

Understanding the Potential Economic Impacts of Climate Resilience Investment Scenarios in New Jersey

July 2025

Prepared for:	
Rebuild by Design at New York University	
Prepared by:	
AECOM	

Understanding the Potential Economic Impacts of Climate Resilience Investment Scenarios in New Jersey

Copyright © 2025 by AECOM

All rights reserved. No part of this copyrighted work may be reproduced, distributed, or transmitted in any form or by any means without the prior written permission of AECOM.

Table of Contents

Executive Summary	4
Investment Scenario Analysis	6
Assumptions	6
Flood Risk Reduction and Restoration	7
Water Infrastructure	
Climate Resilience	
Leveraged Funding Assumptions	8
Appendix A. Modeled \$3 Billion Investment Scenario (Bond Act) Economic Impacts	9
Appendix B. Modeled \$9 Billion Investment Scenario (Insurance Surcharge) Economic Impacts	11
Appendix C. Economic Impact Analysis Methodology	
Appendix D. Category to Industry Crosswalk Assumptions	
Appendix E. Leveraged Funding Assumptions	
References	
General Limiting Conditions	22
Figures	
Figure 1. Modeled \$3 Billion Investment Scenario (Bond Act) Job Impacts	5
Figure 2. Modeled \$9 Billion Investment Scenario (Insurance Surcharge) Job Impacts	5
Figure 3. Investment Program Distribution	
Figure 4. Modeled \$3 Billion Investment Scenario (Bond Act) Job Impacts	
rigure 3. Modeled \$3 Billion investment ocenario (insurance odronarge) 300 impacts	12
Tables	
Table 1. Modeled Economic Impacts by Investment Scenario	4
Table 2. Modeled \$3 Billion Investment Scenario (Bond Act) Economic Impacts	9
Table 3. Modeled \$9 Billion Investment Scenario (Insurance Surcharge) Economic Impacts	
Table 4. Category to Industry Crosswalk Assumptions	
Table of Levelagea Fullaling Assumptions	10

Executive Summary

Over the past decade, communities across New Jersey have faced the impacts of climate change. Between 2011 and 2024, New Jersey experienced fourteen federally declared climate disasters. Considering the scale of the need and the limitations of current federal funding, it is critical that New Jersey explore new sources of funding for climate mitigation and resilience. Such investments are not just an upfront cost – they can result in cumulative benefits to residents and businesses alike through avoided damages and co-benefits, such as job opportunities and healthier ecosystems in communities. These cobenefits can also advance workforce development, such as through access to training programs, apprenticeships, and targeted hiring practices. A recent study conducted by the United States Chamber of Commerce found that resilience investments have notable impacts in local economies, with every dollar invested yielding a return of thirteen dollars in avoided costs following a climate disaster.

AECOM, working in collaboration with Rebuild by Design, evaluated the economic impacts associated with potential investment scenarios in resilience in New Jersey. The analysis modeled two potential investment scenarios – \$3 billion (Bond Act) and \$9 billion (Insurance Surcharge) – along with assumptions on leveraged funding. As detailed in Table 1, the analysis estimated that a \$3 billion investment scenario could support 26,000 jobs, and a \$9 billion investment scenario could support 77,000 jobs across New Jersey. Should projects funded by such investments leverage additional funding from federal sources by providing local matches, a \$3 billion investment scenario could support \$2.2 billion in additional spending and 45,000 jobs, and a \$9 billion investment scenario could support \$6.6 billion in additional direct spending and 134,000 jobs.

Table 1. Modeled Economic Impacts by Investment Scenario

Impact	\$3 Billion Investment Scenario (Bond Act)		\$9 Billion Investment Scenario (Insurance Surcharge)	
ппраст	Without Leveraged Funds	With Leveraged Funds	Without Leveraged Funds	With Leveraged Funds
Direct Spending (Millions)	\$3,000	\$5,200	\$9,000	\$15,600
Direct Jobs	13,000	23,000	40,000	70,000
Indirect Jobs	4,000	6,000	11,000	19,000
Induced Jobs	8,000	15,000	25,000	45,000
Total Jobs	26,000	45,000	77,000	134,000

Source: AECOM Analysis.

Notes: Multipliers are derived from EMSI for New Jersey from 2024. Job estimates are for those supported within New Jersey. Figures are rounded to nearest thousand. Totals may not add due to rounding. Direct, Indirect, and Induced Impacts are defined in Appendix C.

The potential \$3 billion investment scenario is expected to support a number of industries, largely the construction, professional services, and administrative support sectors, as illustrated in Figure 1. The construction and professional services sectors contribute to about 30 percent and 20 percent of the jobs supported by the potential investment, respectively.

¹ "New Jersey Atlas of Disaster," Rebuild by Design.

² "The Preparedness Payoff: The Economic Benefits of Investing in Climate Resilience," United States Chamber of Commerce, Allstate, and the United States Chamber of Commerce Foundation.

