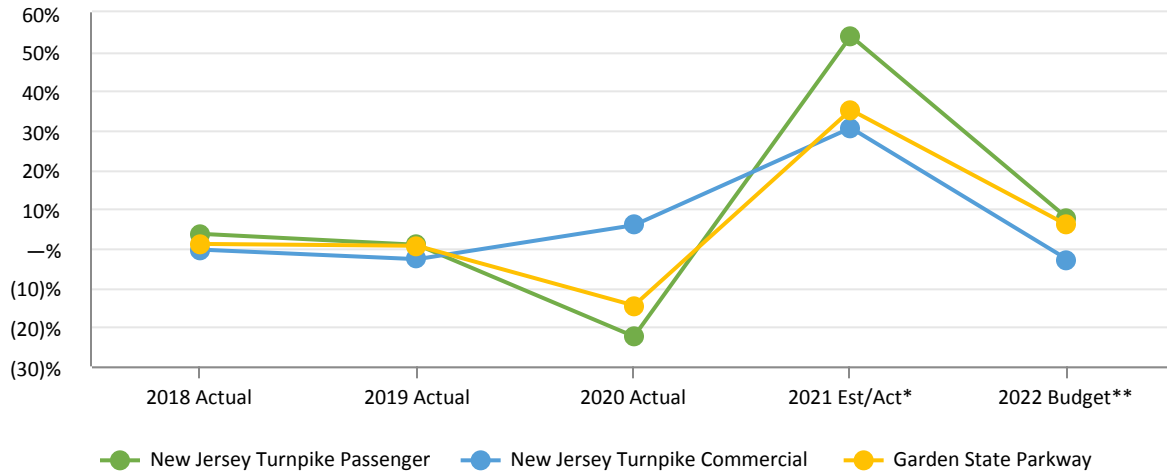


*Projected revenue is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected revenue is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 61: Total Toll Revenue - 2021 Estimated Actuals (2018-2022)

Toll Revenue Growth Rate



*Projected revenue is based on the October 6, 2020 CDM Smith Draw Down Letter updating the September 27, 2018 Toll Revenue Forecast

**Projected revenue is based on the September 10, 2021 CDM Smith Updated Toll Revenue Forecast updating the projected traffic from the October 14, 2020 CDM Smith Draw Down Letter

Figure 62: Toll Revenue Growth Rate — 2021 Estimated Actuals (2018-2022)

Toll revenue is budgeted to increase in 2022 when compared to 2021 estimated/actual results. The increases are due to the anticipated increase in toll transactions and travel from continued recovery from the pandemic, as well as an assumed 3% rate toll increase on January 1, 2022. The estimated/actual toll revenue growth in 2021 reflects not only the significant increase in toll transactions from COVID-19 recovery, but also the full year impacts of the toll rate increases that occurred on September 13, 2020. While the toll revenue growth rate in 2022 is not as significant as projected in 2021 for these reasons, it is higher than the actual increases in 2018 and 2019.

Operating Expenses

Total Operating Expenses — By Functional Area					
(\$ In Thousands)	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Maintenance	\$ 185,420	238,716	243,469	4,753	2.0%
Engineering	9,921	22,224	29,697	7,473	33.6%
Total Maintenance of Infrastructure	\$ 195,340	260,940	273,166	12,226	4.7%
Toll Collection	152,388	180,137	192,021	11,884	6.6%
Total Toll Collection	\$ 152,388	180,137	192,021	11,884	6.6%
Operations	13,620	15,518	16,521	1,003	6.5%
State Police	89,516	89,784	107,731	17,947	20.0%
Total Traffic Control & State Police	\$ 103,136	105,302	124,252	18,950	18.0%
Information Technology Services	22,041	24,035	25,877	1,842	7.7%
Total Technology	\$ 22,041	24,035	25,877	1,842	7.7%
Executive Office	1,598	1,801	1,930	129	7.2%
Law & Insurance Services	12,877	12,271	14,629	2,358	19.2%
Purchasing & Materials Management	7,209	8,640	9,129	489	5.7%
Human Resources & Office Services	5,347	6,932	7,265	333	4.8%
Finance	13,203	14,800	15,756	956	6.5%
Community & Government Relations	2,308	1,754	1,846	92	5.3%
Internal Audit	5,447	5,712	5,767	55	1.0%
Total General & Administrative	\$ 47,989	51,910	56,323	4,413	8.5%
Total Operating Expenses	\$ 520,894	622,324	671,639	49,315	7.9%

Figure 63: Total Operating Expenses by Functional Area (2020-2022)

- Operating Expenses are budgeted to increase by 7.9%, or \$49.3 million. There are three key cost drivers which are expected to increase significantly in 2022 — New Jersey State Police Troop D costs, New Jersey E-ZPass Costs, and Insurance. Combined, these three items account for almost \$31 million of the increase. Excluding these three items, Operating Expenses are budgeted to increase by only 3.0%, or \$18.6 million. A summary of increases included in the 2022 budget are as follows:
 - Maintenance of Infrastructure is budgeted to increase primarily due to an increase in personnel costs from contractual salary increase, a modest increase in health benefits and pension costs which are allocated to all the departments (more than 50% of the authorized positions are in this functional area). Additionally, there is an expected increase in bridge inspection and consulting services, coupled with a projected increase in utilities, and fuel costs
 - Toll Collection is budgeted to increase mainly due to New Jersey E-ZPass costs which are budgeted to increase by \$10.7 million, or 12.2% due to increased amounts payable to Conduent, for higher electronic toll transaction processing and credit card fees to coincide with a 5% increase in traffic and higher amounts payable based upon percentage of administrative fees collections. This increase is one of the key cost drivers in 2022. Toll collection costs are also increasing due to contractual salary increases and modest increases in health benefits and pension

- Traffic Control and State Police costs are budgeted to increase because the costs for State Police Troop D are expected to increase significantly by \$17.6 million due to higher pension cost from an increase in the fringe benefit rates and contractual salary increases. This cost is also one of the key cost drivers
- Technology costs are budgeted to increase primarily due to an increase in software and licensing costs for new software products acquired and a projected increase in the costs for supplemental staffing services
- General and Administrative costs are budgeted to increase primarily due to an increase in insurance costs which are expected to increase by \$2.4 million, or 19.1%. This is mainly due to the rise in casualty insurance premiums spiking from the threat of cyber attacks. Insurance is also a key cost driver. Additionally, contractual salary increases and a marginal increase in pension and health benefits allocated to all the departments, also contribute to this increase

Operating Expenses by Functional Area

Condensed Operating Expenses by Functional Area					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Maintenance of Infrastructure	\$ 195,340	260,940	273,166	12,226	4.7%
Toll Collection	152,388	180,137	192,021	11,884	6.6%
Traffic Control & State Police	103,136	105,302	124,252	18,950	18.0%
Technology	22,041	24,035	25,877	1,842	7.7%
General & Administrative	47,989	51,910	56,323	4,413	8.5%
Total Operating Expenses	\$ 520,894	622,324	671,639	49,315	7.9%

Figure 64: Condensed Operating Expenses by Functional Area (2020-2022)

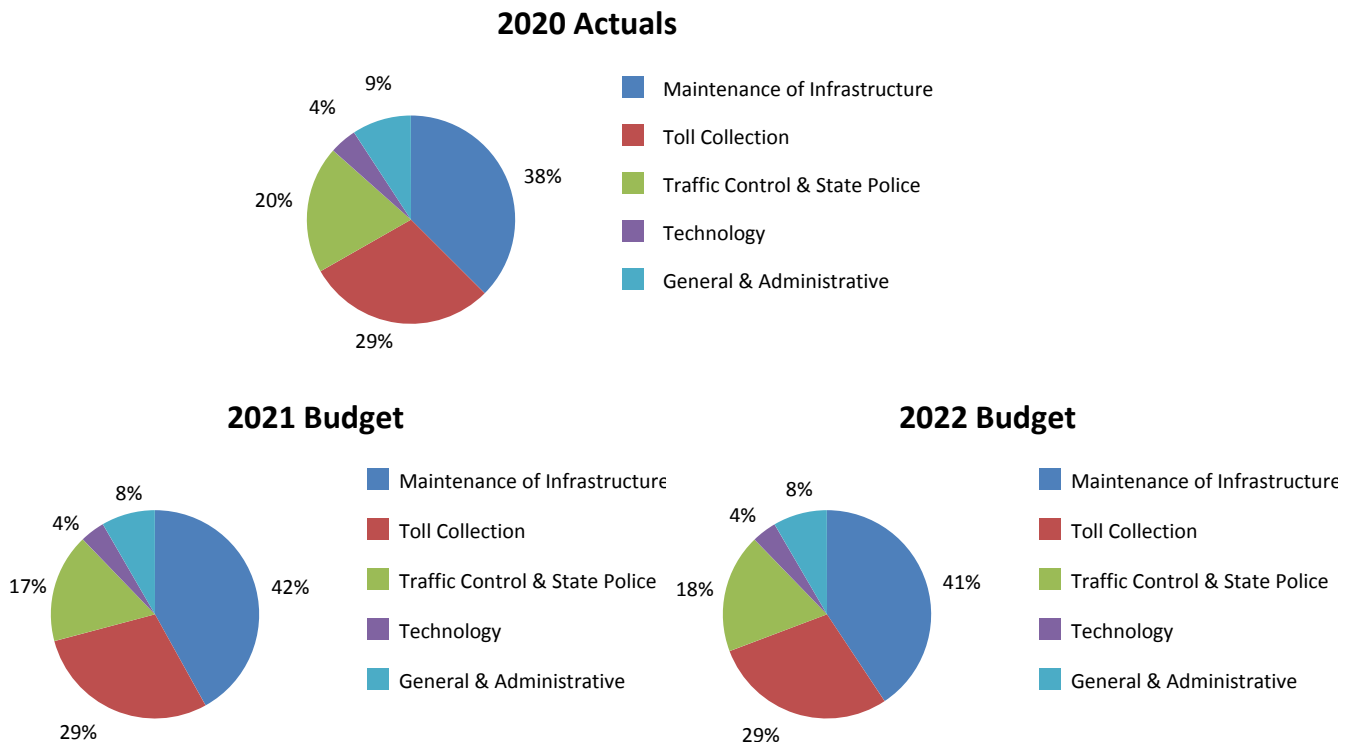


Figure 65: Condensed Operating Expenses by Functional Area Percentages (2020-2022)

Operating Expenses by Type

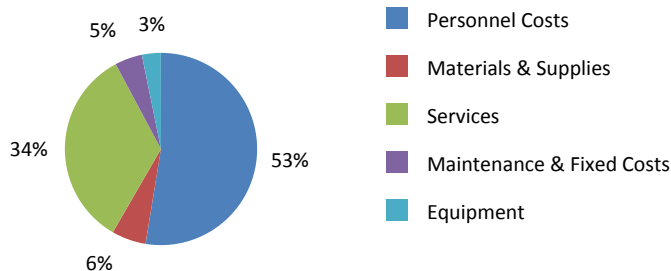
Condensed Operating Expenses by Type					
(\$ In Thousands)	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Personnel Costs	\$ 273,908	311,665	323,091	11,426	3.7%
Materials & Supplies	30,111	50,052	52,982	2,930	5.9%
Services	176,247	210,479	245,705	35,226	16.7%
Maintenance & Fixed Costs	24,031	40,974	40,425	(549)	(1.3)%
Equipment	16,597	9,154	9,437	283	3.1%
Total Operating Expenses	\$ 520,894	622,324	671,639	49,315	7.9%

Figure 66: Condensed Operating Expenses by Type (2020-2022)

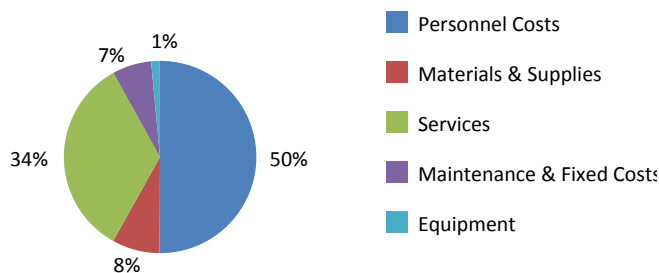
The above chart shows that the primary increases in the 2022 budget are in Personnel Costs (Salaries, Pension and Health Benefits), Materials and Supplies, and Services.

- Salaries are budgeted to increase \$7.1 million in 2022 due to contractual increases
- Pension costs are budgeted to increase by \$2.1 million based on an increase in covered payroll and a marginal increase in the contribution rate. Pension is allocated to each department at a rate of 22.6% of the respective department's salary budget. The change in pension expense seen at the department level is dependent on a combination of respective department's salary increase/decrease and the overall increase in pension cost
- Health Benefits are budgeted to increase by \$2.0 million based on medical inflation and usage, in addition to an increase in workers' compensation premiums and an increase in Medicare reimbursement rates. Benefits are allocated to each department at a rate of 55.3% of the respective department's salary budget. The change in the health benefit cost seen at the department level is dependent on a combination of respective department's salary increase/decrease and the overall increase in health benefit cost
- Materials and Supplies include the projected increase in fuel costs and new software and licensing costs
- Services include the higher costs for State Police Troop D, New Jersey E-ZPass costs (including credit cards and transponders), bridge inspections and consulting services

2020 Actuals



2021 Budget



2022 Budget

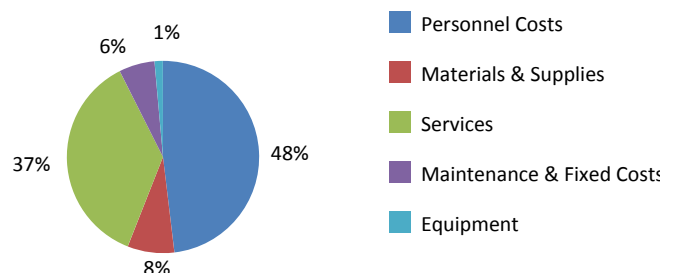


Figure 67: Condensed Operating Expenses by Type Percentages (2020-2022)

2022 Operating Expenses Summary by Line Item

Total Operating Expenses by Line Item					
(\$ In Thousands)	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 161,669	176,927	184,037	7,110	4.0%
Allowances	754	1,267	1,339	72	5.7%
Pension & Taxes	36,050	37,898	39,974	2,076	5.5%
Employee Relations	1	50	44	(6)	(12.0)%
Health Benefits	74,759	94,163	96,137	1,974	2.1%
Tuition	94	200	200	—	—%
Training, Travel, & Seminars	571	1,158	1,359	201	17.3%
Overnight Travel	9	2	2	—	—%
Total Personnel Costs	\$ 273,908	311,665	323,091	11,426	3.7%
Printing & Office Supplies	325	559	587	28	4.9%
Vehicle Supplies	3,508	4,744	5,247	503	10.6%
Medical Supplies	35	86	84	(2)	(2.3)%
Operating Supplies	1,695	2,455	2,540	85	3.5%
Toll Tickets	154	316	316	—	—%
Utilities	10,482	12,047	12,440	393	3.3%
Snow/Ice	479	10,173	10,173	—	—%
Software	4,820	5,449	6,642	1,193	21.9%
Other Materials	7,771	12,604	12,700	96	0.8%
Landscape	168	137	713	576	420.4%
Roadway	269	455	475	20	4.4%
Electronics	215	750	750	—	—%
Total Materials & Supplies	\$ 30,111	50,052	52,982	2,930	5.9%
Banking Services	25,110	38,377	38,896	519	1.4%
Insurance	13,763	12,822	15,265	2,443	19.1%
Facilities Services	2,810	4,055	4,385	330	8.1%
Legal Services	2,037	2,863	2,863	—	—%
Consulting Services	3,354	4,761	6,153	1,392	29.2%
Other Professional Services	41,503	57,893	70,715	12,822	22.1%
Environmental Services	4,088	4,968	4,951	(17)	(0.3)%
Other Services	230	772	946	174	22.6%
State Police Services	83,351	83,968	101,531	17,563	20.9%
Total Services	\$ 176,247	210,479	245,705	35,226	16.7%
Vehicle Maintenance	804	1,083	1,008	(75)	(6.9)%
Roadway Maintenance	16,306	31,329	30,821	(508)	(0.7)%
Bridge Maintenance	—	12	—	(12)	(100.0)%
Building Maintenance	2,213	3,433	3,380	(53)	(10.3)%
Toll Booth Maintenance	20	76	76	—	—%
Equipment Maintenance	4,265	4,620	4,557	(63)	(1.4)%
Equipment Rental	265	315	477	162	51.3%
Taxes	158	106	106	—	—%
Total Maintenance & Fixed Costs	\$ 24,031	40,974	40,425	(549)	(1.3)%
Equipment	8,816	3,194	3,477	283	8.9%
ETC Transponders	7,781	5,960	5,960	—	—%
Total Equipment	\$ 16,597	9,154	9,437	283	3.1%
Total Operating Expenses by Line Item	\$ 520,894	622,324	671,639	49,315	7.9%

Figure 68: Total Operating Expenses by Line Item (2020-2022)

Authorized Positions

Authorized Positions				
Departments/Divisions	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Maintenance Division	1,014	982	982	—
Traffic Division	87	87	88	1
Operations Department	1,101	1,069	1,070	1
Engineering	70	84	84	—
Toll Collection	542	542	542	—
State Police	11	28	28	—
Information Technology Services	152	151	150	(1)
Executive Office	8	8	9	1
Law & Insurance Services	21	21	21	—
Procurement & Materials Management	55	55	56	1
Human Resources & Office Services	42	42	43	1
Finance	80	79	80	1
Community & Government Relations	9	10	10	—
Internal Audit	29	31	30	(1)
Subtotal	2,120	2,120	2,123	3
Contingency	5	5	5	—
Total Authorized Positions	2,125	2,125	2,128	3

Figure 69: Authorized Positions (2020-2022)

Overall, 2022 authorized positions are essentially flat. Three positions are added to restore contingent positions used during 2021.

- The Traffic Division of the Operations Department, the Procurement and Materials Management Department, and the Finance Department each increased by one position to reflect changes which have already occurred in 2021
- Other net transfers between departments represent personnel or vacant position moves
- Five contingency positions remain in the budget to account for any staffing needs that may arise during the year

Department & Division Operating Expenses

Maintenance Division

Division Description:

Effective October 19, 2020, the Authority merged the Maintenance, Operations and Patron Services Department into the Operations Department. The merger resulted in a model that is common through dozens of state transportation agencies nationwide. As a result of this merger, the Operations Department includes the Traffic Division (discussed on page [71](#) under Operations Department) and the Maintenance Division.

The Maintenance Division of the Operations 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 Division 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.

In order to preserve the Authority's existing classification of Operating Expenses for financial statement reporting purposes, the Maintenance Division's Operating Expenses are shown separate from the Operations Department in the Annual Budget. This is because the Maintenance Division expenses are considered Maintenance of Infrastructure, separate from the classification of other Operations Department expenses. However, all activities of the Maintenance Division are the responsibility of the Director of Operations.

Division Organization:

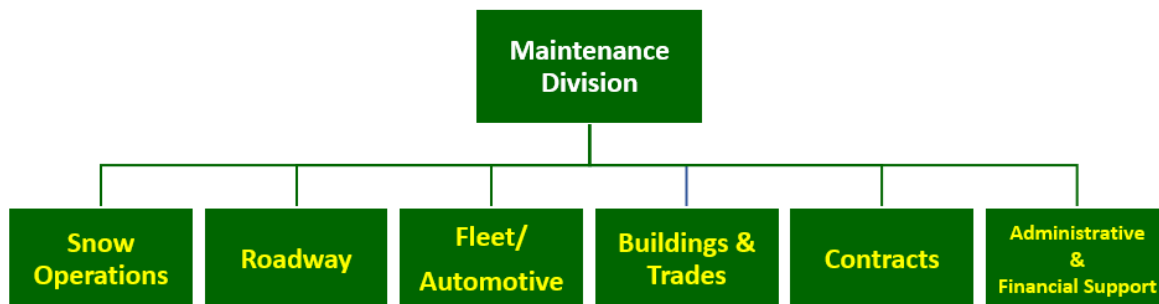


Figure 70: Maintenance Division Organization Chart

Senior Staff:

Director of Operations: Kevin Dunn

Deputy Director of Operations: Frank Jordan

2021 Accomplishments:

- Transitioned the Maintenance Department into the Operations Department following national models for state transportation departments
- Upgraded delineation of select interchanges to reduce crashes
- Installed over 60 traffic control device upgrades on ramp terminals to assist in the reduction of run-off road crashes
- Streamlined the Automotive Section of the Maintenance Division, increasing productivity and efficiency.
- Implemented first phase of EAM for the Automotive Section

2022 Goals:

- Expand existing truck-mounted attenuator fleet to support work zone and emergency operations (Safety)
- Continue priority locations for storm and bridge drain cleaning including ditch line cleaning and reshaping (State of Good Repair)
- Reinstitute training program supervision and maintenance one-call procedures (People)
- Continue modernization of heavy-duty vehicle fleet for snow removal (State of Good Repair)
- Modernize pavement marking program to provide long-lasting pavement markings reducing existing maintenance cycles (State of Good Repair)

Maintenance Division Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 77,034	87,369	91,996	4,627	5.3%
Allowances	523	1,007	1,087	80	7.9%
Pension & Taxes	17,013	18,296	19,549	1,253	6.8%
Employee Relations	1	6	—	(6)	(100.0)%
Health Benefits	35,051	43,643	45,253	1,610	3.7%
Tuition	—	33	12	(22)	(65.2)%
Training, Travel, & Seminars	43	127	298	171	134.3%
Printing & Office Supplies	119	87	94	7	8.3%
Vehicle Supplies	3,508	4,744	5,247	503	10.6%
Medical Supplies	2	2	—	(2)	(100.0)%
Operating Supplies	1,486	2,038	2,123	85	4.1%
Utilities	10,482	12,047	12,440	393	3.3%
Snow/Ice	479	10,173	10,173	—	—%
Software	21	25	40	15	60.0%
Other Materials	6,569	11,296	11,372	76	0.7%
Landscape	168	137	713	576	420.4%
Roadway	269	455	475	20	4.4%
Electronics	215	750	750	—	—%
Insurance	6,039	6,829	7,140	311	4.5%
Facilities Services	984	1,000	1,330	330	33.0%
Consulting Services	—	50	—	(50)	(100.0)%
Other Professional Services	100	108	100	(8)	(7.4)%
Environmental Services	994	1,317	1,400	83	6.3%
Other Services	46	108	115	7	6.8%
Vehicle Maintenance	413	682	603	(79)	(11.6)%
Roadway Maintenance	16,022	31,328	26,195	(5,133)	(16.4)%
Bridge Maintenance	—	12	—	(12)	(100.0)%
Building Maintenance	2,143	3,338	2,900	(438)	(13.1)%
Equipment Maintenance	105	205	430	225	109.8%
Equipment Rental	116	129	235	106	82.2%
Equipment	5,439	1,160	1,187	27	2.3%
Other Expenses	38	215	215	—	—%
Recoveries	(10,943)	(35,136)	(35,346)	(210)	0.6%
Total Operating Expenses	\$ 185,420	238,716	243,469	4,753	2.0%

Figure 71: Maintenance Division Operating Expenses (2020-2022)

2022 Budget Highlights:

- Salaries are increasing due to 4% contractual increases, as well as projected increases in overtime and holiday pay. The Maintenance Division comprises 49% of Authority salaries
- Pension and Benefits — see page 57 for explanation
- Vehicle Supplies are increasing by \$503,000 due to projected increase in fuel costs
- Landscaping is increasing by \$576,000 due to a curbside application being performed by an outside contractor
- Utilities is increasing \$393,000 due to projected increases in rates, primarily in heating fuel
- Facilities Services are increasing by \$330,000 for additional operation and management services of water/wastewater facilities
- Insurance is increasing by \$310,700 as Bridge and Property insurance is increasing at a standard market rate of 4.5%
- Decrease in Roadway Maintenance by \$5.1 million as it is now the responsibility of the Engineering Department since the reorganization in 2021, thus the budget has been moved to Engineering

Maintenance Division Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administrative Assistant - Division	2	2	2	—
Administrative Project Supervisor	1	1	1	—
Administrative Secretary - Maintenance	1	—	1	1
Apprentice	6	3	3	—
Assistant Building Maintenance Manager	1	1	1	—
Assistant Foreman	29	27	28	1
Assistant Foreman - Janitorial	3	3	3	—
Assistant Landscape Specialist	1	1	1	—
Assistant Maintenance Admin Manager	1	1	1	—
Assistant Maintenance Engineer	1	1	1	—
Assistant Project Supervisor	1	1	1	—
Assistant to Manager, Inventory Quality Assurance	1	1	1	—
Automotive Craftsperson I	1	1	1	—
Automotive Foreman	3	3	3	—
Automotive Services Coordinator	1	1	1	—
Automotive Services Manager	1	1	1	—
Automotive Technician	47	40	40	—
Automotive Training Manager	1	1	1	—
Body Repair person	3	2	2	—
Budget Coordinator	1	1	1	—
Building Craftsperson 3	3	3	3	—
Building Maintenance Foreman	3	3	3	—
Building Maintenance Mechanic	13	13	13	—
Building Maintenance Manager	1	1	1	—
Carpenter	13	13	13	—
Carpenter/Paint Foreman	2	2	2	—
CDL Training Coordinator	1	1	1	—
Construction Manager Maintenance	1	1	1	—
Construction Supervisor Maintenance	1	—	—	—
Coordinator - Bargaining (8 hr)	1	1	—	(1)

Maintenance Division Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Craftsperson Assistant - Auto	2	2	2	—
Craftsperson Field Supervisor	7	7	7	—
Craftsperson 2 - Auto	13	4	5	1
Crew Manager	7	6	6	—
Crew Supervisor	41	41	41	—
Deputy Director of Maintenance	1	—	—	—
Director of Maintenance	1	—	—	—
District Equipment Manager	3	3	3	—
District Manager	3	3	3	—
Electrical Craftsperson 2	16	16	16	—
Electrical Engineer	1	—	—	—
Electrician -TPK	19	18	18	—
Equipment Trainer	3	3	3	—
Executive Secretary 2	2	2	2	—
Facilities Manager	—	—	1	1
Facility Craftsperson	4	4	4	—
Facility Manager	2	2	1	(1)
Field Engineer	4	1	1	—
General Foreman	6	6	6	—
General Foreman-Automotive	2	2	2	—
Heavy Equipment Operator	27	25	25	—
Inventory Quality Assurance Manager & Materials Expert	1	—	—	—
Janitor	11	12	12	—
Janitorial Foreman	1	1	1	—
Janitorial Manager	1	2	2	—
Landscape Manager	1	—	—	—
Landscape Specialist	—	1	1	—
Landscaper	7	6	7	1
Landscaping Foreman	2	1	2	1
Maintenance Assistant	1	1	1	—
Maintenance Automotive Manager	1	1	—	(1)
Maintenance Budget Analyst	—	1	1	—
Maintenance District Coordinator	2	2	2	—
Maintenance Engineer	2	1	1	—
Maintenance Financial & Office Manager	1	1	1	—
Maintenance Fleet Admin	1	—	—	—
Maintenance Office Assistant	1	1	1	—
Maintenance Person	223	234	230	(4)
Maintenance Person 1	216	219	219	—
Maintenance Person 2	15	11	11	—
Maintenance Person 3	5	9	10	1
Maintenance Person 4	12	11	11	—
Maintenance Person General	33	31	32	1
Maintenance Records Clerk	20	20	20	—

Maintenance Division Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Maintenance Roadway Special	2	2	1	(1)
Maintenance Special-Landscape	4	5	4	(1)
Mason	5	3	3	—
Mechanic	1	—	—	—
Mechanic I	37	38	39	1
Mechanic Special	2	2	1	(1)
Mechanical Craftsperson 2	17	17	17	—
One Call Coordinator	1	1	1	—
Painter	3	3	3	—
Power Electric Foreman	4	4	4	—
Procedure Analyst	1	—	—	—
Project Analyst-GIS	1	—	—	—
Project Coordinator	—	1	1	—
Project Engineer Maintenance	1	—	—	—
Project Manager - Environmental	1	1	1	—
Project Supervisor	8	7	7	—
Roadway Foreman	16	15	16	1
Roadway Maintenance Administrator	—	1	1	—
Roadway Superintendent	4	4	4	—
Senior Administrative Assistant - Division	1	1	1	—
Senior Clerk 80	18	18	18	—
Senior Confidential Secretary	1	—	—	—
Senior Maintenance Engineer	1	1	—	(1)
Senior Maintenance Lighting Specialist	1	—	—	—
Senior Sign Shop Manager	1	—	—	—
Sign Fabricator 1	8	8	8	—
Specialist - Sign Fabricator	2	2	2	—
Sign Shop Manager	—	1	1	—
Supervising Engineer	1	—	1	1
Training Equipment Supervisor	1	1	1	—
Welder	5	5	5	—
Total Authorized Positions	1,014	982	982	—

Figure 72: Maintenance Division Authorized Positions (2020-2022)

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 and a section — Design Division, Construction Division, and the Facilities Section.

The Design Division is organized into four (4) sections; Structures, Highways, Planning and Contracts. The main focus of the Design Division is to plan, and design capital improvements to bridges, roadway and facilities along the Turnpike and Parkway. In addition to the above activities, the Design Division is also responsible for the design of various major annual maintenance projects, including, pavement resurfacing, lighting, drainage, median barrier and bridge deck repairs. The Contracts Section is responsible for transitioning construction contracts from design to construction through the public bid process, maintaining the Authority's standard specifications, 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 Sections are responsible for ensuring that the Authority's roadway, bridge, structural and other construction contracts are constructed in accordance with the contract plans and specifications. The Environmental Section is responsible for maintaining underground storage tank compliance in accordance with NJDEP regulations, as well as monitoring groundwater remediation systems.

The Facilities Section is responsible for new building construction and major maintenance projects. This section is also responsible for on call emergency response to incidents involving damage to the infrastructure on the Turnpike and Parkway.

Department Organization

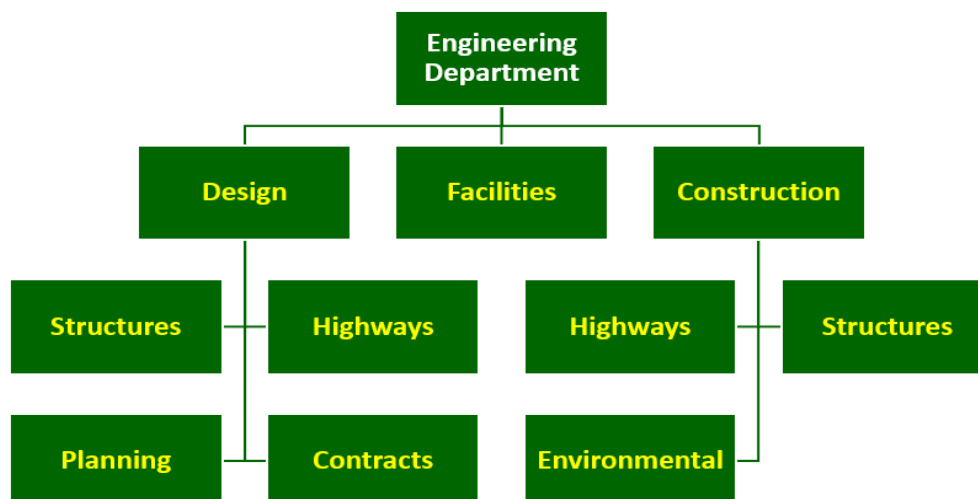


Figure 73: Engineering Department Organization Chart

Senior Staff:

Chief Engineer: Robert J. Fischer

Deputy Chief Engineer – Construction: Michael Garofalo

Deputy Chief Engineer – Design: Lamis Malak

2021 Accomplishments:

- Developed and finalized the Rolling Five-Year Capital Improvement Program based on the 2020 Long-Range Capital Plan
- Continued to issue orders for professional services and construction contracts while working remotely during the COVID-19 pandemic
- Backfilled key senior staff positions
- Met the goal of awarding anticipated design and construction contracts
- Improved the overall condition of mainline pavement and bridges on the Turnpike and Parkway

2022 Goals:

- Maintain the project delivery schedule for the Rolling Five-Year Capital Improvement Program (State of Good Repair)
- Maintain and continue to improve the condition of mainline pavement and bridges on the Turnpike and Parkway (State of Good Repair)
- Maintain and continue to improve the condition of Authority lighting and drainage systems (State of Good Repair)
- Reorganize the Engineering Department to separate planning and facilities and re-assign existing staff to accommodate the delivery of the Rolling Five-Year Capital Improvement Program (People)

Engineering Department Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 2,286	3,062	2,969	(93)	(3.0)%
Allowances	1	—	—	—	—%
Pension & Taxes	518	673	642	(31)	(4.6)%
Health Benefits	1,081	1,727	1,641	(86)	(5.0)%
Tuition	—	10	10	—	—%
Training, Travel, & Seminars	1	16	23	7	42.5%
Overnight Travel	1	—	1	1	—%
Printing & Office Supplies	23	39	45	6	15.4%
Operating Supplies	1	2	2	—	—%
Consulting Services	2,585	3,580	4,331	751	21.0%
Other Professional Services	—	9,500	11,503	2,003	21.1%
Environmental Services	3,093	3,600	3,500	(100)	(2.8)%
Other Services	11	14	—	(14)	(100.0)%
Roadway Maintenance	284	—	4,625	4,625	—%
Building Maintenance	36	—	405	405	—%
Equipment Maintenance	—	1	—	(1)	(100.0)%
Total Operating Expenses	\$ 9,921	22,224	29,697	7,473	33.6%

Figure 74: Engineering Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Roadway Maintenance and Building Maintenance are increasing by \$5 million as these items are now the responsibility of the Engineering Department due to the reorganization in 2021 (in 2021 these items were budgeted in Maintenance)
- Other Professional Services are increasing by \$2 million as a result of increased bridge inspection and pavement management services which were under budgeted in 2021
- Consulting Services are increasing by \$750,800 due to new tasks added to general consulting services and work related to license to cross and third party reviews by on-call consultants
- Contractual increase in Salaries is offset by the respective increase in allocation of internal payroll costs to capital projects
- Overall Health Benefits and Pension for the Authority are budgeted to increase in 2022, however Engineering's are decreasing due to a budgeted decrease in Salaries. Health Benefits and Pension are allocated based upon departmental salaries

Engineering Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administrative Secretary/Assistant	5	8	9	1
Assistant Engineer	5	5	5	—
Assistant Manager, Right of Way	—	1	1	—
Assistant Project Supervisor	1	1	1	—
CAAD Engineering Technician	1	1	1	—
Chief Engineer	1	1	1	—
Chief File Clerk	1	1	1	—
Construction Supervisor, Maintenance	—	1	1	—
Contracts Division Manager	1	1	1	—
Deputy Chief Engineer	2	2	2	—
Electrical Engineer	—	1	1	—
Engineering Administrative Aide	1	1	1	—
Engineering Administrative Manager	1	1	1	—
Engineering Assistant	1	1	—	(1)
Engineering Coordinator	2	2	3	1
Engineering Project Analyst	1	1	1	—
Engineering Technician	2	2	2	—
Environmental Manager	—	1	1	—
Field Engineer	—	3	3	—
Field Environmental Manager	1	—	—	—
Highway Engineer	1	1	—	(1)
Maintenance Engineer	—	2	2	—
Office Administrator, Engineering	1	1	1	—
Project Architect	1	1	1	—
Project Analyst, GIS	—	1	1	—
Project Engineer	17	16	17	1
Project Engineer, Maintenance	—	1	1	—
Project Manager	1	1	1	—
Project Supervisor	4	4	5	1
Right of Way Manager	1	1	1	—
Senior CADD Engineering Technician	1	1	1	—
Senior Clerk	2	2	—	(2)
Senior Confidential Secretary	1	—	—	—
Senior Construction Engineer	1	1	—	(1)
Senior Environmental Manager	1	1	1	—
Senior Environmental Supervisor	2	2	2	—
Senior Facilities Engineer	—	1	—	(1)
Senior File Room Supervisor	1	1	1	—
Senior Maintenance Engineer	—	1	1	—
Senior Maintenance Lighting Specialist	—	1	1	—
Senior Project Engineer	4	4	5	1
Senior Supervising Engineer	2	2	3	1
Supervising Engineer	3	3	3	—
Total Authorized Positions	70	84	84	0

Figure 75: Engineering Department Authorized Positions (2020-2022)

Toll Collection

Department Description:

The Toll Collection Department oversees the collection of toll revenue in full service manual lanes (cash and E-ZPass), automatic coin machine lanes, and E-ZPass only lanes on the New Jersey Turnpike and the Garden State Parkway. The department currently has 542 full-time employees and 434 part-time employees. In addition to the costs for the manual and automatic coin machine lanes which the Toll Collection Department is directly responsible for, the Toll Collection functional area for financial reporting and budgeting purposes also includes the costs associated with Electronic Toll Collection, although oversight for this function and responsibility for the New Jersey E-ZPass Customer Service Center is spread over several departments.

The New Jersey E-ZPass Customer Service Center provides all back-office functions related to processing and collecting electronic tolls and violations. The service center opens and maintains customer accounts, distributes transponders and responds to customer requests. The New Jersey E-ZPass Customer Service Center is located in Newark, New Jersey. Third-party costs associated with the New Jersey E-ZPass Customer Service Center are part of the Toll Collection functional area and also include credit card fees and transponder costs.

Department Organization:

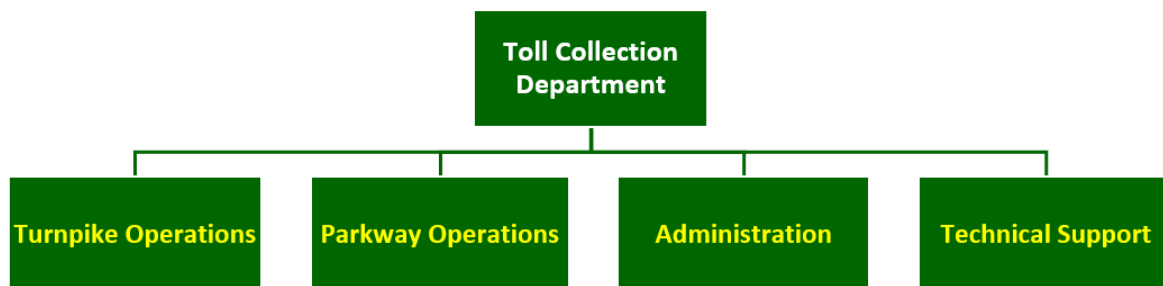


Figure 76: Toll Collection Department Organization Chart

Senior Staff:

Director of Tolls: John D. Pagliarulo

Deputy Director of Tolls: F. Scott Barton

Assistant Director of Tolls – Training: Colleen L. Lentini

2021 Accomplishments:

- Completed work on Interchanges 16E/18E to install Express E-ZPass on the SNE/NSE Roadways. This will ease congestion for trucks heading 95 North (Routes 46, 80, GWB etc.)
- Reduced part-time and temporary toll collectors by 50 with the increase in E-ZPass usage on both roadways
- Updated several kitchen facilities at older toll plazas at Interchanges 10,14B,16W, and 17
- Implemented numerous GSP touch screen upgrades to further increase collector efficiency
- Continued rehabilitating toll booths at all mainline toll barriers and staffed ramps on the Parkway. This included new signage, HVAC units, lighting, dutch doors, windows, and electronic toll equipment needed to have lanes functioning properly and safely for full-service toll collection
- Promoted two Interchange Managers that oversee day to day operations of the Turnpike Division
- Updated and created new innovative ways of training toll collectors/supervisors in real life settings. This was done to meet COVID-19 and Authority directives
- Rehabilitated Toms River, Asbury Park and Essex Supervisor offices
- Upgraded deposit vaults with digital tumblers to enhance security
- Upgraded collector and supervisor manuals on Turnpike

Toll Collection Department Operating Expenses					
(\$ In Thousands)	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 45,064	46,895	47,781	886	1.9%
Allowances	181	219	190	(29)	(13.2)%
Pension & Taxes	9,912	10,260	10,603	343	3.3%
Health Benefits	20,675	26,454	26,415	(39)	(0.1)%
Tuition	—	40	20	(20)	(50.0)%
Training, Travel, & Seminars	462	550	550	—	—%
Printing & Office Supplies	47	80	80	—	—%
Operating Supplies	139	325	326	1	0.4%
Toll Tickets	154	316	316	—	—%
Software	1,538	1,776	1,979	203	11.4%
Other Materials	380	544	556	12	2.2%
Banking Services	24,227	37,432	37,950	518	1.4%
Facilities Services	1,385	2,585	2,585	—	—%
Legal Services	91	700	700	—	—%
Other Professional Services	38,158	43,457	53,528	10,071	23.2%
Other Services	29	372	512	140	37.6%
Toll Booth Maintenance	20	76	76	—	—%
Equipment Maintenance	2,025	2,089	1,887	(202)	(9.7)%
Equipment	—	7	7	—	—%
ETC Transponders	7,781	5,960	5,960	—	—%
Total Operating Expenses	\$ 152,388	180,137	192,021	11,884	6.6%

Figure 77: Toll Collection Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Other Professional Services are increasing by \$10 million due to volume increases for NJ E-ZPass costs including those costs based upon E-ZPass transactions and those based upon percentage of administrative fee collections
- Banking services are increasing by \$518,000 due to the budgeted increase in toll transactions and revenue. Toll revenue and transactions continue to return to pre-pandemic levels, coupled with annual 3% toll rate indexing
- Salaries are going up only 1.9%, despite two 2% increases in 2022, due to the reduction of 50 part-time toll collectors, along with the removal of amounts budgeted for assumed contractual changes which were not included in the final Memorandum of Agreements
- Pension and Benefits — see page [57](#) for explanation. Although Health Benefits are increasing Authoritywide, the overall reduction in Salaries for the department results in a decrease in benefit percentage allocated to tolls. This reduction was greater than the overall percentage increase in Health Benefits, thus resulting in allocated dollars declining for Tolls in 2022

Toll Collection Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administration Toll Collection Manager	1	1	1	—
Administrative Assistant	1	1	1	—
Administrative Secretary	2	2	2	—
Area Manager	7	6	6	—
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	20	—
Coordinator - Bargaining	1	1	1	—
Deputy Director Tolls	1	1	1	—
Director of Tolls	1	1	1	—
Field Operations Manager	1	2	2	—
Interchange Manager	8	8	8	—
Manager, Toll Systems Reconciliation	1	1	1	—
Manager, Training Operations	1	1	1	—
Senior Citizen Toll Collector	1	—	1	1
Senior Tolls Field Coordinator	—	2	2	—
Temp Assistant Plaza Supervisor	4	2	2	—
Temp Toll Plaza Supervisor	—	—	—	—
Toll Collector - Parkway	141	145	145	—
Toll Collector - Turnpike	203	205	204	(1)
Toll Plaza Supervisor - Parkway	41	40	40	—
Toll Plaza Supervisor - Training	3	3	3	—
Toll Plaza Supervisor - Turnpike	94	92	92	—
Toll Records Clerk	4	4	4	—
Tolls Field Coordinator	2	—	—	—
Total Authorized Positions	542	542	542	—

Figure 78: Toll Collection Department Authorized Positions (2020-2022)

Operations

Department Description:

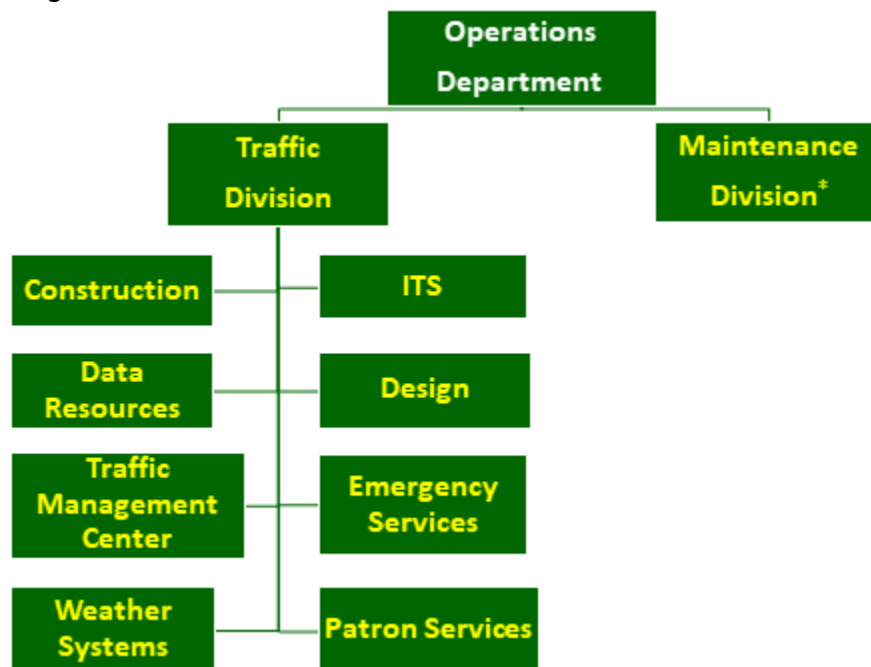
Since the reorganization (effective October 19, 2020), the Operations Department merged with the Maintenance Department and the Patron Services Department. The Operations Department is now comprised of two divisions — the Traffic Division, which is the former Operations Department, and the Maintenance Division, which is the former Maintenance Department. Patron Services is now a section within the Traffic Division.

The Traffic Division 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 Traffic Division is also responsible for all traffic engineering functions and all contracts with authorized towers, fire squads, first aid squads, and hazardous material clean-up contractors. The Traffic Division is also the Authority liaison with the New Jersey State Police.

A description of the Maintenance Division, its organization, accomplishments and goals and budget for operating expenses can be found beginning on page [60](#).

The Traffic division is included in the functional expense category of Traffic Control and State Police for budgeting and financial reporting purposes. The Maintenance Division is included in the functional expense category of Maintenance of Infrastructure. To preserve the integrity of the Authority's functional expense categories used for both financial statement reporting and budgeting, only the Traffic Division is included in the Operations Department Operating Expense Budget shown in this section. Since the Patron Services Department no longer exists as a department, the operating expenses are now included in the Traffic Division of the Operations Department. Previously the Patron Services Department budget and expenses were included in the Community & Government Relations Department.

Department Organization:



*Maintenance Division organization chart is found on page 60

Figure 79: Operations Department Organization Chart

Senior Staff:

Director of Operations: Kevin Dunn

Deputy Director of Operations: Francis Jordan

2021 Accomplishments:

- Punctually implemented the replacement system for OpenREACH so that the regional transportation communication systems were not interrupted
- Finalized strategies for the design and construction of emergency response resources including additional helipads, access gate points, commercial driver training sites, a commercial vehicle inspection site, and two new NJ State Police satellite facilities
- Designed and administered over 60 traffic control device upgrades for ramp terminals to assist in the reduction of run-off-road crashes
- Designed and assisted in the partial closing of the Grover Cleveland Service Area for the replacement of the Sunoco Fuel Station
- Completed the Authority's strategy to install 76 electric vehicle charging stations at 12 locations
- Conducted successful training sessions for over 800 Maintenance employees in partnership with Rutgers University to provide national certifications
- Executed signing program to rename the service areas on the Parkway

2022 Goals:

- Upgrade and modernize Standard Operating Procedures in multiple sections (Safety, People)
- Publish new and modern Work Zone Safety Procedures video for contractor and Maintenance use (Safety, People)
- Complete Traffic Count Application, which will produce an Annual Volume Report for multiple internal and external stakeholders (People)
- Manage the reconstruction of the Molly Pitcher and Woodrow Wilson Service Areas (State of Good Repair)
- Expand programs and strategies to deploy more intelligent transportation devices including traffic cameras, travel times, automation, and new hybrid changeable message signs (State of Good Repair)

Operations Department Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 7,425	7,948	8,543	595	7.5%
Allowances	23	25	25	—	—%
Pension & Taxes	1,651	1,741	1,899	158	9.0%
Health Benefits	3,444	4,484	4,723	239	5.3%
Tuition	—	10	10	—	—%
Training, Travel, & Seminars	—	5	7	2	40.0%
Overnight Travel	1	2	1	(1)	(60.0)%
Printing & Office Supplies	11	15	15	—	—%
Operating Supplies	2	3	3	—	—%
Other Materials	13	13	16	3	23.1%
Facilities Services	441	470	470	—	—%
Consulting Services	—	18	18	—	(1.1)%
Other Professional Services	480	621	621	—	—%
Environmental Services	—	40	40	—	—%
Other Services	106	109	109	—	—%
Vehicle Maintenance	1	1	5	4	400.0%
Roadway Maintenance	—	1	1	—	—%
Equipment Maintenance	—	—	3	3	—%
Equipment	21	12	12	—	—%
Total Operating Expenses	\$ 13,620	15,518	16,521	1,003	6.5%

The above only includes expenses of the Traffic Division of the Operations Department. See Page 61 for the Maintenance Division Operating Expense Budget. Effective October 19, 2020 the former Patron Services Department was absorbed into the Traffic Division.

Figure 80: Operations Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Salaries are increasing due to 4% contractual increases as well as increases in overtime and holiday pay and one additional position. The Operations Division comprises 4.5% of total salaries
- Pension and Benefits — see page 57 for explanation
- All other line items are consistent with the 2021 budget

Operations Department Authorized Positions				
	2020* Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administrative Assistant	1	1	1	—
Administrative Secretary	1	1	1	—
Assistant Manager STMC	1	1	1	—
Assistant Manager Traffic Operations	1	1	1	—
Assistant Patron Services Manager	1	1	1	—
Assistant Traffic Engineer	1	1	1	—
Clerk	1	1	1	—
Communications Dispatcher	24	23	23	—
Contract Services Supervisor	1	1	1	—
Deputy Director of Operations	1	1	1	—
Director of Operations	1	1	1	—
Emergency Services Supervisor	2	2	2	—
Engineering Aide - Traffic	2	3	3	—
Executive Secretary 1	2	1	1	—
Incident Management Coordinator	1	1	1	—
Manager, STMC	1	1	1	—
Manager, Traffic Operations	1	1	1	—
Marketing Coordinator	1	1	1	—
Operations Coordinator	1	1	1	—
Operations Engineer	1	1	1	—
Patron Services Contracts Manager	1	1	1	—
Patron Services Manager	1	1	1	—
Roadway Services Administrator	1	1	1	—
Senior Emergency Services Manager	1	1	1	—
Senior Engineering Technician	1	1	1	—
Senior Patron Services Aide	2	2	2	—
Senior Secretary	—	1	1	—
Shift Supervisor	12	12	12	—
Superintendent of Snow Operations	1	1	1	—
Supervising Eng - Traffic	—	—	1	1
Supervisor, STMC	1	1	1	—
Traffic Control Supervisor	11	11	11	—
Traffic Engineer	4	4	4	—
Traffic Incident Specialist	1	1	1	—
Traffic Operations Specialist	1	1	1	—
Traffic Technician	2	2	2	—
Trailblazer Supervisor	1	1	1	—
Total Authorized Positions	87	87	88	1

*2020 authorized positions are adjusted to reflect department reorganization effective October 2020

Figure 81: Operations Department Authorized Positions (2020-2022)

State Police

Department Description:

The Authority's State Police Department includes employees who are responsible for administrative, secretarial, procurement, and automotive repair and replacement duties which support State Police Troop D. The newly reorganized Automotive Section of the State Police department conducts preventive maintenance and makes repairs on all state police vehicles in the Troop D fleet, including the preparation of outfitting new vehicles in the fleet. The State Police Manager/liaison is an Authority employee who reports directly to the Deputy Executive Director and is responsible for supporting the New Jersey State Police Troop D assigned to patrol the Turnpike and the Parkway. Since the reorganization which began on October 19, 2020, the State Police Department absorbed all responsibilities for the State Police Motor Pool Fleet. Previously these employees and costs were included in the Maintenance Department.

State Police Services, which includes 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 and paid 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.