Construction **Professional Services** Administrative Support Health Care & Social Assistance Retail Trade Accommodation & Food Services Other Services Public Administration Real Estate Finance & Insurance Other Sectors 2.000 4,000 6,000 8.000 10,000 12,000 14,000 ■ Investment Funds Investment & Leveraged Funds

Figure 1. Modeled \$3 Billion Investment Scenario (Bond Act) Job Impacts

The potential \$9 billion investment scenario is expected to support a number of industries, largely the construction, professional services, and administrative support sectors, as illustrated in Figure 2.

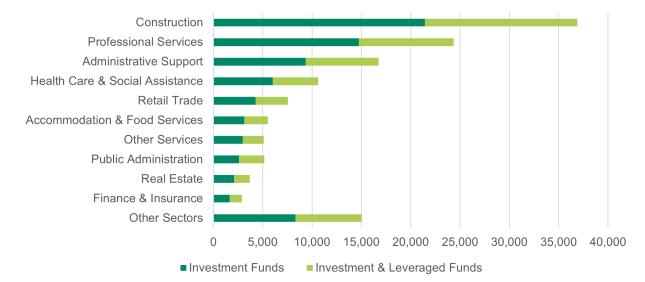


Figure 2. Modeled \$9 Billion Investment Scenario (Insurance Surcharge) Job Impacts

Investment Scenario Analysis

To conduct the economic impact analysis, AECOM made assumptions related to 1) the dollar figures for the two potential investment scenarios, 2) the dollar figures associated with the leveraged funding for the two potential investment scenarios, and 3) the industries that would be involved in the implementation of each category, described in the following section.

Assumptions

AECOM and Rebuild by Design, with input from the New Jersey Department of Environmental Protection (NJDEP), conducted a high-level review of existing programs and priorities in New Jersey, along with other statewide efforts across the United States. This review included the Climate Change Resilience Strategy, Priority Climate Action Plan (PCAP), and Extreme Heat Resilience Action Plan, as well as the New York State Environmental Bond Act. Through this review, AECOM and Rebuild by Design adopted three broad categories that a potential investment may support: Flood Risk Reduction and Restoration, Water Infrastructure, and Climate Resilience. Figure 3 shows the allocation of funds across these three categories.

Flood Risk Reduction and Restoration 40% of Total Funding **Mitigation and Protection Voluntary Property Buy-Out Other Related Projects** Restoration 40% of Category Funding 40% of Category Funding 10% of Category Funding 10% of Category Funding Water Infrastructure 40% of Total Funding **Drinking Water Infrastructure** Stormwater Infrastructure Wastewater Infrastructure **Other Related Projects** 30% of Category Funding 30% of Category Funding 30% of Category Funding 10% of Category Funding **Climate Resilience** 20% of Total Funding Other Related Projects **Green Buildings** Grid Modernization **Green Communities** (Including Wildfire Mitigation) 50% of Category Funding 20% of Category Funding 20% of Category Funding 10% of Category Funding **Residential and Commercial** Institutional Improvements Other Related Improvements Improvements 45% of Sub-Category Funding 10% of Sub-Category Funding 45% of Sub-Category Funding

Figure 3. Investment Program Distribution

Source: AECOM and Rebuild by Design.

Flood Risk Reduction and Restoration

Flood Risk Reduction and Restoration is of particular importance to New Jersey, as the state ranks second in severe repetitive loss properties, according to the National Flood Insurance Program.³ The funding allocated to Flood Risk Reduction and Restoration could support various projects related to mitigation and protection (such as structure elevation), restoration (such as coastal rehabilitation and shoreline restoration), and voluntary property buyouts. This funding could supplement existing NJDEP programs such as the Shore Protection Grants and Blue Acres program. This category also aligns with ongoing initiatives across New Jersey, such as Resilient NJ, which provides municipalities with assistance in comprehensive resilience planning processes.⁴

Water Infrastructure

The Water Infrastructure category relates to improvements to drinking water, wastewater, and municipal stormwater infrastructure. As water infrastructure across New Jersey continues to age and is put under additional stress with climate change. The funding allocated to this category expands upon existing NJDEP and the New Jersey Water Bank (NJWB) programs, including the Water Quality Restoration Grants and the Drinking Water and Clean Water State Revolving Fund Programs. The Drinking Water State Revolving Fund, which aligns largely with the drinking water infrastructure sub-category, includes a range of projects to ensure compliance with the Safe Drinking Water Act (SDWA), such as addressing water contamination levels and rehabilitating water treatment facilities.⁵ Similarly, the Clean Water State Revolving Fund, which largely aligns with the wastewater and stormwater infrastructure sub-categories, includes a range of wastewater, stormwater, reuse, and pollution control projects.⁶

Climate Resilience

A broad range of ongoing and proposed initiatives could be supported by the Climate Resilience category would focus on carbon mitigation and reliable energy sources. There is demonstrated need for grid modernization in New Jersey, to develop and implement grid modernization plans to make progress in grid modernization, such as increasing distributed energy resource capacity and improving system resilience and reliability. This goal is also in the Priority Climate Action Plan (PCAP), which includes specific actions, such as improving the hosting capacity of the New Jersey electric distribution system. The green buildings sub-category could support building decarbonization, energy efficiency, and indoor air quality investments in institutional buildings, particularly schools, and residential and commercial buildings. The green communities sub-category could support initiatives to improve heat resilience. For example, the New Jersey Extreme Heat Resilience Action Plan recommends the expansion of the Urban and Community Forestry Program. Wildfire mitigation activities such as firebreaks and other activities included in NJ Wildfire SMART that help protect communities from increasing wildfire risks could be captured in the other related projects sub-category.