The Mission of the New Jersey State Police Troop D is the safety of all travelers and patrons of the Turnpike and the 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. In addition, strict enforcement of all motor vehicle laws is essential to reducing motor vehicle crashes occurring on both roadways as well as the resulting fatalities, injuries, property damage, and traffic flow management.

Department Organization: (Authority)

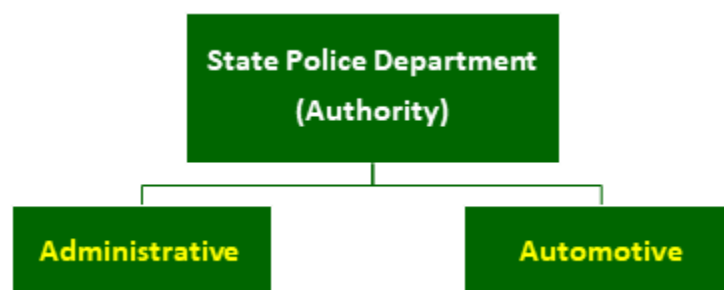


Figure 82: State Police (Authority) Department Organization Chart

Senior Staff:

State Police Services Manager: Brian Ingraham

Assistant State Police Services Manager: Jessica Schaeffer

Department Organization: (State Police Troop D)**Figure 83: State Police (Troop D) Department Organization Chart****Troop D Leadership:**

Troop Commander: Major Michael Zimmerman

Deputy Troop Commander: Captain Andrew Schibell

Regional Commander: Captain Michael Krzyzkowski

2021 Accomplishments: (State Police Troop D)

- Completed 52 "Click it or Ticket" and "U Text, U Drive, U Lose" details year to date, 12 "Drive Sober or get Pulled Over" details, and 15 enforcement details in the annual "I-95 to Save Lives" campaign
- Troop D Training Office conducted virtual Troop D Orientations (2), mandated Rifle and Pistol Qualifications, periodic Critical Incident Response Training (CIRT), continued individualized training for members to address deficiencies and continued joint training with other Division of State Police Units
- Troop D provided all Criminal Investigation Office personnel with an issued smart phone, flashlight and portable radio
- Commercial Vehicle Inspection Unit conducted 559 inspections on the Parkway
- Purchased additional Axon Body Cameras for troopers to maintain compliance with Attorney General's Directives
- Troop D Criminal Investigations Office leveraged technology and other investigative means to apprehend approximate 95% of violators in which motor vehicle pursuits were terminated
- Increased the number of Troop D members certified to conduct commercial vehicle inspections
- Troop D Construction Incident Management Unit (CIMU) trained 415 Authority maintenance workers in Traffic Incident Management Systems (TIMS) and 180 supervisors as Traffic Control Coordinators (TCC)

2022 Goals: (State Police Troop D)

- Working in conjunction with Iris Buyer, LLC and the Authority, to conduct an active shooter drill at the Cheesequake Service Area (Safety)
- Field Intelligence Officer (FIO) to produce a pre-event briefing report for specific large-scale events at the PNC Arts Center. The intelligence briefing report will provide the Troop D Command Staff, the Authority and Live Nation with a threat assessment to assist with personnel allocation and address any potential areas of concern (Safety)
- Troop D Stations to detach a Road Trooper to the Criminal Investigation Office to gain experience in criminal investigations and administrative duties of the Criminal Investigation Office (People)
- Obtain Troop D staffing level to a full authorized strength of 408 enlisted members (People/ Safety)
- Obtain global access to the Authority database of toll violators in the "Vector" database. In addition to the investigation of chronic toll violators, Troopers and Detectives often encounter toll violators during the course of their normal duties and currently do not have the ability to determine the extent of the violator activity during non-business hours (Financial Stability)
- Continue staffing CVI Unit, in addition to their strict enforcement of commercial vehicle traffic enforcement, will conduct post-crash inspections on all commercial vehicles involved in serious/fatal motor vehicle accidents. Parkway CVI will increase its truck enforcement of overweight vehicle North of milepost 105 (Safety)

- Continue utilizing Troop D CIMU members to train Authority personnel in TIMS and TCC programs (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)
- Continue safety and security efforts for the PNC Bank Arts Center including full use of recently installed Automated License Plate Recognition (ALPR) system to aid in safety, counter terrorism and investigative efforts (Safety)
- Continue Intelligence Led Policing (ILP) and Service Area Frequent Enforcement (SAFE) Details at all Service Areas, commuter and construction lots to detect and thwart criminal activity and apprehend criminals (Safety)
- Leverage technology to detect suspicious activity as well as receive reports of possible traffic issues and criminal activity. Specifically, work with the Authority 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 increase members who are more readily trained to identify intoxicated drivers assigned to Troop D to combat DUI and specifically drug related DUI (People/Safety)
- Continue strengthening ALPR project with the addition and installation of additional cameras throughout the Troop D region (Safety)
- Install, replace or repair security gates at all NJSP Buildings (Safety)
- Continue to bolster enlisted staffing of Tactical Patrol Units to reduce aggressive drivers in high accident areas (People, Safety)

State Police Department Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 1,611	2,358	2,397	39	1.7%
Allowances	2	—	6	6	—%
Pension & Taxes	362	514	539	25	4.8%
Health Benefits	754	1,330	1,325	(5)	(0.4)%
Training, Travel, & Seminars	5	6	8	2	25.0%
Printing & Office Supplies	32	64	64	—	—%
Medical Supplies	24	70	70	—	—%
Operating Supplies	32	40	40	—	—%
Software	404	387	501	114	29.4%
Other Materials	687	600	600	—	—%
Environmental Services	2	5	5	—	—%
State Police Services	83,351	83,968	101,531	17,563	20.9%
Vehicle Maintenance	390	400	400	—	—%
Equipment Maintenance	25	41	45	4	9.8%
Equipment Rental	—	1	1	—	—%
Equipment	1,834	—	200	200	—%
Total Operating Expenses	\$ 89,516	89,784	107,731	17,947	20.0%

Figure 84: State Police Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- State Police Services are increasing by \$18 million due to contractual increases in trooper salaries and an increase in the fringe benefit rates. Pension costs alone (\$12.5 million of the increase) are increasing to 73% from 55% of trooper salaries
- Equipment costs are budgeted for auto shop equipment purchases at various garages
- Software is increasing by \$114,000 due to increased automotive diagnostic software costs and increased spending on Axon body cameras and related software
- All other line items are consistent with the 2021 budget

State Police Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administrative Assistant	1	1	1	—
Assistant Automotive Foreman	—	1	1	—
Assistant Police Services Manager	1	1	1	—
Automotive Technician	—	7	7	—
Clerk	1	1	1	—
Craftsperson 2 - Auto	—	9	9	—
Motor Pool Fleet Specialist	1	1	1	—
Police Operations Clerk	3	3	3	—
Police Services Manager	1	1	1	—
Secretary	1	1	1	—
State Police Automotive Services Manager	1	1	1	—
State Police Technologies Manager	1	1	1	—
Total Authorized Positions	11	28	28	—

Figure 85: State Police Department Authorized Positions (2020-2022)

Information Technology Services

Department Description:

The Information Technology Services Department (ITS) at the Authority provides strategic IT vision and enterprise solutions which drive and support the Authority's mission, goals, and operations. ITS is dedicated to collaboration, continuous improvements, state of good repair, innovation, 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 nine service teams which collectively work together to deliver value-added services and products.

Department Organization:

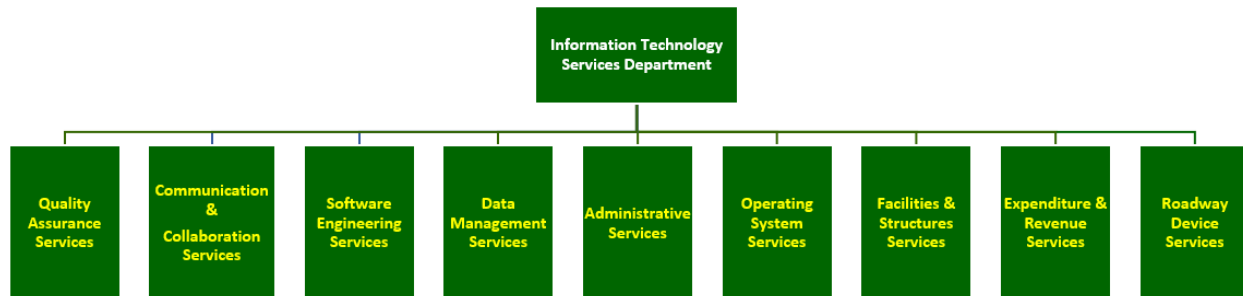


Figure 86: ITS Department Organization Chart

Senior Staff:

Chief Information Officer: Jose Dios

Assistant Director - Data Management Services: Stanley J. Ciszewski

Assistant Director - Software Engineering Services: Ning Ding

2021 Accomplishments:

- Completed software development requirements for Phase I of the next generation Capital Project Management System (CPMS)
- Collaborated with the Engineering, Finance, Procurement and Material Management, and Operations departments to implement the next generation CPMS and Financial Planning and Budgeting System
- Completed the initial phase of the next generation Human Capital Management System (HCMS)
- Collaborated with the Human Resources department and implemented a feature rich, digital recruitment and onboarding platform
- Upgraded a digital auditing software platform, improving the audit tracking process
- Completed implementation of a business intelligence platform for an initial startup program
- Completed State Police Troop D video enhancements
- Completed installation of technology and surveillance equipment at Service Areas
- Gathered and documented requirements for the next generation Advance Traffic Management Platform
- Modified tolling software in support of the 2020 Long-Range Capital Plan and toll adjustments

2022 Goals:

- Continue software implementation for Phases II-IV of the next generation CPMS
- Continue network upgrades (wired and wireless) to ensure additional capacity, as required by roadway demand
- Upgrade network routers and switches
- Continue to achieve monthly procurement objectives as outlined in the ITS 2022 procurement plan
- Begin implementing Phase II of the EAM Program
- Continue State Police Troop D mobile radio upgrades
- Continue to improve mobility apps and websites to enhance communications with motorists
- Upgrade UPS facility for one of the active-active Data Centers
- Continue to prioritize and implement security remediation activities using a data-driven approach
- Continue to update disaster recovery and business continuity plans
- Continue to update the data governance model

- Continue to refresh aging hardware with new standardized equipment which includes multi-year warranty support contracts
- Continue to refresh aging software with current programming standards
- Continue to enhance the employee security training program
- Continue to implement an active succession plan by positioning the next generation of ITS leaders in challenging and visible roles
- Continue installation and deployment of the HCMs
- Continue to deploy enhancement features to the Traffic Permitting and Lane Closure application
- Begin implementation of the next generation Advance Traffic Management Platform
- Continue to maintain, install, and improve critical components of the Toll Lane System
- Facilitate Authority's annual toll indexing, effective January 1, 2022

Information Technology Services Department Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 7,961	8,069	8,244	175	2.2%
Allowances	2	5	20	15	302.0%
Pension & Taxes	2,008	1,765	1,829	64	3.6%
Health Benefits	4,187	4,552	4,558	6	0.1%
Tuition	—	27	27	—	—%
Training, Travel, & Seminars	23	79	89	10	12.3%
Printing & Office Supplies	11	21	22	1	6.7%
Operating Supplies	6	5	4	(1)	(14.0)%
Software	2,857	3,261	4,123	862	26.4%
Other Materials	118	138	143	5	3.6%
Other Professional Services	1,701	2,500	3,243	743	29.7%
Other Services	3	5	4	(1)	(20.0)%
Equipment Maintenance	1,561	1,548	1,395	(153)	(9.9)%
Equipment Rental	143	160	220	60	37.5%
Equipment	1,454	1,900	1,957	57	3.0%
Total Operating Expenses	\$ 22,041	24,035	25,877	1,842	7.7%

Figure 87: ITS Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Software is increasing by \$862,000 due to projected increases in software products and license renewals such as Capital Project Management Software and Enterprise Asset Management Software
- Other Professional Services are increasing by \$743,000 due to the increased use of supplemental staffing services to assist in various technology and equipment upgrade projects
- 4% contractual salary increases are offset by the movement of one authorized position to Human Resources
- Pension and Benefits — see page [57](#) for explanation

Information Technology Services Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administrative Assistant	1	1	1	—
Administrative Secretary	1	—	—	—
ASP Programmer	1	1	1	—
Assistant Director	2	2	2	—
Assistant Telecom Manager	1	1	1	—
Chief Information Officer	1	1	1	—
Clerk	1	1	1	—
Collaboration Services Manager	1	1	1	—
Configuration/Software Quality Assurance Manager	1	1	1	—
CSC/VPC Operations Manager	1	1	1	—
Customer Service Contract Administrator	1	—	—	—
Customer Operations & Contracts Administrative Manager	—	1	1	—
Customer Operations & Contracts Administrative Assistant	—	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 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	—
Human Resources Manager	1	1	—	(1)
Information Security Analyst	1	1	1	—
ITS Admin Support Specialist	1	1	1	—
ITS Aide	1	1	1	—
ITS Contract Administrator	1	1	1	—
ITS Coordinator	1	1	1	—
ITS Customer Operations	1	2	1	(1)
IT Radio Engineer	1	1	1	—
IT Voice and Video Engineer	2	2	2	—
ITS Repair & Asset Specialist	1	1	1	—
Junior IT Voice and Video Admin	1	1	1	—
LAN/WAN Network Administrator	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, TPK Tech Device Technician	2	2	2	—
Manager, Traffic Operations Software	1	1	1	—
Manager, Windows Administration	1	1	1	—

Information Technology Services Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Network Engineer	1	1	1	—
Program Analyst	1	1	1	—
Programmer	1	1	1	—
Project Change Manager	1	1	1	—
Project Engineer, ITS	1	1	1	—
Project Manager Telecommunications	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	2	—
Senior Network Administrator	8	7	7	—
Senior Telecom Technical Assistant	1	1	1	—
Software Engineer	3	3	3	—
Systems Administrator	4	4	4	—
Systems Supervisor Parkway	2	2	2	—
Technology Device Technician	59	59	58	(1)
Technology Device Technician Supervisor	7	7	9	2
Telecom Systems Administrator	1	1	1	—
Toll Equipment Supervisor	1	1	1	—
Windows Platform Support Manager	1	1	1	—
Total Authorized Positions	152	151	150	(1)

Figure 88: ITS Department Authorized Positions (2020-2022)

Executive Office

Department Description:

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

Department Organization:

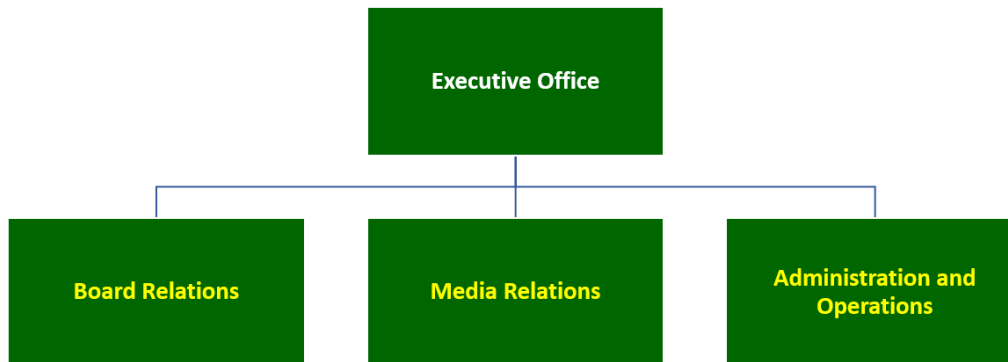


Figure 89: Executive Office Organization Chart

Senior Staff:

Executive Director: John M. Keller

Deputy Executive Director: James D. Carone

2021 Accomplishments:

- Successfully managed the Health and Safety Committee to continuously meet the needs and requirements of the Authority operations and its staff during COVID-19 pandemic
- Negotiated successor contracts with three (local 200, 3914 and 194) employee unions
- Implemented the initial year of the 20-year Long-Range Capital Plan supported by toll revenue adjustments with indexed increases on both the Turnpike and Parkway to allow the Authority to enhance its infrastructure
- Collaborated with the appropriate departments within the Authority on implementing the initial rolling five-year capital budget to efficiently plan the Authority's capital projects and expenses
- Progressed with the integration of a new Capital Project Management System (CPMS) to help the Authority efficiently manage its capital projects, including the 2020 Long Term Capital Improvement Program which is scheduled to go live December 2021
- Maintained the Authority's construction schedule throughout the COVID-19 pandemic
- Expanded Media Relations and increased communication through social media outlets

2022 Goals:

- Negotiate remaining successor contracts with employee unions (People)
- Continue to streamline and monitor Authority policies and procedures for further efficiencies (People)
- Enhance cyber security through the establishment of Authority cyber policies and utilization of the latest technology (Mobility)
- Conduct an inventory of all Authority facilities and create a resiliency plan to address vulnerable Authority assets (Financial Strength)
- Continue to advance the Capital Improvement Program per schedule in an efficient and transparent manner (State of Good Repair)
- Oversee the ongoing efforts of the Health and Safety Committee as the COVID-19 pandemic continues and the plethora of challenges the Authority faces during the winter season (People)
- Oversee the Authority's technology strategies, implementing changes as needed (Mobility)
- Oversee the Human Resource Department, updating of Authority Policies and Procedures in conjunction with technology solutions to advance efficiencies and processes (People)

Executive Office Department Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 892	961	1,038	77	8.0%
Pension & Taxes	205	210	231	21	9.8%
Health Benefits	428	542	574	32	5.8%
Training, Travel, & Seminars	—	11	11	—	—%
Printing & Office Supplies	2	5	5	—	—%
Other Professional Services	59	60	60	—	—%
Other Services	10	12	12	—	—%
Total Operating Expenses	\$ 1,598	1,801	1,930	129	7.2%

Figure 90 : Executive Office Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Salaries are increasing due to assumed salary increases in 2022, as well as the addition of one position from Internal Audit. Executive Office comprises 0.5% of total Authority salaries
- Pension and Benefits — see page 57 for explanation
- All other line items are budgeted to remain flat compared to the 2021 budget

Executive Office Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administrative/Executive Assistant	1	1	1	—
Deputy Executive Director	1	1	1	—
Executive Director	1	1	1	—
Media Relations Coordinator	1	1	1	—
Media Relations Staff	2	2	2	—
Mobility Assignment	1	1	1	—
Secretary to the Authority	1	1	1	—
Executive Admin Assistant 2	—	—	1	1
Total Authorized Positions	8	8	9	1

Figure 91: Executive Office Department Authorized Positions (2020-2022)

Law

Department Description:

The Law Department's dedicated team of attorneys and support personnel collectively manages the legal affairs of the Authority which include, but are not limited to, matters involving Authority contract review and drafting, review and oversight of insurance coverages, real estate right of way and property related matters, employment, discipline and human resource issues, design, construction, maintenance and operational document approvals, risk management, labor negotiations/collective bargaining agreement oversight, toll violator enforcement, state and federal law compliance, EEO, SBE, Equal Pay Act, OPRA, subpoena compliance and evidence retrieval, E-ZPass enforcement issues, and bid and procurement issues. The department also provides or supervises daily the provision of diverse legal advice to the Authority's Departments, supervising and managing outside counsel assigned matters, management of third-party administrators, insurance brokers, risk management consultants, coordination and oversight with NJSP operations, and liaisons with the New Jersey Motor Vehicle Commission (NJMVC), New Jersey Office of Administrative Law (NJOAL), New Jersey Office of the State Comptroller (NJOSC), Attorney General, Governors Authority Unit (GAU), and NJDOT on legal matters, and matters involving OCIP and worker's compensation. The Law Department's operating expenses are included in the functional area of Law and Insurance Services and as such the budget and expense also include the costs of certain insurance programs including professional liability, OCIP and workers' compensation. Major bridge and property insurance costs are accounted for as part of the functional area Maintenance as part of Maintenance of Infrastructure operating expenses, even though the Law Department is responsible for the management of the insurance program.

Department Organization:

Figure 92: Law Department Organization Chart

Senior Staff:

Director of Law: Vacant (Ann Christine Monica is Acting Director of Law)

Deputy Director of Law: Ann Christine Monica

2021 Accomplishments:

- Continued advising and guiding the Authority's Executive Officers and Department Directors regarding diverse COVID-19 issues and minimizing where possible, disruptions of regular order of Authority operations and services
- Continued inter-departmental development of enhanced toll violator remedies to respond to escalating and repetitive toll violator activities, including improving enforcement of existing laws and regulations; provided NJSP improved and more efficient access to the Authority toll violation database; improved coordination with Authority's external collections law firms pursuing violator litigation; developed efficient criteria and the methodology for referral of repetitive offenders for administrative, civil or if appropriate, criminal sanctions
- Department attorneys supervised and monitored over 50 active civil lawsuits; rendered assistance in assemblage of voluminous records for Open Public Records Act (OPRA) and litigation discovery requests and coordinated depositions involving Authority personnel and responded to civil and criminal

investigative or criminal subpoenas; participated in municipal court toll violator civil and criminal litigation as required

- Resolved twelve liability litigative matters through settlement or alternative resolution
- In conjunction with the Directors of Human Resources and Internal Audit, supervised and conducted evaluations while functioning as the “Disciplinary Review Committee” (“DRC”) to promote consistency in employee disciplinary decisions in significant or major infractions as well as enabling a centralized documentation process
- Supervised resolution of numerous real estate right of way acquisitions and transfers with NJDOT, County and/or local municipalities because of the conclusion of the Turnpike Interchange 6-9 Widening and GSP Interchange 30-80 Widening in the Authority’s 2008 \$7 Billion Capital Improvement Program
- Negotiated and oversaw renewals and rate adjustments of major Authority Insurance contracts, evaluation of claim intake and resolutions
- Coordinated intake and resolution of 332 roadway patron complaints regarding alleged vehicle damage by weather-initiated roadway imperfections. Year-to-date, there have been 138 claims closed and we are evaluating another 194 claims collectively on both roadways
- Investigated 23 EEO complaints (through June 30th)
- Processed 350 OPRA requests and 216 subpoenas (through June 30th)
- Conducted daily review of engineering and construction documents for proposed and ongoing projects
- Reviewed and oversaw more than 40 Authority professional/goods and services/construction contract solicitations to date in 2021
- Successfully consummated the Occupational Healthcare and Physician Services Agreement with Hackensack Meridian Health (HMH)

2022 Goals:

- Complete internal Authority restructuring to increase effectiveness of NJMVC suspensions, expand civil and criminal enforcement efforts against toll violators with a special emphasis on large repetitive violators (Financial Strength)
- Expand personnel to assist in collection matters through staff additions as budgetarily feasible. (Financial Strength)
- Continue to identify, process and market surplus real estate. (Financial Strength)
- Finalize installation of Legal Files the selected vendor for software and new hardware to improve and integrate diverse Law Department functions, including but not limited to litigation oversight, case tracking, OPRA, subpoenas, litigation holds and document preservation (People)
- Draft, review and coordinate Board review of any new Authority Personnel Policy amendments with Human Resources Department (People)
- Work with Human Resources and other departments to increase workforce diversity and expand outreach; continue to provide legal guidance to resolve inter-employee disputes (People)
- Continue coordination with Human Resources and the Department EEO Officer to continue/emphasize sexual harassment, diversity training; provide on-site personal instruction on proper employee conduct standards and the effective avoidance of offending co-worker sensibilities through improper or insensitive conduct (People)
- Continue to work with the Risk Management Committee to advance a full review of the Authority’s operations, for the purpose of strategic planning to prioritize the Authority’s enterprise risk management goals, including a timetable for implementing all goals, actions and recommendations identified in the strategic plan (Financial Strength)
- Continue real estate acquisitions and transfers as a result of the Authority’s Capital Improvement Programs (Mobility)

Law Department Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 1,731	2,044	2,055	11	0.6%
Pension & Taxes	390	448	457	9	1.9%
Health Benefits	813	1,153	1,136	(17)	(1.5)%
Tuition	—	10	10	—	—%
Training, Travel, & Seminars	3	11	11	—	—%
Printing & Office Supplies	21	30	30	—	—%
Insurance	7,725	5,993	8,125	2,132	35.6%
Legal Services	1,946	2,163	2,163	—	—%
Consulting Services	10	—	400	400	—%
Other Professional Services	75	292	114	(178)	(61.0)%
Other Services	5	12	13	1	8.3%
Taxes	158	106	106	—	—%
Equipment	—	9	9	—	—%
Total Operating Expenses	\$ 12,877	12,271	14,629	2,358	19.2%

Figure 93: Law Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Insurance is increasing overall by \$2.1 million from a spike in cybercrime insurance premiums due to a rise in cyberattacks industry-wide, not specific to the Authority
- Consulting Services are increasing by \$400,000 to recognize general consulting costs to assist with real estate acquisitions previously included in the Engineering budget
- Other Professional Services are decreasing \$178,000 as certain consulting fees are moved into the Insurance category in the 2022 budget
- Salaries are budgeted flat as contractual increases are offset by more vacant positions budgeted at starting salary rates in 2022. Because of this, the allocation percentage for Pension & Taxes and Health Benefits declines in the 2022 budget
- Pension and Benefits — see page 57 for explanation. Despite overall Authority increase in Health Benefits, the dollars allocated for Law are declining due to the decline in the allocation percentage as discussed in salaries

Law Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administrative Assistant	2	2	2	—
Administrative Secretary	1	0	0	—
Attorney	7	4	4	—
Claims Coordinator	1	1	1	—
Compliance Manager	1	1	1	—
Coordinator	1	1	1	—
Deputy Director of Law	1	1	1	—
Director of Law	1	1	1	—
Document Services Coordinator	1	2	2	—
Document Specialist Attorney	0	1	1	—
Equal Employment Opportunity Officer	1	1	1	—
Executive Secretary 1	0	1	1	—
Program Administrator	1	0	0	—
Secretary	1	1	0	(1)
Senior Attorney	0	2	2	—
Senior ETC Project Analyst	1	1	1	—
Senior Secretary	1	0	1	1
Toll Compliance & Enforcement Program Coordinator	0	1	1	—
Total Authorized Positions	21	21	21	—

Figure 94: Law Department Authorized Positions (2020-2022)

Procurement & Materials Management

Department Description:

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

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

Department Organization:

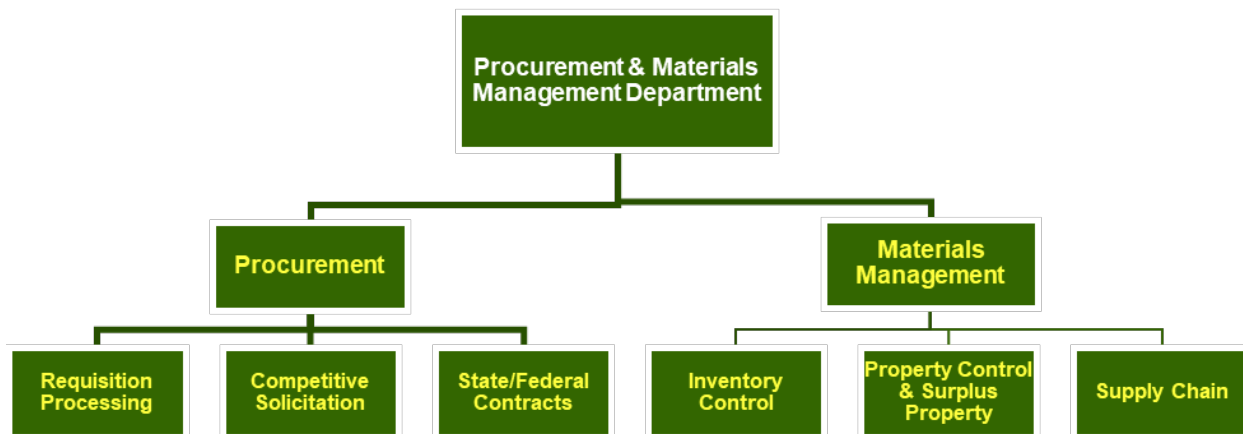


Figure 95: Procurement & Materials Management Department Organization Chart

Senior Staff:

Director of Procurement & Materials Management: Dale Barnfield

Deputy Director of Procurement & Materials Management: Janet Rzepka

2021 Accomplishments:

- To date, completed approximately 33 public bid solicitations, accounting for a \$27,815,000 public solicitation spend. Notable complex procurements include Snow Removal and Salting Services for 48 locations on the Turnpike and Parkway, Roadway Maintenance Salt, and Roadway Sweeping Services. Staff also completed 165 informal solicitations for goods and services under \$44,000 totaling \$1,300,592. In addition, Procurement has completed or currently conducting solicitations for 7 professional services contracts including Self-Funded Health Benefits for Authority employees, Authority Employee Assistance Program, ERP (PeopleSoft) Software Managed Services and Financial Advisory Services
- Continued to emphasize and encourage participation of diverse vendors Small Business Enterprise (SBE), Minority Business Enterprise (MBE), Women Business Enterprise (WBE), Veteran Owned Business (VOB) firms in procurement contracts: To date \$29,115,592 in contracts have been awarded by way of competitive solicitation – of that \$3,579,000 has been awarded to SBE, MBE, WBE, and VOB firms
- Successfully completed the first phase of the Authority's new EAM system project which included the creation and approval of inventory stock requests in EAM for the Automotive section of Maintenance and systematically generated monthly fuel usage entries. The stock requests are interfaced into PeopleSoft Financials then to Korber/High Jump for processing while the fuel usage entries are interfaced directly to PeopleSoft Financials on a monthly basis replacing the manual entry process used in the past
- Participated in CPMS project which will implement software to track all project related costs and integrate with PeopleSoft Financials. This is a multi-year, multi departmental effort. The goal is to track all project costs in one system for easier reporting and visibility as well as centralize all approvals from the start of a project through final payment. Phase one of this project is scheduled to go live by the end of the 2021
- Continued the procurement, distribution and tracking of all Personal Protective Equipment (PPE) and other COVID-19 related items Authority wide to ensure all employees have the proper safety items needed to perform their job functions and maintain the daily operations of both roadways
- Initiated preparations for the 2022 toll ticket rate increase to take place in December 2021 which includes obtaining proofs from both ticket vendors, working with Finance, Tolls and Internal Audit to verify accuracy of new toll rates prior to placing orders for the new tickets, putting a plan in place to ensure new tickets are out in the field prior to the changeover, removal of all old tickets from the interchanges as well as destruction of the old unused tickets
- Commence the Korber/High Jump (Warehouse Management System) platform upgrade project in conjunction with ITS. This upgrade is necessary due to required software updates since Silverlight is no longer being supported. The project is slated to be completed by December 2021

2022 Goals:

- Restructure/implement an electronic bidding platform for public bids as well as professional service contracts (requiring mandatory electronic submission for select contracts) (State of Good Repair)
- Commence searchable vendor data base via the updated Authority website (State of Good Repair)
- Complete staffing re-assignments which were submitted as part of Procurement and Materials Management (PMM) Vision to strengthen and enhance workflow process. Fill all vacancies within the department (People)
- Provide training and support for Authority staff on the new CPMS system as it pertains to Procurement and Materials Management. Continue participation in the next phases of the CPMS project (People)
- Continue the addition of photos to the item master in PeopleSoft Financials as well as EAM to assist users when ordering stock items (State of Good Repair)
- Participate in the second phase of the Authority's EAM project which includes Roadway Maintenance using the system to enter and track work orders as well as enter stock requests that will interface over to PeopleSoft Financials then to Korber/ High Jump for processing (State of Good Repair)
- Commence Korber/High Jump enhancements project which will focus on improving the current warehouse management system as well as reducing paper documentation by utilizing handheld devices to capture signature at time of delivery as well as improve delivery tracking visibility (Financial Strength, State of Good Repair)
- Implementation of an email notification process to external vendors to alert them when Purchase Orders (for goods) have not been received within a certain time frame (30 days). This automated process will drastically reduce the amount of time spent manually reviewing open orders and contacting vendors for order status (People, State of Good Repair)
- Revise and improve the annual procurement plan to better prepare for future solicitations and ensure they are completed and awarded in a timely fashion (State of Good Repair)

Procurement & Materials Management Department Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 4,201	4,726	4,981	255	5.4%
Pension & Taxes	941	1,035	1,107	72	7.0%
Health Benefits	1,962	2,666	2,753	87	3.3%
Tuition	—	20	20	—	—%
Training, Travel, & Seminars	13	8	8	—	—%
Printing & Office Supplies	11	17	17	—	—%
Operating Supplies	11	11	11	—	—%
Other Materials	1	1	1	—	—%
Other Services	16	60	95	35	58.3%
Equipment Maintenance	—	3	5	2	66.7%
Equipment	13	31	31	—	—%
Other Expenses	32	62	100	38	61.3%
Total Operating Expenses	\$ 7,209	8,640	9,129	489	5.7%

Figure 96: Procurement & Materials Management Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Salaries are increasing due to 4% contractual increases along with the addition of one position. Procurement and Materials Management comprises about 3% of total Authority salaries
- Pension and Benefits — see page 57 for explanation
- Other Expenses are increasing due to a \$38,000 increase in core charges, which are deposits paid on vehicle parts intended to be reimbursed as old parts are returned
- Other Services are increasing by \$35,000 due to an increase for toll ticket destruction services
- All other line items are budgeted to remain flat compared to the 2021 budget

Procurement & Materials Management Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Admin Assistant 2	—	—	1	1
Assistant Buyer	1	1	1	—
Assistant Manager, Inventory Control	2	2	2	—
Buyer	5	4	5	1
Deputy Director Procurement & Materials Management	1	1	1	—
Director Procurement & Materials Management	1	1	1	—
Expediter	1	1	1	—
Inventory and Materials Supervisor	7	7	7	—
Inventory Records Clerk	1	1	1	—
IT Procurement Contract Specialist	—	1	—	(1)
Maintenance Records Clerk	2	2	2	—
Parts/Inventory Counter Clerk	14	14	14	—
Procurement Specialist	2	1	1	—
Property & Materials Supervisor	1	1	1	—
Property Control Manager	1	1	1	—
Property Control Specialist	1	1	1	—
Purchasing Assistant	1	1	1	—
Purchasing Manager	1	1	1	—
Senior Buyer	—	1	1	—
Senior Clerk	1	1	1	—
Senior Supply Chain Analyst	1	1	1	—
Storekeeper 2	2	2	2	—
Storekeeper 3	6	6	6	—
Supply Chain Manager	1	1	1	—
Tolls Inventory and Staffing Manager	1	1	1	—
Vendor Compliance Specialist	1	1	1	—
Total Authorized Positions	55	55	56	1

Figure 97: Procurement & Materials Management Department Authorized Positions (2020-2022)

Human Resources & Office Services

Department Description:

The Human Resources & Office Services Department supports the activities of the Authority by providing pre-employment applicant services and on-boarding new employees. Other duties include the training and development of the workforce, labor relations management, employee and retiree health care and benefits administration and the Authority workers' compensation program. The department also manages all printing services and ensures the timely delivery of all internal and external mail Authoritywide.

Department Organization:



Figure 98: Human Resources & Office Services Department Organization Chart

Senior Staff:

Director of Human Resources: Mary Elizabeth Garrity

Deputy Director of Human Resources: Vacant

Assistant Director of Human Resources: Kevin Burke

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

2021 Accomplishments:

- Implemented an Applicant Tracking System which acts as onboarding and policy software
- In collaboration with Operations, implemented new employment advancement programs
- Improved the physical plant of the medical section by reconfiguring existing office locations of staff to improve the flow of employee visitors and enhance safety protocols
- Collaborated with the Information Technology Services Department to expand telework options for the workforce
- Hosted a remote Eastern States Transportation Network Annual meeting with multiple workshops and a keynote speaker
- Expanded training remotely to satisfy management and employee needs

2022 Goals:

- To provide robust Health and Wellness program for Authority workforce (People)
- In collaboration with the Operations department, implement new manager/supervisor training with a concentration on employment and labor relations (People)
- Onboard an Employee Assistance Program (EAP) (People)
- Create and develop diversity and inclusion training for the workforce (People)
- Continuation of 2021 Goals: (ongoing) (People)
 - Implement on-boarding software
 - Implement policy and training software
 - Develop the Authority employee handbook
 - Implement the new occupational health provider contract for the Authority
 - Continue to update the Authority policy book to ensure adherence to the latest state and federal regulations and laws
 - Continue to offer various training modules to employees and supervisory staff of the Authority to further the professional and technical development of the workforce

Human Resources & Office Services Department Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 2,853	3,115	3,277	162	5.2%
Allowances	5	7	7	—	—%
Pension & Taxes	651	683	729	46	6.7%
Employee Relations	—	39	39	—	—%
Health Benefits	1,358	1,757	1,812	55	3.1%
Tuition	94	20	20	—	—%
Training, Travel, & Seminars	19	326	337	11	3.4%
Printing & Office Supplies	21	144	154	10	6.9%
Medical Supplies	9	14	14	—	—%
Operating Supplies	1	10	10	—	—%
Other Materials	3	11	11	—	—%
Consulting Services	5	33	68	35	105.8%
Other Professional Services	244	613	613	—	—%
Environmental Services	—	5	5	—	—%
Other Services	1	12	18	6	50.0%
Equipment Maintenance	35	108	117	9	8.4%
Equipment Rental	1	1	1	—	—%
Equipment	49	34	34	—	—%
Recoveries	(26)	(99)	(99)	—	—%
Total Operating Expenses	\$ 5,347	6,932	7,265	333	4.8%

Figure 99: Human Resources & Office Services Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Salaries are increasing due to an anticipated salary increase in 2022, and the movement of one position into Human Resources from ITS. Human Resources and Office Services comprise 2% of total Authority salaries
- Pension and Benefits — see page 57 for explanation
- Consulting Services are increasing by \$34,900 for education and employment verifications

Human Resources & Office Services Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administrative Assistant	1	1	1	—
Administrative Manager	1	—	—	—
Assistant Director of Human Resources	1	1	1	—
Assistant Director, HR Policy & Training	1	1	1	—
Assistant Office Services Manager	1	1	1	—
Benefits Administrator	1	1	1	—
Benefits Manager	1	—	—	—
Benefits Supervisor	—	1	1	—
Camera Person	1	1	1	—
Clerk 1 - 70	1	1	1	—
Computer Graphics Coordinator	1	1	1	—
Confidential Secretary	2	2	2	—
Deputy Director of Human Resources	1	1	1	—
Director of Human Resources	1	1	1	—
Employment Manager	1	1	1	—
Human Resources Clerk	2	2	2	—
Human Resources Coordinator	1	1	1	—
Human Resources Generalist	3	4	4	—
Human Resources Manager	—	—	1	1
Human Resources Project Coordinator	1	1	1	—
Human Resources Specialist	1	1	1	—
Junior Printer	3	2	2	—
Labor Relations Generalist	—	1	1	—
Nurse	1	—	—	—
Office Services Assistant	2	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	1	—
Senior Benefits Manager	1	2	2	—
Senior Clerk	1	1	1	—
Senior Mail Clerk	2	2	2	—
Senior Nurse	1	2	2	—
Senior Printer	2	2	2	—
Total Authorized Positions	42	42	43	1

Figure 100: Human Resources & Office Services Department Authorized Positions (2020-2022)

Finance

Department Description:

The Finance Department is responsible to prudently manage the finances of the Authority. The department ensures compliance with trust agreements including the Bond Resolution, manages the Authority's resources, structures financial plans to maintain debt service coverage, and works with all departments to optimize costs. The Finance Department leads the issuance of Turnpike Revenue Bonds to provide funding for capital needs.

Overall financial policies and reporting requirements are dictated by the terms of the Authority's Bond Resolution and mandated by statute or Executive Order or required by Securities & Exchange Commission (SEC) rules and Internal Revenue Service (IRS) code. Responsibility for meeting all financial reporting deadlines and financial covenants lie with the Finance Department. Financial policies approved by the Board of Commissioners and managed by the Finance Department include the Financial Management Principals and Guidelines, Debt Management Policy, Interest Rate Swap Management Plan, and Investment Policy. The Finance Department oversees and prudently manages a \$2.1 billion revenue budget, \$2.6 billion of investments, and \$12 billion of debt. In addition, the department monitors funding and spending for all the Authority's capital programs.

Department Organization:

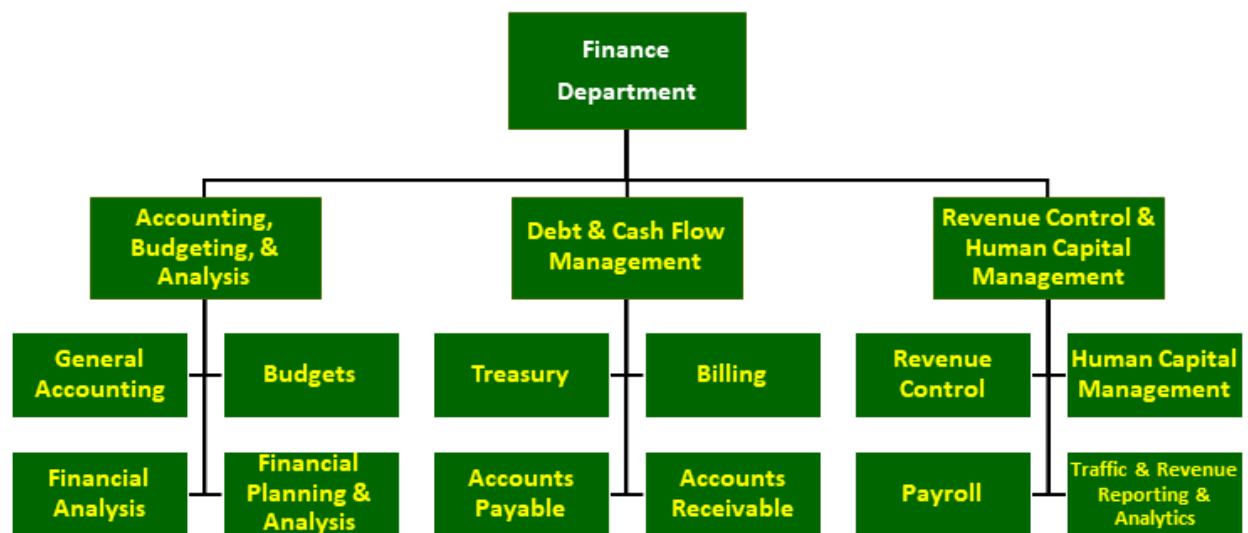


Figure 101: Finance Department Organization Chart

Senior Staff:

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

2021 Accomplishments:

- Standard & Poor's reaffirmed the Authority's 'A+' rating and upgraded to a Stable Outlook on April 22, 2021
- Issued \$502.5 million of new money bonds on February 4, 2021 to pay for the cost of construction for ongoing capital projects
- Advance refunded, redeemed and legally defeased \$995.2 million of multiple Turnpike Revenue Bonds Series on February 4, 2021 and produced over \$118 million in net present value savings
- Despite the global pandemic, exceed the bond covenants and financial policies as of December 31, 2020. Specifically, the Authority's debt service coverage ratio was 1.68, the total requirements ratio was 1.32 and, the unrestricted general reserve balance was approximately 420 million. Additionally, the Authority is expected to exceed all bond covenants and financial policies as of December 31, 2021
- Despite the continued impact of the global pandemic, maintained funding for all the construction and capital projects
- Supported union contract negotiations of five out of seven unions (Locals 194, 196 (Chapters 1 and 12), and 200 and American Federation of State, County, and Municipal Employees (AFSCME 3914)
- Worked with the Technology and Customer Service departments to help launch the PayIt App. This gives an option to customers who do not have sufficient funds or a working transponder upon entering a cash lane to pay their toll online instead of mailing in cash or a check
- Implemented Phase I of the EAM system which initiated the management of the Authority's fleet program in the system
- Initiated a collaborative and phased implementation of the Authority's first-ever capital project management system (CPMS)
- Worked with the Internal Audit department to ensure all outstanding funds due from HMS Host were received before the transition of the ownership to Iris Buyer, LLC
- Collaborated with Law Department to negotiate a forbearance agreement with LiveNation for the rent deferral
- Developed and optimized reports to improve internal controls and external reporting
- Continued to measure and report on the strategic plan financial goals every quarter
- Received GFOA's Certificate of Achievement for Excellence in Financial Reporting for the comprehensive annual financial report for the fiscal year ended December 31, 2019
- Received GFOA's Distinguished Budget Presentation Award for the submission of the annual budget for the fiscal year beginning January 1, 2021

2022 Goals:

- Increase general reserve balance to no less than \$230 million which is 10% of 2022 budgeted revenue (Financial Strength)
- Meet or exceed debt service coverage ratio covenants and Financial Policy targets (Financial Strength)
- Meet or exceed total requirements coverage ratio covenants and Financial Policy targets (Financial Strength)
- Further improve process efficiencies through automation (People)
- Further improve internal and external reporting (People)
- Improve bond ratings to provide the lowest cost of capital (Financial Strength)
- Issue up to \$1.25 billion of new money bonds in 2022 to fund the Authority's Capital Improvement Program (Financial Strength)
- Complete forward delivery refunding for savings and to replenish liquidity after COVID-19 revenue reductions (Financial Strength)
- Implement first year of toll indexing on January 1, 2022 (Financial Strength)
- Continue to review and update the Finance Department policies and procedures. Implement leading practices and document current workflows (People)
- Continue to encourage employee training in finance and technology (People)
- Continue to improve cross-section collaboration to reach Finance Department goals (People)
- Establish a cohesive strategic plan goals report for the Authority (Financial Strength)
- Implement and integrate CPMS to improve recording and reporting of capital projects (Financial Strength)
- Collaborate with IT to implement EAM phase II (Financial Strength)
- Implement and integrate business analytics and intelligence system to compile and use the available data for executive and strategic decision-making (People)

Finance Department Operating Expenses					
(\$ In Thousands)	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 6,398	6,730	7,047	317	4.7%
Allowances	1	3	3	—	—%
Pension & Taxes	1,433	1,474	1,566	92	6.3%
Health Benefits	2,990	3,796	3,896	100	2.6%
Tuition	—	20	55	35	172.5%
Training, Travel, & Seminars	1	13	13	—	—%
Printing & Office Supplies	15	34	34	—	—%
Operating Supplies	—	1	1	—	—%
Other Materials	—	1	1	—	—%
Banking Services	883	945	946	1	0.1%
Consulting Services	810	1,080	1,336	256	23.7%
Other Professional Services	669	637	792	155	24.3%
Other Services	3	66	67	1	1.5%
Recoveries	(18)	(4)	(4)	—	—%
Total Operating Expenses	\$ 13,203	14,800	15,756	956	6.5%

Figure 102: Finance Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Salaries are increasing due to 4% contractual increases as well as the movement of one position from the Maintenance Division. Finance comprises about 4% of total Authority salaries
- Pension and Benefits — see page 57 for explanation
- Consulting Services are increasing \$256,000 for anticipated on-call accounting services consulting contract
- Other Professional Services are increasing \$155,000 for financial and swap advisory services

Finance Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Accounting Manager, General Ledger	1	1	—	(1)
Accounting Manager, Internal Control	1	1	1	—
Accounts Clerk	1	2	1	(1)
Accounts Payable Manager	1	1	1	—
Accounts Receivable Analyst	1	1	1	—
Accounts Receivable Manager	1	1	1	—
Administrative Assistant	1	2	1	(1)
Assistant Comptroller	3	3	3	—
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	—
Cash Manager	—	1	—	(1)
Cash Management Supervisor	1	—	1	1
Chief Financial Officer	1	1	1	—

Finance Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Clerk 1, 70	2	1	1	—
Comptroller	1	1	1	—
Confidential Secretary	1	—	—	—
Coordinator - Bargaining	—	—	1	1
Data Analyst	3	1	2	1
Disbursements Clerk	1	—	—	—
Disbursements Section Supervisor	2	2	2	—
Documents Services Coordinator	1	1	1	—
Financial Analyst	2	4	7	3
Financial Planning & Analytics Manager	—	1	1	—
Financial Resources Specialist	—	2	2	—
Human Capital Management Analyst	1	1	1	—
Human Capital Management Manager	1	1	1	—
Human Capital Management Specialist	2	2	2	—
Junior Accountant	5	5	5	—
Junior Accounting Analyst	14	10	9	(1)
Payroll Administrator/Manager	1	1	1	—
Payroll Analyst	2	2	2	—
Payroll Coordinator	2	3	3	—
Revenue Control Manager	1	1	1	—
Senior Accounting Analyst	2	1	3	2
Senior Accounts Payable Supervisor	1	—	—	—
Senior Budget Supervisor	2	2	2	—
Senior Clerk	2	4	4	—
Senior Data Analyst	1	2	2	—
Senior F&B Document Specialist	1	1	1	—
Senior Financial Analyst	—	2	2	—
Senior Toll Audit Coordinator	3	3	2	(1)
Staff Accountant	3	3	2	(1)
Variance Analyzer Coordinator	2	1	1	—
Violations Analyst	1	—	—	—
Total Authorized Positions	80	79	80	1

Figure 103: Finance Department Authorized Positions (2020-2022)

Community & Government Relations

Department Description:

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 follow and respond to any state legislative proposals that could impact the Authority. The Customer Service Division's goal is 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.

Department Organization:

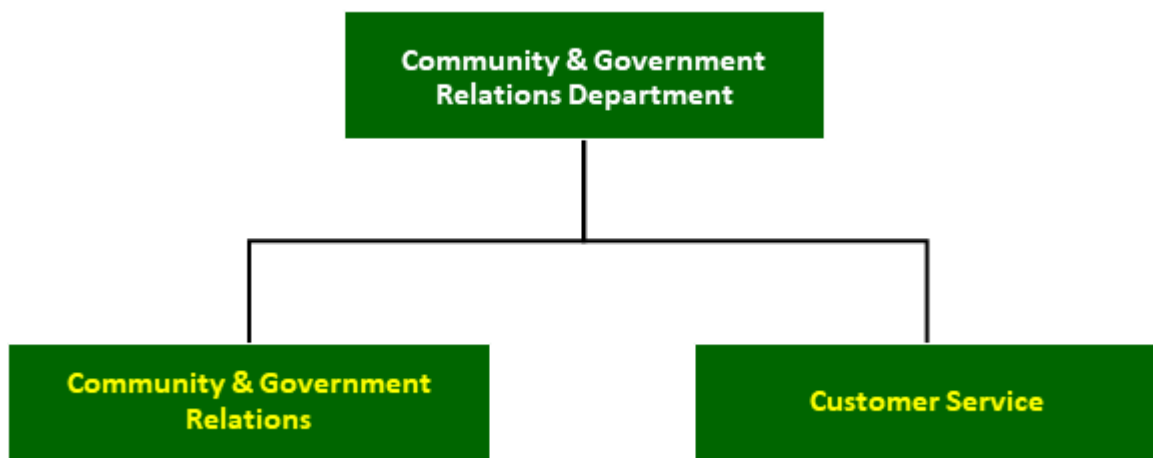


Figure 104: Community & Government Relations Department Organization Chart

Senior Staff

Director of Community & Government Relations: Shawn Taylor

Customer Service Manager: Denise DeSante

2021 Accomplishments:

- Promulgated changes to the NJ E-ZPass customer service experience by improving manual, voice, and website processes
- Enhanced the information guides for the Turnpike and Parkway to provide useful and updated information to our customers
- Enhanced the current legislative referral database
- Assisted the Governor's Office and legislators to amend legislation to benefit the Authority's stakeholders
- Appeared at local virtual public meetings concerning Authority engineering projects
- Attended virtual legislative hearings, voting sessions and budget hearings in Trenton
- Chaired the Towing Committee, resulting in revised pre-qualification bid documents
- Instrumental in creating new flag policy
- On-time delivery of acquired right of way for Passaic River Bridge Project

2022 Goals:

- Appear at local public meetings concerning Authority engineering projects (State of Good Repair)
- Communicate with legislators concerning Authority engineering projects in their area (People)
- Attend legislative hearings and voting sessions in Trenton (People)
- Advocate internally and externally on transportation and labor policies affecting the Authority (People)
- Study relevant legislation and regulations, focusing on those with financial implications for the Authority (Financial Stability)
- Continue to work with our tow operators and strengthen our working relationship to provide better customer service (Financial Stability and People)
- Communicate with legislators on new policy initiatives, such as “E-ZPass App” and other wide-ranging policy initiatives (People)
- Continue active engagement in public and governmental outreach for capital projects, most importantly Newark Bay-Hudson County Extension and Turnpike Interchanges 1 to 4 Capacity Enhancement (State of Good Repair)

Community & Government Relations Department Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 1,396	975	1,031	56	5.8%
Allowances	—	1	1	—	20.0%
Pension & Taxes	314	214	230	16	7.4%
Employee Relations	—	5	5	—	—%
Health Benefits	654	550	570	20	3.7%
Training, Travel, & Seminars	—	3	3	—	—%
Printing & Office Supplies	4	6	6	—	—%
Total Operating Expenses	\$ 2,308	1,754	1,846	92	5.3%

Effective October 19, 2020 Patron Services became a part of the Operations Department. For Comparative purposes, Patron Services 2020 actuals are reported with the Operations Department. Prior to this change, Community & Government Relations and Patron Services budgets were combined.

Figure 105: Community & Government Relations Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Salaries are increasing due to contractual and step increases. Community and Government Relations comprises less than 1% of total Authority salaries
- Pension and Benefits — see page 57 for explanation
- All other line items are remaining flat compared to the 2021 budget

Community & Government Relations Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administrative Secretary	1	1	1	—
Assistant Customer Service Manager	2	2	2	—
Community & Government Relations Specialist	1	2	2	—
Customer Service Manager	1	1	1	—
Director Community & Government Relations	1	1	1	—
Receptionist	2	2	2	—
Senior Clerk	1	1	1	—
Total Authorized Positions	9	10	10	—

Figure 106: Community & Government Relations Department Authorized Positions (2020-2022)

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

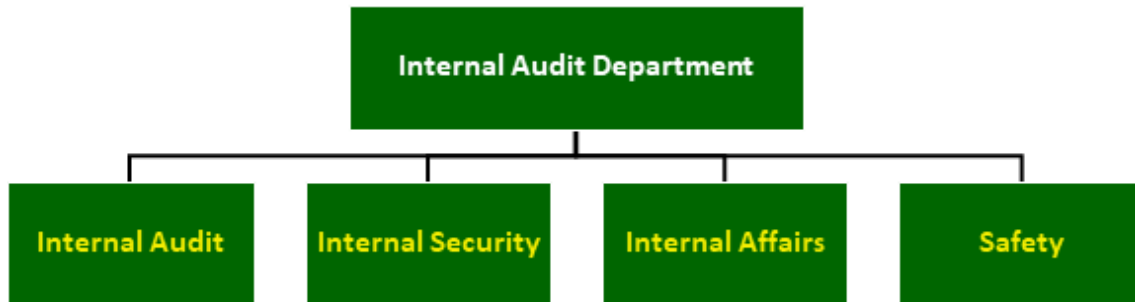


Figure 107: Internal Audit Department Organization Chart

Senior Staff:

Director of Internal Audit: Donna Wilser

Deputy Director of Internal Audit: Tracey Walters

Senior Security Manager: Thomas McGowan

Safety Program Manager: Paul Butrico

2021 Accomplishments:

- Implemented and went live with new "Teammate" Audit Software which will facilitate an enterprise risk assessment and automate work papers and reporting
- In continued response to COVID-19, monitored, assessed and updated where necessary the Authority's Employee Health and Safety Program to protect Authority employees and facilities
- Installed and implemented security enhancements and upgrades at Authority Tolls and Maintenance facilities

2022 Goals:

- Utilize the Authority's new "Teammate" audit software to provide an efficient and systematic risk assessment to develop a 2022 Audit Plan to ensure proper internal controls are used throughout the Authority (State of Good Repair)
- Continue installation and implementation of security enhancements and upgrades at Authority facilities on a prioritized risk basis (State of Good Repair)
- Continue responding to COVID-19 developments to monitor, assess and update where necessary the Authority's Employee Health and Safety Program for the protection of Authority facilities and employees (Safety, People)

Internal Audit Department Operating Expenses					
<i>(\$ In Thousands)</i>	2020 Actuals	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Salaries	\$ 2,817	2,675	2,678	3	0.1%
Pension & Taxes	653	585	595	10	1.7%
Health Benefits	1,363	1,509	1,481	(28)	(1.9)%
Tuition	—	10	17	7	70.0%
Training, Travel, & Seminars	2	3	2	(1)	(33.3)%
Printing & Office Supplies	10	17	20	3	17.6%
Operating Supplies	19	20	20	—	—%
Other Professional Services	17	105	142	37	35.2%
Environmental Services	—	1	1	—	—%
Other Services	1	2	1	(1)	(50.0)%
Building Maintenance	33	95	75	(20)	(21.1)%
Equipment Maintenance	515	625	675	50	8.0%
Equipment Rental	5	24	20	(4)	(16.7)%
Equipment	4	41	40	(1)	(2.4)%
Total Operating Expenses	\$ 5,447	5,712	5,767	55	1.0%

Figure 108: Internal Audit Department Operating Expenses (2020-2022)

2022 Budget Highlights:

- Equipment Maintenance is increasing by \$50,000 due to anticipated additional maintenance costs for security related items
- Other Professional Services are increasing \$37,000 for additional on-call services and increased drug screening services
- Pension and Benefits — see page 57 for explanation. Despite an overall Authoritywide increase in Health Benefits, the dollars allocated for Law are declining due to the decline in the allocation percentage as discussed in salaries
- Salaries are essentially flat as increases are offset by the movement of one position from Internal Audit to Executive Office, along with the removal of amounts budgeted for assumed contractual changes which were not included in the final Memorandum of Agreements. Because of this, the allocation percentage for pension/taxes and health benefits declines in the 2022 budget

Internal Audit Department Authorized Positions				
	2020 Budget	2021 Budget	2022 Budget	Δ from 2021 Budget
Administrative Assistant/Secretary	1	2	1	(1)
Audit Manager	1	1	1	—
Auditor	3	4	4	—
Clerk	2	2	2	—
Confidential Secretary	1	—	—	—
Deputy Director Internal Audit	1	1	1	—
Director Internal Audit	1	1	1	—
Executive Administrative Assistant	—	1	1	—
Manager - Safety Programs	1	1	1	—
Safety Manager	3	3	3	—
Security Inspector	2	2	2	—
Security Officer	3	3	3	—
Security Supervisor	2	2	2	—
Senior Auditor	2	2	2	—
Senior Contract Administrative Manager	—	1	1	—
Senior Maintenance Budget Supervisor	1	1	1	—
Senior Safety Inspector	1	1	1	—
Senior Security Manager	1	1	1	—
Tolls Investigation Manager	1	1	1	—
Tolls Investigation Supervisor	2	1	1	—
Total Authorized Positions	29	31	30	(1)

Figure 109: Internal Audit Department Authorized Positions (2020-2022)

Debt Service

Debt Limit

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

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

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

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

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

Total Bonds Outstanding \$11.3 Billion as of October 31, 2021 (\$ In Thousands)

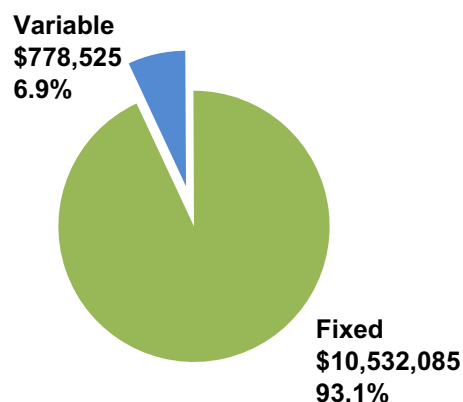


Figure 110: Total Bonds Outstanding

Bond Indebtedness

Bond Indebtedness				
Bond Series (\$ In Thousands)	Amount Outstanding 10/31/2021	Mandatory Redemption / Sinking Fund Installments	Projected Debt Issuance	Amount Outstanding 12/31/2022
Series 2004 C-2	\$ 132,850	—	—	132,850
Series 2005 A	173,650	—	—	173,650
Series 2005 D1-D4	208,735	—	—	208,735
Series 2009 F	1,375,000	—	—	1,375,000
Series 2010 A	1,850,000	—	—	1,850,000
Series 2012A	15,000	—	—	15,000
Series 2012B	32,655	—	—	32,655
Series 2013A	105,405	(340)	—	105,065
Series 2013F	11,780	—	—	11,780
Series 2014A	889,000	—	—	889,000
Series 2014C	106,715	—	—	106,715
Series 2015A	26,225	(6,575)	—	19,650
Series 2015C	10,625	(3,300)	—	7,325
Series 2015D	10,600	(3,275)	—	7,325
Series 2015E	750,000	—	—	750,000
Series 2015F	72,350	(72,350)	—	—
Series 2015G	25,000	(8,040)	—	16,960
Series 2015H	48,235	(48,235)	—	—
Series 2016A	149,995	—	—	149,995
Series 2016B	75,025	—	—	75,025
Series 2016C	50,015	—	—	50,015
Series 2016D	50,000	(16,075)	—	33,925
Series 2017A	600,000	—	—	600,000
Series 2017B	646,765	—	—	646,765
Series 2017C	218,950	(32,775)	—	186,175
Series 2017D	179,375	(16,075)	—	163,300
Series 2017E	359,680	—	—	359,680
Series 2017F	113,765	(8,995)	—	104,770
Series 2017G	726,640	—	—	726,640
Series 2019A	449,110	—	—	449,110
Series 2020A	12,125	(3,750)	—	8,375
Series 2020B	24,935	—	—	24,935
Series 2020C	163,230	—	—	163,230
Series 2020 D	149,440	—	—	149,440
Series 2021 A	502,500	—	—	502,500
Series 2021 B	995,235	—	—	995,235
Series 2021 C ⁽¹⁾	—	—	—	—
Series 2022 A ⁽²⁾	—	—	500,000	500,000
Series 2022 B ⁽²⁾	—	—	750,000	750,000
Premiums and discounts, net	516,234	—	—	452,987
Total Bond Indebtedness	\$ 11,826,844	(219,785)	1,250,000	12,793,812

(1) Potential refunding opportunity

(2) Amounts are projected new money issuances

Figure 111: Bond Indebtedness

Aggregate Bond Debt Service Requirement

Aggregate Bond Debt Service Requirements			
(\$ In Thousands)			
Fiscal Year Ending 12/31	Principal	Interest	Total Debt Service ^{(1) (2)}
2021 ⁽³⁾	\$ 219,785	577,465	797,250
2022 ⁽⁴⁾	291,050	568,053	859,103
2023	317,490	555,668	873,158
2024	376,685	543,543	920,228
2025	402,170	527,400	929,570
2026	418,955	512,268	931,223
2027	438,335	494,633	932,968
2028	446,840	478,304	925,144
2029	466,200	458,937	925,137
2030	486,205	438,897	925,102
2031	505,380	419,695	925,075
2032	529,590	395,449	925,039
2033	554,120	370,894	925,014
2034	545,868	344,904	890,772
2035	544,057	316,674	860,731
2036	558,654	283,520	842,174
2037	601,282	245,550	846,832
2038	634,229	205,841	840,070
2039	676,197	163,850	840,047
2040	773,078	118,930	892,008
2041	434,080	66,919	500,999
2042	192,250	48,754	241,004
2043	117,400	40,223	157,623
2044	123,095	34,526	157,621
2045	129,070	28,552	157,622
2046	134,950	22,673	157,623
2047	141,095	16,526	157,621
2048	80,885	10,100	90,985
2049	84,125	6,865	90,990
2050	87,490	3,500	90,990
Total Bond Debt Service	\$ 11,310,610	8,299,113	19,609,723

Notes:

(1) Total Debt Service does not include debt service from the potential \$500 million 2022A new money issuance , the potential \$750 million 2022B new money issuance, or any potential refunding

(2) Total Debt Service is calculated by rounding each bond series interest and principal expense then totaling

(3) Represents actual current debt service requirement for 2021. The amount differs from the budget due to 2021A new money issue interest costs are lower than budgeted and the debt service savings from the Series 2021B refunding were not budgeted

(4) Represents actual current debt service requirement for 2022. Neither this nor the budget includes potential savings from Series 2021C refunding or new money issuances. New money issuances are expected to capitalize interest for the first 3 years

Figure 112: Aggregate Bond Debt Service Requirement

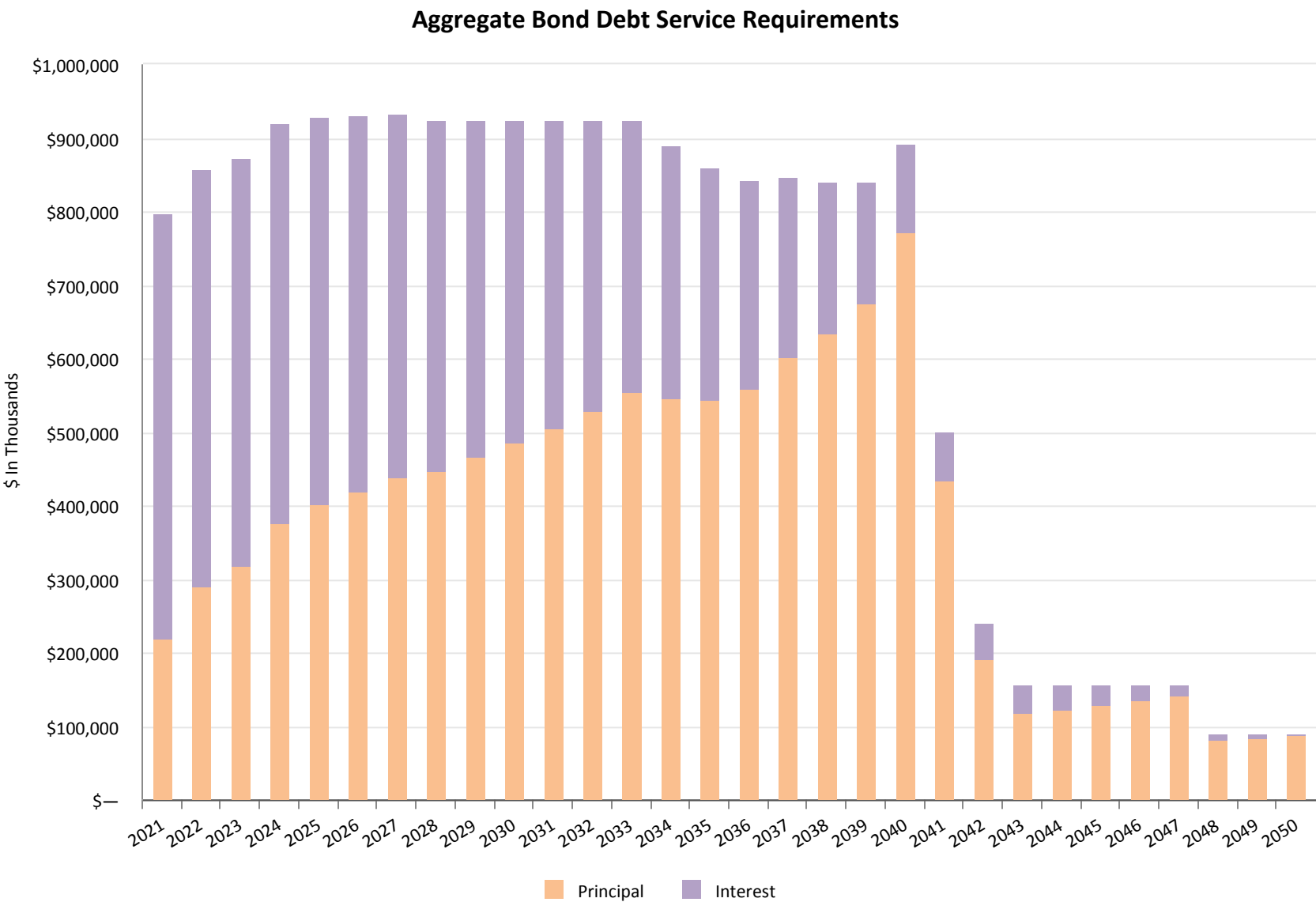


Figure 113: Aggregate Bond Debt Service Requirement Graph (2021-2050)

Debt Service — Interest and Principal

Debt Service — Interest					
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
2004 Series C-2	\$ 7,307	7,307	7,307	—	
2005 Series A	9,117	9,117	9,117	—	
2005 Series D1-4	10,959	10,959	10,959	—	
2009 Series F	101,943	101,943	101,943	—	
2010 Series A	131,387	131,387	131,387	—	
2012 Series A	581	581	581	—	
2012 Series B ⁽¹⁾	27,449	26,572	1,633	(24,939)	
2013 Series A ⁽¹⁾	13,002	12,874	4,244	(8,630)	
2013 Series F ⁽¹⁾	4,357	4,357	402	(3,955)	
2014 Series A ⁽¹⁾	48,890	48,890	43,340	(5,550)	
2014 Series C ⁽¹⁾	6,867	6,428	5,336	(1,092)	
2015 Series A ⁽²⁾⁽³⁾	1,556	1,437	1,190	(247)	
2015 Series B ⁽²⁾	319	—	—	—	
2015 Series C ⁽²⁾	779	420	289	(131)	
2015 Series D ⁽²⁾	779	419	290	(129)	
2015 Series E	36,413	36,413	36,413	—	
2015 Series F ⁽²⁾	2,935	2,926	—	(2,926)	
2015 Series G ⁽²⁾	982	988	670	(318)	
2015 Series H ⁽²⁾	1,951	1,951	—	(1,951)	
2016 Series A	7,312	7,312	7,312	—	
2016 Series B ⁽²⁾	3,019	3,060	3,060	—	
2016 Series C ⁽²⁾	1,954	2,040	2,040	—	
2016 Series D ⁽²⁾	2,008	1,995	1,354	(641)	
2017 Series A	29,409	29,409	29,409	—	
2017 Series B	31,304	31,304	31,304	—	
2017 Series C ⁽²⁾	17,985	17,566	9,093	(8,473)	
2017 Series D ⁽²⁾	7,384	7,340	6,725	(615)	
2017 Series E	17,984	17,984	17,984	—	
2017 Series F	5,306	4,010	3,764	(246)	
2017 Series G	30,480	30,480	30,480	—	
2019 Series A	20,456	20,456	20,456	—	
2020 Series A ⁽²⁾	844	448	310	(138)	
2020 Series B	334	623	623	—	
2020 Series C	2,820	5,261	5,261	—	
2020 Series D	187	—	7,472	7,472	
2021 Series A	—	28,900	20,100	(8,800)	
2021 Series B	—	—	16,205	16,205	
2020 New Money - A	—	28,900	—	(28,900)	
2021 Refunding C ⁽⁴⁾	—	—	—	—	
2022 New Money - A ⁽⁵⁾	—	—	25,000	25,000	
2022 New Money - B ⁽⁶⁾	—	—	18,750	18,750	
Total DS Interest Fund	\$ 586,359	642,057	611,803	(30,254)	(4.7)%

Debt Service — Principal					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
2012 Series B ⁽¹⁾	\$ —	32,605	32,655	50	
2013 Series A ⁽¹⁾	—	4,810	5,065	255	
2014 Series C ⁽¹⁾	—	21,840	22,630	790	
2015 Series A	—	6,575	7,000	425	
2015 Series C	—	3,300	3,500	200	
2015 Series D	—	3,275	3,500	225	
2015 Series F	—	72,350	—	(72,350)	
2015 Series G	—	8,040	8,335	295	
2015 Series H	—	48,235	—	(48,235)	
2016 Series B	—	—	75,025	75,025	
2016 Series C	—	—	50,015	50,015	
2016 Series D	—	16,075	16,675	600	
2017 Series C	—	32,775	34,575	1,800	
2017 Series D	—	16,075	16,675	600	
2017 Series F	51,120	8,995	9,400	405	
2020 Series A	21,750	3,750	4,000	250	
2021 Series B	—	—	2,000	2,000	
Total DS Principal Fund	\$ 72,870	278,700	291,050	12,350	4.4%

Debt Service — Total					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Total Debt Service	\$ 659,229	920,757	902,853	(17,904)	(1.9)%

(1) Issued Series 2021B refunding bonds in February 2021. Achieved debt service net present value savings that totaled \$117.5M

(2) Variable rate debt with an associated Interest Swap Agreement has interest included at the fixed swap rate and includes the fixed credit spread as interest expense

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

(4) Potential refunding in 2021

(5) 2022 Budget assumes new money issuance in January 2022 of \$500M at 5% w/ capitalized interest for first 3 years

(6) 2022 Budget assumes new money issuances in July 2022 of \$750M at 5% w/ capitalized interest for first 3 years

Figure 114: Debt Service - Interest and Principal (2020-2022)

Debt Service is budgeted to decrease in 2022 by \$18 million due to a decrease in interest expense. The 2022 budget provides for a full year of interest payments on the assumed new money issuance in 2022 of \$500 million and a half year of interest payments for new money issuance of \$750 million to fund the 2022-2026 Capital Improvement Program. Interest expense will decrease by \$30 million in 2022, due to maturities and the refunding of Series 2012B, 2013A, 2013F, 2014A, and 2014C. There is an increase in principal payments of about \$12 million when comparing the 2022 budget to the 2021 budget. When comparing the 2022 budget to 2021 actuals, principal payments are increasing by about \$147 million, as principal payments were refinanced in June 2020. The budget also includes an increase in construction fund transfers in 2022, which represent capitalized interest (bond proceeds deposited into the construction fund at the time of bond closing) from the budgeted 2022A and 2022B new money bonds.

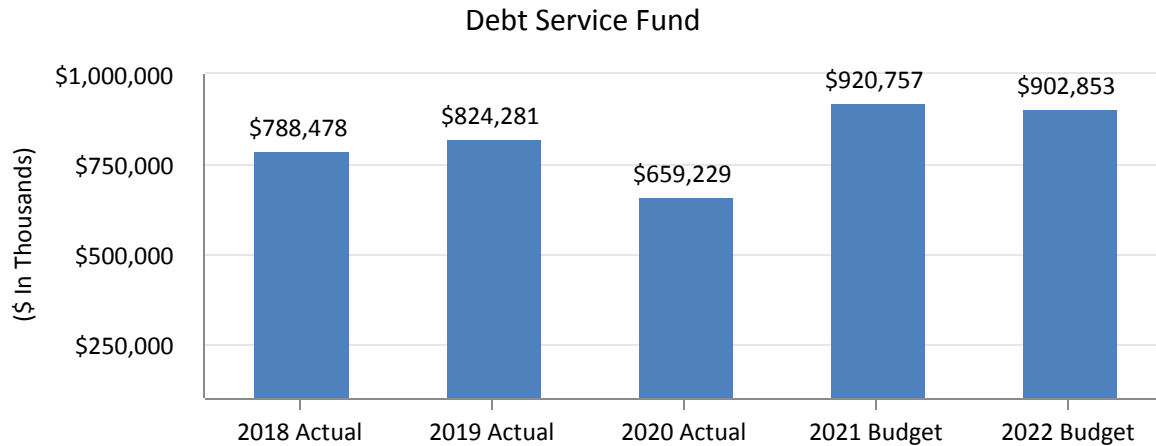


Figure 115: Debt Service Fund Graph (2018-2022)

Debt Service Fund Balance					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Est/ Actual	2022 Budget	\$ Δ from 2021 Est/ Actual	% Δ from 2021 Est/ Actual
Beginning Balance	\$ 228,205	72,870	219,785	146,915	
Revenue Transfers	653,034	795,781	735,103	(60,678)	
Construction Fund Transfers ⁽¹⁾	6,196	924	167,750	166,826	
Interest Expense	(586,360)	(576,920)	(611,803)	(34,883)	
Principal Payments	(228,205)	(72,870)	(219,785)	(146,915)	
Ending Balance	\$ 72,870	219,785	291,050	71,265	32.4%

(1) Construction Fund Transfers represent bond proceeds that are required to be used for debt service, such as capitalized interest, excess refunding escrow deposits and excess cost of issuance deposits

Figure 116: Debt Service Fund Balance (2020-2022)

Debt Reserve

The Debt Reserve is expected to have an increase in its fund balance in 2022, as bond proceeds will be deposited to meet increased Debt Reserve requirements from the anticipated additional bonds to be issued.

Debt Reserve Fund Balance					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Est/ Actual	2022 Budget⁽¹⁾	\$ Δ from 2021 Budget	% Δ from 2021 Budget
Beginning Balance	\$ 598,976	599,792	596,000	(3,792)	
Fair Market Value Adjustment	816	(3,792)	—	3,792	
Bond Proceeds	—	—	34,549	34,549	
Ending Balance	\$ 599,792	596,000	630,549	34,549	5.8%

(1) Maximum debt service is expected to increase from potential bond issuance of \$500 million and \$750 million in 2022

Figure 117: Debt Reserve Fund Balance (2020-2022)

General Reserve

General Reserve has a 2022 budget of \$686 million, which includes \$626 million in spending and \$60 million in net transfers out. This represents an increase of approximately \$300 million from the 2021 budget. The most significant increase comes from payments totaling \$548 million on the new State Public Transportation Projects Funding Agreement that began on July 1, 2021. The agreement is on a state fiscal year basis. The \$548 million represents one-half of the \$350 million for state FY 2022 and one-half of the \$746 million for state FY 2023. The total State Payments of \$572.5 million include the new agreement as well as the two existing agreements. The 2022 budget also includes \$32.3 million for state of emergency events and \$15 million in reserves for Other Post-Employment Benefits (OPEB).

The net transfers out of \$60 million includes a \$50 million transfer to the Construction Fund to provide funding for 2022 spending on projects in the Supplemental Capital Program and a \$10 million transfer to the Construction Fund in funding for chargebacks, which represents the transfer to cover internal costs allocated to bond funded capital projects.

General Reserve Spending and Transfers					
	2020	2021	2022	\$ Δ from	% Δ from
(\$ In Thousands)	Actual	Budget	Budget	2021	2021
Spending					
Extraordinary Events	\$ 7,576	32,295	32,295	—	—%
Other Post-Employment Benefits	—	15,000	15,000	—	—%
Bond Cost of Issuance	142	1,000	1,000	—	—%
Miscellaneous Expenditures	—	50	50	—	—%
Transportation Trust Fund	22,000	22,000	22,000	—	—%
Feeder Road Reimbursement NJDOT	2,500	2,500	2,500	—	—%
State Transportation Projects Funding Agreement 2016-2021	129,000	77,000	—	(77,000)	(100.0)%
State Public Transportation Projects Funding Agreement	—	187,500	548,000	360,500	192.3%
OCIP Claim Payment	14,572	—	—	—	—%
Reimbursable Expenditures	—	1,600	1,900	300	18.8%
Pollution Remediation	9,698	—	—	—	—%
Contingency	—	5,000	5,000	—	—%
Total Spending	\$ 185,488	343,945	627,745	283,800	82.5%
Recoveries from Reimbursable Expenditures	—	(1,600)	(1,900)	(300)	18.8%
Total Spending Net of Recoveries	\$ 185,488	342,345	625,845	283,500	82.8%
Transfers					
Funding for Supplemental Capital Spending	\$ 108,836	63,380	50,000	(13,380)	(21.1)%
Funding for Chargebacks	—	10,000	10,000	—	—%
Funding for Passaic River Bridge	3,016	—	—	—	—%
Live Nation Contribution	—	(2,750)	—	2,750	(100.0)%
HMS Host and Sunoco	—	(17,134)	—	17,134	(100.0)%
Total Transfers — Net	\$ 111,852	53,496	60,000	6,504	12.2%
Total General Reserve	\$297,340	395,841	685,845	290,004	73.3%

— Totals may not add due to rounding

Figure 118: General Reserve Spending and Transfers (2020-2022)

Condensed General Reserve Spending by Functional Area					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Operating Expenses					
Maintenance of Infrastructure	\$ 31,846	42,251	42,251	—	—%
Toll Collection	—	5,720	5,720	—	—%
Traffic Control & State Police	—	968	968	—	—%
Technology	—	818	818	—	—%
General & Administrative	—	2,588	2,588	—	—%
Total Operating	\$ 31,846	52,345	52,345	—	—%
Non-Operating Expenses					
Bond Cost of Issuance	\$ 142	1,000	1,000	—	—%
State Payments	153,500	289,000	572,500	283,500	98.1%
Loss on Disposal of Capital Assets	—	—	—	—	—%
Total Non-Operating	\$ 153,642	290,000	573,500	283,500	97.8%
Transfers					
Total Transfers — Net	\$ 111,852	53,496	60,000	6,504	12.2%
Total General Reserve Spending*	\$ 297,340	395,841	685,845	290,004	73.3%

* Does not include net transfers from General Reserve

— Totals may not add due to rounding

Figure 119: Condensed General Reserve Spending by Functional Area (2020-2022)

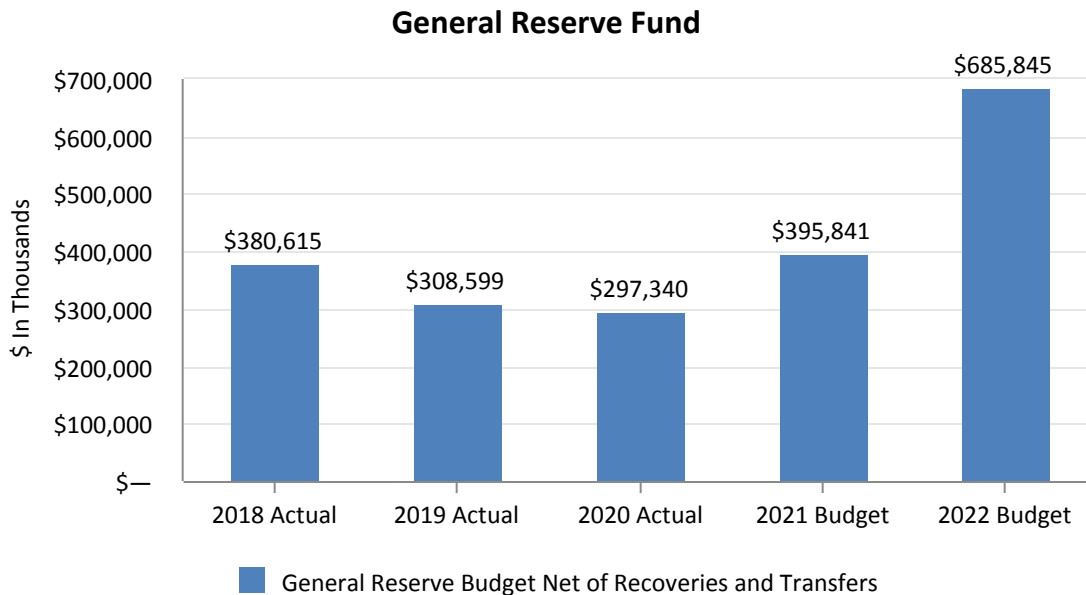


Figure 120: General Reserve Spending and Transfers, Net of Recoveries (2018-2022)

The graph below depicts the General Reserve available ending balance since 2018, including estimated/actual for 2021 and budget for 2022 as compared to the targets in the Authority's Financial Management Principles and Guidelines. The General Reserve balance has exceeded the target each year and is budgeted to exceed the target again in 2022. The General Reserve available ending balance in 2022 is expected to decrease only by \$44.1 million from the estimated balance at December 31, 2021, despite a significant increase in the 2022 budgeted General Reserve spending as compared to 2021 estimated/actual spending. This is because the budgeted transfer into General Reserve of excess net revenue in 2022 is also higher than the 2021 estimated/actual excess net revenue transfer into General Reserve.

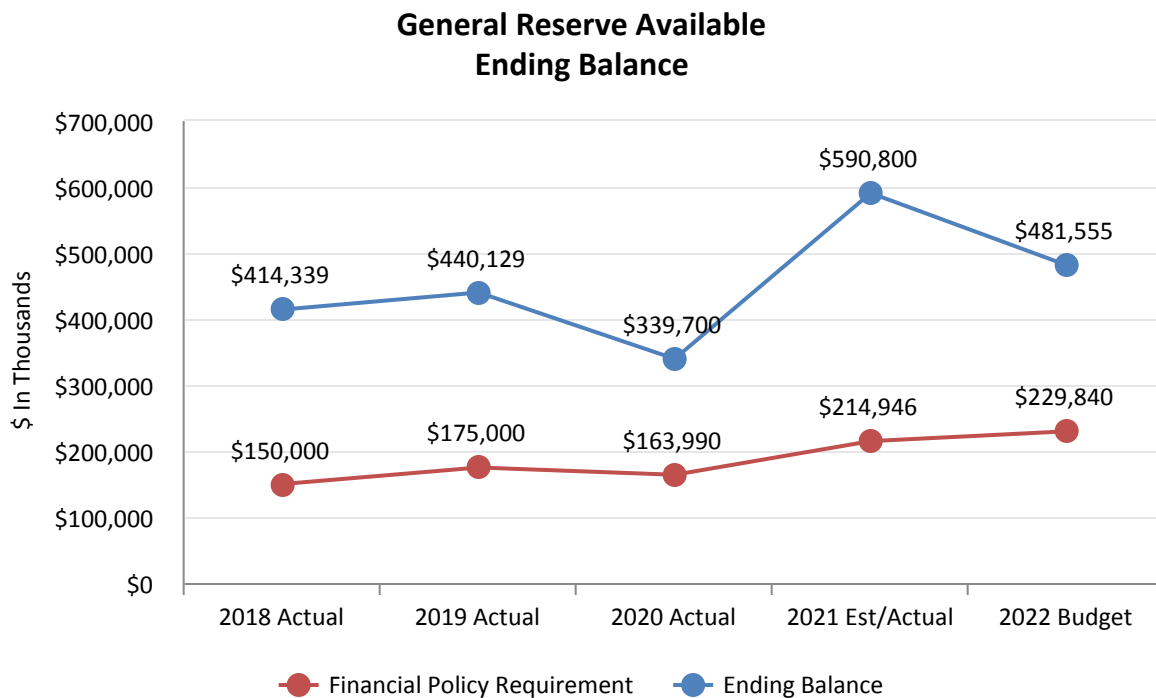


Figure 121: General Reserve Available Ending Balance Graph (2018-2022)

General Reserve Fund Balance					
	2020	2021	2022	\$ Δ from	% Δ from
(\$ In Thousands)	Actual	Est/Actual	Budget	2021 Est/Actual	2021 Est/Actual
Beginning Balance	\$ 360,179	339,700	590,800	251,100	73.9%
Transfer from Revenue Fund	273,300	637,100	636,600	(500)	(0.1)%
GRF Expenditures	(181,927)	(315,400)	(685,845)	(370,445)	117.5%
Transfer to Construction Fund - Net	(111,852)	(70,600)	(60,000)	10,600	(15.0)%
Available Ending Balance	\$ 339,700	590,800	481,555	(109,245)	(18.5)%

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

— Totals may not add due to rounding

Figure 122: General Reserve Fund Balance (2020-2022)

General Reserve	
Category	Description
Extraordinary Events	To pay for the cost of major weather or other events when there is a declared state of emergency.
Other Post-Employment Benefits	To fund reserve for OPEB, representing a portion of the additional funding necessary to meet the difference between actuarially calculated ARC and pay-go expenses paid through the Operating Expense budget.
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.
Miscellaneous Expenditures	To fund reserve for potential arbitrage payments due to the IRS on the Authority's bonds based upon the arbitrage consultant's annual calculations.
Transportation Trust Fund	Under an agreement dated 4/27/84, Authority pays the Treasurer of State of New Jersey. These funds are to be used by the State of New Jersey, or the Transportation Trust Fund, to pay or provide for the development of State transportation projects, in effort to further satisfy the overall transportation needs of the State. The agreement expires when all obligations of the Transportation Trust Fund have been satisfied.
Feeder Road Reimbursement NJDOT	Cost Sharing Agreement expiring 6/30/23, providing reimbursement by the Authority to the NJDOT for reconstruction, maintenance and repair of Feeder Roads at twenty Turnpike Interchanges and thirty-six Parkway Interchanges.
State Transportation Projects Funding Agreement 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 June 2021.
State Public Transportation Projects Funding Agreement	New agreement starting July 1, 2021, replacing expiring State Transportation Projects Funding Agreement 2016-2021.
Reimbursable Expenditures	Agreements with the NJDOT, PANYNJ and PTC that they will share the cost of construction on shared assets.
PTC - Delaware River Bridge	Replacement of the suspenders and suspender protection in the main arch truss portion of the bridge.
PTC - Delaware River Bridge - Reimbursable	Reimbursement to be received from the Pennsylvania Turnpike.
PTC - Repaint and Improvements	Bridge Painting and seismic retrofit, structural steel repairs, catwalk repairs, and installation of security gates.
PTC - Repaint and Improvements - Reimbursable	Reimbursement to be received from the Pennsylvania Turnpike.
Contingency	To fund any unanticipated emergency work.

Figure 123: General Reserve Fund Category Descriptions

Capital Spending Program

The Authority's 2022 Annual Budget includes its Capital Spending Program, presented on a rolling five-year basis, with spending included for the years 2022-2026. The Capital Spending Program includes revenue funded projects, as well as bond funded projects. The revenue funded capital projects, referred to as the Capital Budget, include projects in the Maintenance Reserve Fund, the Special Project Reserve Fund, and the Supplemental Capital Program. The bond funded capital projects, referred to as the Construction Fund, include the 2022-2026 Capital Improvement Program, the 2019 Capital Improvement Program, and the 2008 \$7 Billion Capital Improvement Program. These capital projects are presented on a rolling five-year (2022-2026) spending basis along with their respective total project budgets. Each year, a new rolling five-year spending plan will be approved with the changes, if any, to the total project budgets, as a part of the annual budget approval.

Driving the Capital Spending Program are the planned awards, contracts and orders for professional services for design, supervision, and construction of the projects included in the program. In 2022, the Authority plans to once again award about \$1 billion for these projects, which is a more than 50% increase over 2020 awards.

Planned Awards, Contracts, and Order for Professional Services							
(\$ In Thousands)		2020 Awards	2020 Award \$	2021 Awards	2021 Award \$	2022 Awards	2022 Award \$
Fund	Fund Name	Actual		Budget		Budget	
500	2022-2026 Capital Improvement Program	19	\$78,145	58	\$659,118	36	\$801,250
392	2019 Capital Improvement Program	25	388,150	7	131,296	—	—
390	2008 Capital Improvement Program	—	—	2	2,200	—	—
400	Supplemental Capital Program	7	24,887	5	25,813	2	38,100
049	Special Project Reserve Fund	6	5,312	7	9,024	3	23,600
039	Maintenance Reserve Fund	24	157,419	29	130,286	28	158,300
Totals		81	\$653,913	108	\$957,737	69	\$1,021,250

— Totals may not add due to rounding

Figure 124: Planned Awards, Contracts, and Order for Professional Services (2020-2022)

The 2022 rolling five-year Capital Spending Program includes \$5.8 billion to be spent during 2022-2026, or an average of \$1.2 billion per year. Approximately 29%, or \$1.7 billion, will be funded by revenue, leaving 71%, or \$4.1 billion to be funded by bond proceeds. Of the total \$5.8 billion to be spent, 34% is budgeted to be spent on Bridge Construction, Preservation, and Security, while 25% is for Capacity Enhancements on both roadways. These, along with 16% that is budgeted to be spent on Pavement Resurfacing and Drainage Structures, combine for a total of 75% of the budgeted spending.

Capital Spending Program — Spending by Category or Functional Area					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Capitalized Projects by Category					
Roadway					
Bridge Construction, Preservation & Security	\$ 198,023	341,803	355,534	13,731	4.0%
Capacity Enhancements - Turnpike	273	24,381	42,636	18,255	74.9%
Capacity Enhancements - Parkway	4,611	3,057	500	(2,557)	(83.6)%
Pavement Resurfacing	88,396	98,471	111,789	13,318	13.5%
Interchanges	57,226	58,515	24,462	(34,053)	(58.2)%
Concrete Barrier	5,878	23,129	9,338	(13,791)	(59.6)%
Drainage Structures	12,283	69,736	79,001	9,265	13.3%
Roadway Lighting	12,939	52,931	18,217	(34,714)	(65.6)%
Other Roadway Improvements	63,527	87,629	114,270	26,641	30.4%
Total Roadway	\$ 443,157	759,652	755,747	(3,905)	(0.5)%
Non-Roadway					
Facilities	\$ 30,356	66,781	49,014	(17,767)	(26.6)%
Fleet	11,247	22,797	36,430	13,633	59.8%
Service Areas & Arts Center	21,209	22,449	48,257	25,808	115.0%
Technology Improvements	11,212	88,459	65,121	(23,338)	(26.4)%
Total Non-Roadway	\$ 74,023	200,486	198,822	(1,664)	(0.8)%
Total Capitalized Projects	\$ 517,179	960,138	954,569	(5,569)	(0.6)%
Expensed Projects by Functional Area					
Maintenance of Infrastructure	\$ 20,524	1,533	4,960	3,427	223.5%
Traffic Control & State Police	479	2,500	1,437	(1,063)	(42.5)%
Technology	1,980	8,440	7,619	(821)	(9.7)%
General & Administrative	484	1,500	590	(910)	(60.7)%
Total Expensed Projects	\$ 23,467	13,973	14,606	633	4.5%
Total Spending (Capitalized+Expensed)	\$ 540,646	974,110	969,173	(4,937)	(0.5)%

— Totals may not add due to rounding

Figure 125: Capital Spending Program by Category or Functional Area (2020-2022)

Capital Spending Program — Funding Sources					
<i>(\$ in Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Revenue Funded					
Maintenance Reserve Fund	\$ 165,364	185,292	219,787	34,495	18.6%
Special Project Reserve Fund	35,836	73,912	76,137	2,225	3.0%
Supplemental Capital Program	72,021	73,380	74,950	1,570	2.1%
Passaic River Bridge Program (1)	8,747	—	—	—	—%
Total Revenue Funded	\$ 281,968	332,584	370,875	38,291	11.5%
Bond Funded					
2022-2026 Capital Improvement Program	\$ 1,450	227,356	351,630	124,274	54.7%
2019 Capital Improvement Program	102,376	268,136	172,507	(95,629)	(35.7)%
2008 \$7 Billion Capital Improvement Program	154,851	146,034	74,160	(71,874)	(49.2)%
Total Bond Funded	\$ 258,677	641,526	598,297	(43,229)	(6.7)%
Total Funding Sources	\$ 540,646	974,110	969,173	(4,937)	(0.5)%

(1) 2021 onwards spending for the Passaic River Bridges is moved to the 2019 Capital Improvement Program

— Totals may not add due to rounding

Figure 126: Capital Spending Program Funding Source (2020-2022)

2022-2026 Rolling 5-Year Capital Spending Program by Category or Functional Area						
Revenue Funded and Bond Funded						
(\$ In Thousands)	Spending Plan					
	2022	2023	2024	2025	2026	Total
Capitalized Projects by Category						
Roadway						
Bridge Construction, Preservation & Security	\$ 355,534	478,906	462,560	391,320	289,088	1,977,407
Capacity Enhancements - Turnpike	42,636	149,942	215,504	323,593	700,005	1,431,681
Capacity Enhancements - Parkway	500	2,700	800	751	3,796	8,547
Pavement Resurfacing	111,789	127,648	90,563	100,534	110,000	540,534
Interchanges	24,462	5,275	7,840	2,458	20,547	60,582
Concrete Barrier	9,338	6,390	8,525	8,461	4,500	37,212
Drainage Structures	79,001	94,551	52,686	92,877	72,035	391,152
Roadway Lighting	18,217	20,636	43,028	51,333	11,683	144,897
Other Roadway Improvements	114,270	104,407	174,416	107,030	56,873	556,995
Total Roadway	\$ 755,747	990,455	1,055,923	1,078,357	1,268,527	5,149,008
Non-Roadway						
Facilities	\$ 49,014	48,929	38,853	24,813	24,313	185,920
Fleet	36,430	25,727	26,603	27,524	28,790	145,074
Service Areas & Arts Center	48,257	15,655	6,255	7,355	5,750	83,271
Technology Improvements	65,121	60,338	27,000	27,000	27,000	206,459
Total Non-Roadway	\$ 198,822	150,649	98,711	86,692	85,853	620,724
Total Capitalized Projects	\$ 954,569	1,141,104	1,154,634	1,165,049	1,354,380	5,769,732
Expensed Projects by Functional Area						
Maintenance of Infrastructure	\$ 4,960	5,350	5,250	5,250	5,250	26,060
Traffic Control & State Police	1,437	1,227	1,000	1,000	1,000	5,664
Technology	7,619	3,160	1,500	1,000	1,000	14,279
General & Administrative	590	400	400	400	400	2,190
Total Expensed Projects	\$ 14,606	10,137	8,150	7,650	7,650	48,193
Total Spending (Capitalized+Expensed)	\$ 969,173	1,151,241	1,162,784	1,172,698	1,362,030	5,817,925

– Totals may not add due to rounding

Figure 127: 2022-2026 Rolling Five-Year Capital Spending Program by Category or Functional Area (Revenue Funded and Bond Funded)

2022-2026 Rolling 5-Year Capital Spending Program						
Funding Sources						
(\$ In Thousands)	Spending Plan					
Revenue Funded	2022	2023	2024	2025	2026	Total
Maintenance Reserve Fund	\$ 219,787	231,666	207,975	218,297	227,263	1,104,989
Special Project Reserve Fund	76,137	58,172	44,342	43,496	44,502	266,650
Supplemental Capital Program	74,950	64,227	58,750	58,750	58,750	315,427
Total Revenue Funded	\$ 370,875	354,064	311,068	320,543	330,515	1,687,065
Bond Funded	2022	2023	2024	2025	2026	Total
2022-2026 Capital Improvement Program	\$ 351,630	655,182	813,623	831,661	1,024,973	3,677,070
2019 Capital Improvement Program	172,507	119,482	36,339	18,845	5,000	352,173
2008 \$7 Billion Capital Improvement Program	74,160	22,512	1,754	1,648	1,542	101,617
Total Bond Funded	\$ 598,297	797,177	851,716	852,155	1,031,515	4,130,859
Total Capital Spending	\$ 969,173	1,151,241	1,162,784	1,172,698	1,362,030	5,817,925
Percentage Revenue Funded	38%	31%	27%	27%	24%	29%
Percentage Bond Funded	62%	69%	73%	73%	76%	71%

- Totals may not add due to rounding

Figure 128: 2022-2026 Rolling Five-Year Capital Spending Program by Funding Source (Revenue Funded and Bond Funded)

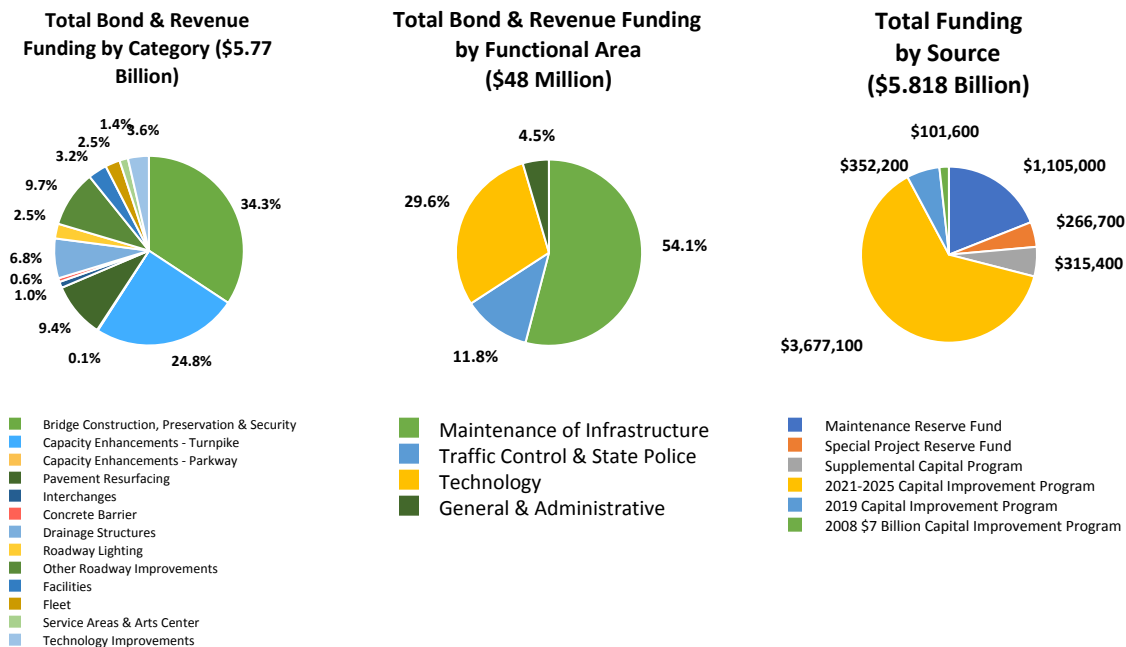


Figure 129: Total Bond & Revenue Funded by Category or Functional Area and Total Funding by Source Pie Charts (2022-2026)

Capital Spending Program - Benefit of Projects

All projects submitted for consideration for funding in the 2022-2026 Rolling Five-Year Capital Spending Program were classified into one of the following eleven (11) benefit types that briefly describe the need for or benefit of the project. These benefit types 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 eleven benefit types 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, and provide a high level of service for our patrons. A summary of all the projects included in the 2022-2026 Rolling Five-Year Capital Spending Program - by benefit type is as follows:

<u>Type</u>	% of Total Capital
	<u>Spending</u> <u>Program</u>
Age or Condition of Existing	65%
Public Safety	10%
Public Benefit	9%
Strategic Goal	7%
Synergy with Other Projects	3%
Regulatory Mandate	2%
Generates Revenues	2%
Frequent Problems	2%
Employee Health & Safety	1%

Figure 130: Total Bond & Revenue Funded by Benefit of Project Percentage (2022-2026)

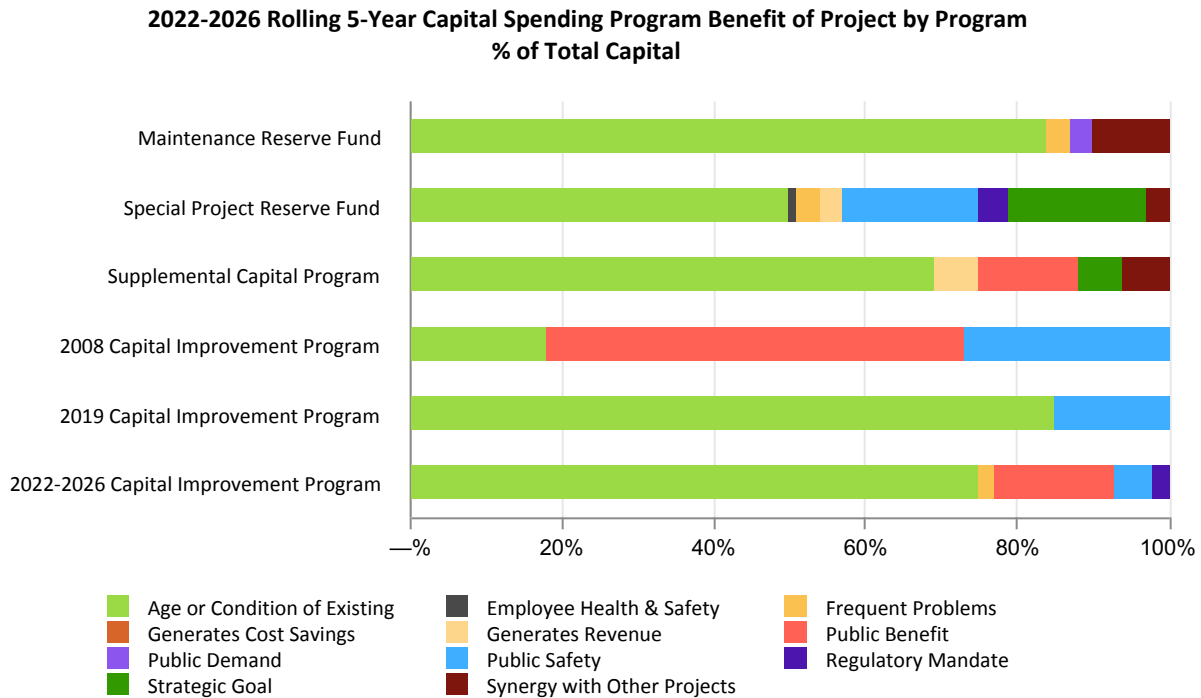


Figure 131: 2022-2026 Rolling 5-Year Capital Spending Program Benefit of Project by Program

Approximately 65% of the total funding for 2022-2026 Rolling Five-Year Capital Spending Program is intended to maintain assets in a state of good repair. This includes bridge repairs, roadway resurfacing projects and facility improvements. The Authority continues to increase its funding to maintain the roadways in a state of good repair. In 2022 the Authority will continue the goal of resurfacing at least 395 lane miles per year (12-year repaving cycle). Approximately 10% of the total 2022-2026 Rolling Five-Year Capital Spending Program is for projects which are intended to improve Public Safety, such as providing shoulder widening and more effective signage, along with programs that will provide a benefit to the public other than safety, such as the evaluation of interchanges or sections of the roadway that may be improved to provide patrons with a more efficient travel experience.