³ <u>"Flood Mitigation Program," Morris County.</u>

⁴ "Local Planning for Climate Change Toolkit," New Jersey Department of Environmental Protection.

⁵ "Drinking Water State Revolving Fund," New Jersey Department of Environmental Protection.

⁶ "Clean Water State Revolving Fund," New Jersey Department of Environmental Protection.

⁷ Ibic

⁸ "New Jersey's Priority Climate Action Plan," New Jersey Department of Environmental Protection.

[&]quot;New Jersey Extreme Heat Resilience Action Plan," New Jersey Department of Environmental Protection.

¹⁰ "New Jersey Wildfire SMART," New Jersey Department of Environmental Protection.

Leveraged Funding Assumptions

Dedicated state funding could be used to leverage additional funds from federal, state, and local government or philanthropic sources. As such, economic impacts were also estimated for leveraged funding. It should be noted that these funding sources are largely associated with the Inflation Reduction Act (IRA) and the Infrastructure Investment and Jobs Act (IIJA). Though the timing and availability of funding for these programs are under review by the current administration, the economic impacts outlined below are based on the assumption that opportunities to leverage additional funding will continue. These impacts remain illustrative, as program structures and funding sources may evolve in the future. The amount of leveraged funding assumed in this analysis is discussed further in Appendix C.

Finally, the team assumed industry assignments similar to those used in the Economic Impacts of the New York State Environmental Bond Act study. 11 The industry assignments assumed in this analysis are discussed further in Appendix B.

Appendix A. Modeled \$3 Billion Investment Scenario (Bond Act) Economic Impacts

The \$3 billion investment scenario dedicates 40 percent of funding to support Flood Risk Reduction and Restoration, 40 percent of funding to support Water Infrastructure, and 20 percent of funding to support Climate Resilience. Table 2 outlines the impacts associated with a potential \$3 billion investment scenario by category. Without leveraged funding, projects associated with these categories are expected to support 25,500 jobs, 13,400 of which are direct jobs (see Appendix C for explanation on direct, indirect, and induced). When considering leveraged funding, projects associated with these categories could support an additional 19,000 jobs.

Table 2. Modeled \$3 Billion Investment Scenario (Bond Act) Economic Impacts

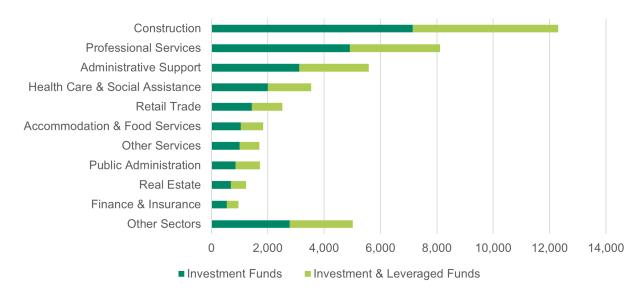
	Category				
Impact	Flood Risk Reduction and Restoration	Water Infrastructure	Climate Resilience	Total	
Without Leverage Fu	unds				
Direct Spending (In Millions \$)	\$1,200	\$1,200	\$600	\$3,000	
Direct Jobs	4,900	5,400	3,100	13,400	
Indirect Jobs	1,300	1,500	800	3,700	
Induced Jobs	3,100	3,500	1,900	8,500	
Total Jobs	9,200	10,500	5,800	25,500	
Jobs per \$1B in Direct Spending	7,700	8,700	9,700	8,500	
With Leveraged Fun	ds				
Direct Spending (In Millions \$)	\$2,200	\$1,700	\$1,300	\$5,200	
Direct Jobs	9,100	7,300	6,800	23,200	
Indirect Jobs	2,500	2,100	1,700	6,300	
Induced Jobs	5,700	5,000	4,300	15,000	
Total Jobs	17,300	14,500	12,800	44,500	
Jobs per \$1B in Direct Spending	8,000	8,300	9,800	8,600	

Source: AECOM Analysis.

Note: Totals may not add due to rounding.

The potential \$3 billion investment scenario is expected to support a number of industries, largely the construction, professional services, and administrative support sectors, as illustrated in Figure 4. The construction and the professional services sectors contribute to about 30 percent and 20 percent of the jobs supported by the potential investment, respectively.

Figure 4. Modeled \$3 Billion Investment Scenario (Bond Act) Job Impacts



Appendix B. Modeled \$9 Billion Investment Scenario (Insurance Surcharge) Economic Impacts

The \$9 billion investment scenario applies the same proportions of funding to the three categories as the \$3 billion investment scenario. Table 3 outlines the impacts associated with a potential \$9 billion investment scenario by category. Without leveraged funding, projects associated with these categories are expected to support 76,600 jobs, 40,200 of which are jobs directly related to the projects themselves. When considering leveraged funding, projects associated with these categories can be expected to support an additional 56,900 jobs.