Capital Budget (Revenue Funded)

The 2022 Capital Budget includes the Maintenance Reserve Fund, the Special Project Reserve Fund, and the Supplemental Capital Program. The Capital Budget primarily supports the spending for the maintenance of both roadways and bridges, scheduled fleet replacement based on target lifecycles, several multi-year capital program projects, such as pavement repairs, replacement of toll collection equipment, etc. The spending from the Maintenance Reserve Fund and Special Project Reserve Fund is funded from the Authority's revenue after paying for the operating expenses and debt service. These two funds are separate funds established by the Authority's Bond Resolution. The spending from the Supplemental Capital Program is funded by transfers from the General Reserve Fund. This program is a separate account in the Construction Fund. The Construction Fund is established by the Authority's Bond Resolution.

Capital Budget — Spending by Category or Functional Area					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Capitalized Projects by Category					
Roadway					
Bridge Construction, Preservation & Security	\$ 71,424	90,621	84,499	(6,122)	(6.8)%
Pavement Resurfacing	88,396	98,471	111,789	13,318	13.5%
Drainage Structures	12,128	5,750	5,871	121	2.1%
Roadway Lighting	12,880	20,100	3,871	(16,229)	(80.7)%
Other Roadway Improvements	14,885	26,852	39,581	12,729	47.4%
Total Roadway	\$ 199,715	241,794	245,611	3,817	1.6%
Non-Roadway					
Facilities	\$ 20,005	45,781	39,166	(6,615)	(14.4)%
Fleet	11,247	22,797	36,430	13,633	59.8%
Service Areas & Arts Center	19,774	200	17,750	17,550	8775.0%
Technology Improvements	7,761	8,040	17,313	9,273	115.3%
Total Non-Roadway	\$ 58,787	76,817	110,658	33,841	44.1%
Total Capitalized Projects	\$ 258,501	318,611	356,269	37,658	11.8%
Expensed Projects by Functional Area					
Maintenance of Infrastructure	\$ 20,524	1,533	4,960	3,428	223.6%
Traffic Control & State Police	479	2,500	1,437	(1,063)	(42.5)%
Technology	1,980	8,440	7,619	(821)	(9.7)%
General & Administrative	484	1,500	590	(910)	(60.7)%
Total Expensed Projects	\$ 23,467	13,973	14,606	633	4.5%
Total Spending (Capitalized+Expensed)	\$ 281,968	332,584	370,875	38,291	11.5%

— Totals may not add due to rounding

Figure 132: Capital Budget Spending by Category or Functional Area (2020-2022)

Capital Budget — Funding Sources					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Revenue Funded					
Maintenance Reserve Fund	\$ 165,364	185,292	219,787	34,495	18.6%
Special Project Reserve Fund	35,836	73,912	76,137	2,225	3.0%
Supplemental Capital Program	72,021	73,380	74,950	1,570	2.1%
Passaic River Bridge Program (1)	8,747	—	—	—	—%
Total Funding Sources	\$ 281,968	332,584	370,875	38,291	11.5%

(1) 2021 onwards spending for the Passaic River Bridges is moved to the 2019 Capital Improvement Program

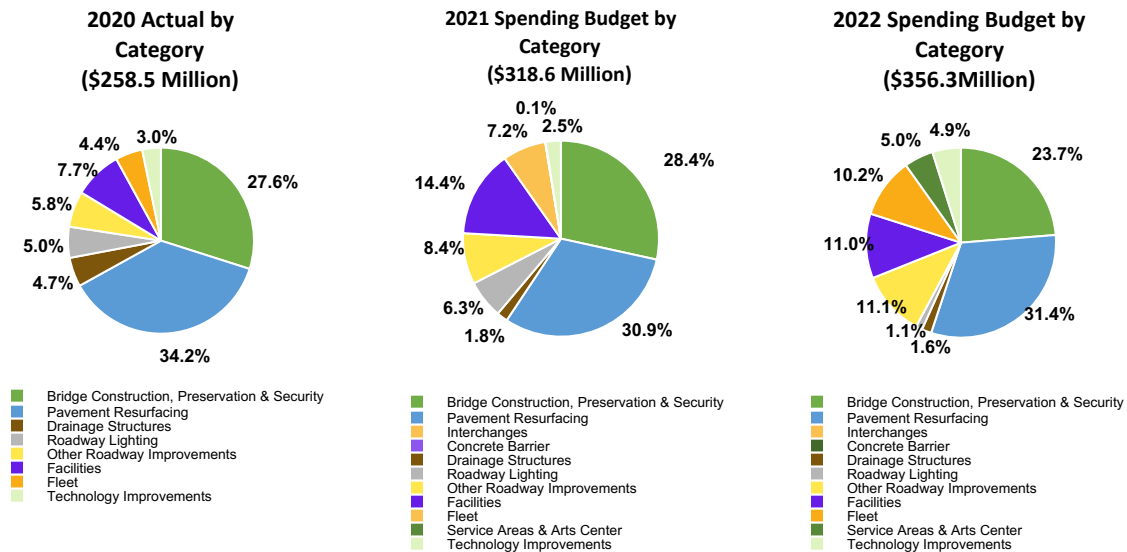
— Totals may not add due to rounding

Figure 133: Capital Budget Funding Sources (2020-2022)

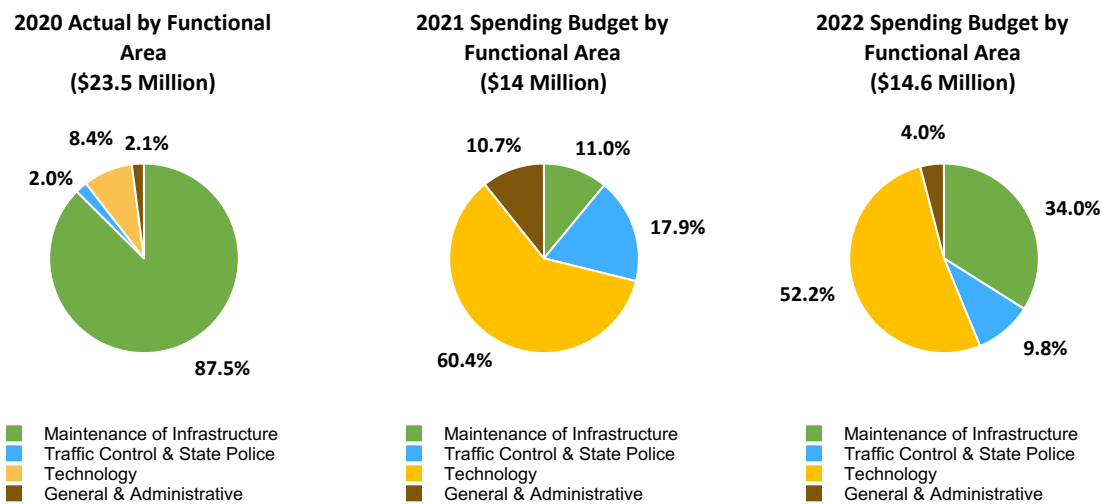
The 2022 spending budget is \$370.9 million, an increase of \$38.3 million in comparison to the 2021 spending budget. This increase is primarily due to an increase in pavement resurfacing projects on both the roadways and the new service area improvement projects on the Parkway. There is a budgeted increase in spending for fleet purchases which were delayed in 2021 due to the global product shortage and shipping delays, resulting in the costs rolling into 2022. Fleet spending in 2022 also includes budgeted spending for 2022 fleet purchases.

The 2022 spending budget includes 32% to be spent for Pavement Resurfacing, 24% to be spent for Bridge Construction, Preservation, and Security, and 11% to be spent on Facilities. These three categories alone represent the majority of the total 2022 spending budget, combining for a total of 66% of the 2022 spending budget.

Capital Budget — Capitalized Projects — Spending by Category



Capital Budget — Expensed Projects — Spending by Functional Area



Capital Budget — Spending by Funding Source

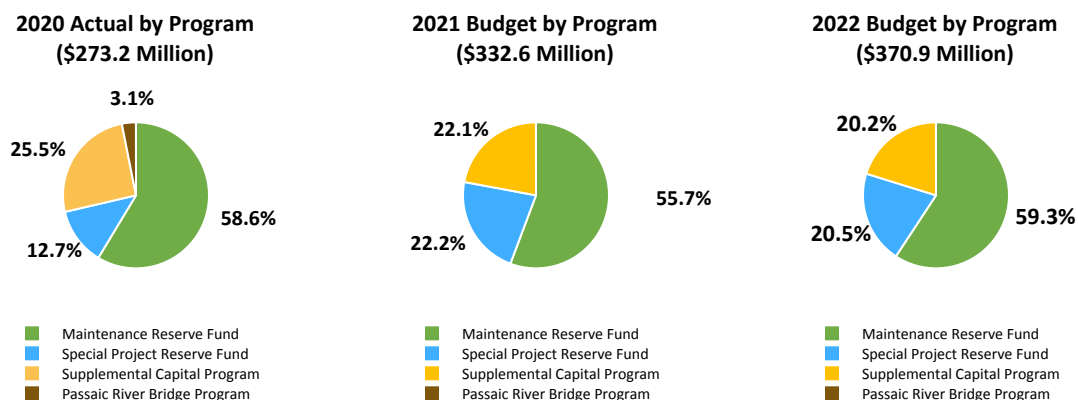


Figure 134: Capital Budget Spending by Category, Functional Area & Funding Source Graphs (2020-2022)

The 2022-2026 Rolling Five-Year Capital Budget spending plan totals to \$1.69 billion and has an average spend of about \$336 million per year.

2022-2026 Rolling 5-Year Capital Budget by Category or Functional Area Revenue Funded						
(\$ In Thousands)	Spending Plan					
	2022	2023	2024	2025	2026	Total
Capitalized Projects by Category						
Roadway						
Bridge Construction, Preservation & Security	\$ 84,499	63,134	76,974	76,510	76,500	377,617
Pavement Resurfacing	111,789	127,648	90,563	100,534	110,000	540,534
Drainage Structures	5,871	5,063	5,000	5,000	5,000	25,934
Roadway Lighting	3,871	3,000	3,000	3,000	3,000	15,871
Other Roadway Improvements	39,581	62,649	49,715	49,263	48,513	249,718
Total Roadway	\$ 245,611	\$ 261,492	\$ 225,252	\$ 234,307	\$ 243,013	1,209,674
Non-Roadway						
Facilities	\$ 39,166	28,279	23,313	23,313	23,313	137,384
Fleet	36,430	25,727	26,603	27,524	28,790	145,074
Service Areas & Arts Center	17,750	750	750	750	750	20,750
Technology Improvements	17,313	27,680	27,000	27,000	27,000	125,993
Total Non-Roadway	\$ 110,658	82,436	77,666	78,586	79,852	429,198
Total Capitalized Projects	\$ 356,269	343,927	302,918	312,893	322,865	1,638,872
Expensed Projects by Functional Area						
Maintenance of Infrastructure	\$ 4,960	5,350	5,250	5,250	5,250	26,060
Traffic Control & State Police	1,437	1,227	1,000	1,000	1,000	5,664
Technology	7,619	3,160	1,500	1,000	1,000	14,279
General & Administrative	590	400	400	400	400	2,190
Total Expensed Projects	\$ 14,606	10,137	8,150	7,650	7,650	48,193
Total Spending (Capitalized+Expensed)	\$ 370,875	354,064	311,068	320,543	330,515	1,687,065

— Totals may not add due to rounding

Figure 135: 2022-2026 Rolling Five-Year Capital Budget Spending by Category or Functional Area (Revenue Funded)

Capital Budget — Funding Sources						
(\$ In Thousands)	Spending Plan					
	2022	2023	2024	2025	2026	Total
Revenue Funded						
Maintenance Reserve Fund	\$ 219,787	231,666	207,975	218,297	227,263	1,104,989
Special Project Reserve Fund	76,137	58,172	44,342	43,496	44,502	266,650
Supplemental Capital Program	74,950	64,227	58,750	58,750	58,750	315,427
Total Revenue Funded	\$ 370,875	354,064	311,068	320,543	330,515	1,687,065

— Totals may not add due to rounding

Figure 136: 2022-2026 Rolling Five-Year Capital Budget Spending by Funding Source (Revenue Funded)

Maintenance Reserve Fund

The Maintenance Reserve Fund primarily supports spending for the maintenance and resurfacing of roadways and bridges on both the Turnpike and Parkway. These projects have a combined spending budget for 2022 of \$220 million, and a rolling five-year spending plan of \$1.1 billion. The spending budget for 2022 is increasing by 19% compared to 2021, and includes funding primarily for Bridge Construction, Preservation, and Security, and Pavement Resurfacing. The 2022 Maintenance Reserve Fund also includes projects moved from the Special Project Reserve Fund and Supplemental Capital Program for Facilities, including major building and roofing replacements.

In 2022 the two highest program categories are Bridge Construction, Preservation and Security and Pavement Resurfacing which includes:

- Turnpike Bridge Repairs 21 Southbound & 22 Northbound
- Turnpike Resurfacing 230 lane miles
- Parkway Bridge Repairs 22 Southbound & 14 Northbound
- Parkway Resurfacing 165 lane miles

The following chart shows the actual spending for 2020 as well as the budgeted spending for 2021 and 2022:

Maintenance Reserve Fund — Spending by Category					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Capitalized Projects by Category					
Roadway					
Bridge Construction, Preservation & Security	\$ 60,691	85,421	82,459	(2,962)	(3.5)%
Pavement Resurfacing	77,904	70,471	87,053	16,582	23.5%
Drainage Structures	12,128	5,750	5,871	121	2.1%
Roadway Lighting	12,597	19,600	3,871	(15,729)	(80.3)%
Other Roadway Improvements	2,044	4,050	19,506	15,456	381.6%
Total Roadway	\$ 165,364	185,292	198,760	13,468	7.3%
Non-Roadway					
Facilities	\$ —	—	21,028	21,028	—%
Total Non-Roadway	\$ —	—	21,028	21,028	—%
Total Spending (Capitalized)	\$ 165,364	185,292	219,787	34,495	18.6%

— Totals may not add due to rounding

Figure 137: Maintenance Reserve Fund Spending by Category (2020-2022)

Maintenance Reserve Fund Balance									
	2020	2021	2022	\$ Δ	% Δ	2023	2024	2025	2026
(\$ In Thousands)	Actual	Est/ Actual	Budget	from 2021	from 2021	Plan	Plan	Plan	Plan
Beginning Balance	\$ 84,023	52,756	65,639	12,883	24.4%	45,852	24,185	36,210	47,913
Transfer from Revenue Fund	134,097	160,000	200,000	40,000	25.0%	210,000	220,000	230,000	236,900
Total Project Spending	(165,364)	(147,117)	(219,787)	(72,670)	49.4%	(231,666)	(207,975)	(218,297)	(227,263)
Ending Balance	\$52,756	65,639	45,852	(19,787)	(30.1)%	24,185	36,210	47,913	57,550

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

— Totals may not add due to rounding

Figure 138: Maintenance Reserve Fund Balance (2020-2026)

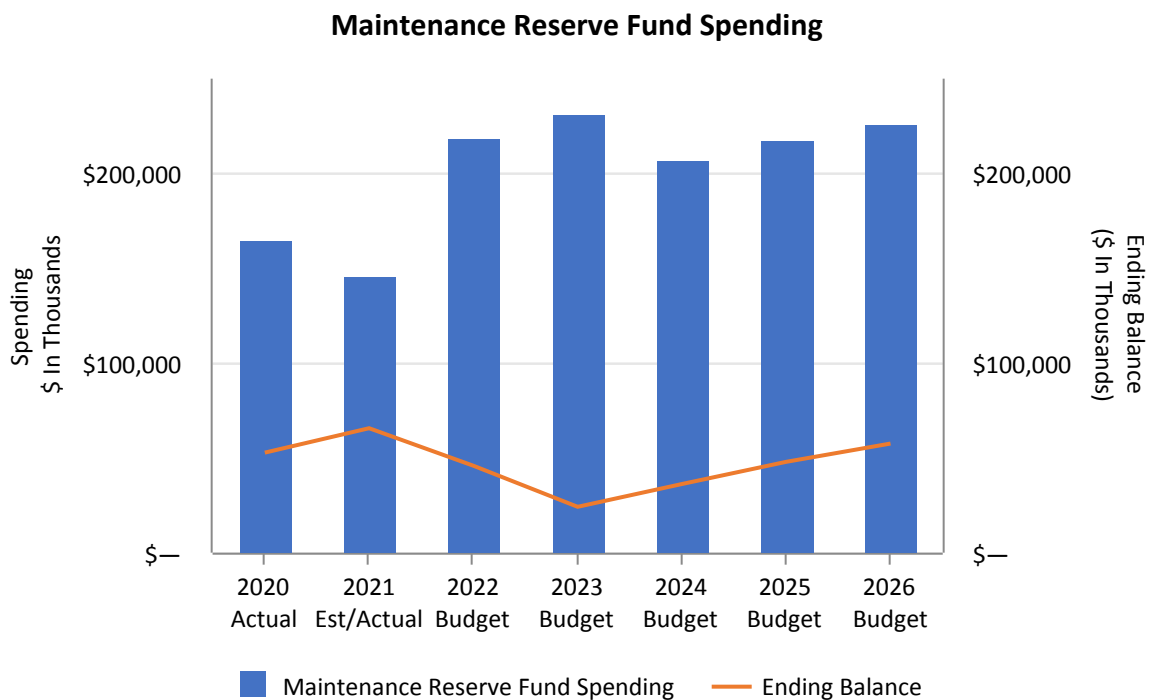


Figure 139: Maintenance Reserve Fund Spending Graph (2020-2026)

Maintenance Reserve Fund Project Summary			
<i>(\$ In Thousands)</i>	2022 Total Project Budget	Spent/Committed Through 10/31/21	% of Budget
Capitalized Projects by Category — Current Projects			
Roadway			
Bridge Construction, Preservation & Security	\$ 216,989	126,408	58.3%
Pavement Resurfacing	199,438	132,301	66.3%
Drainage Structures	50,572	24,681	48.8%
Roadway Lighting	41,146	32,154	78.1%
Other Roadway Improvements	34,858	3,188	9.1%
Total Roadway	\$ 543,003	318,732	58.7%
Non-Roadway			
Facilities	\$ 95,805	—	—%
Total Non-Roadway	\$ 95,805	—	—%
Total Current Projects	\$ 638,809	318,732	49.9%
Capitalized Projects by Category — Future Projects			
Roadway			
Bridge Construction, Preservation & Security	\$ 260,000	—	
Pavement Resurfacing	428,500	—	
Other Roadway Improvements	59,675	—	
Total Roadway	\$ 748,175	—	
Total Future Projects	\$ 748,175	—	
Total Spending (Capitalized)	\$ 1,386,984		

— Totals may not add due to rounding

Figure 140: Maintenance Reserve Fund Project Summary

Maintenance Reserve Fund 2022-2026 Rolling 5-Year Spending Plan by Category						
<i>(\$ In Thousands)</i>	2022	2023	2024	2025	2026	Total 5-Year
Capitalized Projects by Category						
Roadway						
Bridge Construction, Preservation & Security	\$ 82,459	59,708	75,150	75,000	75,000	367,317
Pavement Resurfacing	87,053	127,433	90,563	100,534	110,000	515,583
Drainage Structures	5,871	5,063	5,000	5,000	5,000	25,934
Roadway Lighting	3,871	3,000	3,000	3,000	3,000	15,872
Other Roadway Improvements	19,506	18,963	16,763	17,263	16,763	89,256
Total Roadway	\$ 198,760	214,167	190,475	200,797	209,763	1,013,961
Non-Roadway						
Facilities	\$ 21,028	17,499	17,500	17,500	17,500	91,028
Total Non-Roadway	\$ 21,028	17,499	17,500	17,500	17,500	91,028
Total Spending (Capitalized)	\$219,787	231,666	207,975	218,297	227,263	1,104,989

– Totals may not add due to rounding

Figure 141: Maintenance Reserve Fund Five-Year Spending Plan by Category (2022-2026)

The Maintenance Reserve Fund has a five-year spending plan of approximately \$1.1 billion. Of this, approximately \$367 million is budgeted for Bridge Construction, Preservation and Security, and \$516 million is budgeted for Pavement Resurfacing. The combined cost of these two categories accounts for 80% of the rolling five-year spending budget.

Rolling five-year individual project spending plans within the Maintenance Reserve Fund are shown below:

Maintenance Reserve Fund — Total Project Spending Plan						
(\$ In Thousands)						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5- Year Spending Plan
Capitalized Projects						
Prior Approved Projects						
TPK Resurfacing MP 24.5 TO 35.5 NB & SB Roadways - Section 3	\$ 26,990	10	—	—	—	27,000
TPK MP 92-122 & NBHCE	24,439	450	30	—	—	24,919
GSP Resurfacing MP 80.8 TO 91.5 NB & SB Roadways - Section 6	22,991	9	—	—	—	23,000
TPK MP 0-92 PHM Extension	20,327	672	20	—	—	21,019
GSP MP 0-126	14,153	1,706	50	—	—	15,909
TPK Resurfacing MP 3.0 TO 12.1 NB & SB Roadways - Section 1	13,995	5	—	—	—	14,000
GSP MP 126-172	12,534	1,271	50	—	—	13,855
GSP Resurfacing MP 0.0 TO 7.0 NB & SB Roadways - Section 1	8,997	3	—	—	—	9,000
TPK Resurfacing MP 0 TO 122 - Various (2022)	5,998	2	—	—	—	6,000
TPK Resurfacing	5,031	—	—	—	—	5,031
GSP Bridge Repairs	4,262	—	—	—	—	4,262
TPK Bridge Repairs	1,745	609	—	—	—	2,353
TPK Section 19&20 Various Structures	1,062	—	—	—	—	1,062
Cleanup Contract MP 0-122	990	—	—	—	—	990
TPK Section 16 MP 96.23-101.03	500	—	—	—	—	500
Roadway Lighting Repairs	444	—	—	—	—	444
Immediate Drainage	375	—	—	—	—	375
Drainage Structure Repairs (Engineering)	355	63	—	—	—	418
Electrical Repairs TPK & GSP	312	—	—	—	—	312
TPK Resurfacing 2022 Design Services	300	—	—	—	—	300
GSP Resurfacing 2022 Design Services	200	—	—	—	—	200
On Call Immediate Drainage	141	—	—	—	—	141
GSP I/C 98 Lighting Supplement	88	—	—	—	—	88
NJSP Shooting Range Gate	56	—	—	—	—	56
TPK Lighting I/C 9 & 70 A&B	27	—	—	—	—	27
TPK Resurfacing MP 35.5 TO 48.5 NB & SB Roadways - Section 4	—	35,972	28	—	—	36,000
GSP Resurfacing MP 41.7 TO 63.4 NB & SB Roadways - Section 4	—	34,973	27	—	—	35,000
GSP Bridge Repairs	—	27,000	30,000	30,000	30,000	117,000
TPK Resurfacing MP 12.1 TO 24.6 NB & SB Roadways - Section 2	—	26,979	21	—	—	27,000
TPK Bridge Repairs	—	23,000	40,000	40,000	40,000	143,000
GSP Resurfacing MP 148.8 TO 160.7 NB & SB Roadways - Section 14	—	22,982	18	—	—	23,000
TPK Resurfacing MP 0 TO 122 - Various (2023)	—	5,995	5	—	—	6,000
Major Signs	—	3,000	3,000	3,000	3,000	12,000
TPK Resurfacing 2023 Design Services	—	300	—	—	—	300
GSP Resurfacing 2023 Design Services	—	200	—	—	—	200
TPK Resurfacing MP 54.0 TO 60.0 NB & SB Roadways - Section 7	—	—	34,987	13	—	35,000
TPK Resurfacing MP 48.2 TO 54.0 NB & SB Roadways - Section 5	—	—	30,988	12	—	31,000
GSP Resurfacing MP 162.5 TO 172.4 NB & SB Roadways - Section 15	—	—	17,993	7	—	18,000
TPK Resurfacing MPS 0 TO 122 - Various (2024)	—	—	5,998	2	—	6,000
TPK Resurfacing 2024 Design Services	—	—	300	—	—	300
GSP Resurfacing 2024 Design Services	—	—	200	—	—	200
TPK Resurfacing MP 63.3 TO 70.7 NB & SB Roadways - Section 9	—	—	—	37,000	—	37,000
TPK Resurfacing MP 60.0 TO 63.3 NB & SB Roadways - Section 8	—	—	—	29,000	—	29,000
GSP Resurfacing MP 91.5 TO 104.5 NB & SB Roadways - Section 7	—	—	—	28,000	—	28,000
TPK Resurfacing MP 0 TO 122 - Various (2025)	—	—	—	6,000	—	6,000
TPK Resurfacing 2025 Design Services	—	—	—	300	—	300

Maintenance Reserve Fund — Total Project Spending Plan						
(\$ In Thousands)						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5- Year Spending Plan
GSP Resurfacing 2025 Design Services	—	—	—	200	—	200
GSP Resurfacing	—	—	—	—	30,000	30,000
TPK Resurfacing	—	—	—	—	80,000	80,000
Contingency 2022-2026	5,000	5,000	5,000	5,000	5,000	25,000
Total Prior Approved Projects	\$ 171,310	190,204	168,713	178,534	188,000	896,761
New Projects						
2022 Roadside Barrier Improvements	\$ 8,800	—	—	—	—	8,800
2022 Major Building Improvements	7,000	—	—	—	—	7,000
Roadway Improvements & Immediate Repairs	5,000	5,000	5,000	5,000	5,000	25,000
Drainage Immediate Repairs	5,000	5,000	5,000	5,000	5,000	25,000
2022 Utility Replacement & Improvements	4,000	—	—	—	—	4,000
2022 TPK & GSP Major Roofing Replacements	4,000	—	—	—	—	4,000
2022 On-Call Major Sign & Safety Replacement/Improvements	3,350	—	—	—	—	3,350
Major Building Improvements TPK	3,250	—	—	—	—	3,250
Lighting and Electrical Immediate Repairs	3,000	3,000	3,000	3,000	3,000	15,000
2022 Generator Replacements	2,500	—	—	—	—	2,500
Service Area Renaming	2,300	—	—	—	—	2,300
2021 HVAC & Boiler Replacement	183	—	—	—	—	183
2021 HVAC Upgrades at Various Locations	94	—	—	—	—	94
2023 Major Building Improvements	—	7,000	—	—	—	7,000
2023 Roadside Barrier Improvements	—	6,700	—	—	—	6,700
Major Sign & Safety Replacement/Improvements	—	4,263	3,763	4,263	3,763	16,050
2023 Utility Replacement & Improvements	—	4,000	—	—	—	4,000
2023 TPK & GSP Major Roofing Replacements	—	4,000	—	—	—	4,000
2023 Generator Replacements	—	2,500	—	—	—	2,500
2024 Major Building Improvements	—	—	7,000	—	—	7,000
2024 Roadside Barrier Improvements	—	—	5,000	—	—	5,000
2024 Utility Replacement & Improvements	—	—	4,000	—	—	4,000
2024 TPK & GSP Major Roofing Replacements	—	—	4,000	—	—	4,000
2024 Generator Replacements	—	—	2,500	—	—	2,500
2025 Major Building Improvements	—	—	—	7,000	—	7,000
2025 Roadside Barrier Improvements	—	—	—	5,000	—	5,000
2025 Utility Replacement & Improvements	—	—	—	4,000	—	4,000
2025 TPK & GSP Major Roofing Replacements	—	—	—	4,000	—	4,000
2025 Generator Replacements	—	—	—	2,500	—	2,500
2026 Major Building Improvements	—	—	—	—	7,000	7,000
2026 Roadside Barrier Improvements	—	—	—	—	5,000	5,000
2026 Utility Replacement & Improvements	—	—	—	—	4,000	4,000
2026 TPK & GSP Major Roofing Replacements	—	—	—	—	4,000	4,000
2026 Generator Replacements	—	—	—	—	2,500	2,500
Total New Projects	\$ 48,478	41,462	39,263	39,763	39,263	208,228
Total 2022-2026 Capitalized Project Spending Plan	\$ 219,787	231,666	207,975	218,297	227,263	1,104,989

— Totals may not add due to rounding

Figure 142: Maintenance Reserve Fund Five-Year Spending Plan by Capitalized Project (2022-2026)

The chart below shows the 2022 Total Project Budget for each project included in the Maintenance Reserve Fund as compared to its 2021 Total Project Budget. The Total Project Budget includes prior estimated/actual project life-to-date spending, the rolling five-year spending plan, and any future spending on the project beyond 2026.

Maintenance Reserve Fund — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated / Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from 2021
Capitalized Projects						
Prior Approved Projects						
TPK Bridge Repairs	\$ 143,000	—	—	143,000	105,000	38,000
GSP Bridge Repairs	117,000	—	—	117,000	110,251	6,749
TPK Resurfacing	80,000	—	—	80,000	280,000	(200,000)
TPK Resurfacing MP 63.3 TO 70.7 NB & SB Roadways - Section 9	37,000	—	—	37,000	—	37,000
TPK Resurfacing MP 35.5 TO 48.5 NB & SB Roadways - Section 4	36,000	—	—	36,000	—	36,000
GSP Resurfacing MP 41.7 TO 63.4 NB & SB Roadways - Section 4	35,000	—	—	35,000	—	35,000
TPK Resurfacing MP 54.0 TO 60.0 NB & SB Roadways - Section 7	35,000	—	—	35,000	—	35,000
TPK Resurfacing MP 48.2 TO 54.0 NB & SB Roadways - Section 5	31,000	—	—	31,000	—	31,000
GSP Resurfacing	30,000	—	—	30,000	140,000	(110,000)
TPK Resurfacing MP 60.0 TO 63.3 NB & SB Roadways - Section 8	29,000	—	—	29,000	—	29,000
GSP Resurfacing MP 91.5 TO 104.5 NB & SB Roadways - Section 7	28,000	—	—	28,000	—	28,000
TPK Resurfacing MP 24.5 TO 35.5 NB AND SB Roadways - Section 3	27,000	—	—	27,000	—	27,000
TPK Resurfacing MP 12.1 TO 24.6 NB & SB Roadways - Section 2	27,000	—	—	27,000	—	27,000
TPK MP 92-122 & NBHCE	24,919	9,886	—	34,805	36,059	(1,254)
GSP Resurfacing MP 80.8 TO 91.5 NB & SB Roadways - Section 6	23,000	—	—	23,000	—	23,000
GSP Resurfacing MP 148.8 TO 160.7 NB & SB Roadways - Section 14	23,000	—	—	23,000	—	23,000
TPK MP 0-92 PHM Extension	21,019	8,044	—	29,063	32,333	(3,270)
GSP Resurfacing MP 162.5 TO 172.4 NB & SB Roadways - Section 15	18,000	—	—	18,000	—	18,000
GSP MP 0-126	15,909	6,492	—	22,401	10,506	11,895
TPK Resurfacing MP 3.0 TO 12.1 NB AND SB Roadways - Section 1	14,000	—	—	14,000	—	14,000
GSP MP 126-172	13,855	462	—	14,317	1,236	13,081
Major Signs	12,000	—	—	12,000	12,000	—
GSP Resurfacing MP 0.0 TO 7.0 NB & SB Roadways - Section 1	9,000	—	—	9,000	—	9,000
TPK Resurfacing MP 0 TO 122 - Various (2022)	6,000	—	—	6,000	—	6,000
TPK Resurfacing MP 0 TO 122 - Various (2023)	6,000	—	—	6,000	—	6,000
TPK Resurfacing MP 0 TO 122 - Various (2024)	6,000	—	—	6,000	—	6,000
TPK Resurfacing MP 0 TO 122 - Various (2025)	6,000	—	—	6,000	—	6,000
TPK Resurfacing	5,031	60,405	—	65,436	70,702	(5,266)
GSP Bridge Repairs	4,262	39,697	—	43,959	45,060	(1,101)
TPK Bridge Repairs	2,353	44,907	—	47,260	46,392	868
TPK Section 19&20 Various Structures	1,062	6,692	—	7,754	22,250	(14,496)
Cleanup Contract MP 0-122	990	4,319	—	5,309	11,000	(5,691)
TPK Section 16 MP 96.23-101.03	500	8,567	—	9,067	20,250	(11,183)
Roadway Lighting Repairs	444	18,778	—	19,222	15,400	3,822
Drainage Structure Repairs (Engineering)	418	17,568	—	17,986	10,837	7,149
Immediate Drainage	375	209	—	584	600	(16)
Electrical Repairs TPK & GSP	312	174	—	487	—	487
TPK Resurfacing 2022 Design Services	300	—	—	300	—	300
TPK Resurfacing 2023 Design Services	300	—	—	300	—	300
TPK Resurfacing 2024 Design Services	300	—	—	300	—	300
TPK Resurfacing 2025 Design Services	300	—	—	300	—	300
GSP Resurfacing 2022 Design Services	200	—	—	200	—	200
GSP Resurfacing 2023 Design Services	200	—	—	200	—	200
GSP Resurfacing 2024 Design Services	200	—	—	200	—	200
GSP Resurfacing 2025 Design Services	200	—	—	200	—	200

Maintenance Reserve Fund — Total Project Budget

(\$ In Thousands)

Project Name	Rolling 5-Year Spending Plan	Estimated / Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from 2021
On Call Immediate Drainage	141	106	—	247	250	(3)
GSP I/C 98 Lighting Supplement	88	65	—	152	350	(198)
NJSP Shooting Range Gate	56	136	—	192	350	(158)
TPK Lighting I/C 9 & 70 A&B	27	479	—	506	1,250	(744)
Major Roadway Repairs	—	320	—	320	—	320
Concrete Barrier Repairs	—	1	—	1	—	1
Emergency Repairs P0.00	—	(21)	—	(21)	—	(21)
GSP Resurfacing	—	32,371	—	32,371	32,797	(426)
Major Roadway Repairs	—	1,765	—	1,765	2,508	(743)
Major Reconstruction & Replacement of Roadway Lighting	—	5,304	—	5,304	10,767	(5,463)
Drainage Structure Repairs (Maintenance)	—	4,851	—	4,851	13,319	(8,468)
HVAC & Boiler Replacement Program	—	—	—	—	15,000	(15,000)
2021 On-Call Electrical Inspector	—	391	—	391	—	391
Raritan South Tunnel	—	281	—	281	250	31
GSP SB 83 Emergency Pothole	—	40	—	40	—	40
Emergency Turnpike Southbound Pavement Repair	—	174	—	174	169	5
On-Call OPS Tasks	—	—	—	—	500	(500)
Major Roadway On-Call OPS Tasks	—	—	—	—	1,500	(1,500)
IR or On-Call OPS Tasks	—	—	—	—	3,000	(3,000)
GSP Bridge Repairs UO/Permits	—	206	—	206	206	—
Roadway Lighting IR/On-Call OPS	—	—	—	—	7,500	(7,500)
EGIS Mapping Underground Electric	—	—	—	—	1,000	(1,000)
Major Roofing Replacements	—	—	—	—	12,000	(12,000)
Major Backup Generator Replacement	—	—	—	—	15,000	(15,000)
Guide Rail	—	—	—	—	12,000	(12,000)
GSP 97 SB Pavement Repair	—	80	—	80	200	(120)
On-Call Inspector	—	104	—	104	750	(646)
Drainage Dashboard	—	—	—	—	250	(250)
Major Roadway Lighting Scoping	—	83	—	83	250	(167)
Authority Category A Reporting	—	83	—	83	250	(167)
Pavement Management Dashboard	—	167	—	167	500	(333)
Asphalt & Concrete Restoration	—	355	—	355	831	(476)
On-Call Construction Management	—	—	—	—	1,000	(1,000)
TPK Service Area 13S LED Repair	—	—	—	—	500	(500)
GSP & TPK Long Joint Repair	—	750	—	750	1,500	(750)
On-Call List per year	—	1,000	—	1,000	4,400	(3,400)
2 Pipe Crossing Replacements	—	800	—	800	4,000	(3,200)
Drainage Structure Professional Services	—	—	—	—	10,000	(10,000)
TPK Lighting I/C 7 Outside Plaza	—	—	—	—	1,650	(1,650)
Drain Structure Construction Contract	—	—	—	—	25,000	(25,000)
TPK Districts 2 & 8, Service Areas 4N & 7S, NJSP	—	—	—	—	3,500	(3,500)
TPK 15E-15W Lighting Repair	—	—	—	—	7,000	(7,000)
Roadway Lighting Pro Services	—	—	—	—	7,500	(7,500)
On-Call Inspector Electrical	—	—	—	—	1,000	(1,000)
Roadway Lighting Construction Contract	—	—	—	—	7,500	(7,500)
IR Contract Tasks	—	—	—	—	2,500	(2,500)
Major Roadway IR Contract Tasks	—	—	—	—	7,500	(7,500)
Drain Structure IR/On-Call OPS Tasks	—	—	—	—	10,000	(10,000)
Contingency	—	—	—	—	2,710	(2,710)
Contingency 2022-2026	25,000	—	—	25,000	25,000	—
Total Prior Approved Projects	\$ 871,761	276,093	—	1,147,854	1,197,173	(49,319)

Maintenance Reserve Fund — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated / Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from 2021
New Projects						
Major Building Improvements	\$ 35,000	—	—	35,000	—	35,000
Roadside Barrier Improvements	30,500	1,125	—	31,625	—	31,625
Drainage Immediate Repairs	25,000	—	—	25,000	—	25,000
Roadway Improvements & Immediate Repairs	25,000	—	—	25,000	—	25,000
Utility Replacement & Improvements	20,000	1,333	—	21,333	—	21,333
TPK & GSP Major Roofing Replacements	20,000	2,111	—	22,111	—	22,111
Major Sign & Safety Replacement/Improvement	16,050	—	—	16,050	—	16,050
Lighting and Electrical Immediate Repairs	15,000	—	—	15,000	—	15,000
Generator Replacements	12,500	1,333	—	13,833	—	13,833
2022 On-Call Major Sign & Safety Replacement/Improvement	3,350	—	—	3,350	—	3,350
Major Building Improvement TPK	3,250	—	—	3,250	—	3,250
Service Area Renaming	2,300	—	—	2,300	—	2,300
2021 HVAC & Boiler Replacement	183	—	—	183	—	183
2021 HVAC Upgrades at Various	94	—	—	94	—	94
Total New Projects	\$ 208,228	5,903	—	214,130	—	214,130
Total Capitalized Project Budget						
	\$ 1,079,989	281,996	—	1,361,984	1,197,173	164,811

— Totals may not add due to rounding

Figure 143: Maintenance Reserve Fund Total Project Budget by Capitalized Project

Maintenance Reserve Fund Capitalized Project Descriptions	
Project Name	Project Description
Prior Approved Projects	
Drainage Structure Repairs	Provide resources for the design, construction and construction supervision of scheduled major reconstruction, repairs and improvements of drainage and utility culverts with spans between 5 and 20 feet.
Roadway Lighting Repairs	Provides resources for the design, construction and construction supervision of the repairs/replacements of roadway lighting on the New Jersey Turnpike and Garden State Parkway mainlines and ramps.
Turnpike Resurfacing	Provides resources for the annual roadway resurfacing program for the New Jersey Turnpike mainline and ramps including inspection, design, construction and construction supervision. This funding allows surface course pavement to be maintained in a safe and serviceable condition for the benefit of patrons.
P.O. Emergency Repairs	Provides additional funding for increased project needs or unanticipated projects.
Turnpike Bridge Repairs	Inspection, design, construction and construction supervision for repairs of New Jersey Turnpike bridges; includes 37 bridge repairs for 2020.
Parkway Bridge Repairs	Inspection, design, construction and construction supervision for repairs of Garden State Parkway bridges; includes 24 bridge repairs in 2020.
TPK MP 92-122 & NBHCE	Inspection, design, construction and construction supervision for repairs of New Jersey Turnpike bridges.
TPK MP 0-92 PHM Extension	Inspection, design, construction and construction supervision for repairs of New Jersey Turnpike bridges.
GSP MP 0-126	Inspection, design, construction and construction supervision for repairs of Garden State Parkway bridges.
GSP MP 126-172	Inspection, design, construction and construction supervision for repairs of Garden State Parkway bridges.
IR Drainage Various Locations	Funding for stormwater system repairs and replacements with costs over \$20,000
On-Call IR Drainage Work	Funding for stormwater system repairs and replacements with costs over \$20,000
NJSP Shooting Range Gate	Funding for roadway and structural repairs with costs over \$20,000.00.
TPK Section 16 MP 83 to 122	New Jersey Turnpike Resurfacing of this section of roadway.
TPK Section 19&20 Various Structures	New Jersey Turnpike Resurfacing of this section of roadway.
Cleanup Contract MP 0-122	New Jersey Turnpike Resurfacing of this section of roadway.
TPK Lighting I/C 9 & 70 A&B	Provides resources for the design, construction and construction supervision of the repairs/replacements of roadway lighting on the New Jersey Turnpike and Garden State Parkway mainlines and ramps.
Electrical Repairs TPK & GSP	Provides resources for the design, construction and construction supervision of the repairs/replacements of roadway lighting on the New Jersey Turnpike and Garden State Parkway mainlines and ramps.
GSP I/C 98 Lighting Supplement	Provides resources for the design, construction and construction supervision of the repairs/replacements of roadway lighting on the New Jersey Turnpike and Garden State Parkway mainlines and ramps.
GSP Bridge Repairs	Inspection, design, construction and construction supervision for repairs of Garden State Parkway bridges.
GSP Resurfacing	Provides resources for the annual roadway resurfacing program for the Garden State Parkway mainline and ramps including inspection, design, construction and construction supervision. This funding allows surface course pavement to be maintained in a safe and serviceable condition for the benefit of patrons.
Major Signs	New program for Major Sign replacements at various locations on GSP and TPK
TPK Bridge Repairs	Inspection, design, construction and construction supervision for repairs of New Jersey Turnpike bridges.
TPK Resurfacing	Provides resources for the annual roadway resurfacing program for the New Jersey Turnpike mainline and ramps including inspection, design, construction and construction supervision. This funding allows surface course pavement to be maintained in a safe and serviceable condition for the benefit of patrons.
Contingency	Provides additional funding for increased project needs or unanticipated projects.
New Projects	
Drainage Immediate Repairs	Annual budget to cover drainage repairs for existing drainage structures and drainage-related appurtenances. Does not include major drainage replacements, improvements, or upgrades which are covered by bond-funded capital projects.
Lighting and Electrical Immediate Repairs	Annual budget to allow for roadway lighting and related electrical repairs. Does not include major roadway lighting upgrades or replacements, which are bond-funded capital projects. Also does not include lighting/electrical tasks for buildings/facilities, which are included in building and facilities budget.
Roadway Improvements & Immediate Repairs	Funding for roadway and structural and structural repairs with costs over \$20,000
Major Building Improvements	Major Reconstruction, Replacement and Improvements to Authority's buildings with a project cost greater than \$20,000.00.
Utility Replacement & Improvements	Funding for design, permitting, purchasing and construction resources to address immediate and scheduled utility replacements and improvements within our jurisdiction.
Roadside Barrier Improvements	Annual program to replace and improve roadside guide rail and concrete barrier.
Generator Replacements	Annual program for generator replacements when end of life is reached.
TPK & GSP Major Roofing Replacements	Annual program for full roof replacements on Authority buildings.
Major Sign & Safety Replacement/Improvement	New program for major sign replacement when funding becomes available
Service Area Renaming	Fabrication and installation of newly renamed service areas
Major Building Improvements TPK	Major Reconstruction, Replacement and Improvements to Authority's buildings with a project cost greater than \$20,000.00.
2021 HVAC & Boiler Replacement	Funding to continue the Maintenance Department's Authority wide HVAC replacement program
2021 HVAC Upgrades at Various	Funding to continue the Maintenance Department's Authority wide HVAC replacement program

Figure 144: Maintenance Reserve Fund Project Descriptions

Special Project Reserve Fund

The Special Project Reserve Fund has a 2022 spending budget of over \$76 million and a rolling five-year spending plan of nearly \$267 million. The spending for 2022 is increasing 3% compared to 2021. The 2022 Special Project Reserve Fund provides spending for the Authority's major scheduled fleet replacement program. The increase in Fleet in 2022 is due to vehicle delivery delays rolled over from 2021. Technology Improvements is increasing with the implementation of Capital Program Management System and the Phase 2 of the Enterprise Asset Management System. Maintenance of Infrastructure is increasing mainly due to the Turnpike Westerly Alignment Capacity Enhancement Study, while Facilities are decreasing as projects will be budgeted in the Maintenance Reserve Fund in 2022.

During 2022, approximately 48% of the Special Project Reserve Fund spending budget will be for Fleet replacement, while 20% is budgeted to be spent on Facility improvements.

The 2022 spending budget of \$76 million is increasing by 3% primarily because of fleet purchases which were delayed due to the global product shortage and shipping delays, resulting in the costs rolling into 2022. This also includes increase in the spending for technology improvement projects. This increase is partially offset by movement of facilities projects to Maintenance Reserve Fund.

The following chart shows the actual spending for 2020 as well as the budgeted spending for 2021 and 2022:

Special Project Reserve Fund — Spending by Category or Functional Area					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Capitalized Projects by Category					
Roadway					
Bridge Construction, Preservation & Security	\$ —	500	2,040	1,540	308.0%
Other Roadway Improvements	432	5,910	1,134	(4,776)	(80.8)%
Total Roadway	\$ 432	6,410	3,174	(3,236)	(50.5)%
Non-Roadway					
Facilities	\$ 7,004	30,071	14,965	(15,106)	(50.2)%
Fleet	11,247	22,797	36,430	13,633	59.8%
Technology Improvements	2,785	2,440	6,963	4,523	185.4%
Total Non-Roadway	\$ 21,035	55,307	58,358	3,050	5.5%
Total Capitalized Projects	\$ 21,467	61,717	61,531	(186)	(0.3)%
Expensed Projects by Functional Area					
Maintenance of Infrastructure	\$ 11,426	1,492	4,960	3,469	232.6%
Traffic Control & State Police	480	1,250	1,437	187	15.0%
Technology	1,980	7,953	7,619	(334)	(4.2)%
General & Administrative	484	1,500	590	(910)	(60.7)%
Total Expensed Projects	\$ 14,369	12,195	14,606	2,411	19.8%
Total Spending (Capitalized+Expensed)	\$ 35,836	73,912	76,137	2,225	3.0%

— Totals may not add due to rounding

Figure 145: Special Project Reserve Fund Spending by Category or Functional Area (2020-2022)

Special Project Reserve Fund Balance									
	2020	2021	2022	\$ Δ from	% Δ from	2023	2024	2025	2026
(\$ In Thousands)	Actual	Est/Act	Budget	2021	2021	Plan	Plan	Plan	Plan
Beginning Balance	\$ 77,408	52,098	56,388	4,290	8.2%	30,250	23,579	32,237	43,340
Transfer from Revenue Fund	10,526	50,000	50,000	—	—%	51,500	53,000	54,600	56,300
Total Project Spending	(35,836)	(45,710)	(76,137)	(30,427)	66.6%	(58,172)	(44,342)	(43,496)	(44,502)
Ending Balance	\$52,098	56,388	30,250	(26,137)	(46.4)%	23,579	32,237	43,340	55,138

— Totals may not add due to rounding

Figure 146: Special Project Reserve Fund Balance (2020-2026)

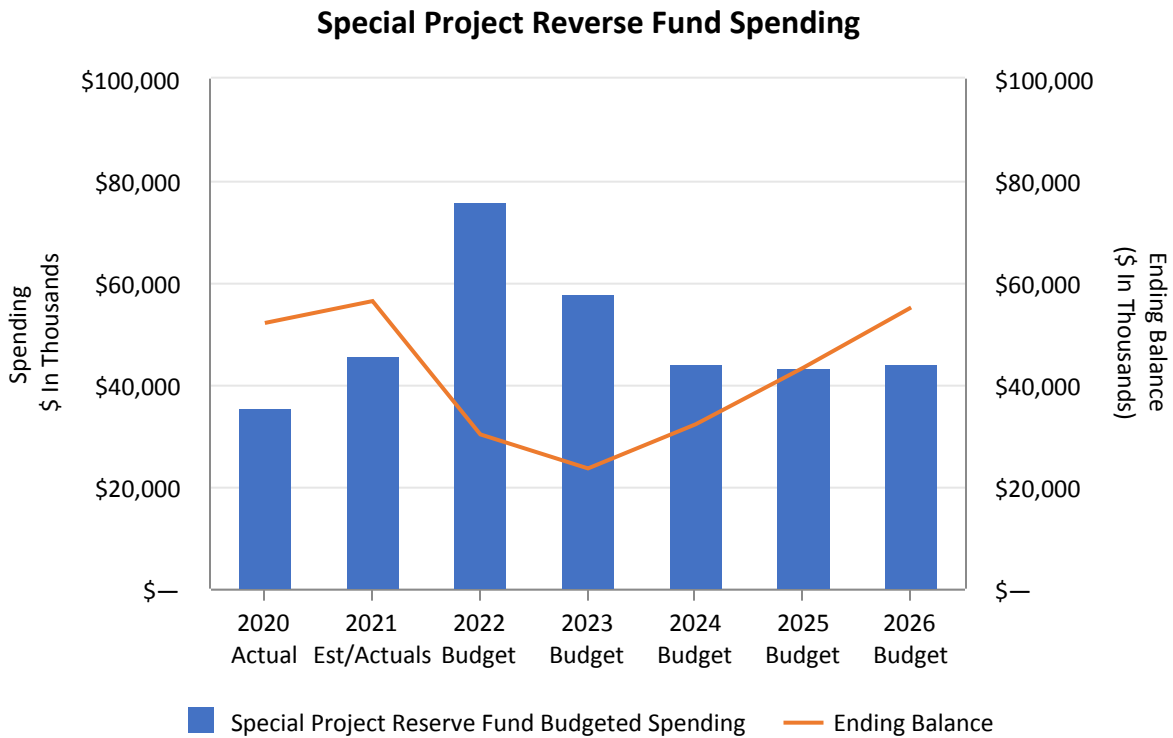


Figure 147: Special Project Reserve Fund Spending Graph (2020-2026)

Special Project Reserve Fund Project Summary			
(\$ In Thousands)	2022 Total Project Budget	Spent/Committed Through 10/31/21	% of Budget
Capitalized Projects by Category — Current Projects			
Roadway			
Bridge Construction, Preservation & Security	\$ 7,500	—	—%
Other Roadway Improvements	9,364	2,432	26.0%
Total Roadway	\$ 16,864	2,432	14.4%
Non-Roadway			
Facilities	\$ 46,812	18,855	40.3%
Fleet	170,433	32,005	18.8%
Technology Improvements	16,467	8,088	49.1%
Total Non-Roadway	\$ 233,713	58,948	25.2%
Total Capitalized Projects	\$ 250,577	61,380	24.5%
Expensed Projects by Functional Area — Current Projects			
Maintenance of Infrastructure	\$ 23,301	14,493	62.2%
Traffic Control & State Police	7,639	2,055	26.9%
Technology	25,537	6,622	25.9%
General & Administrative	3,247	1,256	38.7%
Total Expensed Projects	\$ 59,724	24,427	40.9%
Total Current Projects	\$ 310,300	85,807	27.7%
Capitalized Projects by Category — Future Projects			
Roadway			
Bridge Construction, Preservation & Security	\$ 2,800	—	
Other Roadway Improvements	5,451	—	
Total Roadway	\$ 8,251	—	
Non-Roadway			
Facilities	\$ 9,563	—	
Technology Improvements	6,000	—	
Total Non-Roadway	\$ 15,563	—	
Total Capitalized Projects	\$ 23,813	—	
Expensed Projects by Functional Area — Future Projects			
Maintenance of Infrastructure	\$ 14,000	—	
Total Expensed Projects	\$ 14,000	—	
Total Future Projects	\$ 37,813	—	
Total Spending (Capitalized+Expensed)	\$ 348,113		

— Totals may not add due to rounding

Figure 148: Special Project Reserve Fund Project Summary

Special Project Reserve Fund						
2022-2026 Rolling 5-Year Spending Plan by Category or Functional Area						
(\$ In Thousands)	2022	2023	2024	2025	2026	Total 5-Year
Capitalized Projects by Category						
Roadway						
Bridge Construction, Preservation & Security	\$ 2,040	3,426	1,824	1,510	1,500	10,300
Other Roadway Improvements	1,134	8,423	2,953	2,000	1,750	16,259
Total Roadway	\$ 3,174	11,849	4,777	3,510	3,250	26,559
Non-Roadway						
Facilities	\$ 14,965	7,779	2,813	2,813	2,813	31,181
Fleet	36,430	25,727	26,603	27,524	28,790	145,074
Technology Improvements	6,963	2,680	2,000	2,000	2,000	15,643
Total Non-Roadway	\$ 58,358	36,186	31,416	32,337	33,603	191,898
Total Capitalized Projects	\$ 61,531	48,035	36,193	35,847	36,853	218,457
Expensed Projects by Functional Area						
Maintenance of Infrastructure	\$ 4,960	5,350	5,250	5,250	5,250	26,060
Traffic Control & State Police	1,437	1,227	1,000	1,000	1,000	5,664
Technology	7,619	3,160	1,500	1,000	1,000	14,279
General & Administrative	590	400	400	400	400	2,190
Total Expensed Projects	\$ 14,606	10,137	8,150	7,650	7,650	48,193
Total Spending (Capitalized+Expensed)	\$ 76,137	58,172	44,342	43,496	44,502	266,650

— Totals may not add due to rounding

Figure 149: Special Project Reserve Fund Five-Year Spending Plan by Category or Functional Area (2022-2026)

Approximately \$267 million in total is expected to be spent based upon the rolling five-year spending plan. Of this total amount, \$145 million (54%) is budgeted for Fleet and \$27 million (10%) is budgeted for Total Roadway, while Facilities account for \$31 million (12%) and the total expensed projects (primarily studies) are \$48 million (18%).

The rolling five-year individual project spending plans within the Special Project Reserve Fund are shown below:

Special Project Reserve Fund — Total Project Spending Plan						
(\$ In Thousands)						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5- Year Spending Plan
Capitalized Projects						
Prior Approved Projects						
Major Fleet Augmentation Dump Trucks	\$ 10,600	5,565	5,843	6,135	6,442	34,586
Major Fleet Augmentation	5,731	3,749	3,936	4,133	4,339	21,887
Maintenance Vehicles	4,474	4,341	4,358	4,376	4,595	22,144
Major Fleet Augmentation Tandem Dump Trucks	4,305	2,315	2,431	2,553	2,680	14,284
State Police Vehicles	4,153	4,200	4,200	4,200	4,300	21,053
Safety Implementation at NJSP & Maintenance District	2,625	—	—	—	—	2,625
Major Fleet Augmentation Tractors	2,460	1,323	1,389	1,459	1,532	8,162
Water Wastewater & Management TPK	2,331	394	—	—	—	2,724
Stormwater Pump Replacement Building Renovations	1,976	2,174	—	—	—	4,150
Pleasant Plains Sub-Barracks	1,973	1,353	—	—	—	3,325
Enterprise Asset Management	1,655	900	—	—	—	2,555
Major Fleet Augmentation Trade Utility Trucks	1,525	992	1,042	1,094	1,149	5,802
Security Enhancement Facility	1,506	500	500	500	500	3,506
Capital Program Management Software	1,380	780	—	—	—	2,160
Major Fleet Augmentation Loaders	1,294	1,260	1,323	1,389	1,459	6,725
HR Software Improvement & Implementation	1,090	500	—	—	—	1,590
Finance Software Discovery and Implementation	1,000	500	—	—	—	1,500
Pre-Engineered Buildings	900	—	—	—	—	900
6S Wastewater Pre-Treatment Plant	845	493	—	—	—	1,338
Major Fleet Augmentation Generator	788	827	868	912	957	4,351
State Police/Emergency Services Upgrades	624	—	—	—	—	624
3S Pump Station Force Main Upgrade	553	553	—	—	—	1,105
HAER Bridge Recordation	540	1,926	324	10	—	2,800
Roofing Project East Orange	535	—	—	—	—	535
Business Intel and Analytics	450	—	—	—	—	450
2022 Demolition of Facilities Multiple Sites	350	—	—	—	—	350
Backup Storage	300	—	—	—	—	300
Water Wastewater & Management GSP	300	—	—	—	—	300
Traffic Permit Lane Closure Application	250	—	—	—	—	250
2022 Capital Program Development Study	200	—	—	—	—	200
TPK Miscellaneous Geometric Upgrades	139	—	—	—	—	139
High Jump Upgrade & Sky Track	99	—	—	—	—	99
2022 On-Call OPS Task - Vehicle Wash Scoping to add to water and sewer contract	75	—	—	—	—	75
Law Department Software Enhancements	70	—	—	—	—	70
Hearing Booth	35	—	—	—	—	35
Resiliency Study	20	—	—	—	—	20
2022 On-Call OPS Task - Scoping feasibility of water and sewer asset management/BMS system	13	—	—	—	—	13
Water & Wastewater Asset Management	—	2,313	2,313	2,313	2,313	9,250
Other ITS Project	—	—	2,000	2,000	2,000	6,000
Other Roadway	—	—	1,500	1,500	1,500	4,500
Total Prior Approved Projects	\$ 57,162	36,957	32,027	32,573	33,765	192,484

Special Project Reserve Fund — Total Project Spending Plan						
(\$ In Thousands)						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5- Year Spending Plan
New Projects						
Major Fleet Augmentation TMA	\$ 1,100	1,155	1,213	1,273	1,337	6,078
East Rutherford Security Gates	750	—	—	—	—	750
Advanced Traffic Management System Replacement	400	5,000	—	—	—	5,400
Statewide Traffic Management Center UPS Replacement	300	1,350	—	—	—	1,650
Avalon Plains Sub-Barracks	175	1,973	1,353	—	—	3,500
2022 Environmental	100	—	—	—	—	100
Interchange 19W Improvements	45	—	—	—	—	45
Environmental IR	—	100	100	500	250	950
Contingency 2022-2026	1,500	1,500	1,500	1,500	1,500	7,500
Total New Projects	\$ 4,370	11,078	4,165	3,273	3,087	25,973
Total 2022-2026 Capitalized Project Spending Plan	\$ 61,532	48,035	36,193	35,847	36,853	218,457

— Totals may not add due to rounding

Figure 150: Special Project Reserve Fund Five-Year Spending Plan by Capitalized Project (2022–2026)

Special Project Reserve Fund — Total Project Spending Plan						
(\$ In Thousands)						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5- Year Spending Plan
Expensed Projects						
Prior Approved Projects						
Next Generation CSC Back Office	\$ 2,515	1,160	1,000	1,000	1,000	6,675
On-Call Traffic Engineering Studies	1,437	1,227	1,000	1,000	1,000	5,664
E-ZPass Contract Implementation	878	—	—	—	—	878
Camera Upgrade	798	—	—	—	—	798
Remediation at Chromate Sites	733	—	—	—	—	733
Cell Tower Security	560	—	—	—	—	560
On-Call Traffic & Revenue Study	400	400	400	400	400	2,000
New Mile Markers - TPK & GSP	300	—	—	—	—	300
Customer Relationship Management System	250	—	—	—	—	250
Safety Application	250	—	—	—	—	250
Engineering Studies	227	—	—	—	—	227
Preliminary AET Study	190	—	—	—	—	190
Contract Audit	90	—	—	—	—	90
Bridge Inspection Software	9	—	—	—	—	9
Total Prior Approved Projects	\$ 8,636	2,787	2,400	2,400	2,400	18,623
New Projects						
TPK Westerly Alignment Capacity Enhancement Study	\$ 2,000	2,000	—	—	—	4,000
Engineering Documents	1,000	1,000	1,000	1,000	1,000	5,000
All Electronic Tolling	1,000	2,000	500	—	—	3,500
TCA Software Improvements	375	—	—	—	—	375
Turnpike Interchange 13 Safety Improvements	350	—	—	—	—	350
WINK Refresh	350	—	—	—	—	350
TPK Interchange 69 (I-80/I-95) Operational Improvement Study	300	—	—	—	—	300
On-Call Security Enhancements Facilities	250	250	250	250	250	1,250
GSP Plaza Server Refresh	125	—	—	—	—	125
Modem Upgrade	120	—	—	—	—	120
Network Infrastructure Improve	100	100	—	—	—	200
Engineering and Traffic Studies	—	2,000	4,000	4,000	4,000	14,000
Total New Projects	\$ 5,970	7,350	5,750	5,250	5,250	29,570
Total 2022-2026 Expensed Project Spending Plan	\$ 14,606	10,137	8,150	7,650	7,650	48,193
Total 2022-2026 Project Spending Plan (Capitalized+Expensed)	\$ 76,137	58,172	44,342	43,496	44,502	266,650

— Totals may not add due to rounding

Figure 151: Special Project Reserve Fund Five-Year Spending Plan by Expensed Project (2022–2026)

The chart below shows the 2022 Total Project Budget for each project included in the Special Project Reserve Fund as compared to the 2021 Total Project Budget. The Total Project Budget includes prior estimated/actual project life-to-date spending, the rolling five-year spending plan, and any future spending on the project beyond 2026.

Special Project Reserve Fund — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated/Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from Budget
Capitalized Projects						
Prior Approved Projects						
Major Fleet Augmentation - Dump Trucks	\$ 34,586	—	—	34,586	28,145	6,440
Maintenance Vehicles	22,144	3,964	—	26,109	21,401	4,708
Major Fleet Augmentation	21,887	1,239	—	23,127	18,860	4,267
State Police Vehicles	21,053	4,307	—	25,361	21,000	4,361
Major Fleet Augmentation - Tandem Dump Trucks	14,284	—	—	14,284	11,685	2,599
Water & Wastewater Asset Management	9,250	313	—	9,563	11,200	(1,638)
Major Fleet Augmentation - Tractors	8,162	—	—	8,162	6,645	1,518
Major Fleet Augmentation - Loaders	6,725	1,106	—	7,831	6,374	1,457
Other ITS Project	6,000	—	—	6,000	10,000	(4,000)
Major Fleet Augmentation - Trade Utility Trucks	5,802	320	—	6,122	4,974	1,148
Other Roadway	4,500	—	—	4,500	8,659	(4,159)
Major Fleet Augmentation - Generator	4,351	—	—	4,351	93	4,258
Stormwater Pump Replacement Building Renovations	4,150	498	—	4,648	1,096	3,551
Security Enhancement Facility	3,506	494	—	4,000	3,500	500
Pleasant Plains Sub-Barracks	3,325	175	—	3,500	3,468	32
HAER Bridge Recordation	2,800	—	—	2,800	2,800	—
Water Wastewater & Management TPK	2,724	973	—	3,697	4,700	(1,003)
Safety Implementation at NJSP & Maintenance District	2,625	181	—	2,806	3,282	(476)
Enterprise Asset Management	2,555	2,142	—	4,697	4,002	695
Capital Program Management Software	2,160	717	—	2,877	1,908	968
HR Software Improvement & Implementation	1,590	72	—	1,662	1,740	(78)
Finance Software Discovery and Implementation	1,500	—	—	1,500	289	1,211
6S Wastewater Pre-Treatment Plant	1,338	352	—	1,690	1,325	365
3S Pump Station Force Main Upgrade	1,105	—	—	1,105	1,105	—
Pre-Engineered Buildings	900	4,482	—	5,383	5,197	186
State Police/Emergency Services Upgrades	624	260	—	884	800	84
Roofing Project East Orange	535	100	—	635	515	120
Business Intel and Analytics	450	309	—	759	411	348
2022 Demolition of Facilities Multiple Sites	350	—	—	350	—	350
Backup Storage	300	—	—	300	476	(176)
Water Wastewater & Management GSP	300	—	—	300	300	—
Traffic Permit Lane Closure Application	250	270	—	520	540	(20)
2022 Capital Program Development Study	200	—	—	200	—	200
TPK Miscellaneous Geometric Upgrades	139	111	—	250	250	—
High Jump Upgrade & Sky Track	99	105	—	204	150	54
2022 On-Call OPS Task - Vehicle Wash	75	—	—	75	—	75
Law Department Software Enhancements	70	45	—	115	45	70
Hearing Booth	35	—	—	35	25	10
Resiliency Study	20	600	—	620	1,000	(380)
TMC Communication Upgrades	—	1,899	—	1,899	625	1,274
Bassett Building Improvements	—	284	—	284	300	(16)
Major Fleet Augmentation - Tractor	—	1,616	—	1,616	1,616	—

Special Project Reserve Fund — Total Project Budget

(\$ In Thousands)

Project Name	Rolling 5-Year Spending Plan	Estimated/Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from Budget
Major Fleet Augmentation - Tandem	—	2,040	—	2,040	2,040	—
Major Fleet Augmentation Dump	—	4,933	—	4,933	4,933	—
Major Fleet Augmentation General	—	417	—	417	417	—
Major Fleet Augmentation - Trade	—	825	—	825	825	—
Data Collection Hardware	—	15	—	15	15	—
Toll Canopy Signs - Turnpike	—	71	—	71	71	—
Radio Tower Backup Power	—	48	—	48	49	(1)
BDA (Bi-Directional Amplifier)	—	477	—	477	478	(1)
GSP I/C 127 SBE Merge Improvements	—	32	—	32	32	(1)
Salt Shed Turnpike Maintenance District 6 Elizabeth	—	740	—	740	741	(1)
GSP Maintenance Winter Trailer Replacement	—	48	—	48	58	(10)
TPK Regulatory Signage	—	562	—	562	613	(51)
NJDOT Route 42 Bridge	—	—	—	—	100	(100)
Construction Barrier Steel Post	—	—	—	—	115	(115)
Replacement of Underground Storage Tank	—	422	—	422	589	(167)
Major Fleet Augmentation Loader	—	526	—	526	727	(201)
Building Renovations	—	2,625	—	2,625	2,882	(257)
Guide Sign Guide Rail Improvement	—	419	—	419	679	(260)
Major Building Improvements	—	2,389	—	2,389	3,402	(1,012)
Maintenance Department Material Storage Facility	—	138	—	138	467	(329)
Security Remediation	—	747	—	747	1,150	(403)
UPS Replacement - Holmdel NJSP	—	211	—	211	775	(564)
Major Sign & Safety Replacement	—	529	—	529	1,096	(566)
HQ Water Main Improvements	—	10	—	10	600	(590)
Major Fleet Augmentation	—	4,067	—	4,067	4,619	(552)
Capex eGIS Project Planning	—	—	—	—	900	(900)
Toll Plaza Safety Improvements	—	—	—	—	2,000	(2,000)
Major Sign & Safety Replacement/Improvement	—	350	—	350	15,250	(14,900)
Utility Replacement & Improvement	—	—	—	—	17,966	(17,966)
Major Building Improvement TPK	—	512	—	512	3,250	(2,738)
Major Building Improvement GSP	—	1,368	—	1,368	2,145	(777)
Major Roofing Replacement GSP	—	466	—	466	800	(334)
Transportation Management Center Office Renovations	—	35	—	35	155	(120)
Equipment Relocation I/C 11	—	125	—	125	250	(125)
TPK SN 80 Operational Study	—	—	—	—	150	(150)
Maintenance Department Material Storage Facility	—	—	—	—	2,100	(2,100)
Maintenance Department Material Storage Facility GSP	—	315	—	315	525	(210)
Utility Improvement at TPK Maintenance District 10	—	—	—	—	260	(260)
I/C 109 Repair	—	—	—	—	274	(274)
Maintenance Department Material Storage Facility TPK	—	548	—	548	900	(352)
EGIS Map of Water and Wastewater	—	500	—	500	1,000	(500)
Major Roofing Replacements	—	1,611	—	1,611	4,985	(3,374)
Replacement of Underground Storage Tank	—	—	—	—	850	(850)
Bulk Fluid & Phase2 Clark Wash	—	880	—	880	3,700	(2,820)
Major Building Improvements	—	—	—	—	11,500	(11,500)
Contingency	—	—	—	—	919	(919)

Special Project Reserve Fund — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated/ Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from Budget
Total Prior Approved Projects	\$ 192,484	55,933	—	248,416	287,853	(39,436)
New Projects						
Major Fleet Augmentation TMA	\$ 6,078	—	—	6,078	—	6,078
Advanced Traffic Management System Replacement	5,400	—	—	5,400	—	5,400
Avalon Plains Sub-Barracks	3,500	—	—	3,500	—	3,500
Statewide Traffic Management Center UPS Replacement	1,650	—	—	1,650	—	1,650
Environmental IR	950	—	—	950	—	950
East Rutherford Security Gates	750	—	—	750	—	750
2022 Environmental	100	—	—	100	—	100
Interchange 19W Improvements	45	—	—	45	—	45
Contingency 2022-2026	7,500	—	—	7,500	—	7,500
Total New Projects	\$ 25,973	—	—	25,973	—	25,973
Total Capitalized Project Budget	\$ 218,457	55,933	—	274,390	287,853	(13,463)

— Totals may not add due to rounding

Figure 152: Special Project Reserve Fund Total Project Budget by Capitalized Project

Special Project Reserve Fund — Total Project Budget

(\$ In Thousands)

Project Name	Rolling 5-Year Spending Plan	Estimated/ Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from Budget
Expensed Projects						
Prior Approved Projects						
Next Generation CSC Back Office	\$ 6,675	571	—	7,246	1,100	6,146
On-Call Traffic Engineering Studies	5,664	1,216	—	6,880	5,694	1,186
On-Call Traffic & Revenue Study	2,000	1,023	—	3,023	4,158	(1,135)
E-ZPass Contract Implementation	878	3,099	—	3,976	3,255	721
Camera Upgrade	798	239	—	1,037	195	842
Remediation at Chromate Sites	733	1,013	—	1,745	1,393	352
Cell Tower Security	560	90	—	650	190	460
New Mile Markers - TPK & GSP	300	—	—	300	300	—
Customer Relationship Management System	250	—	—	250	250	—
Safety Application	250	—	—	250	250	—
Engineering Studies	227	306	—	533	796	(263)
Preliminary AET Study	190	34	—	224	224	—
Contract Audit	90	—	—	90	100	(10)
Bridge Inspection Software	9	—	—	9	400	(392)
Bridge and Structure Inspection	—	10,208	—	10,208	12,241	(2,033)
Enterprise Resource Planning Consultant	—	—	—	—	300	(300)
ITS & Light Design Document Update	—	103	—	103	103	—
Direct to Plate System, Cron	—	110	—	110	110	—
GSP 130-132 Crash Mitigation	—	82	—	82	82	—
Rutgers Assignment Maintenance Software	—	180	—	180	181	—
General Permit Expansion	—	170	—	170	150	20
Building Demolition	—	185	—	185	189	(4)
Prep of Jurisdictional Limit Map	—	5	—	5	19	(14)
Development Roadway Lighting Program	—	3	—	3	29	(26)
Fire Alarm	—	113	—	113	150	(37)
Disaster Rec. & Business Cont.	—	57	—	57	99	(42)
Permitting Bass River Maintenance Yard	—	1	—	1	52	(51)
Emergency Access SN 23.4	—	66	—	66	150	(84)
On Call Traffic Services Engineering	—	611	—	611	706	(96)
Engineering Documents	—	1,161	—	1,161	1,208	(47)
Pavement Management	—	891	—	891	1,024	(133)
NBHCE Capacity Study	—	458	—	458	700	(241)
E-ZPass Contract Implementation-Reimbursable	—	(304)	—	(304)	—	(304)
Culvert Inspections	—	295	—	295	600	(305)
Maintenance Studies & Scoping	—	560	—	560	923	(362)
Electric Vehicle Compliance	—	—	—	—	503	(503)
DCA Compliance	—	—	—	—	750	(750)
Business Process Assessment & Improvement	—	—	—	—	100	(100)
Conduent Contract Reassessment	—	—	—	—	100	(100)
Policy and Procedures	—	—	—	—	100	(100)
F5 Upgrade	—	299	—	299	300	(1)
MS SQL Env EOL Replacement	—	86	—	86	100	(14)
Activu Upgrade	—	149	—	149	175	(26)
EGIS Enhancements	—	—	—	—	150	(150)
NJSP Network Upgrade	—	158	—	158	160	(2)
UCS Upgrade	—	229	—	229	320	(91)
Maintenance Studies & Scoping	—	—	—	—	1,000	(1,000)
AET Implementation	—	1,937	—	1,937	14,750	(12,813)
Total Prior Approved Projects	\$ 18,623	25,405	—	44,028	55,829	(11,801)

Special Project Reserve Fund — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated/Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from Budget
New Projects						
Engineering and Traffic Studies	\$ 14,000	—	—	14,000	—	14,000
Engineering Documents	5,000	—	—	5,000	—	5,000
TPK Westerly Alignment Capacity Enhancement Study	4,000	—	—	4,000	—	4,000
All Electronic Tolling	3,500	—	—	3,500	—	3,500
On-Call Security Enhancements Facilities	1,250	—	—	1,250	—	1,250
TCA Software Improvements	375	125	—	500	—	500
Turnpike I/C 13 Safety Improvements	350	—	—	350	—	350
WINK Refresh	350	—	—	350	—	350
TPK I/C 69 (I-80/I-95) Operational Improvement Study	300	—	—	300	—	300
Network Infrastructure Improvement	200	—	—	200	—	200
GSP Plaza Server Refresh	125	—	—	125	—	125
Modem Upgrade	120	—	—	120	—	120
Total New Projects	\$ 29,570	125	—	29,695	—	29,695
Total Expensed Project Budget	\$ 48,193	25,530	—	73,723	55,829	17,894
Total Project Budget (Capitalized+Expensed)	\$ 266,650	81,463	—	348,113	343,682	4,430

— Totals may not add due to rounding

Figure 153: Special Project Reserve Fund Total Project Budget by Expensed Project

Special Project Reserve Fund Capitalized Projects Descriptions	
Project Name	Project Descriptions
Prior Approved Projects	
Safety Improvements at State Police and Maintenance District	Funding for the design and construction of safety enhancements for Maintenance and NJSP Buildings to prevent vehicles from veering off the roadway and into the buildings.
Stormwater Pump Replacement & Building Renovations	Issue OPS for the preparation of plans and specifications to replace the existing Pump House at MP 92 on the New Jersey Turnpike.
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 stormwater management and permitting requirements, such as tree planting, enhancement, etc.
Pleasant Plains Sub-Barracks	Funding for design, construction, construction supervision and all other associated costs for a new NJSP sub-barracks building at Pleasant Plains and associated site work to replace the existing building.
HAER Bridge Recordation	Requirement of a Programmatic Agreement to be executed between the NJTA and NJDEP Historic Preservation Office for the Garden State Parkway Historic District. Recordation will be a requirement. Project will record approximately 50 structures per year starting in year two, until all 450 are recorded.
Other Roadway	Additional projects not yet identified.
Resiliency Study	Funding for design, permitting, planning, purchasing and construction resources for delivering the resiliency program through tasks and projects associated with the Authority's Strategic goals on the New Jersey Turnpike and Garden State Parkway.
Roofing Project East Orange	Roof Replacement at Parkway East Orange Toll Plaza
Security Enhancement Facility	This project includes but is not limited to cameras, alarm systems, and C-Cure at Toll Plazas and Maintenance District Facilities and other Authority Facilities
State Police Vehicles	Purchase of State Police Vehicles.
Hearing Booth	New hearing booth for pre-employment hearing test.
Law Department Software Enhancements	Implementation of case management software to track litigation holds, subpoena requests, OPRA requests and management of outside counsel projects. Funding will be used for hardware, software & services.
Business Intel and Analytics	Create a project that will form a core of senior management team to explore how Business Intelligence and Business Analytics can help the agency to gain insights into its operations from the data source internal to the agency and available externally, identify exceptions such that analyst resource are focused on problem areas only, provide end users with the ability to create customized reports without the need to have report programs written and provide management with tools to measure KPIs and to create meaningful dashboards that help them carry out their responsibilities to operate the agency. Funding will be used for hardware, software and services.
HR Software Improvement and Implementation	This project is for the discovery of an alternative ERP System(s) for HR. PSHR92 support is provided until 2030, and there will be no future releases or enhancements. In addition, this project will provide the Authority with an upgrade to the latest version of Kronos. This may be a phased approach.
Capital Program Management Software	Funding will be used for hardware, software and services.
Finance Software Discovery and Implementation	This project will enable the Authority to deploy a CPMS – Capital Project/Program/Portfolio Management Software/System. Funding will be used for hardware, software and services.
High Jump Upgrade & Sky Track	This project will allow the Authority to discover a replacement for PSFin. PSFSCM92 is supported until 2030 and there is no future releases or enhancements. This project escalates Enterprise Planning. Funding will be used for hardware, software and services.
Enterprise Asset Management	All work associated to perform the HighJump upgrade and implement the new software release, HighJump1, which is the next generation of HighJump Warehouse Advantage. It is recommended that this project not to commence until after EAM system implementation is completed. Funding will be used for hardware, software and services.
Other ITS Project	\$2,500,000 is also requested for 2020 to purchase production software licenses and continued HNTB consulting, project management and implementation of Phase II (to be defined). This project will continue Phase I implementation of EAM: Fleet Management.
Backup Storage	In addition, funds are requested to continue improving Jira Implementation for ITS as part of the Authority EAM initiative.
Traffic Permit Lane Close App	LOADRITE upgrade - Centralize reporting and monitoring for salt usage. Interface to Inform enterprise asset management system.
TPK Miscellaneous Geometric Upgrades	Lastly, funds are requested for hardware, software, services and a consultant to rewrite Rutgers WeatherEVENT and Guardrail applications, thus the Authority can support in-house.
State Police/Emergency Services Upgrades	Additional projects not yet identified
	Funding for replacement of backup storage hardware and software
	Operations has identified new enhancements to the enterprise-wide traffic permitting and lane closure system. This project will fund these enhancements. Funding will be used for hardware, software and services.
	This is an analysis to establish the rebuilding of several insufficient ramp terminals on the Turnpike. The ramps included will be the TSO Ramp connection to the NSO, the SOSA Ramps at 8S and at 10S and lengthening the TSO Ramp at Interchange 10.
	Emergency Access SN 23.4 - Helipad and Ramp Gate Upgrade Tasks

Special Project Reserve Fund Capitalized Projects Descriptions	
Project Name	Project Descriptions
Water Wastewater & Management TPK	Funding for design, permitting, purchasing and construction resources to address asset management requirements with respect to the water and wastewater assets that are operated and maintained by the Authority.
Water Wastewater & Management GSP	Funding for design, permitting, purchasing and construction resources to address asset management requirements with respect to the water and wastewater assets that are operated and maintained by the Authority.
Water & Wastewater Asset Management	Funding for design, permitting, purchasing and construction resources to address asset management requirements with respect to the water and wastewater assets that are operated and maintained by the Authority.
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.
6S Wastewater PreTreatment Plant	Funding for replacement of the plant which is past its useful life. The SBR system will be replaced with a smaller system that will allow the plant to meet new township sewage quality standards.
Major Fleet Augmentation	The purchase of replacement and supplemental equipment over \$20,000.00 as needed on a priority and lifecycle basis.
Major Fleet Augmentation Dump Trucks	Annual purchase of 22 single axle dump trucks to maintain current lifecycle levels. (Vehicles have a 12 year life cycle). Replace models that have exhausted their life expectancy.
Major Fleet Augmentation Tandem Dump Trucks	Annual purchase of 8 tandem axle dump trucks to maintain current lifecycle levels and replace single axle dump trucks for additional capacity during winter operations. (Vehicles have a 12 year life cycle).
Major Fleet Augmentation Tractors	Designated Program for lawn tractor replacement.
Major Fleet Augmentation Loaders	Designated Program for Loader replacement.
Major Flt Augmentation Trade Utility Trucks	Designated Program for Trades Utility Vehicles.
Major Fleet Augmentation Generators	Designated Program for Generators Replacement
Maintenance Vehicles	Purchase of Maintenance Department Vehicles.
New Projects	
Environmental IR	Remediation at various locations as needs arise.
Avalon Plains Sub-Barracks	Funding for design, construction, construction supervision and all other associated costs for a new NJSP sub-barracks building at Avalon and associated site work.
East Rutherford Security Gates	Installation of security gates at East Rutherford TMD10 to increase security and to prohibit thru traffic primarily at Route 3 and Turnpike Interchange 16W. This project will also match other districts' gate footprint which were constructed under the Facilities program.
Advanced Traffic Management System Replacement	Replace existing ITMS System which is end of life for both software and Hardware
Interchange 19W Improvements	Replace EOL unit with 10 year supported unit in NEMA4 cabinet
Statewide Traffic Management Center UPS Replacement	To replace the UPS system and the Statewide Traffic Management Center with a stable UPS. The current UPS will be at end-of-life and end-of-support. Funding will be used for hardware, software and services.
Major Fleet Augmentation TMA	Annual purchase of four (4) Dedicated TMA Trucks, ten (10) TMA Trailer units, and six (6) Fast-Trak TMA Attachments. This reflects life cycle replacements and damaged unit replacement.

Figure 154: Special Project Reserve Fund Capitalized Project Descriptions

Special Project Reserve Fund Expensed Projects Descriptions	
Project Name	Project Descriptions
Prior Approved Projects	
Remediation at Chromate Sites	Efforts associated with the remediation of chromium impacted soil and/or groundwater at Chromate sites 120, 121 & 192 in accordance with a court ordered mandate. Design will take place in 2017 & Construction & Tank Removal will take place in 2018 - 2021.
Engineering Studies	Funding for various Engineering studies.
On Call Traffic & Revenue Study	Various studies pertaining to Traffic & Revenue
Preliminary AET Study	Preliminary work related to all electronic tolling including but not limited to studies, business rules, ect.
E-ZPass Contract Implementation	This project will enable the Authority to engage HNTB for their continual assistance in the implementation of the Authority's E-ZPass contract, specifically Phase II.
Contract Audit	ITS, along with Internal Audit and an auditor, will review and audit existing IT contracts.
Cell Tower Security	The Authority has 30 cell towers on the both roadways which house equipment critical for ITS infrastructure. This project will secure the towers by providing physical fencing and cameras at each location. Funding will be used for hardware, software and services.
Next Generation CSC - Back Office	Begin writing the RFP for the Next Generation of CSC back office. The current contract will exp 2/1/25 (without the two one-year extensions).
Bridge Inspection Software	The Authority has many cameras that are over 20 years old have have to be replaced.
Camera Upgrade	The Authority has many cameras that are over 20 years old have have to be replaced.
Customer Relationship Management System.	This project will allow the Authority to research and begin implementing a Customer Relationship Management System.
Safety Application	The firewalls for 4 NJSP barracks and switches for 2 NJSP barracks are end of support and needs to be replaced.
On-Call Traffic Engineering Studies	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.
New Mile Markers - TPK & GSP	New mile markers will be installed in Union County on the Parkway, and Gloucester and Salem Counties on the Turnpike. These mile markers are properly sized to effectively provide a means for identifying the location of emergency incidents and traffic crashes, and to aid in roadway towing and maintenance. The existing design of the mile markers continues to frustrate motorists, State Police and towing companies.
GSP 130-132 Crash Mitigation	Study to develop construction cost so fin expensive, high-impact treatments to the Subject corridor. ATMS, traffic control devices, ramp widening , construction of continuous auxiliary lanes to be considered.
I/C 114 Traffic Signal Study	To study alternatives for the modification of the traffic signal at the Interchange 114 off ramp traffic signal. Improvements will be the responsibility of Monmouth County.
New Projects	
Engineering Documents	Annual updates to various engineering documents including, but not limited to, design manual, DEP policies, procedures, and other similar documents.
All Electronic Tolling	Studies to determine feasibility and to develop a preliminary plan for implementing All-Electronic Tolling on TPK & GSP. Work after project details developed will move to bond-funded budget.
Engineering and Traffic Studies	Annual engineering and traffic studies performed to determine capital project feasibility, toll revenues, capacity analyses, maintenance plans, development of policies and procedures, and other similar studies that are not specifically part of a previously approved capital project.
TPK Westerly Alignment Capacity Enhancement Study	Study of the feasibility of capacity enhancements for the Westerly Alignment including development of alternatives and preliminary design concepts
TPK Interchange 69 (I-80/I-95) Operational Improvements Study	connection between I-95/TPK and I-80. Route continuity will be established and operational characteristics to be re-aligned at this location.
On-Call Security Enhancements Facilities	This project is for "as needed" security enhancements such as cameras, alarm systems, and swipes at any Authority facility.
GSP Plaza Server Refresh	Replacement of GSP Plaza Servers to ensure HW is stable and under warranty
WINK Refresh	WINK provides traffic camera streaming to NJTA website. The servers need to be upgraded
Modem Upgrade	The Authority has over 150 modems that provide communication for signs. These modems are end of support and need to be replaced.
Turnpike Interchange 13 Safety Improvements	The ET, TW, and SOT Ramps of the interchange have crash severity rankings of 4, 8 and 17 respectively out of the 327 Turnpike total ramp terminals in the Turnpike system. Additionally, the NT and ST Ramps have a high-crash and high-injury rate of truck rollover incidents averaging a combined seven a year. Other interchanges with a history of truck rollovers average approximately two a year. This study will identify potential safety improvements to be advance for design.
Traffic Count Application Software Improvements	Supplemental resources to assist with the Traffic Count Application (TCA) efficiency, automation, and the addition of FHWA requirements.
Network Infrastructure Improve	This is a multiyear project which will provide fiber or wireless communication to roadway signs that are currently on modems and have poor network connectivity. Funding will be used for hardware, software and services.

Figure 155: Special Project Reserve Fund Expensed Project Descriptions

2022 Supplemental Capital Program (Construction Fund - Revenue Funded)

The Supplemental Capital Program has a 2022 spending budget of almost \$75 million and a rolling five-year spending plan of more than \$315 million. The spending budget for 2022 is increasing by 2% compared to 2021. The 2022 Supplemental Capital Program includes funding to continue several necessary multi-year projects including pavement resurfacing on the Parkway, as well as other roadway improvements, including \$12 million for the design of the Tremley Point Connector Road. There is \$17 million for the Vauxhall and Brookdale South Service Areas included in the 2022 Supplemental Capital Program as well.

The total Supplemental Capital Program budget in 2022 is increasing by about 2%. This is as result of new service area projects added to 2022 spending budget, which is offset by the re-allocation of Facility projects to Maintenance Reserve and the completion of Pavement Resurfacing project in 2022.

The following chart shows the actual spending for 2020 as well as the budgeted spending for 2021 and 2022:

Supplemental Capital Program — Spending by Category or Functional Area					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Capitalized Projects by Category					
Roadway					
Bridge Construction, Preservation & Security	\$ 1,987	4,700	—	(4,700)	(100.0)%
Pavement Resurfacing	10,492	28,000	24,736	(3,264)	(11.7)%
Roadway Lighting	283	500	—	(500)	(100.0)%
Other Roadway Improvements	12,410	16,892	18,942	2,050	12.1%
Total Roadway	\$ 25,172	50,092	43,678	(6,415)	(12.8)%
Non-Roadway					
Facilities	\$ 13,001	15,710	3,173	(12,537)	(79.8)%
Service Areas & Arts Center	19,774	200	17,750	17,550	8775.0%
Technology Improvements	4,977	5,600	10,350	4,750	84.8%
Total Non-Roadway	\$ 37,752	21,510	31,273	9,763	45.4%
Total Capitalized Projects	\$ 62,924	71,602	74,950	3,348	4.7%
Expensed Projects by Functional Area					
Maintenance of Infrastructure	\$ 9,098	41	—	(41)	(100.0)%
Traffic Control & State Police	—	1,250	—	(1,250)	(100.0)%
Technology	—	487	—	(487)	(100.0)%
Total Expensed Projects	\$ 9,098	1,778	—	(1,778)	(100.0)%
Total Spending (Capitalized+Expensed)	\$ 72,021	73,380	74,950	1,570	2.1%

— Totals may not add due to rounding

Figure 156: Supplemental Capital Program Spending by Category or Functional Area (2020-2022)

Supplemental Capital Program Balance									
(\$ In Thousands)	2020 Actual	2021 Est/ Actual	2022 Budget	\$ Δ from 2021	% Δ from 2021	2023 Plan	2024 Plan	2025 Plan	2026 Plan
Beginning Balance	\$ —	42,932	65,947	23,015	53.6%	40,997	26,770	18,020	9,270
Transfer from General Reserve	114,953	63,400	50,000	(13,400)	(21.1)%	50,000	50,000	50,000	50,000
Total Project Spending	(72,021)	(40,386)	(74,950)	(34,564)	85.6%	(64,227)	(58,750)	(58,750)	(58,750)
Ending Balance	\$ 42,932	65,947	40,997	(24,950)	(37.8)%	26,770	18,020	9,270	520

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

— Totals may not add due to rounding

Figure 157: Supplemental Capital Program Balance (2020-2026)

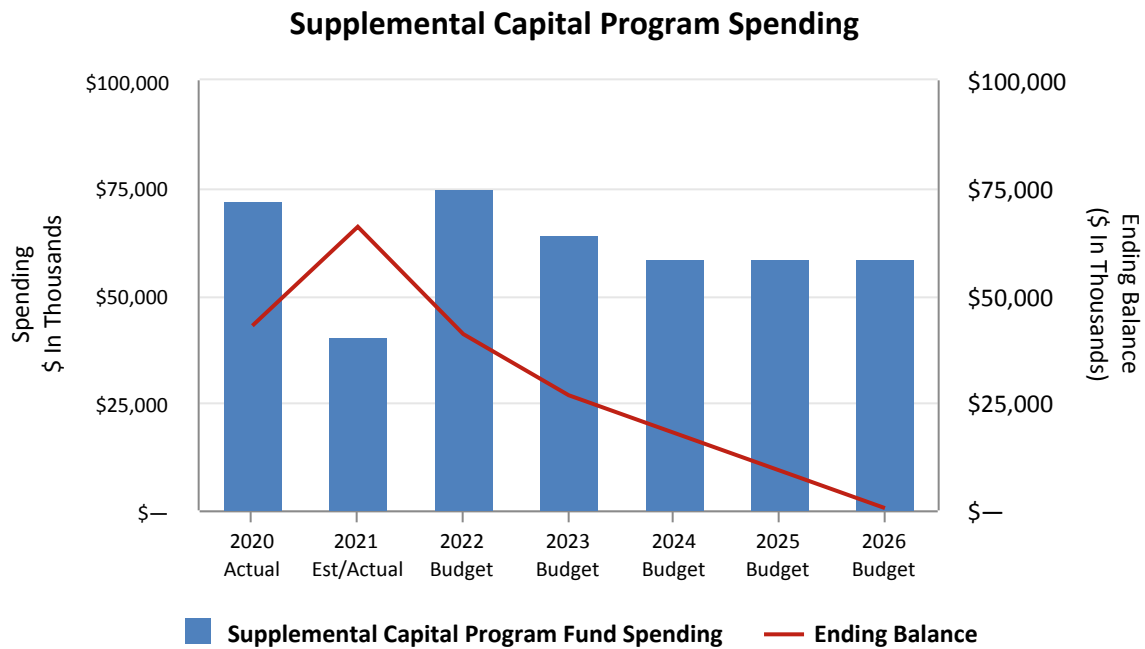


Figure 158: Supplemental Capital Program Spending Graph (2020-2026)

Supplemental Capital Program Project Summary			
(\$ In Thousands)	2022 Total Project Budget	Spent/Committed Through 10/31/21	% of Budget
Capitalized Projects Category — Current Projects			
Roadway			
Bridge Construction, Preservation & Security	\$ 2,753	2,342	85.1%
Pavement Resurfacing	47,244	37,935	80.3%
Interchanges	15,432	587	3.8%
Roadway Lighting	350	350	100.0%
Other Roadway Improvements	49,837	37,135	74.5%
Total Roadway	\$ 115,616	78,349	67.8%
Non-Roadway			
Facilities	\$ 48,775	61,410	125.9%
Service Areas & Arts Center (1)	46,974	—	—%
Technology Improvements	17,912	7,853	43.8%
Total Non-Roadway	\$ 113,662	69,264	60.9%
Total Capitalized Projects	\$ 229,278	147,613	64.4%
Expensed Project Functional Areas — Current Projects			
Maintenance of Infrastructure	\$ 8,213	6,710	81.7%
Traffic Control & State Police	1,484	1,484	100.0%
Technology	3,984	926	23.2%
Total Expensed Projects	\$ 13,681	9,119.5	66.7%
Total Current Projects	\$ 242,959	\$ 156,732	64.5%
Capitalized Projects Category — Future Projects			
Roadway			
Other Roadway Improvements	\$ 100,000	—	
Total Roadway	\$ 100,000	—	
Non-Roadway			
Technology Improvements	\$ 100,000	—	
Total Non-Roadway	\$ 100,000	—	
Total Future Projects	\$ 200,000	—	
Total Spending (Capitalized+Expensed)	\$ 442,959		

(1) Service Area & Arts Center Commitments move to the 2019 CIP in 2021

— Totals may not add due to rounding

Figure 159: Supplemental Capital Program Project Summary

Supplemental Capital Program 2022-2026 Rolling 5-Year Spending Plan by Category						
(\$ In Thousands)	2022	2023	2024	2025	2026	Total 5-Year
Roadway						
Pavement Resurfacing	\$ 24,736	215	—	—	—	24,951
Other Roadway Improvements	18,942	35,262	30,000	30,000	30,000	144,203
Total Roadway	\$ 43,678	35,477	30,000	30,000	30,000	169,154
Non-Roadway						
Facilities	\$ 3,173	3,000	3,000	3,000	3,000	15,173
Service Areas & Arts Center	17,750	750	750	750	750	20,750
Technology Improvements	10,350	25,000	25,000	25,000	25,000	110,350
Total Non-Roadway	\$ 31,273	28,750	28,750	28,750	28,750	146,273
Total Capitalized Projects	\$ 74,950	64,227	58,750	58,750	58,750	315,427

— Totals may not add due to rounding

Figure 160: Supplemental Capital Program Five-Year Spending Plan by Category (2022-2026)

Approximately \$315 million of projects are included the Supplemental Capital Program rolling five-year spending plan. Of this, \$144 million (46%) is for Other Roadway Improvements, \$110 million (35%) is for Technology Improvements, \$25 million (8%) is for Pavement Resurfacing, \$15 million (5%) is for Facilities, and \$21 million (7%) for Service Areas & Arts Center.

The rolling five-year individual project spending plans within the Supplemental Capital Program are shown below:

Supplemental Capital Program — Total Project Spending Plan						
(\$ In Thousands)						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5-Year Spending Plan
Capitalized Projects						
Prior Approved Projects						
GSP MP 0-126 Resurfacing	\$ 22,866	—	—	—	—	22,866
Tremley Point Connector Road	12,215	4,262	—	—	—	16,477
2022 HVAC & Boiler Replacement Program	3,000	3,000	3,000	3,000	3,000	15,000
Production Toll Lane System Refresh	2,310	—	—	—	—	2,310
Additional Roadway Resurfacing	1,870	215	—	—	—	2,085
Roadside Appurtenances	386	—	—	—	—	386
I-78 Pavement Repairs	175	—	—	—	—	175
Morris Canal Bridge	165	—	—	—	—	165
Toll Facility Repairs & Improvements	110	—	—	—	—	110
Major Backup Generator Replacement	63	—	—	—	—	63
Traffic Software Upgrade & Improvement	40	—	—	—	—	40
Contingency 2022-2026	5,000	5,000	5,000	5,000	5,000	25,000
Total Prior Approved Projects	\$ 48,201	12,477	8,000	8,000	8,000	84,677

Supplemental Capital Program — Total Project Spending Plan						
(\$ In Thousands)						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5- Year Spending Plan
New Projects						
Service Area Vauxhaull & Brookdale South	\$ 17,000	—	—	—	—	17,000
Network Refresh	8,000	—	—	—	—	8,000
Other Service Areas & Arts Center	750	750	750	750	750	3,750
TPK MP 112.0 Billboard Sign Access	500	—	—	—	—	500
Steel Post Median Sign Installations	500	1,000	—	—	—	1,500
GSP & TPK Infrastructure & Software Upgrade	—	25,000	25,000	25,000	25,000	100,000
Other Roadway Improvements	—	25,000	25,000	25,000	25,000	100,000
Total New Projects	\$ 26,750	51,750	50,750	50,750	50,750	230,750
Total 2022-2026 Capitalized Project Spending Plan	\$ 74,950	64,227	58,750	58,750	58,750	315,427

— Totals may not add due to rounding

Figure 161: Supplemental Capital Program Five-Year Spending Plan by Capitalized Project (2022-2026)

The chart below shows the 2022 Total Project Budget for each project as compared to the 2021 Total Project Budget. The Total Project Budgets include prior estimated/actual project life-to-date spending, the rolling five-year spending plan, and any future spending on the project beyond 2026.

Supplemental Capital Program — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated/Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from 2021
Capitalized Projects						
Prior Approved Projects						
GSP MP 0-126 Resurfacing	\$ 22,866	7,697	—	30,563	28,000	2,563
Tremley Point Connector Road	16,477	2,069	—	18,546	18,185	361
HVAC & Boiler Replacement Program	15,000	—	—	15,000	8,675	6,325
Production Toll Lane System Refresh	2,310	6,773	—	9,083	7,000	2,083
Additional Roadway Resurfacing	2,085	14,597	—	16,682	18,450	(1,768)
Roadside Appurtenances	386	2,080	—	2,466	7,973	(5,507)
I-78 Pavement Repairs	175	—	—	175	—	175
Morris Canal Bridge	165	—	—	165	—	165
Toll Facility Repairs & Improvements	110	3,681	—	3,791	2,996	795
Major Backup Generator Replacement	63	1,741	—	1,804	1,830	(26)
Traffic Software Upgrade & Improvements	40	203	—	243	698	(455)
Reconstruction Westerly Hackensack River Bridge Pier	—	606	—	606	168	438
SA - HMS Host & Sunoco	—	26,224	—	26,224	24,877	1,347
Gate Repair and Replacement	—	102	—	102	—	102
Toll Plaza Facility Bldg Improvement	—	83	—	83	—	83
Replace Toll Booths TPK/GSP	—	129	—	129	72	57
TPK I/C 14B Canopy Replacement	—	46	—	46	5	41
Security Enhancements Facilities	—	171	—	171	170	1
GSP 117.4 NB Crossover Tunnel Lighting	—	1	—	1	—	1
Commuter Park & Ride Design	—	551	—	551	550	1
NWC/CNW Ramp	—	617	—	617	627	(10)
CR 50 Improvements	—	(12)	—	(12)	—	(12)
Interchange Improvements	—	1	—	1	21	(20)
Service Area Redevelopment	—	117	—	117	153	(36)
Major Roofing Replacements	—	1,214	—	1,214	1,250	(36)
Road Weather Information System	—	378	—	378	505	(127)
LED Lighting Upgrades	—	350	—	350	500	(150)
Monmouth Service Area Park & Ride Improvement	—	(200)	—	(200)	—	(200)
W110.42, W111.48, W112.B080	—	2,148	—	2,148	375	1,773
Concept Development & Preliminary Engineering	—	810	—	810	1,075	(265)
Security Systems/C Cure	—	776	—	776	1,400	(624)
Heards Brook Improvements	—	36	—	36	582	(546)
Hybrid Changeable Message Sign	—	209	—	209	845	(636)
Non-Vegetative Management	—	306	—	306	957	(651)
Redecking NJDOT Structure 0730170	—	—	—	—	900	(900)
HVAC & Boiler Replacement Program	—	5,346	—	5,346	7,127	(1,781)
Arts Center Improvements	—	19,113	—	19,113	22,165	(3,052)
2021 HVAC Upgrades at Various Sites	—	64	—	64	3,981	(3,917)
2021 CM PDS Cx	—	167	—	167	815	(648)
2021 IR/OPS Tasks On-Call Contract	—	—	—	—	750	(750)
2021 Training/Documentation	—	—	—	—	300	(300)
Design for HVAC Replacement	—	—	—	—	254	(254)
Backup Generator Replacement TPK	—	—	—	—	2,000	(2,000)
Demolish/Reconstruction GSP Building	—	—	—	—	2,000	(2,000)

Supplemental Capital Program — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated/Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from 2021
2021 HVAC & Boiler Replacement	—	448	—	448	750	(302)
Major Backup Generator Replacement	—	—	—	—	10,200	(10,200)
Other Roadway	—	—	—	—	44,960	(44,960)
Contingency	—	—	—	—	9,000	(9,000)
Contingency 2022-2026	25,000	—	—	25,000	19,000	6,000
Total Prior Approved Projects	\$ 84,677	113,851	—	198,528	269,655	(71,127)
New Projects						
Other Roadway Improvements	\$ 100,000	—	—	100,000	—	100,000
GSP & TPK Infrastructure & Software Upgrade	100,000	—	—	100,000	—	100,000
Service Area Vauxhaull & Brookdale South	17,000	—	—	17,000	—	17,000
Network Refresh	8,000	—	—	8,000	—	8,000
Other Service Areas & Arts Center	3,750	—	—	3,750	—	3,750
Steel Post Median Sign Installations	1,500	—	—	1,500	—	1,500
TPK MP 112.0 Billboard Sign Access	500	—	—	500	—	500
Total New Projects	\$ 230,750	—	—	230,750	—	230,750
Total Capitalized Project Budget	\$ 315,427	113,851	—	429,278	269,655	159,623

— Totals may not add due to rounding

Figure 162: Supplemental Capital Program Total Project Budget by Capitalized Project

Supplemental Capital Program — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated/Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from 2021
Expensed Projects						
Prior Approved Projects						
Morris Canal Bridge	\$ —	8,213	—	8,213	3,990	4,223
Gasboy Fuel Plus	—	610	—	610	537	73
Barracks Local Survivability	—	121	—	121	150	(29)
NJSP Interview Room Equipment	—	1,584	—	1,584	250	1,334
Network Infrastructure Improvements	—	186	—	186	650	(464)
NJSP Body Cameras	—	1,484	—	1,484	400	1,084
NJSP Motorola Mobile Radio	—	1,484	—	1,484	3,462	(1,978)
Total Prior Approved Projects	\$ —	13,681	—	13,681	9,439	4,242
Total Expensed Project Budget	\$ —	13,681	—	13,681	9,439	4,242
Total Project Budget (Capitalized+Expensed)	\$ 315,427	127,532	—	442,959	279,094	163,865

— Totals may not add due to rounding

Figure 163: Supplemental Capital Program Total Project Budget by Expensed Project

Supplemental Capital Program — Capitalized Project Descriptions	
Project Name	Project Descriptions
Prior Approved Projects	
Production Toll Lane System Refresh	3 consultants (supplemental staff: 2 existing, 1 new) for the continuing support, maintenance and enhancements of the Electronic Tolling Software System, as well as project management. In addition, this project will also be utilized to reduce the amount of ETC Huts which are causing damage to the equipment. The existing ETC huts were installed in 1999 with a design life cycle of 15 years. Project costs would include conduit installation (in-house or contracted), UPS relocation, and room modifications such as HVAC, painting, flooring, lighting. If required, those huts will be replaced or equipment consolidated. From a hardware lane prospective, this is a multiyear project in which ITS will replace all system components which have been tested and qualified for use through the Toll Lane System Evaluation project. The current toll collection equipment is approximately 20 years old. Funding for this project will replace equipment in High Speed, Manual, Standard, and Automatic lanes. Components in these lanes include, but are not limited to lane controllers, Automatic Vehicle Classification (AVC), Automatic Vehicle Identification (AVI), Violation Enforcement System (VES), Lane Electronic Cabinet (LEC), Patron Fare Display (PFD), Manual Lane Toll Terminals (MLT), and Zone Controllers. These components have been fully tested and ITS will continue to systematically replace components in the lane. This procurement includes hardware, software, and support services. In addition, funding will support software initiatives such as migrating reports from Actuate 9 to JReport, replacing Xerox software in all High Speed Lanes on the Turnpike and Parkway, migration of Turnpike Plazas from Windows 2003 to Linux, and enhancing the tolling audit software. (Please note: does not include AET) All of this work is intended to maintain the existing system for the next few years, as the Authority prepares for the next generation of tolling software, hardware and services.
Traffic Software Upgrade & Improvement	RTTM is an application that integrates the data and/or feed from various intelligent transportation devices like roadway sensors, cameras and sign devices to create a single platform where the Traffic Supervisors can monitor for roadway congestion/incident detection and respond accordingly during their routine traffic management operations. The user interface is a Roadway Line Diagram approach where all ITS devices are placed according to their geographic locations based on their mile marker data. This project will also be utilized to purchase, install, and evaluate alternate technologies for traffic detection as a possible alternative to Sensys pucks at areas where it's not practical to install, replace, and maintain the "in-pavement" sensors, as well as project management. Full implementation of the project should also include custom programming resources to integrate the data from these sensors with data from the Sensys system and present it to Operations in a seamless format and use it as an actionable manner such as real-time automated sign and camera control. Funding will be used for hardware, software and services.
Toll Facility Repairs & Improvements	Funding for the design, construction and construction supervision of toll plaza site rehabilitation at various locations on the Garden State Parkway and New Jersey Turnpike.
Roadside Appurtenances	Design, Construction and Supervision of the installation or upgrade of roadside devices including weathering steel guide rail on the GSP.
I-78 Pavement Repairs	Design, Construction and Supervision of the repair to the Authority maintained section of I-78.
Additional Roadway Resurfacing	Funding for additional roadway resurfacing.
HVAC & Boiler Replacement Program	Funding for design, permitting, purchasing and construction resources to continue the Maintenance Departments Authoritywide HVAC equipment replacement program. Facilities include toll department facilities, maintenance yards, etc.
GSP MP 0-126 Resurfacing	Resurfacing along inner and outer roadways on GSP MP 0-126.
Major Backup Generator Replacement	Funding for backup up generators with costs over \$20,000.00.
GSP MP 0-126 Resurfacing	Resurfacing along inner and outer roadways on GSP MP 0-126.
Tremley Point Connector Road	Funding for the design associated with this new predominantly pier/pile supported, 1.1 mile long four lane elevated roadway/ bridge that will connect Industrial Highway in Carteret, Middlesex County with Tremley Point Road in Linden, Union County, traversing the Rahway River.
Morris Canal Bridge	Design, supervision and construction of vehicular bridge over the Morris Canal; connecting Jersey Avenue and Phillips Street in Jersey City.
New Projects	
Steel Post Median Sign Installations	The design to complete the steel post installations on median barriers where required to post regulatory, warning or exit gore signs.
TPK MP 112.0 Billboard Sign Access	A design and construction effort to establish access at this location for NJTA use. Stakeholders such as Maintenance and the billboard sign owner are required to access the billboard sign that is in TPK Right of Way.
Other Roadway Improvements	Additional projects not yet identified
Other Service Areas & Arts Center	Additional projects not yet identified
Network Refresh	The current network and voice infrastructure at the plaza, districts, NJSP barracks and NJDOT facilities is over 10 years old and needs to be replaced.
GSP & TPK Infrastructure & Software Upgrade	This program involves upgrade and replacement of software, hardware and related infrastructure associated with Intelligent Transportation Systems that are used for traffic operations for both roadways. It will also address internal Authority software and hardware associated with the Authority's day-to-day business operations and functions. This program is intended to supplement the Authority's normal technology refresh and replacement process with a focus on new technologies that can improve safety, efficiency, and cost effectiveness.
Service Area Vauxhaull & Brookdale South	Curb-in cost for Vauxhaull & Brookdale South Facilities
Contingency	Provides additional funding for increased project needs or unanticipated projects

Figure 164: Supplemental Capital Program Project Descriptions

Construction Fund (Bond Funded)

The bond funded capital projects, referred to as the Construction Fund, include — (i) 2022–2026 Rolling Five-Year Capital Improvement Program (2022-2026 CIP), part of the 2020 Long-Range Capital Plan; (ii) 2019 Capital Improvement Program (2019 CIP); and (iii) 2008 \$7 Billion Capital Improvement Program (2008 \$7 Billion CIP). These capital projects are presented on a rolling five-year (2022–2026) spending basis, along with their respective total project budgets. Each year, a new rolling five-year spending plan will be approved with the changes, if any, to the total project budgets, as a part of the annual budget approval.