Table 3. Modeled \$9 Billion Investment Scenario (Insurance Surcharge) Economic Impacts

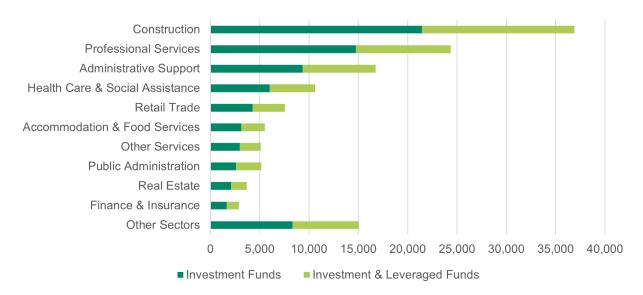
	Category				
Impact	Flood Risk Reduction and Restoration	Water Infrastructure	Climate Resilience	Total	
Without Leveraged F	Funds				
Direct Spending (In Millions \$)	\$3,600	\$3,600	\$1,800	\$9,000	
Direct Jobs	14,600	16,300	9,300	40,200	
Indirect Jobs	4,000	4,500	2,500	11,000	
Induced Jobs	9,200	10,500	5,700	25,400	
Total Jobs	27,700	31,400	17,500	76,600	
Jobs per \$1B in Direct Spending	7,700	8,700	9,700	8,500	
With Leveraged Fun	ds				
Direct Spending (In Millions \$)	\$6,500	\$3,900	\$5,200	\$15,600	
Direct Jobs	27,200	22,000	20,300	69,500	
Indirect Jobs	7,400	6,400	5,200	19,000	
Induced Jobs	17,100	15,000	12,900	45,000	
Total Jobs	51,800	43,400	38,300	133,500	
Jobs per \$1B in Direct Spending	8,000	8,300	9,800	8,600	

Source: AECOM Analysis.

Note: Totals may not add due to rounding.

The potential \$9 billion investment scenario is expected to support a number of industries, largely the construction, professional services, and administrative support sectors, as illustrated in Figure 5.

Figure 5. Modeled \$9 Billion Investment Scenario (Insurance Surcharge) Job Impacts



Appendix C. Economic Impact Analysis Methodology

Economic impacts demonstrate how investments spur economic activity and job creation in a specific region, like New Jersey. As investments are made, their spending ripples through the economy and contributes to value and employment. This ripple effect, also referred to as a multiplier effect, can be quantified into the following categories:

- **Direct impacts** result from spending on the initial project. For example, direct job impacts from a waterfront revitalization project might include designers, engineers, and onsite construction workers.
- **Indirect impacts** result from funds going to the suppliers providing materials and equipment for the project, who in turn can grow and hire more workers.
- Induced impacts result from direct and indirect workers spending their earnings on goods and services.

Multipliers can be used to understand how a dollar spent in one industry creates value throughout the economy. To conduct this economic impact analysis, AECOM retrieved and employed multipliers from Lightcast to estimate the total economic value created by the different categories and projects in the two investment scenarios. The multipliers used were developed by Lightcast using an input-output model informed by industry data, gravitational flows, and commuting patterns, among other sources. The multipliers used in this analysis are specifically for New Jersey in 2024.

Commonly used in economic impact studies, the input-output model describes the interrelationships between sectors. For every dollar spent, a multiplier can be applied to calculate the effect that dollar has in creating value in the form of jobs, earnings, and output in the other industries it flows through. While value can be described in terms of various metrics, such as earnings and output, the primary metric of interest for this analysis is the number of total jobs (direct, indirect, and induced) created in New Jersey. Additional economic impacts outside of New Jersey were not estimated.

Appendix D. Category to Industry Crosswalk Assumptions

As our economic impact model is an analysis of future spending, projects and industries are largely based on a series of assumptions informed by AECOM's research conducted for the Economic Impacts of the New York State Environmental Bond. Projects associated with similar funding programs were analyzed to determine the relevant industries that would be supporting the potential investment in New Jersey. This research also provided guidance on informed estimates of the proportions of category spending that would be funneled into each industry. Across the three categories, at least 5 percent of spending was assumed to be used for the purpose of administering the programs. This is accounted for by allocating 5 percent of each category's spending to the "State Government, Excluding Education and Hospitals" sector. Table 4 outlines the industries assumed and distributed across categories supporting the potential investment.