Construction Fund — Spending by Category					
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Capitalized Projects by Category					
Roadway					
Bridge Construction, Preservation & Security	\$ 126,598	251,182	271,035	19,853	7.9%
Capacity Enhancements - Turnpike	273	24,381	42,636	18,255	74.9%
Capacity Enhancements - Parkway	4,611	3,057	500	(2,557)	(83.6)%
Interchanges	57,226	58,515	24,462	(34,052)	(58.2)%
Concrete Barrier	5,877	23,129	9,338	(13,792)	(59.6)%
Drainage Structures	154	63,986	73,130	9,144	14.3%
Roadway Lighting	59	32,831	14,346	(18,485)	(56.3)%
Other Roadway Improvements	48,642	60,777	74,689	13,911	22.9%
Total Roadway	\$ 243,440	517,857	510,135	(7,722)	(1.5)%
Non-Roadway					
Facilities	\$ 10,350	21,000	9,848	(11,153)	(53.1)%
Service Areas & Arts Center	1,435	22,249	30,507	8,258	37.1%
Technology Improvements	3,451	80,419	47,808	(32,611)	(40.6)%
Total Non-Roadway	\$ 15,237	123,668	88,162	(35,507)	(28.7)%
Total Spending (Capitalized)	\$ 258,677	641,526	598,297	(43,229)	(6.7)%

Construction Fund — Funding Sources					
(\$ In Thousands)	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Bond Funded					
2022-2026 Capital Improvement Program	\$ 1,450	227,356	351,630	124,274	54.7%
2019 Capital Improvement Program	102,376	268,136	172,507	(95,629)	(35.7)%
2008 \$7 Billion Capital Improvement Program	154,851	146,034	74,160	(71,874)	(49.2)%
Total Bond Funded	\$ 258,677	641,526	598,297	(43,229)	(6.7)%

— Totals may not add due to rounding

Figure 165: Construction Fund Spending by Category & Funding Source (2020-2022)

2022-2026 Rolling 5-Year Construction Fund Spending Plan by Category						
Bond Funded						
(\$ In Thousands)	Spending Plan					
	2022	2023	2024	2025	2026	Total
Capitalized Projects by Category						
Roadway						
Bridge Construction, Preservation & Security	\$ 271,035	415,772	385,587	314,810	212,588	1,599,790
Capacity Enhancements - Turnpike	42,636	149,942	215,504	323,593	700,005	1,431,681
Capacity Enhancements - Parkway	500	2,700	800	751	3,796	8,547
Interchanges	24,462	5,276	7,840	2,458	20,547	60,582
Concrete Barrier	9,338	6,390	8,525	8,461	4,500	37,212
Drainage Structures	73,130	89,488	47,688	87,877	67,035	365,218
Roadway Lighting	14,346	17,636	40,028	48,333	8,683	129,026
Other Roadway Improvements	74,689	41,760	124,701	57,767	8,360	307,278
Total Roadway	\$ 510,135	728,963	830,671	844,050	1,025,515	3,939,334
Non-Roadway						
Facilities	\$ 9,848	20,650	15,540	1,500	1,000	48,538
Service Areas & Arts Center	30,507	14,905	5,505	6,605	5,000	62,521
Technology Improvements	47,808	32,659	—	—	—	80,466
Total Non-Roadway	\$ 88,162	68,213	21,045	8,105	6,000	191,525
Total Spending (Capitalized)	\$ 598,297	797,177	851,716	852,155	1,031,515	4,130,859

Construction Fund — Funding Sources						
(\$ In Thousands)	Spending Plan					
	2022	2023	2024	2025	2026	Total
Bond Funded						
2022-2026 Capital Improvement Program	\$ 351,630	655,182	813,623	831,661	1,024,973	3,677,070
2019 Capital Improvement Program	172,507	119,482	36,339	18,845	5,000	352,173
2008 \$7 Billion Capital Improvement Program	74,160	22,512	1,754	1,648	1,542	101,617
Total Bond Funded	\$ 598,297	797,177	851,716	852,155	1,031,515	4,130,859

— Totals may not add due to rounding

Figure 166: 2022–2026 Rolling Five-Year Construction Fund Spending Plan by Category & Funding Source

Construction Fund – Spending by Category

The Construction Fund includes all bond funded capital projects contained in the 2022-2026 Capital Improvement Program, 2019 Capital Improvement Program, and the 2008 \$7 Billion Capital Improvement Program. The 2022 spending budget includes a significant increase in Bridge Construction, Preservation, and Enhancement with the rehabilitation and replacement of bridge decks and superstructures on both roadways. Also increasing significantly in the 2022 budget are Turnpike Capacity Enhancements with the widening between Interchanges 1 through 4 and design of the Newark Bay-Hudson County Extension Capacity Enhancement project.

Construction Fund - Capitalized Projects - Spending by Category

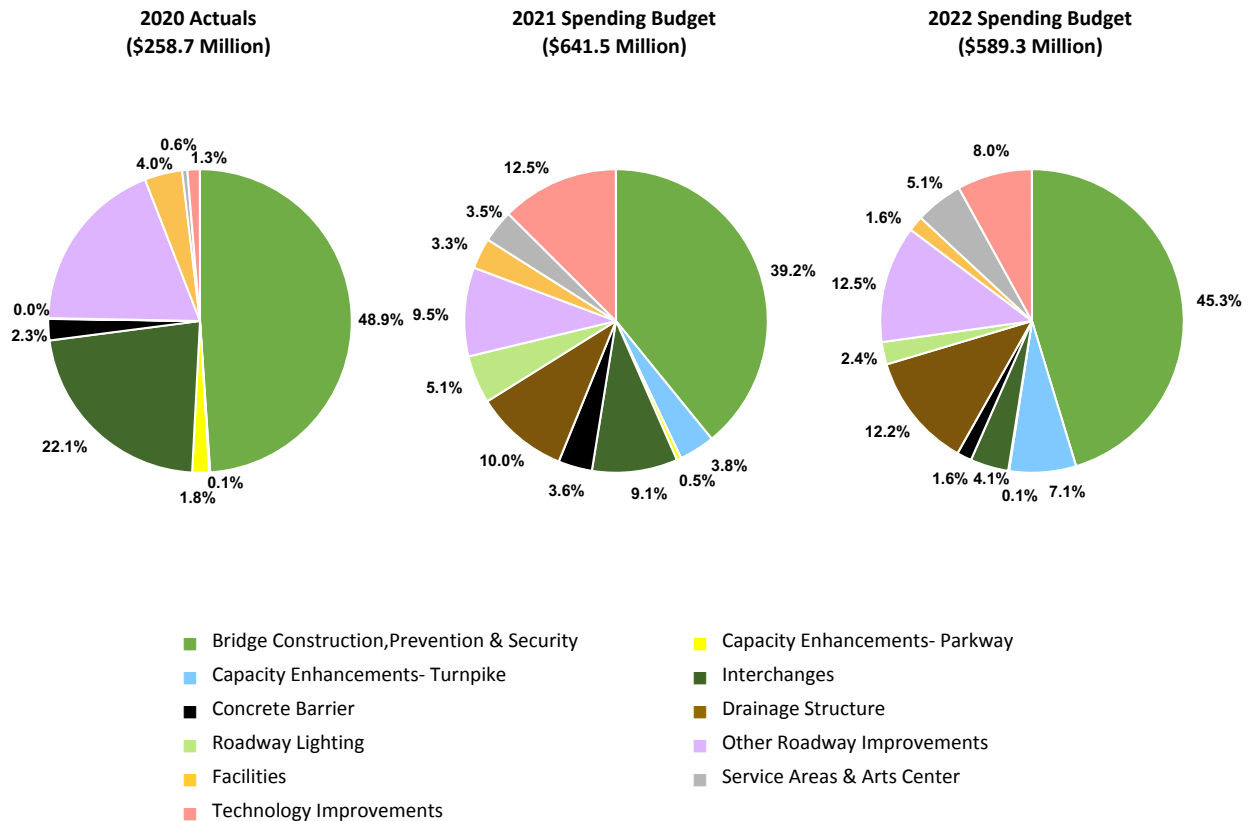


Figure 167: Construction Fund Spending by Category Pie Charts 2020-2022

Construction Fund Balance									
	2020	2021	2022	\$ Δ from	% Δ from	2023	2024	2025	2026
(\$ In Thousands)	Actual	Est/ Actual	Budget	2021	2021	Plan	Plan	Plan	Plan
Beginning Balance	\$ 490,142	237,096	260,712	23,616	10.0%	917,415	1,131,238	1,291,522	1,452,867
Bond Proceeds	—	593,000	1,250,000	657,000	110.8%	1,000,000	1,000,000	1,000,000	1,000,000
Interest Income	5,631	6,000	5,000	(1,000)	(16.7)%	11,000	12,000	13,500	14,000
Total Project Spending	(258,677)	(575,384)	(598,297)	(22,913)	4.0%	(797,177)	(851,716)	(852,155)	(1,031,515)
Ending Balance*	\$237,096	260,712	917,415	656,703	251.9%	1,131,238	1,291,522	1,452,867	1,435,353

* Represents balance of bond proceeds deposited into Construction Fund

— Totals may not add due to rounding

Figure 168: Construction Fund Balance (2020-2026)

2022-2026 Capital Improvement Program

The 2022-2026 Rolling Five-Year Capital Improvement Program (2022-2026 CIP), which is derived from the 2020 Long-Range Capital Plan, approved in May 2020, has a rolling five-year spending plan of \$3.68 billion. The average annual spending is approximately \$735 million/year. As this program develops further, it is expected that the spending plan will be on average \$1 billion per year. The projects in the 2022-2026 CIP currently have a Total Project Budget which combined totals \$9 billion. This is a significant increase from last year's total. While several projects have changes, the increase in the total program is due to the inclusion of the Newark Bay-Hudson County Extension and capacity enhancements between Turnpike Interchanges 1 to 4, which combined have Total Project Budgets of \$5.8 billion.

The Bridge Construction, Preservation and Security spending budget for the year of 2022 is significantly increasing by \$89 million or 143% primarily due to the Turnpike Bridge Replacements at mileposts W110.42 Sawmill Creek, W111.48 Berry's Creek, and W112.72B; Interchange 16W Ramp Southern Terminus; Turnpike Deck Reconstruction MP 35.5 to 44.1; & 74.3 to 74.4, Parkway Bridge Beam Replacement, Structure Nos. 6.6S and 154.2N. The spending budget for Capacity Enhancements - Turnpike is also increasing by \$20 million or 86% primarily for the design work on the Newark Bay-Hudson County Extension, and Turnpike Interchanges 1 to 4.

The following chart shows the actual spending for 2020 as well as the budgeted spending for 2021 and 2022:

2022-2026 Capital Improvement Program — Spending by Category					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Capitalized Projects by Category					
Roadway					
Bridge Construction, Preservation & Security	\$ 1,217	62,117	151,253	89,136	143%
Capacity Enhancements - Turnpike	—	22,915	42,571	19,656	86%
Capacity Enhancements - Parkway	—	—	500	500	—%
Interchanges	—	1,105	3,967	2,862	259%
Concrete Barrier	19	3,168	5,337	2,169	68%
Drainage Structures	154	63,986	73,130	9,144	14%
Roadway Lighting	59	32,831	14,346	(18,485)	(56)%
Other Roadway Improvements	—	3,729	25,775	22,046	591%
Total Roadway	\$ 1,450	189,851	316,878	127,027	67%
Non-Roadway					
Facilities	\$ —	—	6,240	6,240	—%
Technology Improvements	—	37,505	28,512	(8,993)	(24)%
Total Non-Roadway	\$ —	37,505	34,752	(2,753)	(7)%
Total Spending (Capitalized)	\$ 1,450	227,356	351,630	124,274	55%

— Totals may not add due to rounding

Figure 169: 2022-2026 Capital Improvement Program Spending by Category (2020-2022)

2022-2026 Capital Improvement Program Project Summary			
<i>(\$ In Thousands)</i>	2022 Total Project Budget	Spent/Committed Through 10/31/21	% of Budget
Capitalized Projects Category — Current Projects			
Roadway			
Bridge Construction, Preservation & Security	\$ 1,355,577	216,488	16.0%
Capacity Enhancements - Turnpike	5,832,893	82,203	1.4%
Capacity Enhancements - Parkway	264,076	—	—%
Interchanges	10,600	8,922	84.2%
Concrete Barrier	31,390	5,735	18.3%
Drainage Structures	424,489	32,521	7.7%
Roadway Lighting	227,405	37,678	16.6%
Other Roadway Improvements	206,624	10,073	4.9%
Total Roadway	\$ 8,353,054	393,621	4.7%
Non-Roadway			
Facilities	\$ 30,140	—	—%
Technology Improvements	75,092	58,808	78.3%
Total Non-Roadway	\$ 105,232	58,808	55.9%
Total Current Projects	\$ 8,458,285	452,430	5.3%
Capitalized Projects Category — Future Projects			
Roadway			
Bridge Construction, Preservation & Security	\$ 425,400	—	
Capacity Enhancements - Turnpike	50,000	—	
Capacity Enhancements - Parkway	3,255	—	
Interchanges	20,000	—	
Concrete Barrier	4,500	—	
Other Roadway Improvements	46,400	—	
Total Roadway	\$ 549,555	—	
Non-Roadway			
Facilities	\$ 14,790	—	
Total Non-Roadway	\$ 14,790	—	
Total Future Projects	\$ 564,345	—	
Total Spending (Capitalized)	\$ 9,022,630		

— Totals may not add due to rounding

Figure 170: 2022-2026 Capital Improvement Program Project Summary

2022-2026 Capital Improvement Program 2022-2026 Rolling 5-Year Spending Plan by Category						
<i>(\$ In Thousands)</i>	2022	2023	2024	2025	2026	Total 5-Year
Capitalized Projects Category						
Roadway						
Bridge Construction, Preservation & Security	\$ 151,253	297,053	352,998	300,922	211,046	1,313,272
Capacity Enhancements - Turnpike	42,571	149,942	215,504	323,593	700,005	1,431,615
Capacity Enhancements - Parkway	500	2,700	800	751	3,796	8,547
Interchanges	3,967	5,176	7,840	2,458	20,547	39,987
Concrete Barrier	5,337	6,390	8,525	8,461	4,500	33,212
Drainage Structures	73,130	89,488	47,688	87,877	67,035	365,218
Roadway Lighting	14,346	17,636	40,028	48,333	8,683	129,026
Other Roadway Improvements	25,775	33,489	124,701	57,767	8,360	250,092
Total Roadway	\$ 316,878	601,874	798,084	830,162	1,023,972	3,570,969
Non-Roadway						
Facilities	\$ 6,240	20,650	15,540	1,500	1,000	44,930
Technology Improvements	28,512	32,659	—	—	—	61,171
Total Non-Roadway	\$ 34,752	53,309	15,540	1,500	1,000	106,101
Total Spending (Capitalized)	\$ 351,630	655,182	813,623	831,661	1,024,973	3,677,070

— Totals may not add due to rounding

Figure 171: 2022-2026 Capital Improvement Program Five-Year Spending Plan by Category (2022-2026)

The rolling five-year individual project spending plans within the 2022-2026 CIP are shown below in [Figure 172](#). In addition, the Total Project Budget for each project within the program is shown in [Figure 173](#).

2022-2026 Capital Improvement Program — Total Project Spending Plan						
(\$ In Thousands)						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5- Year Spending Plan
Capitalized Projects						
Prior Approved Projects						
GSP 128 AB 154.2N TPK 90-91.37	\$ 41,902	43,730	17,445	545	—	103,623
GSP Corrugated Metal Pipe Replacement & Culvert Rehabilitation	32,530	40,633	46,902	87,877	67,035	274,978
TPK MPS 35.3-37.9 & 74.3-74.4	24,970	19,261	8,690	—	—	52,921
TPK Rehabilitation Bridge W107_E107_84N&S	23,131	75,218	23,604	275	—	122,229
TPK Newark Bay Hudson County Extension Capacity Enhancements	21,814	69,698	133,184	277,247	497,435	999,379
TPK Mainline Capacity Enhancements between I/C 1 - 4	20,756	67,090	51,686	40,135	202,570	382,237
GSP Service Area Ramps	19,713	15,497	—	—	—	35,210
TPK Hybrid Changeable Message Signs	16,698	13,725	—	—	—	30,424
TPK Deck MP E113.0-E115.21	13,674	21,678	12,261	335	—	47,947
Culvert Repair MP 109-111;123-128	11,811	15,211	—	—	—	27,022
TPK Deck Reconstruction 98.48 to 98.76	11,191	36,831	32,435	—	—	80,457
GSP Culvert MP 110.6 & 116.4	10,926	—	—	—	—	10,926
GSP Bridge Superstructure Replacement MP 106	10,823	7,711	—	—	—	18,534
GSP Culvert Repairs MP 112.7	9,939	1,567	—	—	—	11,506
TPK Guide Sign Improvements	7,473	10,211	—	—	—	17,683
TPK I/C 7A, 8A, 10 & 11	7,313	149	—	—	—	7,462
TPK I/C 17 Ramp Bridge Replacement	6,338	10,934	51,287	51,730	11,195	131,483
GSP Deck Reconstruction MP 169.2-171.7	5,173	13,600	35,014	13,992	1,128	68,906
TPK Median Barrier Improvement MP 89-122	4,832	47	—	—	—	4,879
Horizontal Curve Warn Sign Installation	4,341	8,722	—	—	—	13,064
Heards Brook Improvements	3,443	4,767	—	—	—	8,210
Roadway Improvement MP 97.1-98;102-104.5	3,179	4,747	58,435	7,671	—	74,032
Reconstruction of Waterway Piers TPK Structure W115.36	3,177	14,048	10,060	14	—	27,300
TPK Bridges W110_111_112	2,992	6,913	57,623	20,594	—	88,122
GSP & TPK Lighting Upgrades	2,834	13,347	16,713	25,205	8,019	66,118
GSP I/C 80 Completion & Capacity Enhancements between I/C 80 - 83	2,812	3,068	3,550	2,458	20,547	32,434
Deck NBHCE Bridges Zones 2-3	2,618	7,425	17,466	24,913	23,283	75,705
Culvert Repairs I/C 100	2,428	27,310	785	—	—	30,523
Culvert Repairs MP 115	2,033	—	—	—	—	2,033
TPK Pier Reconstruction MP 99.0-100.0	1,923	6,902	12,154	6,021	—	27,000
TPK I/C 10S & 13A	1,407	2,473	16,489	6,157	—	26,525
Rehabilitation TPK Secaucus I/C MSE Wall	1,021	3,549	24,876	5,154	—	34,600
GSP Driscoll Bridge MSE MP 127.2	1,021	3,709	29,219	6,051	—	40,000
TPK Mixing Bowls N/S	871	1,667	6,826	16,971	664	27,000
Interim Repairs to Two Waterway Piers for TPK Structure W115.36	798	—	—	—	—	798
Sign Bridge Retrofit Brackets	776	12,836	2,588	—	—	16,200
TPK Deck Reconstruction MP P2.0-P5.0	759	4,641	17,383	28,174	12,543	63,500
GSP I/C 102 & 105	539	—	—	—	—	539
GSP I/C 120	533	—	—	—	—	533
Deck Rehabilitation TPK Westerly Bridges	528	4,635	10,587	35,496	32,419	83,665
GSP I/C 29 Completion	503	955	—	—	—	1,459

2022-2026 Capital Improvement Program — Total Project Spending Plan						
(\$ In Thousands)						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5- Year Spending Plan
GSP Mainline Capacity Enhancements between I/C 129 - 142	500	2,700	800	—	1,292	5,292
GSP & TPK UST Upgrades	450	850	850	850	850	3,850
TPK I/C 12 & 13	427	—	—	—	—	427
GSP I/C 117 & 118	423	—	—	—	—	423
GSP I/C 13 Completion	378	716	—	—	—	1,094
TPK Median Barrier MP 0-48 72-89	227	165	31	—	—	423
TPK Deck Superstructure MP 85.77 TO 87.1	170	208	89	24	—	491
GSP Superstructure MP 150.3-150.4	155	3,295	18,002	27,237	2,711	51,400
TPK Deck Reconstruction MP 40.34	153	1,581	1,775	7,607	10,634	21,750
GSP Culvert Rehabilitation MP 111.5	20	—	—	—	—	20
Westerly Alignment Mainline Capacity Enhancements	—	13,154	30,635	6,212	—	50,000
GSP & TPK MSE Wall Replacement	—	2,746	5,714	31,036	6,904	46,400
TPK Deck MP 105.1-W106.68	—	1,266	5,104	12,338	23,990	42,698
TPK Deck Reconstruction MP 97.5-98.7	—	1,193	4,150	15,532	23,013	43,887
TPK Deck Reconstruction MP 44.7-50.43	—	940	5,860	21,012	18,515	46,327
TPK Deck Reconstruction MP 88.0-88.9	—	854	3,393	15,991	18,582	38,820
TPK Deck Reconstruction MP 81.5-84.5	—	801	3,185	13,488	22,906	40,380
TPK Superstructure Replacement E111.15	—	552	2,844	5,604	10,127	19,127
GSP Mainline Capacity Enhancements between I/C 154 - 163	—	—	—	751	2,504	3,255
Total Prior Approved Projects	\$ 344,448	625,527	779,694	814,696	1,018,866	3,583,230
New Projects						
Maintenance Lean-to Replacement at Paramus, Clifton, Telegraph Hill and Ocean	\$ 1,890	—	—	—	—	1,890
TMD 5 - Milltown Equipment Storage Building	1,750	—	—	—	—	1,750
TMC Administration Building	1,500	16,200	—	—	—	17,700
TMD 9 - Storage Building	600	2,200	—	—	—	2,800
Facilities Program	500	1,000	2,000	1,500	1,000	6,000
TPK Grade Separated Median U-Turns	391	2,392	5,606	7,005	607	16,000
GSP Median Barrier Improvements MP 134 to 140	278	6,178	8,494	8,461	—	23,410
GSP I/C 168 Improvements	274	436	4,290	—	—	5,000
Chevalier Maintenance Sub Yard (Westside)	—	1,050	11,340	—	—	12,390
TMD 3 - Storage Building	—	200	2,200	—	—	2,400
GSP Median Barrier Improvements	—	—	—	—	4,500	4,500
Total New Projects	\$ 7,183	29,656	33,929	16,966	6,107	93,840
Total 2022-2026 Capitalized Project Spending Plan	\$351,630	655,182	813,623	831,661	1,024,973	3,677,070

— Totals may not add due to rounding

Figure 172: 2022-2026 Capital Improvement Program Five-Year Spending Plan by Capitalized Project (2022-2026)

2022-2026 Capital Improvement Program — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated /Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from 2021
Capitalized Projects						
Prior Approved Projects						
TPK NBHCE Capacity	\$ 999,379	14,010	3,680,038	4,693,426	340,300	4,353,127
TPK Capacity I/C 1-4	382,237	4,232	752,998	1,139,467	1,105,000	34,467
GSP Corrugated & Culvert Rehabilitation	274,978	9,515	30,013	314,505	319,298	(4,793)
TPK I/C 17 Ramp Bridge Replacement	131,483	2,701	—	134,185	107,950	26,235
TPK Rehabilitation Bridge W107_E107_84N&S	122,229	4,837	201,500	328,566	122,700	205,866
GSP 128 AB 154.2N TPK 90-91.37	103,623	12,037	—	115,660	80,440	35,220
TPK Bridges W110_111_112	88,122	235	—	88,357	54,700	33,657
Deck Rehabilitation TPK Westerly Bridges	83,665	—	7,835	91,500	95,000	(3,500)
TPK Deck Reconstruction 98.48 to 98.76	80,457	2,739	—	83,196	103,458	(20,263)
Deck NBHCE Bridges Zones 2-3	75,705	—	15,795	91,500	95,000	(3,500)
Roadway Improvements MP 97.1-98;102-104.5	74,032	268	—	74,300	60,000	14,300
GSP Deck Reconstruction MP 169.2-171.7	68,906	3,106	—	72,012	121,400	(49,388)
GSP & TPK Lighting Upgrades	66,118	240	18,507	84,865	87,049	(2,184)
TPK Deck Reconstruction MP P2.0-P5.0	63,500	—	—	63,500	66,000	(2,500)
TPK MPS 35.3-37.9 & 74.3-74.4	52,921	8,321	—	61,242	76,550	(15,308)
GSP Superstructure MP 150.3-150.4	51,400	—	—	51,400	48,600	2,800
Westerly Alignment Capacity	50,000	—	—	50,000	50,000	—
TPK Deck MP E113.0-E115.21	47,947	4,634	—	52,581	60,600	(8,019)
Repair/Replacement Various MSE Walls	46,400	—	—	46,400	53,000	(6,600)
TPK Deck Reconstruction MP 44.7-50.43	46,327	—	18,673	65,000	67,500	(2,500)
TPK Deck Reconstruction MP 97.5-98.7	43,887	—	9,413	53,300	55,400	(2,100)
TPK Deck MP 105.1-W106.68	42,698	—	67,302	110,000	114,000	(4,000)
TPK Deck Reconstruction MP 81.5-84.5	40,380	—	6,420	46,800	48,600	(1,800)
GSP Driscoll Bridge MSE MP 127.2	40,000	—	—	40,000	40,000	—
TPK Deck Reconstruction MP 88.0-88.9	38,820	—	20,980	59,800	62,100	(2,300)
GSP Service Area Ramp Widening	35,210	2,663	—	37,874	20,000	17,874
Rehabilitation TPK Secaucus I/C MSE Wall	34,600	—	—	34,600	40,000	(5,400)
GSP I/C 80 Capacity Between 80-83	32,434	1,444	41,199	75,076	112,000	(36,924)
Culvert Repairs I/C 100	30,523	877	—	31,400	22,750	8,650
TPK Hybrid CMS	30,424	11,625	—	42,049	46,800	(4,751)
Reconstruction to Waterway Piers TPK W115.36	27,300	—	—	27,300	27,490	(190)
Culvert Repairs MP 109-111;123-128	27,022	2,503	—	29,525	40,000	(10,475)
TPK Pier Reconstruction MP 99.0-100.0	27,000	—	—	27,000	27,000	—
TPK Mixing Bowls N/S	27,000	—	—	27,000	17,200	9,800
TPK I/C 10S & 13A	26,525	175	—	26,700	8,000	18,700
TPK Deck Reconstruction MP 40.34	21,750	—	—	21,750	22,500	(750)
TPK Superstructure Replacement Structure E111.15	19,127	—	71,373	90,500	22,842	67,658
GSP Bridge Superstructure Replacement MP 106	18,534	2,575	—	21,109	41,500	(20,391)
TPK Guide Sign Improvements	17,683	1,960	—	19,644	21,200	(1,556)
Sign Bridge Retrofit Brackets	16,200	—	—	16,200	16,200	—
Horizontal Curve Warning Signs	13,064	336	—	13,400	16,000	(2,600)
GSP Culvert Repairs MP 112.7	11,506	622	—	12,129	7,759	4,370
GSP Culvert MP 110.6 & 116.4	10,926	2,144	—	13,069	6,167	6,902
Heards Brook Improvements	8,210	2,127	—	10,337	8,784	1,554
TPK I/C 7A, 8A, 10 & 11	7,462	2,094	35,200	44,756	6,575	38,181
GSP Capacity I/C 129-142	5,292	—	183,708	189,000	45,000	144,000
TPK Median Barrier Improvements MP 89-122	4,879	2,307	—	7,186	7,134	51
GSP & TPK UST Upgrades	3,850	—	—	3,850	3,900	(50)

2022-2026 Capital Improvement Program — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated /Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from 2021
GSP Capacity I/C 154-163	3,255	—	—	3,255	40,000	(36,745)
Culvert Repairs MP 115	2,033	3,348	—	5,380	5,206	174
I/C 29 Completion	1,459	1,741	—	3,200	1,779	1,421
I/C 13 Completion	1,094	1,306	—	2,400	1,271	1,129
Interim Repairs to Two Waterway Piers for TPK W115.36	798	1,370	—	2,168	6,610	(4,442)
GSP I/C 102 & 105	539	2,381	—	2,919	3,000	(81)
GSP I/C 120	533	2,168	—	2,700	3,000	(300)
TPK Deck Superstructure MP 85.77 TO 87.1	491	5,860	—	6,351	62,300	(55,949)
TPK I/C 12 & 13	427	8,356	11,303	20,086	6,721	13,365
TPK Median Barrier MP 0-48 72-89	423	371	—	794	28,866	(28,072)
GSP I/C 117 & 118	423	3,795	—	4,218	7,000	(2,782)
GSP Culvert Rehabilitation MP 111.5	20	8,123	—	8,143	6,661	1,483
TPK I/C 14 & NBHCE	—	14,160	—	14,160	13,740	420
TPK Service Areas 1S, 1N, 3S & I/C 1	—	—	—	—	11,500	(11,500)
GSP & TPK Infrastructure & Software Upgrade	—	—	—	—	135,000	(135,000)
Resiliency	—	—	—	—	139,500	(139,500)
Total Prior Approved Projects	\$ 3,583,230	153,304	5,172,256	8,908,790	4,493,600	4,415,190
New Projects						
GSP Median Barrier Improvements MP 134 to 140	\$ 23,410	—	—	23,410	—	23,410
TMC Administration Building	17,700	—	—	17,700	—	17,700
TPK Grade Separated Median U-Turns	16,000	—	—	16,000	—	16,000
Chevalier Maintenance Sub Yard (Westside)	12,390	—	—	12,390	—	12,390
Facilities Program	6,000	—	—	6,000	—	6,000
GSP I/C 168 Improvements	5,000	—	—	5,000	—	5,000
GSP Median Barrier Improvements	4,500	—	—	4,500	—	4,500
Turnpike Maintenance District 9 - Storage Building	2,800	—	—	2,800	—	2,800
Turnpike Maintenance District 3 - Storage Building	2,400	—	—	2,400	—	2,400
Maintenance Lean-to Replacement at Paramus, Clifton, Telegraph Hill and Ocean	1,890	—	—	1,890	—	1,890
Turnpike Maintenance District 5 - Milltown Equipment Storage Building	1,750	—	—	1,750	—	1,750
GSP I/C 153 Completion	—	—	20,000	20,000	20,000	—
Total New Projects	\$ 93,840	—	20,000	113,840	20,000	93,840
Total Capitalized Project Budget	\$3,677,070	153,304	5,192,256	9,022,630	4,513,600	4,509,030

— Totals may not add due to rounding

Figure 173: 2022-2026 Capital Improvement Program Total Project Budget by Capitalized Project

NEW JERSEY TURNPIKE AUTHORITY 2022 - 2026 CAPITAL IMPROVEMENT PROGRAM

- GSP & TPK Hybrid Changeable Message Signs (system-wide)
- GSP & TPK Lighting Upgrade Program (system-wide)
- GSP & TPK Underground Storage Tank Upgrade Program (system-wide)
- GSP & TPK Median Barrier Improvement Program (system-wide)
- GSP Service Area Ramp Widening Program (system-wide)
- GSP & TPK ITS Infrastructure and Software Upgrade Program (system-wide)
- GSP & TPK Bridge Rehabilitation/Replacement Program (system-wide)
- GSP Corrugated Metal Pipe Replacement and Culvert Rehabilitation Program (system-wide)
- GSP & TPK Interchange Improvement Program (system-wide)
- GSP & TPK Facility Improvement Program (system-wide)
- GSP & TPK Technology Improvement Program (system-wide)
- GSP & TPK MSE Wall Replacement Program (system-wide)
- 1 TPK Westerly Alignment Mainline Capacity Enhancements
- 2 GSP I/C 80 Completion & Capacity Enhancements between I/C Nos. 80 - 83
- 3 GSP Mainline Capacity Enhancements between I/C Nos. 129 - 142
- 4 GSP Mainline Capacity Enhancements between I/C Nos. 154 - 163
- 5 TPK Mainline Capacity Enhancements between I/C Nos. 1 - 4
- 6 TPK Newark Bay - Hudson County Extension Mainline Capacity Enhancements

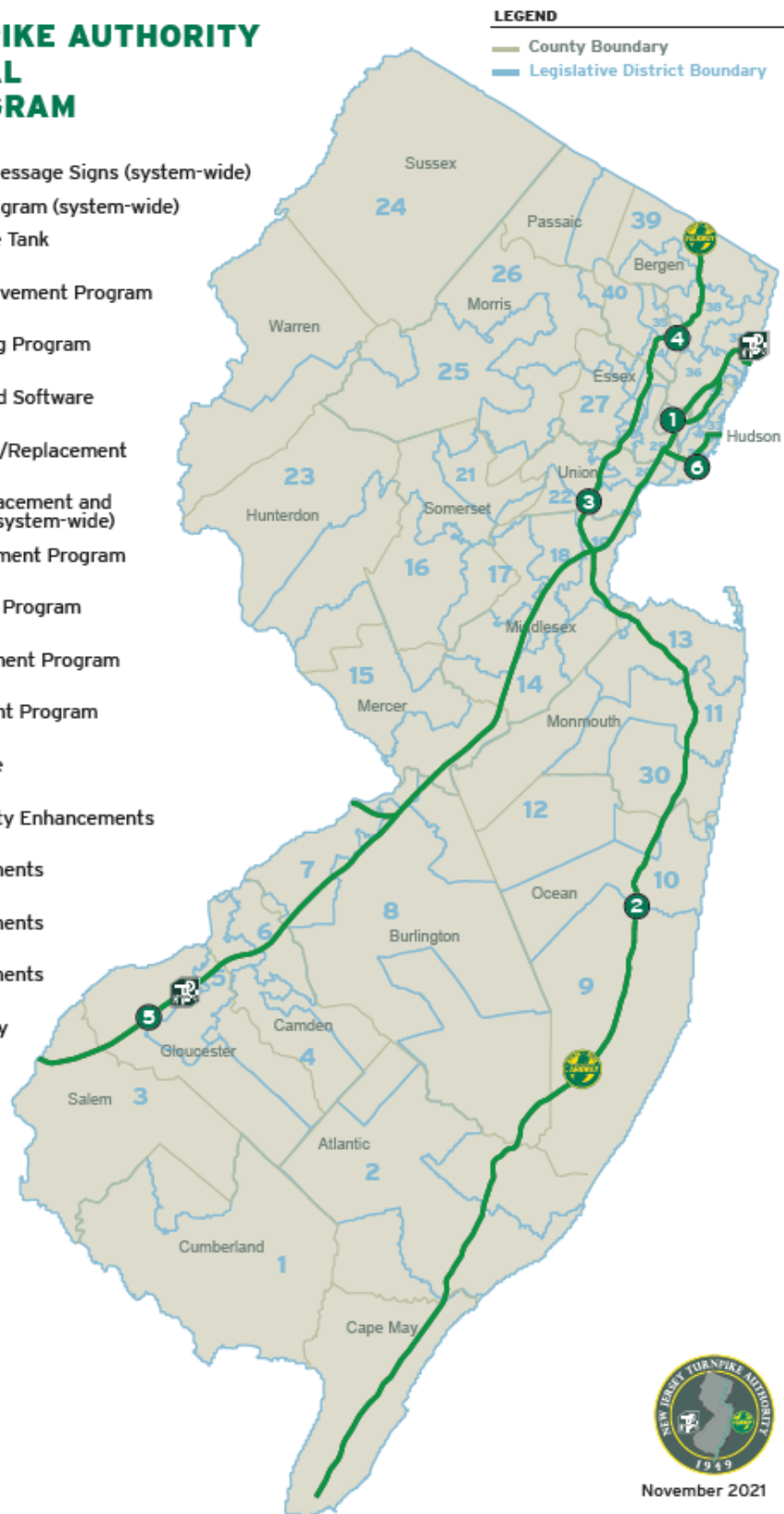


Figure 174: 2022-2026 Capital Improvement Program Projects Map

The 2022–2026 Capital Improvement Program includes the following programs and projects:**Bridge Construction, Preservation & Security****1. GSP & TPK Bridge Rehabilitation/Replacement Program**

- i. **Location:** Various Counties
- ii. **Description:** This proposed program involves replacement of various bridge decks or superstructures each year, repainting various superstructures each year, and the rehabilitation of various bridge substructures every year. This program is intended to supplement the Authority's ongoing annual maintenance program for bridges.
- iii. **Status:** Various individual projects are under design and construction
- iv. **Impact on Operating Budget:** The program is planned to address approximately 10–20 bridges annually and will decrease operation and maintenance costs a minor amount. These minor operation and maintenance cost savings will be considered when developing the operating budget for the future.

Capacity Enhancements — Turnpike**2. TPK Mainline Capacity Enhancements between I/C Nos. 1-4**

- i. **Location:** Salem, Gloucester, Camden, and Burlington Counties
- ii. **Description:** The project includes design and construction of one additional lane and full shoulders in each direction between Interchanges 1 and 4, approximately 37 miles in length. Many other improvements in addition to the roadway and bridge capacity enhancements will be provided including improvements to drainage, guide rail, lighting, signing, striping, median barrier, and other items.
- iii. **Status:** Program management including environmental services for this project began in 2021 and design services are expected to begin in 2022
- iv. **Impact on Operating Budget:** The project will add approximately 148 lane miles of new pavement and bridge deck which will increase operation and maintenance costs by about 3%. However, due to the other improvements included in the project, a reduction in operation and maintenance costs will be experienced for the existing assets. These operation and maintenance cost impacts will be considered when developing the operating budget for the future.

3. TPK Newark Bay-Hudson County Extension Capacity Enhancements

- i. **Location:** Essex and Hudson Counties
- ii. **Description:** The early phases of this project will determine capacity enhancement strategies for the Newark Bay — Hudson County Extension. Specifically, the first Order for Professional Services, which brings consultant services onboard, will provide for conceptual design and comprehensive environmental services for the capacity enhancements and rehabilitation of the entire 8.1 mile Newark Bay-Hudson County Extension from Interchange 14 in Newark, exclusive of the interchange itself, to the eastern terminus of the Authority's jurisdiction at Jersey Avenue in Jersey City. Prior to the studies being completed and in order to provide a general project description for purposes of this document, it is assumed that this project may widen the Turnpike mainline from two lanes in each direction to four lanes in each direction between Interchanges 14 and 14A. The project may widen the Turnpike mainline from two lanes in each direction to three lanes in each direction between Interchanges 14A and 14C. This project will provide full shoulders on the mainline throughout the project length. The eight-mile project would replace or widen multiple bridges and construct a new Newark Bay Bridge providing four lanes of traffic in each direction. Upgrades for drainage, lighting, signing, striping, retaining walls, and other roadway improvements would also be included.
- iii. **Status:** Conceptual design and environmental services began for this project in 2021, program management services is expected to begin in 2022
- iv. **Impact on Operating Budget:** As currently envisioned, the project will add approximately 38 lane miles of new pavement and bridge deck which will increase operation and maintenance costs by about 1%. In addition, due to the other improvements included in the project, a reduction in operation and maintenance costs will be experienced for the existing assets. These operation and maintenance cost impacts will be considered when developing the operating budget for the future. As the project becomes more defined, impacts to future operation and maintenance expense estimates will be adjusted.

4. Westerly Alignment Mainline Capacity Enhancements

- i. **Location:** Essex, Hudson, and Bergen Counties
- ii. **Description:** The early phases of this project will determine capacity enhancement strategies for the Turnpike Westerly Alignment. Prior to the studies being completed and in order to provide a general project description for purposes of this document, it is assumed that this project may widen the Turnpike Westerly Alignment between the Southern Mixing Bowl (where the Westerly and Easterly Alignments diverge) and the Northern Mixing Bowl (where the Westerly and Easterly Alignments merge), adding one lane in each direction and providing full-width shoulders. The 13-mile project would also replace or widen multiple bridges and upgrade drainage, lighting, signing, striping, retaining walls, and other roadway appurtenances.
- iii. **Status:** This project will be under study beginning in 2022
- iv. **Impact on Operating Budget:** As currently envisioned, the project will add approximately 52 lane miles of new pavement and bridge deck which will increase operation and maintenance costs by about 1%. However, due to the other improvements included in the project, a reduction in operation and maintenance costs will be experienced for the existing assets. These operation and maintenance cost impacts will be considered when developing the operating budget for the future. As the project becomes more defined, impacts to future operation and maintenance expense estimates will be adjusted.

Capacity Enhancements — Parkway**5. GSP I/C 80 Completion & Capacity Enhancements between I/C 80-83**

- i. **Location:** Ocean County
- ii. **Description:** Interchange 80 consists of a southbound exit ramp and northbound entrance ramp at US Route 9 and County Route 530. The missing directional movements would be added to this interchange. In addition, capacity enhancements are needed from Interchanges 80-83 to accommodate existing and future traffic demands. The early phases of this project will determine capacity enhancement strategies for this section of the Parkway. Prior to the studies and preliminary design being completed, and to provide a general project description for purposes of this document, it is assumed that this project may widen the Parkway mainline in each direction to four lanes between Interchanges 80 and 83. The project will provide full shoulders on the mainline throughout the project length. The approximately three-mile project would replace or widen multiple bridges including across Toms River and under Lakehurst Road (County Route 527). Upgrades for drainage, lighting, signing, striping, retaining walls, and other roadway improvements would also be included.
- iii. **Status:** Studies and design for this project are currently underway
- iv. **Impact on Operating Budget:** As currently envisioned, the project will add approximately 12 lane miles of new pavement and bridge deck which will increase operation and maintenance costs a very minor amount. In addition, due to the other improvements included in the project, a reduction in operation and maintenance costs will be experienced for the existing assets. These operation and maintenance cost impacts will be considered when developing the operating budget for the future.

6. GSP Mainline Capacity Enhancements between I/C 129-142

- i. **Location:** Middlesex and Union Counties
- ii. **Description:** The early phases of this project will determine capacity enhancement strategies for this portion of the Parkway. Prior to the studies being completed and in order to provide a general project description for purposes of this document, it is assumed that the project would widen the Parkway mainline from five lanes in each direction to six lanes in each direction with full shoulders along the entire length of the project. The project will replace or widen approximately 36 bridges to accommodate the capacity enhancements. The total project length is approximately 13 miles.
- iii. **Status:** This project will be under study beginning in 2024
- iv. **Impact on Operating Budget:** The project will add approximately 52 lane miles of new pavement and bridge deck which will increase operation and maintenance costs by about 1%. However, due to the other improvements included in the project, a reduction in operation and maintenance costs will be experienced for the existing assets. These operation and maintenance cost impacts will be considered when developing the operating budget for the future. As the project becomes more defined, impacts to future operation and maintenance expense estimates will be adjusted.

7. GSP Mainline Capacity Enhancements between I/C 154-163

- i. **Location:** Passaic and Bergen Counties
- ii. **Description:** The early phases of this project will determine capacity enhancement strategies for this portion of the Parkway. Prior to the studies being completed and in order to provide a general project description, it is assumed that this project may widen the Parkway in various locations throughout the limits of this project. The nine-mile project would also focus on providing full shoulders, upgraded weaving and merge distances, and general upgrades to the various other aspects of the facility such as drainage, lighting, and other roadway appurtenances.
- iii. **Status:** Project will be under study beginning in 2025
- iv. **Impact on Operating Budget:** As currently envisioned, the project will add approximately 36 lane miles of new pavement and bridge deck which will increase operation and maintenance costs by about 1%. In addition, due to the other improvements included in the project, a reduction in operation and maintenance costs will be experienced for the existing assets. These operation and maintenance cost impacts will be considered when developing the operating budget for the future. As the project becomes more defined, impacts to future operation and maintenance expense estimates will be adjusted.

Interchanges**8. GSP & TPK Interchange Improvements**

- i. **Location:** Various Counties
- ii. **Description:** This program will provide for the improvement of vehicular movements at various interchanges along the Turnpike and Parkway. Examples of improvements include ramp reconfigurations to provide for missing movements, add/lengthen acceleration and deceleration lanes, shoulder widenings, traffic flow improvements on and off the roadways, and enhance ramp geometries to improve safety and remove substandard features.
- iii. **Status:** Preliminary project designs are underway
- iv. **Impact on Operating Budget:** This program is expected to add a minor quantity of lane miles of new pavement which would increase operating and maintenance expenses a small amount. These operation and maintenance cost impacts will be considered when developing the operating budget for the future.

Concrete Barrier**9. GSP & TPK Median Barrier Improvements**

- i. **Location:** Various Counties
- ii. **Description:** This program will replace deteriorated sections of median barrier on both roadways. The new median barriers will be designed to the latest design standards and will be prioritized by areas of greatest need. This program is intended to supplement the Authority's annual maintenance program for median barrier.
- iii. **Status:** Project designs and construction are underway
- iv. **Impact on Operating Budget:** This program will address and replace deteriorated sections of median barrier which will reduce maintenance needs. These reductions will be considered when forecasting the future operation and maintenance budgets.

Drainage Structures**10. GSP Corrugated Metal Pipe Replacement & Culvert Rehabilitation**

- i. **Location:** Various Counties
- ii. **Description:** This program will replace existing corrugated metal pipes used in drainage systems and culverts on the Parkway. The metal pipes have significantly deteriorated due to corrosion and age. In addition, culverts would be rehabilitated to repair pipes or concrete boxes and repair erosion.
- iii. **Status:** Project designs and construction are underway
- iv. **Impact on Operating Budget:** This program will replace significant drainage infrastructure that has deteriorated and will result in operation and maintenance cost reductions. The operation and maintenance cost reductions will be considered when developing the operating budget for the future.

Roadway Lighting**11. GSP & TPK Lighting Upgrades**

- i. **Location:** Various Counties
- ii. **Description:** This program will upgrade existing filament bulb fixtures to LED fixtures and upgrade the wiring at multiple locations along both the Parkway and the Turnpike.
- iii. **Status:** Project designs and construction are underway
- iv. **Impact on Operating Budget:** This program will replace outdated lighting fixtures and associated infrastructure resulting in operation and maintenance cost reductions. The operation and maintenance cost reductions will be considered when developing the operating budget for the future.

Other Roadway Improvements**12. GSP & TPK MSE Wall Replacement**

- i. **Location:** Various Counties
- ii. **Description:** This program will replace deteriorated first generation MSE retaining walls with new retaining walls. This program is intended to supplement the Authority's annual maintenance program for MSE walls.
- iii. **Status:** Project studies and design services will be underway beginning in 2022
- iv. **Impact on Operating Budget:** This program will address and replace deteriorated MSE retaining walls which will reduce maintenance needs. These reductions will be considered when forecasting the future operation and maintenance budgets.