Table 4. Category to Industry Crosswalk Assumptions

Category	NAICS Description	NAICS Code	Industry Distribution	Source			
Flood Risk Reduct	Flood Risk Reduction and Restoration						
	Other Heavy and Civil Engineering Construction	237990	75%	"Employment Benefits from California Climate			
Mitigation and	Environmental Consulting Services	541620	10%	Investments and Co- Investments," Luskin Center for Innovation			
Protection	Landscaping Services	561730	10%	at UCLA. "Restoration Returns,"			
	State Government, Excluding Education and Hospitals	902999	5%	United States Fish and Wildlife Service.			
	Other Heavy and Civil Engineering Construction	237990	75%	"Employment Benefits from California Climate Investments and Co-			
Restoration	Environmental Consulting Services	541620	10%	Investments," Luskin Center for Innovation			
Restoration	Landscaping Services	561730	10%	at UCLA. "Restoration Returns,"			
	State Government, Excluding Education and Hospitals	902999	5%	United States Fish and Wildlife Service.			
	Property Buy-Out *		75%	<u>"2012-2017 Fifth</u> <u>Anniversary Report,"</u> New York State			
	Site Preparation Contractors		10%	Governor's Office of Storm Recovery.			
Voluntary Property Buy- Out	Other Heavy and Civil Engineering Construction	237990	5%	"City Had Millions to Buy Out Sandy- Damaged Homes, But			
	Remediation Services		5%	Most Didn't Want It," DNA Info.			
	State Government, Excluding Education and Hospitals	902999	5%	Correspondence with Blue Acres Director.			
Other Flood Risk Reduction and	Other Heavy and Civil Engineering Construction	237990	75%	"Employment Benefits from California Climate			
Restoration Related Projects	Environmental Consulting Services	541620	10%	Investments and Co- Investments," Luskin			

¹² "Economic Impacts of the New York State Environmental Bond Act," AECOM and Rebuild by Design.

Category	NAICS Description	NAICS Code	Industry Distribution	Source	
	Landscaping Services	561730	10%	Center for Innovation at UCLA.	
	State Government, Excluding Education and Hospitals	902999	5%	"Restoration Returns," United States Fish and Wildlife Service.	
Water Infrastructu	re Resilience				
	Water and Sewer Line and Related Structures Construction	237110	30%		
	Environmental Consulting Services	541620	30%	"Bioretention Basins." Lake Superior Streams.	
Drinking Water	Site Preparation Contractors	238910	15%	"Estimating Benefits and Costs of	
Infrastructure	Landscaping Services	561730	15%	Stormwater Management,"	
	State Government, Excluding Education and Hospitals	902999	5%	Environmental Finance Center at Sacramento State.	
	Local Government, Excluding Education and Hospitals	903999	5%		
	Water and Sewer Line and Related Structures Construction	237110	80%		
Stormwater	Engineering Services	541330	10%	New York Sewer District, Capital Costs	
Infrastructure	Environmental Consulting Services	541620	5%	Opinion, Westhampton Beach. 2017.	
	State Government, Excluding Education and Hospitals	902999	5%		
	Water and Sewer Line and Related Structures Construction	237110	80%		
Wastewater	Engineering Services	541330	10%	New York Sewer District, Capital Costs	
Infrastructure	Environmental Consulting Services	541620	5%	Opinion. Westhampton Beach. 2017.	
	State Government, Excluding Education and Hospitals	902999	5%		
	Water and Sewer Line and Related Structures Construction	237110	25%		
Other Water	Other Heavy and Civil Engineering Construction	237990	25%	AECOM Assumptions. "Economic Impacts of	
Infrastructure Resilience Related Projects	Site Preparation Contractors	238910	20%	the New York State Environmental Bond Act," AECOM and	
Neialeu Flojecis	Environmental Consulting Services	541620	20%	Rebuild by Design.	
	State Government, Excluding Education and Hospitals	902999	10%		
Climate Resilience					
	Environmental Consulting Services	541620	35%	"Employment Benefits	
Grid Modernization	Power and Communication Line and Related Structures Construction	237130	35%	from California Climate Investments and Co- Investments," Luskin	
	Other Scientific and Technical Consulting Services	541690	15%	Center for Innovation at UCLA.	

Category	NAICS Description	NAICS Code	Industry Distribution	Source
	Other Electronic Component Manufacturing	334419	5%	
	All Other Miscellaneous Electrical Equipment and Component Manufacturing	335999	5%	
	State Government, Excluding Education and Hospitals	902999	5%	
	Plumbing, Heating, and Air-Conditioning Contractors	238220	30%	
	Commercial and Institutional Building Construction	236220	20%	
	Electrical Contractors and Other Wiring Installation Contractors	238210	20%	"Energy Efficiency
Green Buildings	Building Inspection Services	541350	10%	Completed Projects: Beginning 1987," New
	Other Scientific and Technical Consulting Services	541690	10%	York Power Authority.
	Roofing Contractors	238160	5%	
	State Government, Excluding Education and Hospitals	902999	5%	
	Local Government, Excluding Education and Hospitals	903999	25%	"Linking the Environment and the Economy: An Economic Impact Analysis of California Climate Resilience Bond Proposals," Bay
	Landscaping Services	561730	25%	
	Commercial and Institutional Building Construction	236220	15%	
Green	Other Heavy and Civil Engineering Construction	237990	15%	
Communities	Environmental Consulting Services	541620	5%	
	Other Scientific and Technical Consulting Services	541690	5%	Area Council Economic Institute.
	Support Activities for Forestry	115310	5%	
	State Government, Excluding Education and Hospitals	902999	5%	
	Environment, Conservation and Wildlife Organizations	813312	15%	
	Forest Nurseries and Gathering of Forest Products	113210	15%	
Other Climate Resilience Related Projects	Landscaping Services	561730	15%	"Employment Benefits from California Climate
	Environmental Consulting Services	541620	10%	Investments and Co- Investments," Luskin
	Residential Remodelers	236118	10%	Center for Innovation at UCLA.
	Research and Development in Physical, Engineering, and Life Sciences	541715	10%	
	Plumbing, Heating, and Air-Conditioning Contractors	238220	10%	