13. GSP & TPK Underground Storage Tank Upgrades

- i. **Location:** Various Counties
- ii. **Description:** This program involves removing underground storage tanks and replacing them with above-ground tanks.
- iii. **Status:** Project studies and design will be underway beginning in 2022
- iv. **Impact on Operating Budget:** This program will have no significant impact on the operation and maintenance budget.

14. GSP Service Area Ramps

- i. **Location:** Various Counties
- ii. **Description:** This project provides for improvements at thirty-five (35) ramps that provide access to eleven (11) Service Areas along the Garden State Parkway. The project will widen service area access ramps to a sufficient width to accommodate vehicle movement past a disabled vehicle thereby increasing safety. The work will typically include widened pavement and associated items such as drainage, lighting, signing, utility relocations, and addressing any other impacts of the capacity enhancements.
- iii. **Status:** The project is currently under design
- iv. **Impact on Operating Budget:** The project is primarily a safety improvement project and will have little, if any, impact on the operation and maintenance budget.

15. Horizontal Curve Warn Sign Installation

- i. **Location:** Various Counties
- ii. **Description:** This project will provide for the installation of site-specific curve advisory signs on 44 ramp bridges and associated approaches of the New Jersey Turnpike MP 90.9 to 119.1 and MP N7.7 to N7.9, and the Garden State Parkway MP 130.0 to 160.2 to provide advanced warning to the motoring public to improve safety.
- iii. **Status:** Project is currently in design
- iv. **Impact on Operating Budget:** This project will have no impact on the operating budget.

Facility Improvements**16. GSP & TPK Facility Improvements**

- i. **Location:** Various Counties
- ii. **Description:** This program will provide for improvements to multiple facilities along the Turnpike and Parkway including the TMC Administration Building, Chevalier Maintenance Sub Yard, Storage Buildings for TMD 3, 5 and 9 Storage Buildings, Maintenance Lean-to Replacements at Paramus, Clifton, Telegraph Hill and Ocean, and other miscellaneous facilities.
- iii. **Status:** Program is anticipated to begin in 2022
- iv. **Impact on Operating Budget:** This program will address maintenance issues which will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs.

Technology Improvements**17. TPK Hybrid Changeable Message Signs**

- i. **Location:** Various Counties
- ii. **Description:** This project includes the deployment of 89 Hybrid Changeable Message Signs (HCMSs) at 50 sites along the New Jersey Turnpike to replace the existing changeable message drum signs. The project provides for design and construction of the HCMS structural supports, provision and installation of HCMSs, and connectivity utilizing fiber optic communication networks back to the Statewide Traffic Management Center (STMC). All signs are monitored and controlled from the STMC.
- iii. **Status:** Project is under construction
- iv. **Impact on Operating Budget:** This project results in a reduction in maintenance costs because the new signs allow access from the roadway shoulder thereby eliminating the need for lane closures to perform maintenance and the HCMSs utilize new technology that further reduces maintenance needs.

2019 Capital Improvement Program

The Authority adopted the 2019 Capital Improvement Program (2019 CIP) in April 2019, which consists of the design, supervision and construction of 21 capital improvement projects on both roadways. The projects include several bridge deck improvements on both roadways, the shoulder widening and reconstruction of the Parkway between mileposts 30 and 35, the first phase of the replacement of the hybrid changeable message signs on the Turnpike, and rehabilitation of three bridges that cross the Passaic River on both roadways. In 2022, the 2019 CIP combined Total Project Budget will increase to \$716 million from \$673 million primarily to cover the potential increased costs in labor and materials for existing projects. In addition, there are transfers between projects that are necessary but do not increase the Total Project Budget for the program.

The 2022 spending budget is \$173 million, which is \$96 million less than the 2021 spending budget, representing a decrease of 36%. This decrease is due to the substantial completion of projects in 2021.

The following chart shows the actual spending for 2020 as well as the budgeted spending for 2021 and 2022:

2019 Capital Improvement Program — Spending by Category					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Capitalized Projects by Category					
Roadway					
Bridge Construction, Preservation & Security	\$ 41,451	116,763	73,226	(43,537)	(37.3)%
Interchanges	21,557	19,876	—	(19,876)	(100.0)%
Concrete Barrier	5,858	19,636	3,802	(15,834)	(80.6)%
Other Roadway Improvements	28,624	46,698	45,676	(1,022)	(2.2)%
Total Roadway	\$ 97,490	202,973	122,705	(80,268)	(39.5)%
Non-Roadway					
Service Areas & Arts Center	\$ 1,435	22,249	30,507	8,258	37.1%
Technology Improvements	3,451	42,914	19,295	(23,619)	(55.0)%
Total Non-Roadway	\$ 4,886	65,163	49,802	(15,361)	(23.6)%
Total Spending (Capitalized)	\$ 102,376	268,136	172,507	(95,629)	(35.7)%

— Totals may not add due to rounding

Figure 175: 2019 Capital Improvement Program Spending by Category (2020-2022)

2019 Capital Improvement Program Project Summary			
<i>(\$ In Thousands)</i>	2022 Total Project Budget	Spent/Committed Through 10/31/21	% of Budget
Capitalized Projects Category			
Roadway			
Bridge Construction, Preservation & Security	\$ 363,478	237,850	65.4%
Interchanges	46,315	44,754	96.6%
Concrete Barrier	32,702	26,593	81.3%
Other Roadway Improvements	130,441	121,020	92.8%
Total Roadway	\$ 572,935	212,497	37.1%
Non-Roadway			
Service Areas & Arts Center	\$ 75,040	17,331	23.1%
Technology Improvements	67,990	64,532	94.9%
Total Non-Roadway	\$ 143,030	27,510	19.2%
Total Spending (Capitalized)	\$ 715,965	512,079	71.5%

— Totals may not add due to rounding

Figure 176: 2019 Capital Improvement Program Project Summary

2019 Capital Improvement Program 2022-2026 Rolling 5-Year Spending Plan by Category						
<i>(\$ In Thousands)</i>	2022	2023	2024	2025	2026	Total 5-Year
Capitalized Projects Category						
Roadway						
Bridge Construction, Preservation & Security	\$ 73,226	97,024	30,834	12,240	—	213,325
Interchanges	—	—	—	—	—	—
Concrete Barrier	3,802	—	—	—	—	3,802
Other Roadway Improvements	45,676	7,553	—	—	—	53,229
Total Roadway	\$ 122,704	104,577	30,834	12,240	—	270,356
Non-Roadway						
Service Areas & Arts Center	\$ 30,507	14,905	5,505	6,605	5,000	62,521
Technology Improvements	19,295	—	—	—	—	19,295
Total Non-Roadway	\$ 49,802	14,905	5,505	6,605	5,000	81,816
Total Spending (Capitalized)	\$172,507	119,482	36,339	18,845	5,000	352,173

— Totals may not add due to rounding

Figure 177: 2019 Capital Improvement Program Five-Year Spending Plan by Category (2022-2026)

The 2022-2026 rolling five-year individual project spending plans within the 2019 CIP are shown below in [Figure 178](#). In addition, the Total Project Budget for the individual projects within the program are shown in [Figure 179](#).

2019 Capital Improvement Program — Total Project Spending Plan						
<i>(\$ In Thousands)</i>						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5- Year Spending Plan
Capitalized Projects						
GSP Shoulder Widening Reconstruction MP 30-35	\$ 39,376	7,553	—	—	—	46,928
GSP Bridge Deck Reconstruction 141-142	28,503	3,442	—	—	—	31,945
Service Areas - Applegreen & Sunoco	27,134	14,905	5,505	6,605	5,000	59,149
Passaic River Bridge Rehabilitation (1)	24,489	77,297	14,587	2,698	—	119,071
TPK Install New Hybrid CMS	19,295	—	—	—	—	19,295
GSP Structures 160.6 to 161.9 NB & SB	9,964	16,126	16,127	9,421	—	51,638
GSP Weather Guide Rail Replacement	6,301	—	—	—	—	6,301
TPK Redecking Structures E106.68 & E106.92	6,200	—	—	—	—	6,200
GSP Rehabilitation Concrete Median Barrier	3,802	—	—	—	—	3,802
TPK Bridge Lengthening of Structures 30.75 & 33.94	3,759	—	—	—	—	3,759
GSP Arts Center Signal Lot Expansion	3,373	—	—	—	—	3,373
TPK Bridge Rehabilitation	312	160	120	120	—	712
Total Capitalized Project Spending Plan	\$ 172,507	119,482	36,339	18,845	5,000	352,173

(1) Total costs of the Passaic River Bridge Rehab are \$103.3 million, However, \$7.8 million of those costs were funded from revenues
 — Totals may not add due to rounding

Figure 178: 2019 Capital Improvement Program Five-Year Spending Plan by Project (2022-2026)

2019 Capital Improvement Program — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated/Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from 2021
Capitalized Projects						
Passaic River Bridge Rehabilitation (1)	\$ 119,071	2,483	—	121,554	95,572	25,982
Service Areas - HMS Host & Sunoco	59,149	4,363	—	63,512	58,500	5,012
GSP Structure 160.6 to 161.9 NB SB	51,638	26,824	—	78,462	67,746	10,716
GSP Shoulder Widening Reconstruction MP 30-35	46,928	66,010	—	112,938	109,546	3,392
GSP Bridge Deck Reconstruction 141-142	31,945	31,319	—	63,264	56,518	6,746
TPK Install New Hybrid CMS	19,295	48,694	—	67,990	68,907	(917)
GSP Weather Guide rail Replacement	6,301	11,189	—	17,489	17,183	306
TPK Redecking Structure E106.68 E106.92	6,200	21,696	—	27,896	31,330	(3,434)
GSP Rehabilitation Concrete Median Barrier	3,802	28,900	—	32,702	36,558	(3,856)
TPK Bridge Lengthening 30.75 & 33.94	3,759	24,214	—	27,973	21,015	6,958
GSP Arts Center Signal Lot Expansion	3,373	8,155	—	11,528	18,243	(6,715)
TPK Bridge Rehabilitation	712	2,866	—	3,578	1,897	1,681
TPK I/C 6-9 Berm Surface Revision	—	8,915	—	8,915	76	8,839
TPK I/C 18E High Speed E-ZPass 16E	—	29,106	—	29,106	21,474	7,632
TPK Improvement Structure N2.01 Piers	—	13,170	—	13,170	8,457	4,713
TPK Redecking Structure 87.27 NSI	—	4,639	—	4,639	945	3,694
TPK I/C 6 Express E-ZPass Improvement	—	8,294	—	8,294	9,279	(985)
Washington Bridge Repair Project (3)	—	5,772	—	5,772	7,240	(1,468)
Laderman Bridge Repair Project (2)	—	8,231	—	8,231	11,545	(3,314)
TPK Bridge Fender Reconstruction	—	8,940	—	8,940	12,993	(4,053)
Horizontal Curve Warn Sign Installation	—	13	—	13	17,834	(17,821)
Total Capitalized Project Budget	\$ 352,173	363,792	—	715,965	672,858	43,107

(1) Total costs of the Passaic River Bridge Rehab are \$103.3 million. However, \$7.8 million of those costs were funded from revenues

(2) Total costs of the Laderman Bridge Repair Project are \$24.9 million. However, \$13.4 million of those costs were funded from revenues

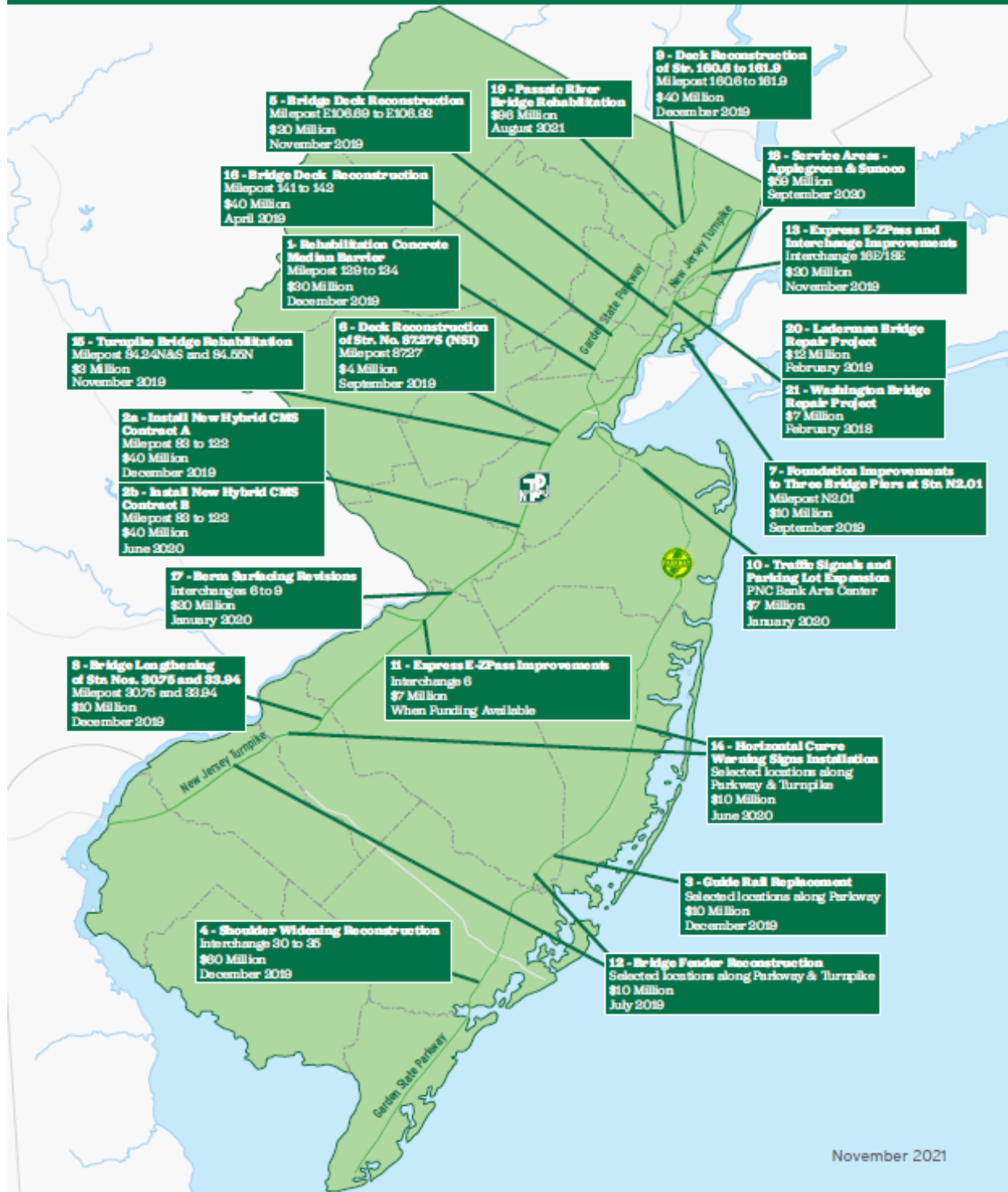
(3) Total costs of the Washington Bridge Repair Project are \$9.9 million. However, \$2.6 million of those costs were funded from revenues

— Totals may not add due to rounding

Figure 179: 2019 Capital Improvement Program Total Project Budget by Capitalized Project

New Jersey Turnpike Authority

2019 Capital Improvement Program



November 2021

Figure 180: 2019 Capital Improvement Program Projects Map

The 2019 CIP includes the following projects:

Bridge Construction, Preservation & Security

1. GSP Bridge Deck Reconstruction MP 141-142

- i. **Location:** Union County
- ii. **Description:** This project provides for the reconstruction and/or superstructure replacement of severely deteriorated, high priority bridge decks located between MP 140 and 143. The reconstruction work will also include median barrier, bridge painting, and approach roadway improvements.
- iii. **Status:** Project is currently under construction
- iv. **Impact on Operating Budget:** This project will extend the life of several bridges between Parkway MP 140 and 143 and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These minor savings will be considered when developing the operating budget for future years.

2. GSP Str. Nos. 160.6 to 161.9 NB & SB

- i. **Location:** Bergen County
- ii. **Description:** This project provides for the replacement of bridge decks and superstructure repainting for five bridges, replacement of two bridge superstructures, deck repairs to six bridges, reconstruction of roadway median barrier and other miscellaneous work along the Garden State Parkway mainline between MP 160.6 and 161.9.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will extend the life of six bridges and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs which will be considered during development of the operating budget estimates for future years.

3. Bridge Fender Reconstruction

- i. **Location:** Various Counties
- ii. **Description:** This project provided the repair and rehabilitation of bridge channel fender protection systems for multiple bridges on the New Jersey Turnpike and Garden State Parkway. This project also included the repair of deteriorated structural members and channel marking lighting systems.
- iii. **Status:** Project is complete
- iv. **Impact on Operating Budget:** This project will extend the life of waterway channel fender protection systems and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs which will be considered in the operating budget forecasts for future years.

4. TPK Bridge Lengthening of Str. Nos. 30.75 & 33.94

- i. **Location:** Camden and Burlington Counties
- ii. **Description:** This project provides for the design and deck reconstruction and lengthening of one severely deteriorated bridge deck which carries a local road over the southern portion of the Turnpike located at MP 30.75. The bridge lengthening will provide for adequate space for future widening of the Turnpike between Interchanges 1 and 4. Preliminary engineering studies resulted in the conclusion that a second bridge at MP 33.94 which was originally part of this project will not be part of the 2019 Capital Improvement Program.
- iii. **Status:** Project is currently under construction
- iv. **Impact on Operating Budget:** This project will extend the life of one bridge and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These minor savings will be included in the operating budget forecast for the year construction will be completed and beyond.

5. TPK Bridge Rehabilitation

- i. **Location:** Middlesex County
- ii. **Description:** This project provides for the design and continued rehabilitation of the Turnpike Raritan River Bridge Structure Nos. 84.24N&S and 84.55N.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will extend the life of these bridges and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These minor reductions will be considered when developing the operating budget for the year of construction completion and beyond.

6. TPK Improve Str. No. N2.01 Piers

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

7. TPK Redecking Str. No. 87.27 NSI

- i. **Location:** Middlesex County
- ii. **Description:** This project provides for the design and construction for the reconstruction of a severely deteriorated, high priority bridge deck located at MP 87.27S on the Turnpike which carries the mainline over Main Street (CR 531).
- iii. **Status:** Project was completed in June 2021
- iv. **Impact on Operating Budget:** This project will extend the life of Bridge No. 87.27S and will reduce the need for intermittent repairs resulting in very minor reductions in routine maintenance costs. This will be reflected in the future operating budget estimates.

8. TPK Redecking Str. Nos. E106.68 & E106.92

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

9. Passaic River Bridge Rehabilitation

- i. **Location:** Passaic and Bergen Counties
- ii. **Description:** This project provides for the design, construction, construction supervision, and permitting services for the superstructure replacement and widening of Parkway Bridge Structure No. 158.2 over the Passaic River, US Route 46, and River Road.
- iii. **Status:** Project is currently under design
- iv. **Impact on Operating Budget:** This project will extend the life of Parkway Bridge Structure No. 158.2 and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These minor savings will be considered when developing the operating budget for future years.

10. Laderman Bridge Repair Project

- i. **Location:** Essex and Hudson Counties
- ii. **Description:** This project provides for the design, construction, and construction supervision services for superstructure repairs to Turnpike Structure No. W107.87, Laderman Memorial Passaic River Bridge on the Turnpike Westerly Alignment. The project also provides for strengthening of low rating superstructure members.
- iii. **Status:** Project is currently under construction
- iv. **Impact on Operating Budget:** This project will extend the life of Turnpike Structure No. W107.87 and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These minor savings will be considered when developing the operating budget for future years.

11. Washington Bridge Repair Project

- i. **Location:** Essex and Hudson Counties
- ii. **Description:** This project provides for the design, construction, and construction supervision services for superstructure repairs to Turnpike Structure No. E107.88, Chaplain Washington Memorial Passaic River Bridge on the Turnpike Easterly Alignment. The project also provides for strengthening of low rating superstructure members and the replacement of the major pin and hanger assemblies of the superstructure.
- iii. **Status:** Project is currently under construction
- iv. **Impact on Operating Budget:** This project will extend the life of Turnpike Structure No. E107.88 and will reduce the need for intermittent repairs resulting in minor reductions in routine maintenance costs. These minor savings will be considered when developing the operating budget for future years.

Interchanges**12. TPK I/C 18E High Speed E-ZPass 16E**

- i. **Location:** Bergen County
- ii. **Description:** This project provides two Express E-ZPass toll collection lanes in the southbound and northbound directions at New Jersey Turnpike Interchange 16E/18E Toll Plaza on the Eastern Spur at MP 112.3. The contract also includes modifications to the express bus lanes (XBL) and exit ramps at Interchange 16E. This will improve the overall traffic flow at the Interchange and reduce the exiting bus queuing that utilize the contraflow Exclusive Bus Lane. This project also includes toll collection equipment modifications; toll plaza electrical and communications work, approach roadway and striping modifications, and ground mounted and overhead signing improvements.
- iii. **Status:** Project is currently under construction
- iv. **Impact on Operating Budget:** This project will construct new express E-ZPass lanes at Interchange 18E and will slightly increase the need for intermittent repairs resulting in a minor increase in routine maintenance costs. This small increase will be considered when developing the operating budget for the year of construction completion and beyond.

13. TPK I/C 6 Express E-ZPass Improvements

- i. **Location:** Burlington County
- ii. **Description:** This project will implement additional Express E-ZPass toll collection lanes in the eastbound and westbound directions at the New Jersey Turnpike Interchange 6 Toll Plaza on the Pearl Harbor Memorial Turnpike Extension. Anticipated work includes toll collection equipment modifications; toll plaza electrical and communications work, approach roadway modifications, and ground mounted and overhead signing improvements.
- iii. **Status:** This project is under construction
- iv. **Impact on Operating Budget:** This project will implement dual Express E-ZPass lanes at Interchange 6 and will reduce the need for intermittent repairs for the existing toll plaza resulting in very minor reductions in routine maintenance costs. The minor reductions will be considered when developing the operating budget for the future.

14. TPK I/C 6-9 Berm Surface Revisions

- i. **Location:** Middlesex, Mercer and Burlington Counties
- ii. **Description:** This project will design and construct berm surfacing improvements at select locations adjacent to and underneath exiting guide rail systems and at various median locations on the Turnpike between Interchanges 6 and 9.
- iii. **Status:** Project was completed — April 2021
- iv. **Impact on Operating Budget:** This project will construct berm surfacing improvements that will slightly decrease operating and maintenance expenses for personnel, materials and equipment. These expense reductions will be considered for the operating budget development for the year of construction completion.

Concrete Barrier**15. GSP Rehabilitation Concrete Median Barrier**

- i. **Location:** Middlesex and Union Counties
- ii. **Description:** This project provides for the removal and replacement of damaged, misaligned, deteriorated, and substandard height concrete median barrier along with drainage repairs, paving and other incidental work on the Garden State Parkway between MP 129 and 134.
- iii. **Status:** Project is currently under construction
- iv. **Impact on Operating Budget:** This project extends the life of concrete median barrier and reduces the need for intermittent repairs which results in very minor reductions in routine maintenance costs. These reductions will be considered when developing the operating budget for the year of construction completion and beyond.

Other Roadway Improvements**16. Horizontal Curve Warn Sign Installation**

- i. **Location:** Various Counties
- ii. **Description:** This project will provide for the installation of site-specific curve advisory signs on 44 ramp bridges and associated approaches of the New Jersey Turnpike MP 90.9 to 119.1 and MP N7.7 to N7.9, and the Garden State Parkway MP 130.0 to 160.2 to provide advanced warning to the motoring public to improve safety.
- iii. **Status:** Project is currently in design
- iv. **Impact on Operating Budget:** This project will have no impact on the operating budget.

17. GSP Shoulder Widening Reconstruction MP 30-35

- i. **Location:** Cape May and Atlantic Counties
- ii. **Description:** Safety and maintenance improvements to this section of the Parkway are necessary to be consistent with the other safety improvements recently completed under the \$7 Billion Capital Improvement Program in adjacent sections. This project provides for the construction of standard width shoulders for the five-mile section in both the northbound and southbound directions, reconstruction of eight bridges, drainage improvements, and roadside area improvements.
- iii. **Status:** Project is currently under construction
- iv. **Impact on Operating Budget:** This project will add approximately 10 lanes miles of pavement, reconstruct eight bridges, and improve drainage facilities. Although there will be a slight increase in operation and maintenance costs for the widened shoulders, overall operation and maintenance costs will be slightly reduced after accounting for the extended life of the bridges and drainage systems. These slight reductions will be considered in the operating budget estimates.

18. GSP Weathering Steel Guide Rail Replacement

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

Service Areas & Arts Center**19. GSP Arts Center Signal Lot Expansion**

- i. **Location:** Ocean County
- ii. **Description:** This project provides intersection improvements at the PNC Arts Center exit ramps from the Garden State Parkway. Additional improvements also include reconfiguring the East/West PNC Service Road; overhead lane control system upgrades, roadway and parking lot lighting, and other ancillary activities.
- iii. **Status:** Project is currently under construction
- iv. **Impact on Operating Budget:** This project will construct new traffic signals at the PNC Arts Center and will slightly increase the need for intermittent repairs resulting in a minor increase in routine maintenance costs. These minor increases will be considered when developing the operating budget for the year of construction completion.

20. Service Areas – Applegreen & Sunoco

- i. **Location:** Bergen County
- ii. **Description:** This project provides for improvements to the gas and water service at the Turnpike Vince Lombardi Service Area 13, MP 116. Work includes replacing a portion of the existing water main due to maintenance issues and to upgrade essential gas service from propane gas service to a new natural gas service.
- iii. **Status:** Project is currently under construction
- iv. **Impact on Operating Budget:** This project will provide for needed improvements to the utility services at the Vince Lombardi Service Area to extend the life of the utilities and will reduce the need for future intermittent repairs resulting in very minor reductions in routine maintenance costs.

Technology Improvements**21. TPK Install New Hybrid CMS**

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

2008 \$7 Billion Capital Improvement Program

The Authority's 2008 \$7 Billion Capital Improvement Program was adopted in October 2008, with the first contract awarded in 2009. In September 2018, the program was amended to extend the end date of the program to award new contracts until December 31, 2020. The 2008 \$7 Billion CIP included the extremely successful widening of the Turnpike between Interchanges 6 and 9 and the widening of the Parkway between mileposts 35 and 80. The work that remains to be completed includes the Newark Bay-Hudson County Extension bridge rehabilitation, facilities improvements, interchange improvements and bridge deck reconstruction. The Total Project Budget for the entire program is unchanged at \$7 Billion. However, there are transfers between individual projects which are being approved as part of the 2022 Annual Budget.

The 2022 spending budget is decreasing almost 50% from the 2021 spending budget of \$146 million, representing the winding down of this Capital Improvement Program as many projects are completed or are near completion.

The following chart shows the actual spending for 2020 as well as the budgeted spending for 2021 and 2022:

2008 \$7 Billion Capital Improvement — Spending by Category					
<i>(\$ In Thousands)</i>	2020 Actual	2021 Budget	2022 Budget	\$ Δ from 2021	% Δ from 2021
Capitalized Projects by Category					
Roadway					
Bridge Construction, Preservation & Security	\$ 83,929	72,302	46,555	(25,747)	(35.6)%
Capacity Enhancements - Turnpike	273	1,466	65	(1,400)	(95.5)%
Capacity Enhancements - Parkway	4,611	3,057	—	(3,057)	(100.0)%
Interchanges	35,669	37,534	20,496	(17,038)	(45.4)%
Concrete Barrier		325	198	(127)	(39.1)%
Other Roadway Improvements	20,019	10,350	3,237	(7,113)	(68.7)%
Total Roadway	\$ 144,501	125,034	70,551	(54,482)	(43.6)%
Non-Roadway					
Facilities	\$ 10,350	21,000	3,608	(17,393)	(82.8)%
Total Non-Roadway	\$ 10,350	21,000	3,608	(17,393)	(82.8)%
Total Spending (Capitalized)	\$ 154,851	146,034	74,160	(71,874)	(49.2)%

— Totals may not add due to rounding

Figure 181: 2008 \$7 Billion Capital Improvement Program Spending by Category (2020-2022)

2008 \$7 Billion Capital Improvement Program Project Summary			
<i>(\$ In Thousands)</i>	2022 Total Project Budget	Spent/Committed Through 10/31/21	% of Budget
Capitalized Projects Category			
Roadway			
Bridge Construction, Preservation & Security	\$ 1,723,922	1,674,312	97.1%
Capacity Enhancements - Turnpike	2,131,547	2,130,564	100.0%
Capacity Enhancements - Parkway*	574,272	574,813	100.1%
Interchanges	1,058,621	1,037,908	98.0%
Concrete Barrier	51,567	51,478	99.8%
Drainage Structures	61,914	61,912	100.0%
Other Roadway Improvements	718,356	717,752	99.9%
Total Roadway	\$ 6,320,199	6,131,268	97.0%
Non-Roadway			
Facilities	\$ 679,800	678,609	99.8%
Total Non-Roadway	\$ 679,800	668,929	98.4%
Total Spending (Capitalized)	\$ 7,000,000	6,927,348	99.0%

* The total Capacity Enhancement for Parkway is \$574 million but \$100 million 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 182: 2008 \$7 Billion Capital Improvement Program Project Summary

2008 \$7 Billion Capital Improvement Program 2022-2026 Rolling 5-Year Spending Plan by Category						
<i>(\$ In Thousands)</i>	2022	2023	2024	2025	2026	Total 5-Year
Capitalized Projects by Category						
Roadway						
Bridge Construction, Preservation & Security	\$ 46,555	21,694	1,754	1,648	1,542	73,194
Capacity Enhancements - Turnpike	65	—	—	—	—	65
Interchanges	20,496	100	—	—	—	20,596
Concrete Barrier	198	—	—	—	—	198
Other Roadway Improvements	3,237	718	—	—	—	3,956
Total Roadway	\$ 70,551	22,512	1,754	1,648	1,542	98,009
Non-Roadway						
Facilities	\$ 3,608	—	—	—	—	3,608
Total Non-Roadway	\$ 3,608	—	—	—	—	3,608
Total Spending (Capitalized)	\$ 74,160	22,512	1,754	1,648	1,542	101,617

— Totals may not add due to rounding

Figure 183: 2008 \$7 Billion Capital Improvement Program Five-Year Spending Plan by Category (2022-2026)

The 2022-2026 rolling five-year individual project spending plans within the 2008 \$7 Billion CIP are shown below in [Figure 184](#). The Total Project Budget for each project within the program is shown in [Figure 185](#).

2008 \$7 Billion Capital Improvement Program — Total Project Spending Plan						
(\$ In Thousands)						
Project Name	2022 Spending	2023 Spending	2024 Spending	2025 Spending	2026 Spending	Rolling 5- Year Spending Plan
Capitalized Projects						
Newark Bay Hudson County Extension Bridge Redecking	\$ 32,445	8,413	213	106	—	41,177
I/C Improvements	19,143	100	—	—	—	19,243
Facilities Improvements Phase I	3,608	—	—	—	—	3,608
GSP Mainline Shoulder Improvements	2,144	—	—	—	—	2,144
GSP I/C 9, 10 & 11 Improvements	1,313	—	—	—	—	1,313
Sign Replacements Phase II	1,094	718	—	—	—	1,812
Bridge Preservation & Security	555	—	—	—	—	555
Deck Reconstruction Phase II	449	174	—	—	—	622
Median Barrier Improvements	198	—	—	—	—	198
TPK I/C 6-9 Widening	65	—	—	—	—	65
GSP I/C 41 Improvements	40	—	—	—	—	40
Contingency	13,107	13,107	1,542	1,542	1,542	30,839
Total Capitalized Project Spending Plan	\$ 74,160	22,512	1,754	1,648	1,542	101,617

— Totals may not add due to rounding

Figure 184: 2008 \$7 Billion Capital Improvement Program Five-Year Spending Plan by Project (2022-2026)

2008 \$7 Billion Capital Improvement Program — Total Project Budget						
(\$ In Thousands)						
Project Name	Rolling 5-Year Spending Plan	Estimated/ Actual LTD Spending	Future Spending	Total Project Budget 2022	Total Project Budget 2021	\$ Δ from 2021
Capitalized Projects						
Newark Bay Hudson County Extension Bridge Redecking	\$ 41,177	456,894	—	498,070	517,814	(19,744)
I/C Improvements	19,243	403,936	—	423,179	421,452	1,727
Facilities Improvements Phase I	3,608	658,632	—	662,239	705,345	(43,106)
GSP Mainline Shoulder Improvements	2,144	361,360	—	363,503	362,285	1,218
Sign Replacements Phase II	1,812	155,426	—	157,238	146,592	10,646
GSP I/C 9, 10 & 11 Improvements	1,313	83,089	—	84,402	87,043	(2,641)
Deck Reconstruction Phase II	622	141,745	—	142,367	138,527	3,840
Bridge Preservation & Security	555	93,606	—	94,161	94,603	(442)
Median Barrier Improvements	198	51,369	—	51,567	51,825	(258)
TPK I/C 6-9 Widening	65	2,131,482	—	2,131,547	2,131,439	108
GSP I/C 41 Improvements	40	22,961	—	23,001	22,971	30
Deck Reconstruction Phase I	—	208,536	—	208,536	200,157	8,380
GSP I/C 125 Phase I	—	97,882	—	97,882	92,547	5,335
Bridge Painting Phase II	—	70,214	—	70,214	65,107	5,107
GSP Great Egg Harbor/Drum Channel	—	261,081	—	261,081	256,963	4,118
TPK I/C 14A Reconstruction	—	285,785	—	285,785	283,373	2,412
Sign Replacements Phase I	—	140,271	—	140,271	139,334	937
TPK Hackensack East Bridge Rehabilitation	—	131,980	—	131,980	131,885	95
TPK Specialized Bridge STR Repairs	—	7,386	—	7,386	7,338	48
GSP Widening of I/C 63-80	—	126,981	—	126,981	126,935	46
GSP I/C 44 Improvements	—	28,863	—	28,863	28,833	30
GSP Mullica River Bridge	—	49,402	—	49,402	49,392	10
Improvement Roadway Appurtenances	—	41,479	—	41,479	41,472	8
GSP Bass River Bridge	—	76,440	—	76,440	76,434	6
TPK I/C 8A to Route 130 Connector Improvements	—	6,157	—	6,157	6,157	—
GSP Substructure Bridge Repairs	—	33,249	—	33,249	33,249	—
Salt Storage Facilities	—	17,561	—	17,561	17,561	—
TPK/GSP SB Improvements	—	15,865	—	15,865	15,865	—
TPK I/C 16E-18E Bridge Improvements	—	15,147	—	15,147	15,147	—
GSP I/C 88 Improvements	—	97,433	—	97,433	97,433	—
GSP I/C 142 Improvements	—	655	—	655	655	—
GSP I/C 91 Improvements	—	11,263	—	11,263	11,447	(184)
Drainage Improvements	—	61,914	—	61,914	62,123	(209)
Bridge Painting Phase I	—	105,048	—	105,048	105,262	(214)
GSP Widening of I/C 35-63	—	447,291	—	447,291	455,433	(8,142)
Contingency	30,839	—	—	30,839	—	30,839
Total Capitalized Project Budget	\$ 101,617	6,898,383	—	7,000,000	7,000,000	—

— Totals may not add due to rounding

Figure 185: 2008 \$7 Billion Capital Improvement Program Total Project Budget by Capitalized Project

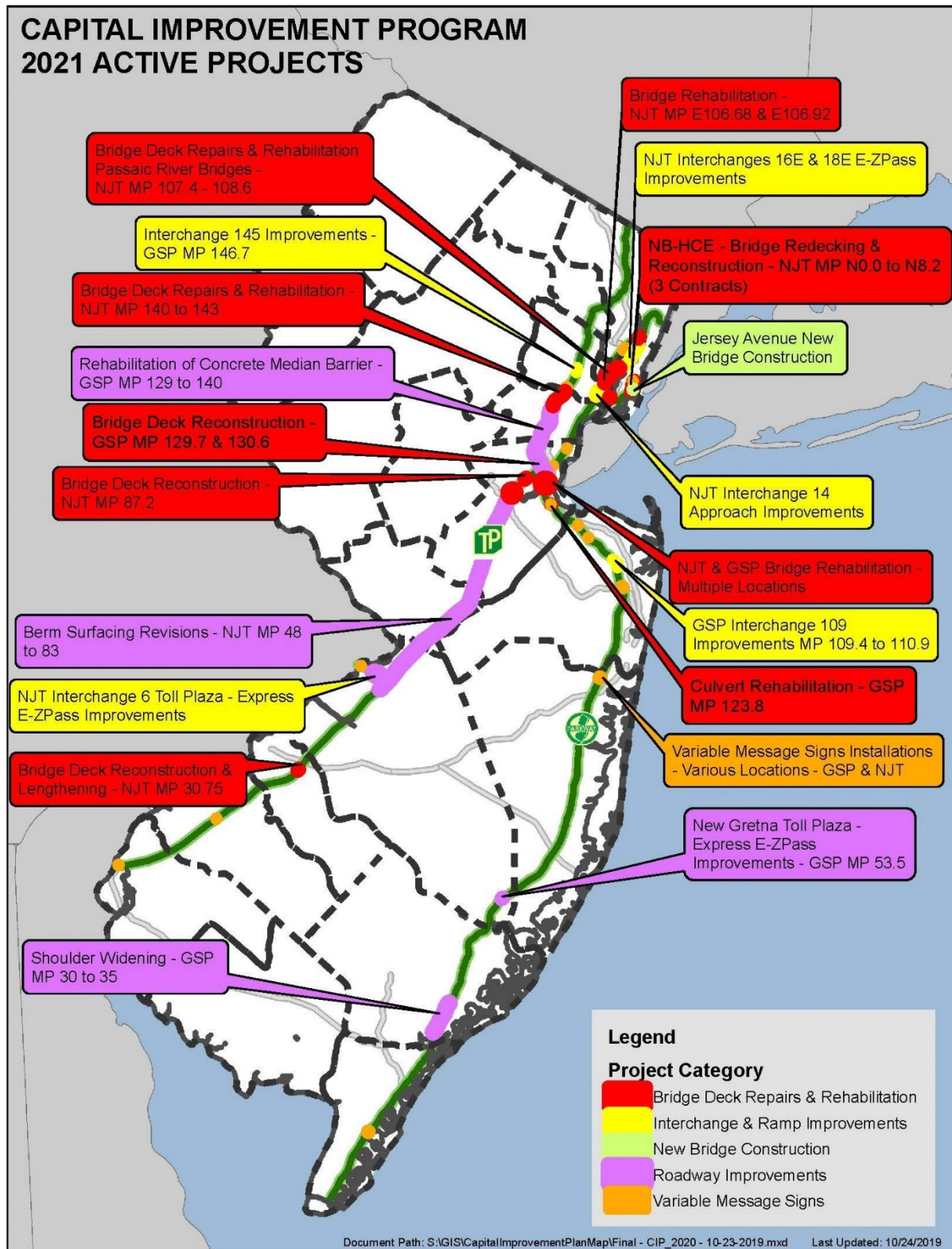


Figure 186: 2008 \$7 Billion Capital Improvement Program Active Projects Map

The 2008 \$7 Billion CIP includes the following projects:

Bridge Construction, Preservation & Security

1. 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, which extended the life of the structural steel and reduced the need for intermittent repairs, has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

2. 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.

3. 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 was substantially completed — July 2019
- 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.

4. 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, which extended the life of the bridge decks and reduced the need for intermittent repairs resulting in minor reductions in routine maintenance costs, has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

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 substantially complete — Spring 2020
- 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. GSP 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 extended the life of the existing bridge and added a new bridge. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

7. GSP Great Egg Harbor/Drag Channel

- 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 substantially complete — August 2019
- 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 were added (4.5 lane miles) which increase the operations and maintenance costs by approximately 0.1%. These operations and maintenance cost savings and additions have been incorporated into the operating budget.

8. GSP 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 extended the life of the existing bridge and added a new bridge. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

9. GSP Substructure Bridge 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 extended the life of the bridges and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

10. Newark Bay-Hudson County Extension Bridge Redecking

- 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 bridges. 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.

11. TPK Hackensack East 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 extended the life of the bridge, reduced the need for intermittent repairs which resulted in minor reductions in routine maintenance costs, and has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

12. TPK I/C 16E-18E Bridge Improvements

- i. **Location:** Hudson County
- ii. **Description:** This project provided for the widening and re-decking of Structure No. E112.58A and the widening of Secaucus Road, Structure No. E112.10.
- iii. **Status:** Design and construction completed and opened to traffic — 2011
- iv. **Impact on Operating Budget:** This bridge project extended the life of the rehabilitated bridges and reduced the need for intermittent repairs resulting in minor reductions in routine maintenance costs. This project has been completed for numerous years. The operating and maintenance expense reductions are reflected in the actual expenses over recent years.

13. TPK Specialized Bridge Structure Repairs

- i. **Location:** Various Counties
- ii. **Description:** This project provided for the design and construction of specialized bridge repairs on the Turnpike that were not covered under the annual miscellaneous structural repair contracts. The primary work included improvements to structural steel modifications, bearing replacements, and steel repairs for various non-major bridges.
- iii. **Status:** Design and construction is complete
- iv. **Impact on Operating Budget:** This group of bridge projects extended the life of the bridges and reduced the need for intermittent repairs which results in minor reductions in routine maintenance costs. These minor reductions have been incorporated into the operating budget.

Capacity Enhancements — Turnpike**14. TPK I/C 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, which added 216 lane miles of new pavement, has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

Capacity Enhancement — Parkway**15. GSP Widening of I/C 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:** The project adds 56 lane miles of new pavement which increases operating and maintenance expenses. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

16. GSP Widening of I/C 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. The project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

Interchanges**17. GSP I/C 125 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 substantially complete — June 2020
- 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.

18. GSP I/C 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. The project cost presented herein represents the Authority's share of the overall project cost.
- iii. **Status:** Design and construction completed and opened to traffic — April 2011
- iv. **Impact on Operating Budget:** This project added new pavement and bridge structures which increased operating and maintenance expenses for personnel, materials and equipment. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

19. GSP I/C 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 added two lane miles of new pavement which increased operating and maintenance expenses. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

20. GSP I/C 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. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

21. GSP I/C 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 reconstruction of two mainline bridges, construction of two new bridges over NJ Route 70, construction of a new collector/distributor roadway between Interchange 88 and Interchange 89, and relocation and consolidation of ramp toll collection facilities.
- iii. **Status:** Design and construction completed and opened to traffic — July 2015
- iv. **Impact on Operating Budget:** This project added 15 lane miles of new pavement which increased operating and maintenance expenses. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

22. GSP I/C 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 substantially completed and opened to traffic --April 2016
- iv. **Impact on Operating Budget:** This project added approximately four lane miles of new pavement which increases operating and maintenance expenses. This project has been completed for several years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

23. GSP I/C 91 Improvements

- i. **Location:** Ocean County
- ii. **Description:** This project was a joint cooperative project between the Authority and Ocean County that provided missing ramp movements at this partial interchange. The project also includes the construction of two extended service roads and County road improvements that eliminated the complex traffic pattern at the interchange, relieved congestion on local roads, and enhanced safety. The project was funded by Ocean County and the Authority. The 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. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

24. I/C Improvements

- i. **Location:** Various Counties
- ii. **Description:** This project includes improvements to interchanges on the Turnpike and Parkway. Interchange locations include Turnpike Interchanges 9, 10, 15W, 16W, and Parkway Interchanges 0, 105, 109, 145, 163.
- iii. **Status:** Design and construction is on-going
- iv. **Impact on Operating Budget:** This group of projects will 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.

25. TPK I/C 14A Reconstruction

- i. **Location:** Hudson County
- ii. **Description:** There were 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 was improved, and two additional toll lanes were added to the existing toll plaza to address the operational and capacity deficiencies of the existing interchange.
- iii. **Status:** Design and construction is complete — June 2020
- iv. **Impact on Operating Budget:** This project added six lane miles of new pavement which increased operating and maintenance expenses approximately 0.2% for personnel, materials and equipment. These increases in costs have been incorporated into the budget.

26. TPK I/C 8A to Route 130 Connector Improvements

- i. **Location:** Middlesex County
- ii. **Description:** This project will address significant traffic congestion near Interchange 8A. The project limits include a section of Route 32 between Interchange 8A and the interconnection of Route 32 with Route 130. Middlesex County has requested that the Authority undertake appropriate improvements on the basis that much of the traffic within the corridor is destined to or from the Turnpike.
- iii. **Status:** Design and construction is complete
- iv. **Impact on Operating Budget:** This project adds approximately nine lane miles of new pavement which increases operating and maintenance expenses. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

Concrete Barrier**27. 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, and 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 as well as other locations.
- iii. **Status:** Design and construction substantially complete — July 2014
- iv. **Impact on Operating Budget:** This group of projects extended the life of the median barrier and reduced the need for intermittent repairs which results in minor reductions in routine maintenance costs. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

Drainage Structures**28. Drainage Improvements**

- i. **Location:** Various Counties
- ii. **Description:** This project included design services and construction to rehabilitate or replace non-functioning and substandard drainage systems. The project also included the analysis of the condition of existing median inlets along the Authority's mainline and interchange ramp roadways and will construct recommended improvements in compliance with current environmental regulations.
- iii. **Status:** Design and construction completed — 2019.
- iv. **Impact on Operating Budget:** This group of projects extended the life of the drainage systems and reduced 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.

Other Roadway Improvements**29. GSP 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. The project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

30. Improvements 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 substantially complete — 2019.
- iv. **Impact on Operating Budget:** This group of projects extends the life of the guide rail system and reduces the need for intermittent repairs which results in minor reductions in routine maintenance costs. These reductions have been incorporated into the operating budget based on actual cost savings.

31. 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 — September 2018
- iv. **Impact on Operating Budget:** This group of projects has no significant impact on the operating budget.

32. 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 (STMC). 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.

33. TPK/GSP Southern Improvements

- i. **Location:** Various Counties
- ii. **Description:** This project provided miscellaneous improvements to the 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 — June 2013
- iv. **Impact on Operating Budget:** This group of projects cleared numerous maintenance issues and reduced the need for intermittent repairs which results in minor reductions in routine maintenance costs. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

Facilities**34. 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 resulting in minor reductions in routine maintenance costs. In addition, new facilities were added which increase operations and maintenance costs. These minor reductions and additions have been incorporated into the operating budget.

35. 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 resulted in salt storage facilities that reduce operating costs adding storage capacity and improving locations. This project has been completed for numerous years. The operating and maintenance expense impacts are reflected in the actual expenses over recent years.

Appendices

Appendix A: General Consulting Engineer's Approval Letter

HNTB Corporation
The HNTB Companies
Infrastructure Solutions

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November 19, 2021



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

Re: Order for Professional Services No. A3785
General Consulting Engineering Services
Core Service 17, Bond Resolution Services
Review of Final 2022 Annual Budget

Dear Mr. Keller:

In accordance with the provisions of Section 710(d) 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, the New Jersey Turnpike Authority (Authority) will be filing the Final 2022 Annual Budget with the Trustee on or before the 15th day of the budget calendar year, which is January 15, 2022. As part of that filing, a certificate from the General Consulting Engineers approving the final budget shall be provided. HNTB, as the Authority's General Consulting Engineers, has thoroughly reviewed the Authority's Final 2022 Annual Budget. Over the last several months, HNTB has analyzed various iterations of the 2022 Annual Budget which includes annual operating expense, debt service, and general reserve budgets; revenue-funded capital spending budgets; and longer-term, bond-funded capital spending budgets. The results of those analyses are that the various budgets are appropriately funded and meet the required needs of operation, maintenance, debt service, and capital improvements for the Authority's assets.

HNTB hereby approves the New Jersey Turnpike Authority's Final 2022 Annual Budget. The Final 2022 Annual Budget includes:

Annual Budgets

• Operating Expenses	\$671,639,000
• Debt Service	\$902,853,000
• General Reserve	\$685,845,000

Revenue-Funded Capital Spending Budgets

• Maintenance Reserve Fund	\$219,787,000
• Special Project Reserve Fund	\$76,137,000
• Supplemental Capital Program	\$74,950,000

John M. Keller, PE
November 19, 2021
Page 2 of 2

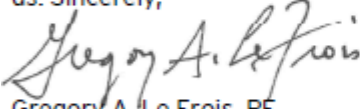
Bond-Funded Capital Spending Budgets

- | | |
|--|---------------|
| • 2008 \$7 Billion Capital Improvement Program | \$74,160,000 |
| • 2019 Capital Improvement Program | \$172,507,000 |
| • 2022 - 2026 Rolling 5-Year Capital Improvement Program | \$351,630,000 |

In addition, the Final 2022 Annual Budget includes the following deposits:

- | | |
|---------------------------------|---------------|
| • Maintenance Reserve Fund | \$200,000,000 |
| • Special Projects Reserve Fund | \$50,000,000 |
| • General Reserve Fund | \$636,600,000 |

We appreciate being of service to you in this regard. Should you have any questions or comments related to our review of the Final 2022 Annual Budget, please contact us. Sincerely,



Gregory A. Le Frois, PE
Senior Vice President
Project Manager

Copy: James Carone, NJTA
Donna Manuelli, NJTA
Robert Fischer, PE, NJTA
Lamis Malak, PE, NJTA
Mukta Puranik, NJTA

GAL/sb

Appendix B: Schedule of Revenue, Expenses, and Changes in Net Position

NEW JERSEY TURNPIKE AUTHORITY
(A Component Unit of the State of New Jersey)
Schedule of Revenue, Expenses, and Changes in Net Position
Years ended December 31, 2020, 2021 and 2022

(\$ In thousands)

	2020 Actual	2021 Budget	2022 Budget
Operating revenues:			
Toll revenue	\$ 1,387,400	1,920,800	2,067,000
E-ZPass fees	93,200	84,500	100,000
Concession revenue	31,700	31,000	31,500
Miscellaneous revenue	16,100	12,000	12,600
Total operating revenues	1,528,400	2,048,300	2,211,100
Operating expenses:			
Maintenance of roadway, buildings, and equipment	256,400	322,500	340,400
Toll collection	164,400	196,900	209,300
State police and traffic control	105,700	110,500	129,200
Technology	26,000	34,600	36,300
General administrative costs	53,900	59,900	64,500
Depreciation	391,600	433,900	454,500
Total operating expenses	998,000	1,158,300	1,234,200
Nonoperating revenues (expenses):			
Build America Bonds subsidy	77,800	77,000	77,000
Federal and State reimbursements	—	—	—
Payments to the State of New Jersey	(153,500)	(289,000)	(572,500)
Interest expense, Turnpike Revenue Bonds	(539,200)	(599,800)	(573,600)
Other bond expenses	(800)	(1,000)	(1,000)
Loss on disposal of capital assets	—	—	—
Investment income	25,500	22,000	11,000
Arts Center	3,600	4,200	4,300
Total nonoperating (expenses), net	(586,600)	(786,600)	(1,054,800)
Capital contributions	5,200	200	—
Change in Net Position	(51,000)	103,600	(77,900)

Notes:

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

The non-cash expenses include Pollution Remediation (GASB 49), Derivative Instruments (GASB 53), Pension (GASB 68) and Other Postemployment Benefits (GASB 75)

Figure 187: Schedule of Revenue, Expenses, and Changes in Net Position (2020-2022)

NEW JERSEY TURNPIKE AUTHORITY
(A Component Unit of the State of New Jersey)
Schedule of Revenue, Expenses, and Changes in Net Position
Actual Year ended December 31, 2020
(\$ in thousands)

	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Debt service	Debt reserve	Total bond resolution	GASB Adjustments*	Total 2020 Consolidated Financials
Operating revenues:										
Toll revenue	\$ 1,387,400	—	—	—	—	—	—	1,387,400	—	1,387,400
E-ZPass Fees	93,200	—	—	—	—	—	—	93,200	—	93,200
Concession revenue	31,700	—	—	—	—	—	—	31,700	—	31,700
Miscellaneous revenue	12,600	—	—	—	—	—	—	12,600	3,500	16,100
Total operating revenues	1,524,900	—	—	—	—	—	—	1,524,900	3,500	1,528,400
Operating expenses:										
Maintenance of roadway, buildings and equipment	195,300	9,100	—	11,400	31,900	—	—	247,700	8,700	256,400
Toll Collection	152,400	—	—	—	—	—	—	152,400	12,000	164,400
State Police and Traffic Control	103,100	—	—	500	—	—	—	103,600	2,100	105,700
Technology	22,000	—	—	2,000	—	—	—	24,000	2,000	26,000
General administrative costs	48,000	—	—	500	—	—	—	48,500	5,400	53,900
Depreciation	—	327,600	53,300	10,700	—	—	—	391,600	—	391,600
Total operating expenses	520,800	336,700	53,300	25,100	31,900	—	—	967,800	30,200	998,000
Nonoperating revenues (expenses):										
Build America Bonds subsidy	77,800	—	—	—	—	—	—	77,800	—	77,800
Federal and State reimbursements	—	—	—	—	—	—	—	—	—	—
Payments to the State of New Jersey	—	—	—	—	(153,500)	—	—	(153,500)	—	(153,500)
Interest expense, Turnpike Revenue Bonds	—	16,500	—	—	—	(586,300)	—	(569,800)	30,600	(539,200)
Other bond expense	—	(700)	—	—	(100)	—	—	(800)	—	(800)
Loss on disposal of capital assets	—	—	—	—	—	—	—	—	—	—
Investment income (loss)	1,400	5,600	900	900	4,100	1,300	11,300	25,500	—	25,500
Arts Center	3,600	—	—	—	—	—	—	3,600	—	3,600
Total nonoperating revenues (expenses), net	82,800	21,400	900	900	(149,500)	(585,000)	11,300	(617,200)	30,600	(586,600)
Capital contributions	—	51,100	—	—	5,200	—	—	56,300	(51,100)	5,200
Change in Net Position	1,086,900	(264,200)	(52,400)	(24,200)	(176,200)	(585,000)	11,300	(3,800)	(47,200)	(51,000)

* GASB Adjustments fund includes the non-cash expenses related to GASB 49, GASB 53, GASB 68 and GASB 75

Figure 188: Schedule of Revenue, Expenses, and Changes in Net Position: 2020 Actuals

NEW JERSEY TURNPIKE AUTHORITY
(A Component Unit of the State of New Jersey)
Schedule of Revenue, Expenses, and Changes in Net Position
Budget Year ended December 31, 2021
(\$ in thousands)

	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Debt service	Debt reserve	Total bond resolution	GASB Adjustments*	Total 2021 Consolidated Financials
Operating revenues:										
Toll revenue	1,920,800	—	—	—	—	—	—	1,920,800	—	1,920,800
E-ZPass Fees	84,500	—	—	—	—	—	—	84,500	—	84,500
Concession revenue	31,000	—	—	—	—	—	—	31,000	—	31,000
Miscellaneous revenue	12,000	—	—	—	—	—	—	12,000	—	12,000
Total operating revenues	2,048,300	—	—	—	—	—	—	2,048,300	—	2,048,300
Operating expenses:										
Maintenance of roadway, buildings and equipment	260,900	—	—	1,500	42,200	—	—	304,600	17,900	322,500
Toll Collection	180,100	—	—	—	5,700	—	—	185,800	11,100	196,900
State Police and Traffic Control	105,300	1,200	—	1,200	1,000	—	—	108,700	1,800	110,500
Technology	24,000	500	—	8,000	800	—	—	33,300	1,300	34,600
General administrative costs	51,900	—	—	1,500	2,600	—	—	56,000	3,900	59,900
Depreciation #	—	351,500	67,800	14,600	—	—	—	433,900	—	433,900
Total operating expenses	622,200	353,200	67,800	26,800	52,300	—	—	1,122,300	36,000	1,158,300
Nonoperating revenues (expenses):										
Build America Bonds subsidy	77,000	—	—	—	—	—	—	77,000	—	77,000
Federal and State reimbursements	—	—	—	—	—	—	—	—	—	—
Payments to the State of New Jersey	—	—	—	—	(289,000)	—	—	(289,000)	—	(289,000)
Interest expense, Turnpike Revenue Bonds	—	51,200	—	—	—	(642,100)	—	(590,900)	(8,900)	(599,800)
Other bond expense	—	—	—	—	(1,000)	—	—	(1,000)	—	(1,000)
Loss on disposal of capital assets	—	—	—	—	—	—	—	—	—	—
Investment income (loss)	20,000	2,000	—	—	—	—	—	22,000	—	22,000
Arts Center	4,200	—	—	—	—	—	—	4,200	—	4,200
Total nonoperating revenues (expenses), net	101,200	53,200	—	—	(290,000)	(642,100)	—	(777,700)	(8,900)	(786,600)
Capital contributions	—	—	—	—	200	—	—	200	—	200
Change in Net Position	1,527,300	(300,000)	(67,800)	(26,800)	(342,100)	(642,100)	—	148,500	(44,900)	103,600

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

* GASB Adjustments fund includes the non-cash expenses related to GASB 49, GASB 53, GASB 68 and GASB 75

Figure 189: Schedule of Revenue, Expenses, and Changes in Net Position: 2021 Budget

NEW JERSEY TURNPIKE AUTHORITY
(A Component Unit of the State of New Jersey)
Schedule of Revenue, Expenses, and Changes in Net Position
Budget Year ended December 31, 2022
(\$ in thousands)

	Revenue	Construction	Maintenance reserve	Special project reserve	General reserve	Debt service	Debt reserve	Total bond resolution	GASB Adjustments*	Total 2022 Consolidated Financials
Operating revenues:										
Toll revenue	2,067,000	—	—	—	—	—	—	2,067,000	—	2,067,000
E-ZPass Fees	100,000	—	—	—	—	—	—	100,000	—	100,000
Concession revenue	31,500	—	—	—	—	—	—	31,500	—	31,500
Miscellaneous revenue	12,600	—	—	—	—	—	—	12,600	—	12,600
Total operating revenues	2,211,100	—	—	—	—	—	—	2,211,100	—	2,211,100
Operating expenses:										
Maintenance of roadway, buildings and equipment	273,200	—	—	5,000	42,300	—	—	320,500	19,900	340,400
Toll Collection	192,000	—	—	—	5,700	—	—	197,700	11,600	209,300
State Police and Traffic Control	124,300	—	—	1,400	1,000	—	—	126,700	2,500	129,200
Technology	25,900	—	—	7,600	800	—	—	34,300	2,000	36,300
General administrative costs	56,300	—	—	600	2,600	—	—	59,500	5,000	64,500
Depreciation #	—	367,100	70,500	16,900	—	—	—	454,500	—	454,500
Total operating expenses	671,700	367,100	70,500	31,500	52,400	—	—	1,193,200	41,000	1,234,200
Nonoperating revenues (expenses):										
Build America Bonds subsidy	77,000	—	—	—	—	—	—	77,000	—	77,000
Federal and State reimbursements	—	—	—	—	—	—	—	—	—	—
Payments to the State of New Jersey	—	—	—	—	(572,500)	—	—	(572,500)	—	(572,500)
Interest expense, Turnpike Revenue Bonds	—	50,600	—	—	—	(611,800)	—	(561,200)	(12,400)	(573,600)
Other bond expense	—	—	—	—	(1,000)	—	—	(1,000)	—	(1,000)
Loss on disposal of capital assets	—	—	—	—	—	—	—	—	—	—
Investment income (loss)	6,000	5,000	—	—	—	—	—	—	—	—
Arts Center	4,300	—	—	—	—	—	—	4,300	—	4,300
Total nonoperating revenues (expenses), net	87,300	55,600	—	—	(573,500)	(611,800)	—	(1,042,400)	(12,400)	(1,054,800)
Capital contributions	—	—	—	—	—	—	—	—	—	—
Change in Net Position	1,626,700	(311,500)	(70,500)	(31,500)	(625,900)	(611,800)	—	(24,500)	(53,400)	(77,900)

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

* GASB Adjustments fund includes the non-cash expenses related to GASB 49, GASB 53, GASB 68, and GASB 75

Figure 190: Schedule of Revenue, Expenses, and Changes in Net Position: 2022 Budget

Appendix C: Financial Policies

Financial Management Principles and Guidelines

I. INTRODUCTION

A. Purpose of Financial Management Principles and Guidelines

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

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

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

B. Best Interests of the Authority

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

C. The Authority

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

*Effective October 2017, Authority website is <http://www.njta.com>

II. FINANCIAL MANAGEMENT PRINCIPLES AND GUIDELINES

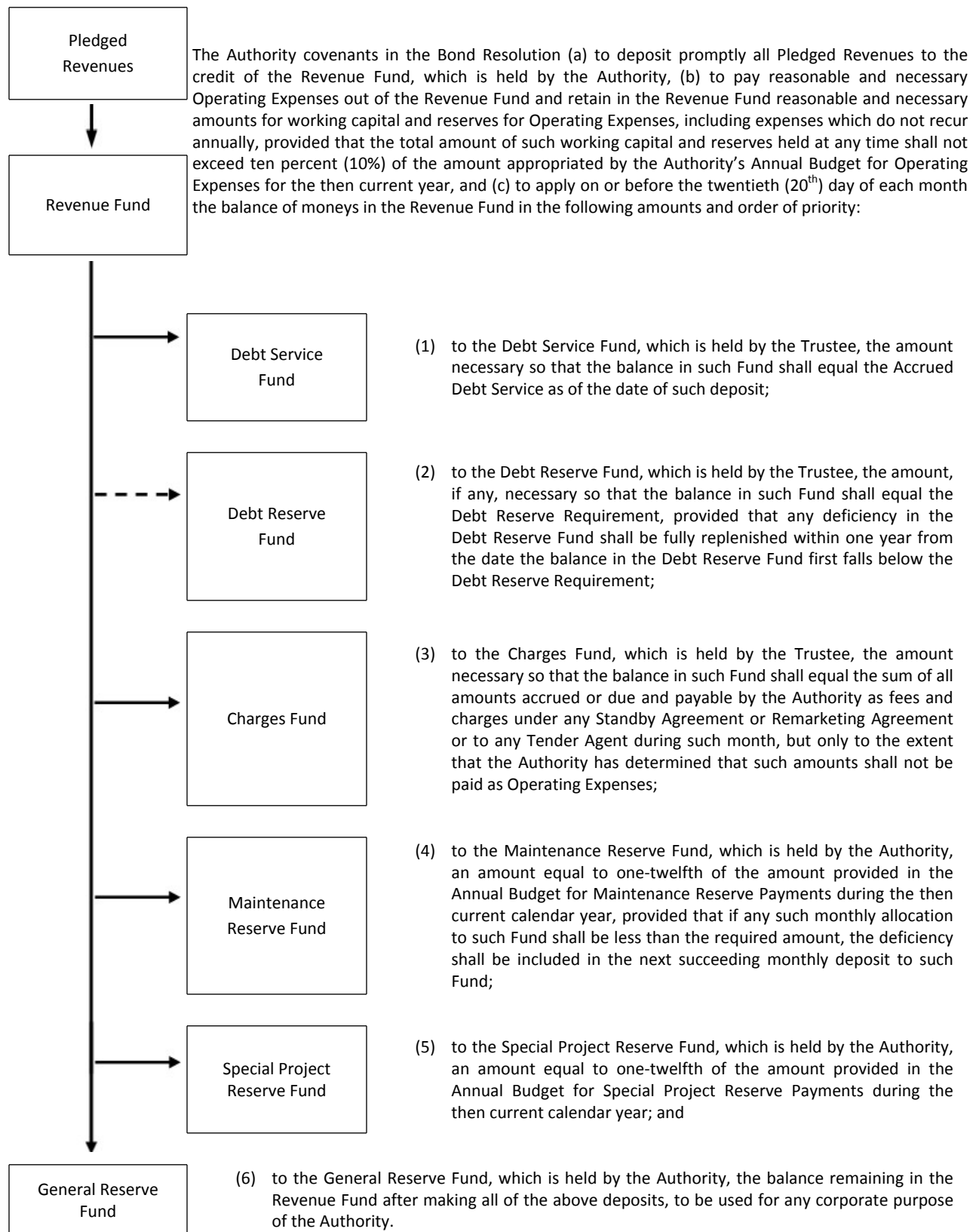
- A. Management will conduct Authority business in a manner that is in compliance with the requirements of the Act and the Bond Resolution, as well as all other applicable federal and state laws, rules and regulations.
- B. Revenues and bond proceeds will be used to improve and/or maintain safe and efficient 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 five-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 Improvement 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 Improvement 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 (NJSA 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 (NJSA 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 October 2017, 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 (NJSA 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 (NJS 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 July 2016, the Authority's credit rating was upgraded to A2. In April 2020, Fitch affirmed the positive outlook and in May 2020, after the approval of Long Range Capital Plan and associated toll increase, Moody's rated it as credit positive.

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 non qualified 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.

*As of September 2020, this link is no longer valid. New link is <https://www.irs.gov/tax-exempt-bonds>

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 ensure 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 October 2017, 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.

*Effective October 2017, Authority website is <http://www.njta.com>

III. PERMITTED INVESTMENTS**A. Eligible securities are defined in the Bond Resolution and shall include:**

1. Any direct and general obligations of, or any obligations guaranteed by, the United States of America, including but not limited to interest obligations of the Resolution Funding Corporation or any successor thereto.
2. Any obligations of any state or political subdivision of a state which bonds are fully secured as to principal and interest by an irrevocable pledge of moneys or direct and general obligations of, or obligations guaranteed by the United States of America, which moneys or obligations are segregated in trust and pledged for the benefit of the holders of the bonds.
3. Certificates of ownership of the principal or interest of direct and general obligations of, or obligations guaranteed by, the United States of America, which obligations are held in trust by a commercial bank which is a member of the Federal Reserve System.
4. Bonds, debentures, notes or other evidences of indebtedness issued by any agency or instrumentality of the United States to the extent such obligations are guaranteed by the United States or by another such agency the obligations (including guarantees) of which are guaranteed by the United States.
5. Bonds, debentures, notes or other evidences of indebtedness issued by any of the following agencies:

Government National Mortgage Assn. (GNMA)
Federal Home Loan Mortgage Corp. (FHLMC)
Federal National Mortgage Assn. (FNMA)
Federal Home Loan Banks (FHLB)
Federal Land Banks
Federal Intermediate Credit Banks
Banks for Cooperatives
Tennessee Valley Authority
United States Postal Service
Farmers Home Administration
Export-Import Bank
Federal Financing Bank
Student Loan Marketing Assn.(SLMA);
6. Negotiable or non-negotiable certificates of deposit issued by any bank, trust company or national banking association, which certificates of deposit shall be continuously secured or collateralized by obligations described in subparagraphs 1,2,3,4 and 5 above, which shall have a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such certificates of deposit and shall be lodged with the Trustee, as custodian, by the bank, trust company or national banking association issuing such certificates of deposit.
7. Uncollateralized negotiable or non-negotiable certificates of deposit issued by any bank, trust company or national banking association, the unsecured obligations of which are rated in one of the two highest rating categories, without regard to rating sub-categories, by Moody Investors Service (Moody's) and Standard & Poor's (S&P).
8. Repurchase agreements collateralized by obligations described in subparagraphs 1,2,3,4, and 5 above with any registered broker/dealer subject to the Securities Investors Protection

Corporation jurisdiction, which has an uninsured, unsecured and unguaranteed obligation rated "Prime-1" or "A3" or better by Moody's and "A-1" or "A" or better by S&P, or any commercial bank with the above ratings provided:

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

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

IV. INVESTMENT PRACTICES

A. Investment Concentration

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

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

B. Quality of Investments

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

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

C. Maximum Maturity

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

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

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

D. Security Purchases

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

V. REPORTING REQUIREMENTS

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

Appendix D: Statistical Data

New Jersey State Highway System

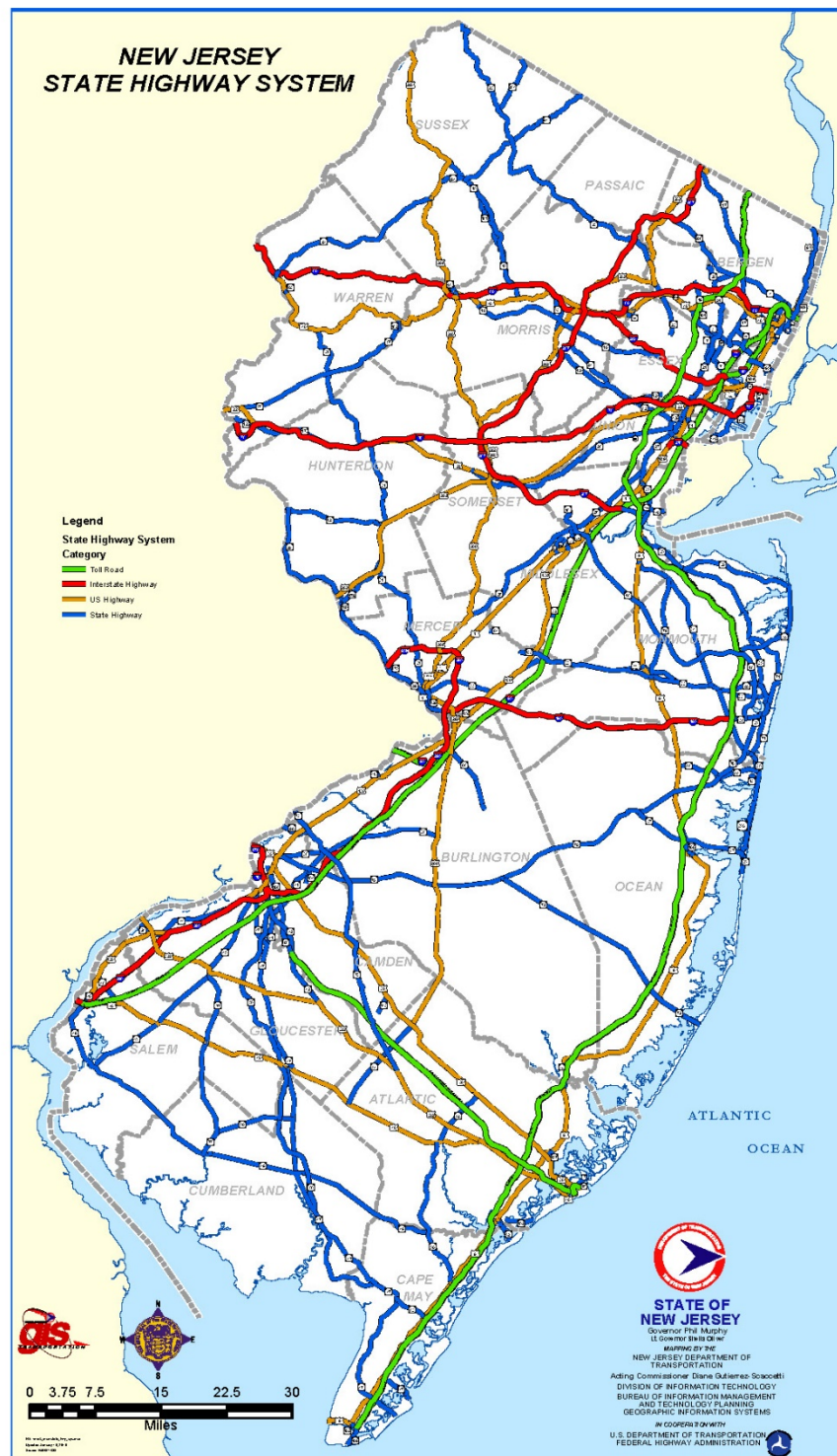


Figure 191: Map of New Jersey State Highway System

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 September 2021 includes approximately 2,427 lane miles. There are 30 toll interchanges and 378 toll lanes 148 entry lanes and 230 exit lanes.

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

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

Garden State Parkway

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

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

Population

The two roadways pass through Atlantic, Bergen, Burlington, Camden, Cape May, Essex, Gloucester, Hudson, Mercer, Middlesex, Monmouth, Ocean, Passaic, Salem and Union counties. Population growth serves as one indicator of roadway usage. The chart below provides the official United States Census Bureau statistics from April 1, 2010 and its estimate as of July 1, 2020, the latest data published. While the State has seen a population growth of 1.0% over the time measured, the counties served by the Authority experienced above average growth rates with the counties that either roadway passes through increased in population by an average of 2.0%. Whereas counties that neither roadway passes through decreased by an average of 1.6%. These statistics demonstrate the importance of the roadways to the State's overall economic well-being.

Population by County				
County	2020 Population	2010 Population	Increase (Decrease)	% Δ from 2010
Cumberland	147,000	156,900	(9,900)	(6.3)%
Hunterdon	124,800	128,300	(3,500)	(2.7)%
Morris	491,100	492,300	(1,200)	(0.2)%
Somerset	329,300	323,400	5,900	1.8%
Sussex	140,000	149,300	(9,300)	(6.2)%
Warren	105,600	108,700	(3,100)	(2.9)%
Counties Not Served by Either Roadway	1,337,800	1,358,900	(21,100)	(1.6)%
Atlantic	262,900	274,500	(11,600)	(4.2)%
Cape May	91,500	97,300	(5,800)	(6.0)%
Monmouth	618,400	630,400	(12,000)	(1.9)%
Ocean	614,200	576,600	37,600	6.5%
Passaic	500,400	501,200	(800)	(0.2)%
Counties Served by Parkway Only	2,087,400	2,080,000	7,400	0.4%
Camden	506,800	513,700	(6,900)	(1.3)%
Gloucester	293,200	288,300	4,900	1.7%
Hudson	671,700	634,300	37,400	5.9%
Mercer	367,200	366,500	700	0.2%
Salem	62,500	66,100	(3,600)	(5.4)%
Counties Served by Turnpike Only	1,901,400	1,868,900	32,500	1.7%
Bergen	930,400	905,100	25,300	2.8%
Burlington	446,600	448,700	(2,100)	(0.5)%
Essex	800,500	784,000	16,500	2.1%
Middlesex	822,700	809,900	12,800	1.6%
Union	555,400	536,500	18,900	3.5%
Counties Served by Both Roadways	3,555,600	3,484,200	71,400	2.0%
All Counties Served by Parkway	5,643,000	5,564,200	78,800	1.4%
All Counties Served by Turnpike	5,457,000	5,353,100	103,900	1.9%
Total	8,882,200	8,792,000	90,200	1.0%

The above information was obtained from <https://nj.gov>

Figure 192: New Jersey Population by County

Employment

Employment growth is a key indicator of economic growth. The total number of residents who live and work in New Jersey is 3,618,100 and the number of residents who commute to work out of state is 572,700. According to the New Jersey Department of Labor and Workforce Development, Bergen, Essex, Hudson, Monmouth and Union counties have shown an increase in employment.

The importance of the Authority's roadways in providing key connections to neighboring states is highlighted by the percentage of residents who work out of state. The chart below indicates the 2011-2015 five-year average of where the residences of each county are employed as reported by the New Jersey State Data Center. Overall, 14% of New Jersey state workers are employed out of state while 22% of employees working out of state are living in counties served by the New Jersey Turnpike. Further, only 7.3% of employees residing in counties that are not directly served by either roadway work out of state.

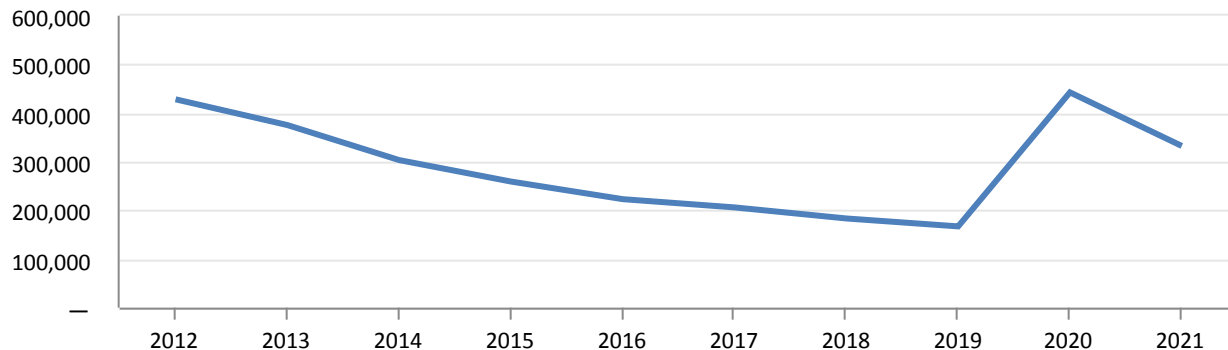
Employment by County				
County	In State	Out of State	% in State	% Out of State
Cumberland	59,500	1,800	97.1%	2.9%
Hunterdon	59,500	4,900	92.4%	7.6%
Morris	232,400	20,400	91.9%	8.1%
Somerset	155,100	12,100	92.8%	7.2%
Sussex	68,500	5,500	92.6%	7.4%
Warren	47,800	4,500	91.4%	8.6%
Counties Not Served by Either Roadway	622,800	49,200	92.7%	7.3%
Atlantic	120,600	4,300	96.6%	3.4%
Cape May	40,300	2,100	95.0%	5.0%
Monmouth	266,300	34,700	88.5%	11.5%
Ocean	230,400	9,500	96.0%	4.0%
Passaic	206,900	18,300	91.9%	8.1%
Counties Served by Parkway Only	864,500	68,900	92.6%	7.4%
Camden	190,700	44,900	80.9%	19.1%
Gloucester	111,700	27,200	80.4%	19.6%
Hudson	229,600	102,900	69.1%	30.9%
Mercer	156,400	17,400	90.0%	10.0%
Salem	23,900	4,900	83.0%	17.0%
Counties Served by Turnpike Only	712,300	197,300	78.3%	21.7%
Bergen	345,200	104,800	76.7%	23.3%
Burlington	189,100	31,400	85.8%	14.2%
Essex	301,700	47,900	86.3%	13.7%
Middlesex	349,700	44,700	88.7%	11.3%
Union	232,800	28,500	89.1%	10.9%
Counties Served by Both Roadways	1,418,500	257,300	84.6%	15.4%
All Counties Served by Parkway	2,283,000	326,200	87.5%	12.5%
All Counties Served by Turnpike	2,130,800	454,600	82.4%	17.6%
Total	3,618,100	572,700	86.3%	13.7%

The above information was obtained from <https://www.census.gov>

Figure 193: New Jersey In/Out of State Employment by County

The State had experienced a steady decline in unemployment since 2012, but because of the the Coronavirus pandemic in 2020, unemployment levels began to rise. However, unemployment levels have gradually declined since June 2020.

New Jersey Annual Unemployment Totals



The above information was obtained from <https://www.bls.gov>

Figure 194: New Jersey Annual Unemployment Totals (2012-2021)

Employment in the 21 counties in New Jersey decreased by 66,300 and unemployment increased by 6,100 between 2010 and 2020. The decrease in employment and increase in unemployment can be attributed to the COVID-19 pandemic and its effects on the economy. Despite this, the county with the largest increase in employment was Ocean, reporting an increase of 14,700 jobs. Mercer was followed by Middlesex at 13,600 and 12,200, respectively. The top 3 counties with a decrease in unemployment were Camden, reporting a decrease of 3,200 unemployed, followed by Burlington and Cumberland and Gloucester at 2,300 and 1,600, respectively.

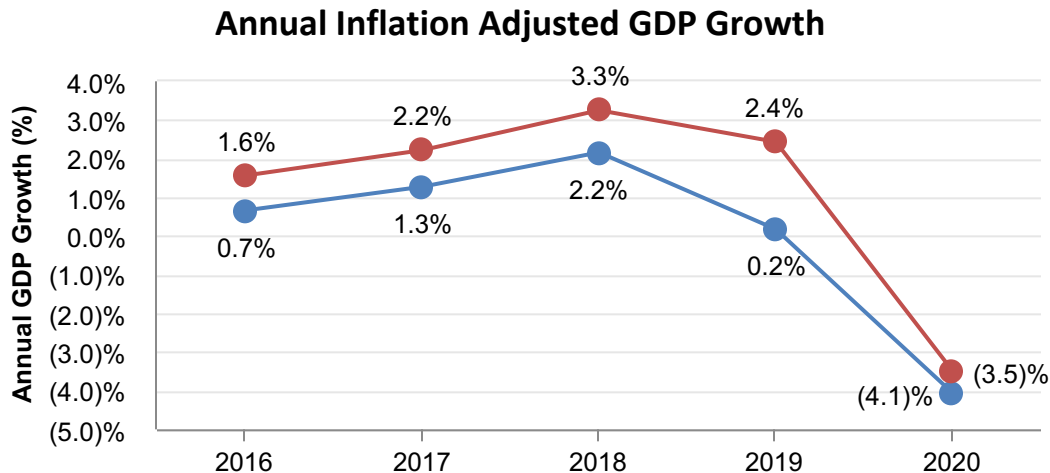
New Jersey Employment by County						
County	2010 Employed	2020 Employed	Δ from 2010	2010 Unemployed	2020 Unemployed	Δ from 2010
Atlantic	123,300	99,500	(23,800)	17,300	21,500	4,200
Bergen	440,500	432,200	(8,300)	38,400	45,700	7,300
Burlington	215,800	211,800	(4,000)	21,300	19,000	(2,300)
Camden	235,900	230,300	(5,600)	29,000	25,800	(3,200)
Cape May	43,200	39,200	(4,000)	7,000	6,300	(700)
Cumberland	63,200	59,100	(4,100)	9,400	7,100	(2,300)
Essex	340,600	330,300	(10,300)	41,400	43,700	2,300
Gloucester	137,000	137,100	100	15,600	14,000	(1,600)
Hudson	319,200	322,300	3,100	33,800	38,200	4,400
Hunterdon	63,200	58,700	(4,500)	5,000	4,600	(400)
Mercer	176,600	190,200	13,600	16,100	15,300	(800)
Middlesex	386,100	398,300	12,200	38,000	38,000	—
Monmouth	301,300	298,700	(2,600)	28,900	29,000	100
Morris	245,200	233,000	(12,200)	19,600	19,600	—
Ocean	237,300	252,000	14,700	27,100	26,400	(700)
Passaic	224,600	214,300	(10,300)	28,800	30,900	2,100
Salem	28,400	26,700	(1,700)	3,700	2,800	(900)
Somerset	160,300	154,900	(5,400)	13,200	13,100	(100)
Sussex	74,500	66,900	(7,600)	7,800	6,900	(900)
Union	252,500	248,900	(3,600)	26,600	27,300	700
Warren	52,900	50,900	(2,000)	5,800	4,700	(1,100)
Total	4,121,600	4,055,300	(66,300)	433,800	439,900	6,100

The above information was obtained from <https://www.bls.gov>

Figure 195: New Jersey Employment by County

Economic Indicators

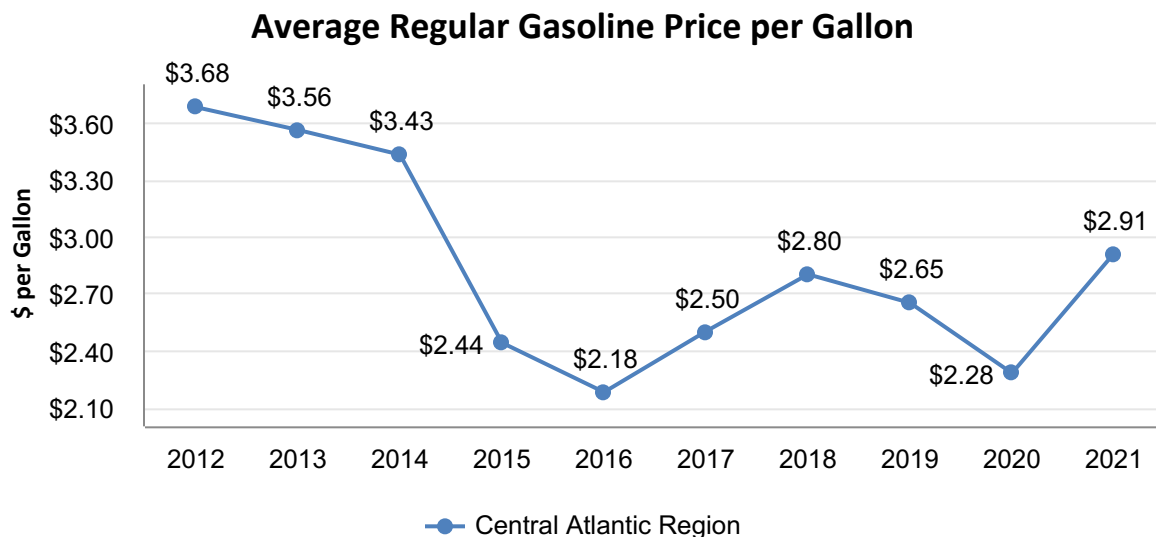
The latest estimates of state and national GDP growth released by the Bureau of Economic Analysis are for 2020. Up until 2020, New Jersey had seen eight consecutive years of growth in the state's gross domestic output since contractions in 2011. However, due to the Coronavirus pandemic and its effects on the economy, there were contractions at both the state and national levels.



The above information was obtained from <https://apps.bea.gov>

Figure 196: Annual Inflation Adjusted GDP Growth (2016-2020)

The average price for regular grade gasoline reached a 10 year low in 2016. According to projections from the U.S. Energy Information Administration (EIA) the average annual price for regular grade gas will rise to an average of \$2.91 per gallon in 2021 (data as of August) from an average of \$2.28 in 2020. In 2022, the average annual price for regular grade gas is estimated to be an average of \$2.96 per gallon. 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.



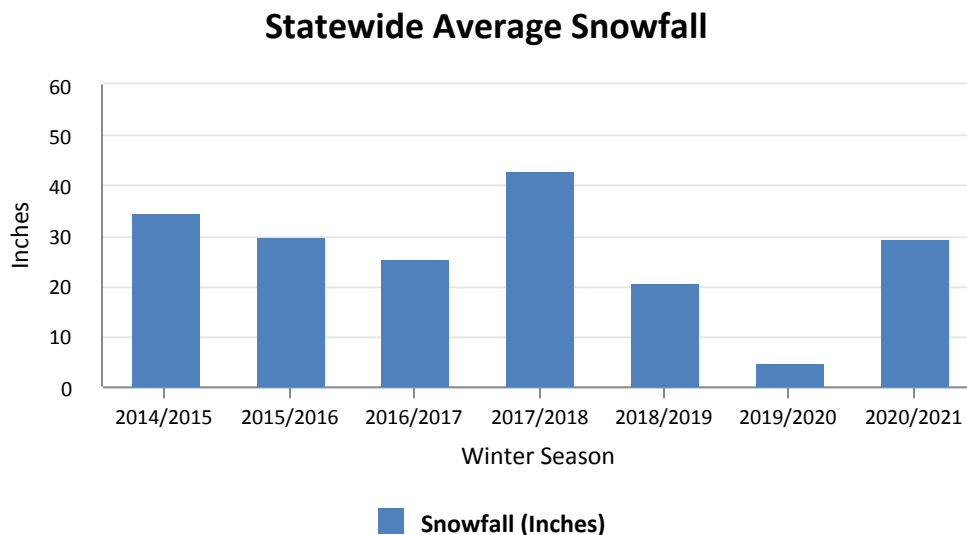
*Prior years not adjusted for inflation. 2021 average as of August

The above information was obtained from <https://www.eia.gov>

Figure 197: Average Regular Gasoline Price per Gallon (2012-2021)

Weather

Snowfall, as well as other severe weather events such as hurricanes or icing and freezing rain, has a significant impact on the Authority's operating expenses, and toll revenue. In addition to the amount of snow, the frequency and duration of the weather event also impacts costs. In addition to overtime costs, the Authority incurs costs for brine and salt as well as outside contractor costs when snow amounts exceed certain levels. In 2021, the Authority spent approximately \$44 million on snow and severe weather costs through September. Spending of \$47 million in 2015 was the highest amount in Authority history, while snow and severe weather costs for 2021 are 6% lower. The 2020-2021 winter season had an average temperature of 42.2° and was the least snowy season since 2017/2018. However, there were significant state of emergency storms in 2021 which increased costs, one which lasted three days. According to annual snowfall totals compiled by the New Jersey State Climatologist, snowfall has varied wildly over the previous six winter seasons.

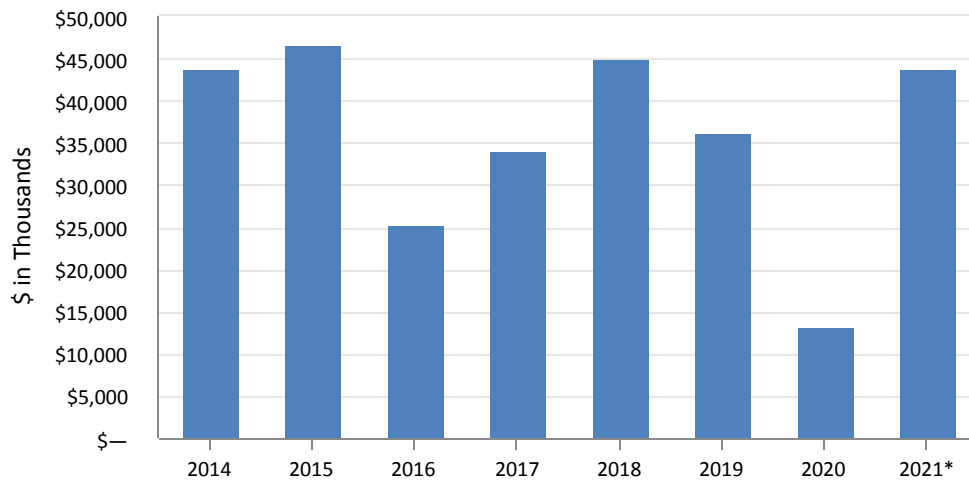


*2021 data through September

The above information was obtained from <https://climate.rutgers.edu>

Figure 198: Statewide Average Snowfall by Season (2014-2021)

Authority's Snow Expense by Calendar Year



*2021 costs are through September

Figure 199: Authority's Snow Expenses by Calendar Year (2014-2021)

Authority's Snow Expense by Season (October 15 September 30)

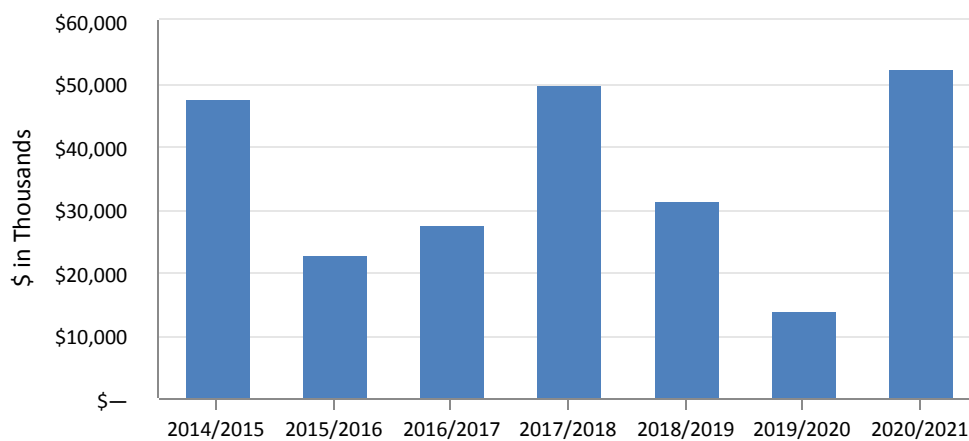


Figure 200: The Authority's Snow Expense by Season (2014-2021)

Appendix E: Additional Financial Resources

New Jersey Turnpike Authority — The New Jersey Turnpike Authority website.

[New Jersey Turnpike Authority Homepage](#)

Key Metrics & Financial Policies — The website provides additional information on The Authority's Key Metrics, as well as Financial Policy documents.

[About — Investor Relations](#)

Bond Documents — The website provides further information on some of the Authority's current Bond Series.

[Investor Relations — Bond Documents](#)

Traffic Statistics & Revenue — The website provides the latest data on the New Jersey Turnpike & Garden State Parkway Traffic & Revenue, and E-ZPass Usage Rates.

[Investor Relations — Traffic Revenue](#)

Capital Plan — The website provides the Authority's Strategic Plan & Consulting Engineers latest quarterly report.

[Investor Relations — Capital Plan Strategic Plan](#)

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, Supplemental Capital Program Budget, and the Construction Fund.

ANNUAL PROCUREMENT PLAN – Active document listing all of the Authority's procurement contracts necessitating board approval for the current fiscal year.

APPROPRIATIONS – A sum of money or total of assets devoted to a specific purpose.

ARBITRAGE – The simultaneous purchase and sale of an asset in order to profit from a difference in price.

AUCTION AGENT – A financial institution responsible for conducting the auction used in connection with the periodic interest rate reset and remarketing of the Authority's bonds.

AUDITED YEAR-END FINANCIAL STATEMENTS – The Authority's end of fiscal year financial statements reviewed and audited by an independent auditor.

BASIS OF ACCOUNTING – The method of accounting used to track and report revenues and expenses, for example, cash or accrual.

BONDS – A written guarantee to pay a principal amount and/or interest at a specified date or dates known as the maturity date(s).

BOND COVENANTS – The Authority's contractual obligations set forth in issued bond contracts.

BOND INSURANCE – Insurance purchased by a bond issuer that guarantees the repayment of principal and all associated interest payments to the bondholders in the event of a default.

BOND RATING – An assessment of the credit risk with respect to a specific bond issue.

BOND RESOLUTION – The agreement that defines the Authority's obligations and requirements when issuing new-money bonds.

BROKER/DEALER – A financial institution responsible for both buying and selling securities for the Authority.

BUDGET – Plan of coordinating estimated expenses and income for a given period of time.

CALL – An option contract giving the owner the right to buy a specified amount of an underlying security at a specified price within a specified time.

CALL OPTION VALUE – The present value of a call option in light of present market conditions.

CAPITAL ASSETS – Land and improvements, easements, building and improvements, vehicles, machinery, equipment, infrastructure, and all other tangible and intangible assets that are used in operations and that have initial useful lives extending beyond a single reporting period.

CAPITAL EXPENDITURE – The costs in the acquisition of fixed assets and the non-recurring expenditures for the preservation, replacement, repair, renewal, reconstruction, modification or expansion of the roadway.

CAPITAL IMPROVEMENT PROGRAM – An account within the Construction Fund, funded by the issuance of Turnpike Revenue Bonds, used for construction of projects focused on increasing capacity, maintaining a state of good repair, and improving safety and security. The current Capital Improvement Programs are the 2022-2026 Capital Improvement Program, the 2019 Capital Improvement Program, and the \$7 Billion Capital Improvement Program.

CAPITALIZED INTEREST – A portion of the proceeds from the issue of Turnpike Revenue Bonds set aside to pay interest on those bonds for a set period of time.

CAPITALIZATION – Recordation of a cost as an asset, rather than an expense. This approach is used when a cost is not expected to be entirely consumed in the current period, but rather over an extended period of time. The asset is recorded on the Authority's balance sheet and depreciated over its useful life.

CAPITALIZATION POLICY – The Authority's policy on allowable levels of asset capitalization.

CAPITALIZED PROJECTS – Long-term, investment projects with the purpose to build upon, add to, or improve an asset. They are larger in scale and cost relative to other investments, extend beyond a normal reporting period, and are depreciated over their useful life.

CASH FLOW – The net amount of cash and cash-equivalents moving into and out of the Authority.

CELLULAR VEHICLE-TO-EVERYTHING – A unified connectivity platform designed to offer vehicles low-latency vehicle-to-vehicle (V2V), vehicle-to-roadside infrastructure (V2I) and vehicle-to-pedestrian (V2P) communication. In this mode, C-V2X works independently of the cellular networks.

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.

DEDICATED SHORT RANGE COMMUNICATIONS – Wireless communication technology that enables highly secure, high-speed direct communication between vehicles and the surrounding infrastructure, without involving any cellular infrastructure.

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 Authority collects toll electronically.

EXPENSED PROJECTS – Projects with costs that are not recorded as a capital investment. As these project costs are used up or expired, they are considered to have no future economic value and are fully reported (deducted from revenue) in the period in which those costs are incurred.

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 Program, which was established only for budgetary purposes.

GOVERNMENTAL ACCOUNTING STANDARDS BOARD – The independent organization that establishes accounting and financial reporting standards for state and local governments in the United States that follow generally accepted accounting principles (GAAP).

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; for 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.

MILEPOST – 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 of Infrastructure, Toll Collection, State Police and Traffic Control operations, Integrated Technology Services, and General and Administrative Services.

OTHER POSTEMPLOYMENT BENEFITS – are benefits (other than pensions) that the Authority provides to retired employees. These benefits principally involve health care benefits.

OUTSTANDING DEBT – The as-of-yet unpaid portion of the Authority’s previously issued Turnpike Revenue Bonds.

PAYING AGENT – An agent who accepts payment from the Authority and then distributes those payments to the holders of the Authority’s bonds.

PLEDGED REVENUES – Includes, among other things, all toll revenues, fees, rents, charges and other income and receipts derived from the operation of the Turnpike System.

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

PNC BANK ARTS CENTER – an outdoor amphitheater in Holmdel, NJ. Owned by the Authority, and leased and operated by Live Nation.

POLLUTION REMEDIATION LIABILITY RESERVE – Fund maintained to meet the obligations of the Government Accounting Standards Board’s pollution remediation policy.

PRELIMINARY BUDGET – The draft of the Authority’s fiscal year budget of operating expenses and reserves submitted to the Trustee for examination and approval.

PROCUREMENT – The buying of supplies and materials as needed for project completion.

REGISTRAR – An institution responsible for keeping records of the Authority’s bondholders.

REMARKETING – A formal underwriting of the Authority’s Revenue Bonds for which the form or structure is being changed.

RESERVE – Funds set aside to pay future liabilities.

REVENUE FUND – General operating fund of the Authority. The fund is used to account for all pledged revenues and operating expenses.

REVENUE REQUIREMENT – Requirement under the Authority’s Bond Resolution establishing Net Revenue Requirements.

REVENUES – All tolls, fees, charges, rents and other income and receipts derived from the operation of the Turnpike and Parkway. Revenues also include investment income from any monies or securities and the Federal Subsidy for Build America Bonds.

ROLLING FIVE-YEAR CAPITAL SPENDING PROGRAM – Capital projects, funded by either revenue or bonds, presented on a continuous five-year basis.

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 PROGRAM – For budgeting purposes only, the Authority has established a ‘Supplemental Capital Program’ within the General Reserve Fund that is used to fund short to medium term projects not financed through bond proceeds. The Supplemental Capital Program 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 Authority’s main source of revenue, generated from the tolls collected by 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-ZPass 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.

VEHICLE-TO-INFRASTRUCTURE - The wireless exchange of data between vehicles and road infrastructure.

Acronyms

AASHTO American Association of State Highway and Transportation Officials

ACM Automatic Coin Machine

AET All-Electronic Tolling

AIX Advanced Interactive Executive

ALPR Automated License Plate Recognition

APD Annual Pavement Distress

ARC Annual Required Contribution

ATMP Advanced Traffic Management Program

ATMS Active Traffic Management Systems

AVC Automatic Vehicle Classification

AVI Automatic Vehicle Identification

BDA Bi-Directional Amplifier

CADS Computer Aided Design Software

CAPEX Capital Expenditure

CEA Commodity Exchange Act

CFTC Commodities Futures Trading Commission

CIMU Construction Incident Management Unit

CIP Capital Improvement Program

CM Construction Management

CMS Changeable Message Signs

CNW Complex to North on Westerly

CO Certificate of Occupancy

CPI Consumer Price Index

CPMS Capital Project Management System

CRMS Customer Relationship Management System

CSC Customer Service Center

C-V2X Cellular Vehicle-to-Everything

CVI Commercial Vehicle Inspection

DCA Department of Community Affairs

DF Dodd-Frank Act

DSRC Dedicated Short Range Communications

DVP Delivery Versus Payment

EAM Enterprise Asset Management

EEO Equal Employment Opportunity

EGIS Enterprise Geographic Information System

EIA Energy Information System

EN Entrance

EOL End of Life

EPA Equal Pay Act

ERP Enterprise Resource Planning

ETC Electronic Toll Collection

FEMA Federal Emergency Management Agency

FHWA Federal Highway Administration
FTE Full Time Employees
FY Fiscal Year
GAAP Generally Accepted Accounting Principles
GASB Government Accounting Standards Board
GAU Governors Authority Unit
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
HAER Historic American Engineering Record
HCM Human Capital Management
HCMS Hybrid Changeable Messaging Sign
HMS Host Marriot Services
HQ Headquarters
HR Human Resources
HVAC Heating, Ventilation, and Cooling
I/C Interchange
ILP Intelligence Led Policing
IP Internet Phone
IR Immediate Repair
IRI International Roughness Index
IRS Internal Revenue Service
ISDA International Swap and Derivatives Association
ITS Information Technology Services
KPI Key Performance Indicators
LAN Local Area Network
LEC Lane Electronic Cabinet
LED Light Emitting Diode
LIBOR London Inter-bank Offered Rate
MBE Minority Business Enterprise
MLT Manual Lane Toll Terminals
MP Milepost
MPT Maintenance and Protection of Traffic
MS Microsoft
MSE Mechanical Stabilized Earth
MUB Mixed-Use Building
MVM Million Vehicle Miles
NB North Bound
NBHCE Newark Bay-Hudson County Extension
NCGAS National Council on Governmental Accounting Statements
ND Northern Division

NJDEP New Jersey Department of Environmental Protection
NJDOT New Jersey Department of Transportation
NJHA New Jersey Highway Authority
NJMVC New Jersey Motor Vehicle Commission
NJSA New Jersey Statutes Annotated
NJSP New Jersey State Police
NJTA New Jersey Turnpike Authority
NO Notice of Completion
NOS Numbers
NSE North South Easterly
NSO North to South Outer
NWC North on Westerly to Complex
OCIP Owner Controlled Insurance Program
ODU Operational Dispatch Unit
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
PFD Patron Fare Display
PMD Parkway Maintenance District
PMM Procurement and Materials Management
PNC Pittsburgh National Corporation
POTS Plain Old Telephone Service
PPE Personal Protective Equipment
PSFin Peoplesoft Financial
PSFSCM92 Peoplesoft Financial Supply Chain Management
PTC Pennsylvania Turnpike Commission
QIR Qualified Independent Representative
QPL Quality Products List
RFP Request for Proposal
RMA Return Materials Authorization
ROW Right of Way
RTTM Real Time Traffic Management
RWIS Road Weather Information System
SA Service Area
SAFE Service Area Frequent Enforcement
SB South Bound
SBE Small Business Enterprise
SBR Sequencing Batch Reactor
SDI Surface Distress Index
SEC Securities and Exchange Commission

SN South to North
SNE South North Easterly
SNL South to North on Local
SNW South to North Westerly
SNX South to North on Express
SOSA South Outer to Service Area
SOT South Outer Turnpike
SQL Structured Query Language
STMC Statewide Traffic Management Center
STR Structure
SWT South West Turnpike
TBD To Be Determined
TCC Traffic Control Coordinators
TCO Total Cost of Ownership
TD Turnpike District
TIC True Interest Cost
TIMS Traffic Incident Management Unit
TMC Traffic Management Center
TMD Turnpike Maintenance District
TPA Third Party Administrator
TPK Turnpike
TSO Toll to South Outer
TTF Transportation Trust Fund
UPS Uninterruptible Power Supply
UST Underground Storage Tanks
V2I Vehicle-to-Infrastructure
VES Violation Enforcement System
VMS Variable Messaging System
VOB Veteran Owned Business
VoIP Voice over Internet Protocol
VRLA Valve-Regulated Lead-Acid
WBE Women Business Enterprise
WMS Warehouse Management System
XBL Exclusive Bus Lane