Category	NAICS Description	NAICS Code	Industry Distribution	Source
	Highway, Street, and Bridge Construction	237310	5%	
	Electrical Contractors and Other Wiring Installation Contractors	238210	5%	
	State Government, Excluding Education and Hospitals	902999	5%	

Note: "Property Buy-Out" is a separate category. "Property Acquisition" is a type of transaction that involves the transfer of property between the property owner and the State of New Jersey and thus, is not matched to a NAICS Code.

Appendix E. Leveraged Funding Assumptions

The potential investment will likely result in additional leveraged funding from a variety of sources, such as federal, state, local, or philanthropic sources. Table 5 outlines the estimated amount of investment and assumed leveraged funds by category for the analysis. It should be noted that federal funding sources and assumed levels of leveraged funding are based on citations from the year cited, mainly prior to 2024. Continuation of programs and amount of leverage is subject to change.

Table 5. Leveraged Funding Assumptions

Category	Investment Funding (%)	Leveraged Funding (%)	Programs and Administrators	Validation Notes		
Flood Risk Reduction and Restoration						
Mitigation and Protection	50%	50%	Flood Mitigation Assistance Grant Program, Federal Emergency Management Agency (FEMA)	 Projects funded by the FEMA Flood Mitigation Assistance Grant Program (FMA) can receive between 50%-75% in matching.¹³ 		
Restoration	50%	50%	Shore Protection Program, New Jersey Department of Environmental Protection (NJDEP) Water Resources Development Act, United States Army Corps of Engineers (USACE) Coastal Resilience Fund, National Oceanic and Atmospheric Administration (NOAA)	 Projects funded by the NJDEP Shore Protection Program receive at most 75% in matching. 14 Projects funded by the USACE Water Resources Development Act (WRDA) receive at most 75% in matching. The WRDA can fund 75% for waterway projects and 65% for other projects. 15 Projects funded by the NOAA Coastal Resilience Fund can receive between 50%-75% in matching. 		
Voluntary Property Buy- Out	100%	0%		Funding sources would not be leveraged for this program.		
Other Flood Risk Reduction and Restoration Related Projects	100%	0%				
Water Infrastructure	9					
Drinking Water Infrastructure	100%	0%	Water Quality Restoration Grant Program, New Jersey Department of Environmental Protection (NJDEP) Clean Water State Revolving Fund, Environmental Protection Agency (EPA) Drinking Water State Revolving Fund,	The NJDEP Water Quality Restoration Grant Program does not have any limitations on matching funding. 16 The EPA Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) both provide loans toward infrastructure projects, in		

¹³ <u>"Flood Mitigation Assistance (FMA) Fact Sheet," Bloomberg Philanthropies.</u>

[&]quot;Shore Protection Program," New Jersey Department of Environmental Protection.

[&]quot;Water Resources Development Act of 2024 by the Numbers," United States House of Representatives Committee on Transportation and Infrastructure.

[&]quot;Clean Water Eligibility," New Jersey Department of Environmental Protection.

Category	Investment Funding (%)	Leveraged Funding (%)	Programs and Administrators	Validation Notes
			Environmental Protection Agency (EPA)	which states contribute an additional 20% in matching funding. ¹⁷
Stormwater Infrastructure	50%	50%	Sewer Overflow and Stormwater Reuse Municipal Grant Program, Environmental Protection Agency (EPA)	The EPA Sewer Overflow and Stormwater Reuse Municipal Grant Program is authorized to provide up to 80% in matching grants. ¹⁸
Wastewater Infrastructure	50%	50%	Sewer Overflow and Stormwater Reuse Municipal Grant Program, Environmental Protection Agency (EPA)	The EPA Sewer Overflow and Stormwater Reuse Municipal Grant Program is authorized to provide up to 80% in matching grants. ¹⁹
Other Water Infrastructure Resilience Related Projects	100%	0%		
Climate Resilience				
Grid Modernization	50%	50%	Grid Resilience and Innovation Partnerships Program, Department of Energy (DOE)	Applicants are required to match 100% of the amount of the Grid Resilience Grant or Smart Grid Grant. ²⁰
Green Buildings	75%	25%	Water SMART Water and Energy Efficiency Grant Program, Bureau of Reclamation (USBR) Renew America's Schools Program, Department of Energy (DOE) Energy Efficiency and Conservation Block Grant Financing Program, Department of Energy (DOE)	 The USBR Water SMART Water and Energy Efficiency Grant Program is authorized to provide 50% in matching grants toward energy efficiency projects.²¹ The Renew America's Schools Program requires a minimum 5% cost share for the Cooperative Agreement in Phase 2, and minimum 25% for the Cooperative Agreement in Phase 3.²² The Energy Efficiency and Conservation Block Grant Financing Program does not have any matching or sharing requirements.
Green Communities	25%	75%	Urban and Community Forestry Program, Department of Agriculture Hazard Mitigation Grant Program, Federal Emergency Management Agency (FEMA)	Projects funded by the FEMA Hazard Mitigation Grant Program (HMGP) can receive up to 75% in matching. ²³
Other Climate Resilience Related Projects	100%	0%		

[&]quot;About the Clean Water State Revolving Fund (CWSRF)," United States Environmental Protection Agency.

¹⁸

[&]quot;Sewer Overflow and Stormwater Reuse Municipal Grants Program." United States Environmental Protection Agency.
"Sewer Overflow and Stormwater Reuse Municipal Grants Program." United States Environmental Protection Agency.

²⁰

[&]quot;Grid Resilience and Innovation Partnerships Program Application Webinar Presentation," United States Department of Energy.

"Water and Energy Efficiency Grants," United States Bureau of Reclamation.

"Informational Webinar: Renew America's Schools Prize," United States Department of Energy.

"Energy Efficiency and Conservation Block Grant (EECBG) Program: Application Instructions," United States Department of Energy.

References

- AECOM and Rebuild by Design at New York University, "Economic Impacts of the New York State Environmental Bond Act." January 2022. https://rebuildbydesign.org/wp-content/uploads/2023/01/NYS-Bond_January-2022-Update_Final-1.pdf.
- Bay Area Council Economic Institute. "Linking the Environment and the Economy: An Economic Impact Analysis of California Climate Resilience Bond Proposals." May 2020. https://www.bayareaeconomy.org/files/pdf/BACEL_ClimateResilience_FINAL.pdf.
- BillTrack50, "Bill NJ S3992." https://www.billtrack50.com/billdetail/1636714.
- Bloomberg Philanthropies, "FEMA Flood Mitigation Assistance (FMA) Fact Sheet." November 2022. https://localinfrastructure.org/wp-content/uploads/2022/11/FEMAs-Flood-Mitigation-Assistance-FMA-Fact-Sheet.pdf.
- DNA Info, "City Had Millions to Buy Out Sandy-Damaged Homes, But Most Didn't Want It." October 2017. https://www.dnainfo.com/new-york/20171027/great-kills/hurricane-sandy-buyout-acquisition-build-it-back-federal-program/.
- Lake Superior Streams, "Bioretention Basins." https://www.lakesuperiorstreams.org/stormwater/toolkit/bioretention.html.
- New York Power Authority, "Energy Efficiency Completed Projects: Beginning 1987." March 2025. https://data.ny.gov/Energy-Environment/Energy-Efficiency-Completed-Projects-Beginning-198/erjw-j2zx/about_data.
- Environmental Finance Center at Sacramento State, "Estimating Benefits and Costs of Stormwater Management." July 2019. https://www.efc.csus.edu/reports/efc-cost-project-part-1.pdf.
- Luskin Center for Innovation at University of California, Los Angeles. "Employment Benefits from California Climate Investments and Co-Investments." March 2019.

 https://innovation.luskin.ucla.edu/wp-content/uploads/2019/03/Employment Benefits from CA Climate Investments and Co-investments.pdf.
- Morris County, "Flood Mitigation Program." https://www.morriscountynj.gov/Departments/Flood-Mitigation-Program/Program-Information.
- New Jersey Department of Environmental Protection, "Clean Water Eligibility." https://dep.nj.gov/wiip/njwb-process/eligibility/clean-water/.
- New Jersey Department of Environmental Protection, "Clean Water State Revolving Fund." https://dep.nj.gov/wp-content/uploads/wiip/docs/njdep-cwsrf-factsheet.pdf.
- New Jersey Department of Environmental Protection, "Drinking Water State Revolving Fund." https://dep.nj.gov/grantandloanprograms/drinking-water-state-revolving-fund/.
- New Jersey Department of Environmental Protection, "Local Planning for Climate Change Toolkit." https://dep.nj.gov/wp-content/uploads/ocr/resilientnj/docs/local-planning-for-climate-change-toolkit-at-a-glance.pdf.
- New Jersey Department of Environmental Protection, "New Jersey Extreme Heat Resilience Action Plan." https://dep.nj.gov/wp-content/uploads/climatechange/extreme_heat_rap_071924-screen-version.pdf.

- New Jersey Department of Environmental Protection, "New Jersey's Priority Climate Action Plan." https://dep.nj.gov/wp-content/uploads/climatechange/nj pcap final-1.pdf.
- New Jersey Department of Environmental Protection, "New Jersey Wildfire SMART." https://nj.gov/dep/parksandforests/fire/njwildfiresmart/.
- New Jersey Department of Environmental Protection, "Shore Protection Program." https://dep.nj.gov/grantandloanprograms/shore-protection-program/.
- New York State Governor's Office of Storm Recovery, "2012-2017 Fifth Anniversary Report." June 2023. https://hcr.ny.gov/system/files/documents/2023/06/fifth-anniversary-report.pdf.
- Rebuild by Design, "New Jersey Atlas of Disaster." https://rebuildbydesign.org/wp-content/uploads/2024/07/NJ-Atlas-of-Disaster.pdf.
- United States Bureau of Reclamation, "Water and Energy Efficiency Grants." January 2025. https://www.usbr.gov/watersmart/weeg/index.html.
- United States Chamber of Commerce, Allstate, and the United States Chamber of Commerce Foundation. "The Preparedness Payoff: The Economic Benefits of Investing in Climate Resilience." June 2024. https://www.uschamber.com/security/the-preparedness-payoff-the-economic-benefits-of-investing-in-climate-resilience.
- United States Department of Energy, "Energy Efficiency and Conservation Block Grant (EECBG) Program: Application Instructions." January 2023. https://www.energy.gov/sites/default/files/2023-01/IIJA%20%2840552%29%20EECBG%20Program Application%20Instructions.pdf.
- United States Department of Energy, "Grid Resilience and Innovation Partnerships Program Application Webinar Presentation." March 2024. https://www.energy.gov/sites/default/files/2024-03/2024-03-12%20GRIP%20Program%20Application%20Webinar%20Presentation%20Slides%20508C.pdf.
- United States Department of Energy, "Informational Webinar: Renew America's Schools Prize." March 2024. https://www.energy.gov/sites/default/files/2024-03/Informational-Webinar-Renew-Americas-Schools-Prize.pdf.
- United States Environmental Protection Agency, "About the Clean Water State Revolving Fund (CWSRF)." March 2025. https://www.epa.gov/cwsrf/about-clean-water-state-revolving-fund-cwsrf.
- United States Environmental Protection Agency, "Sewer Overflow and Stormwater Reuse Municipal Grants Program." September 2024. https://www.epa.gov/resilient-investments/sewer-overflow-and-stormwater-reuse-municipal-grants-program.
- United States Fish and Wildlife Service, "Restoration Returns: The Contribution of Partners for Fish and Wildlife Program and Coastal Program Restoration Projects to Local United States Economies." February 2014.

 https://digitalcommons.usm.maine.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1042&context=cbep-publications.
- United States House of Representatives Committee on Transportation and Infrastructure, "Water Resources Development Act of 2024 by the Numbers." https://democrats-transportation.house.gov/imo/media/doc/wrda_2024_ by the numbers.pdf.
- Westhampton Beach, New York Sewer District, Capital Costs Opinion. 2017.

General Limiting Conditions

Deliverables and portions thereof shall be subject to the following General Limiting Conditions:

AECOM devoted the level of effort consistent with (i) the level of diligence ordinarily exercised by competent professionals practicing in the area under the same or similar circumstances, and (ii) consistent with the time and budget available for the Services to develop the Deliverables. The Deliverables are based on estimates, assumptions, information developed by AECOM from its independent research effort, general knowledge of the industry, and information provided by and consultations with Client and Client's representatives. No responsibility is assumed for inaccuracies in data provided by the Client, the Client's representatives, or any third-party data source used in preparing or presenting the Deliverables. AECOM assumes no duty to update the information contained in the Deliverables unless such additional services are separately retained pursuant to a written agreement signed by AECOM and Client.

AECOM's findings represent its professional judgment. Neither AECOM nor its parent corporations, nor their respective affiliates or subsidiaries ("AECOM Entities") make any warranty or guarantee, expressed or implied, with respect to any information or methods contained in or used to produce the Deliverables.

The Deliverables shall not to be used in conjunction with any public or private offering of securities, debt, equity, or other similar purpose where it may be relied upon to any degree by any person other than the Client. The Deliverables shall not be used for purposes other than those for which they were prepared or for which prior written consent has been obtained from AECOM.

Possession of the Deliverables does not carry with it any right of publication or the right to use the name of "AECOM" in any manner without the prior express written consent of AECOM. No party may reference AECOM with regard to any abstract, excerpt or summarization of the Deliverables without the prior written consent of AECOM. AECOM has served solely in the capacity of consultant and has not rendered any expert opinions in connection with the subject matter hereof. Any changes made to the Deliverables, or any use of the Deliverables not specifically identified in the Agreement between the Client and AECOM or otherwise expressly approved in writing by AECOM, shall be at the sole risk of the party making such changes or use.

The Deliverables were prepared solely for the use by the Client. No third party may rely on the Deliverables unless expressly authorized by AECOM in writing (including, without limitation, in the form of a formal reliance letter. Any third party expressly authorized by AECOM in writing to rely on the Deliverables may do so only on the Deliverable in its entirety and not on any abstract, excerpt or summary. Entitlement to rely upon the Deliverables is conditioned upon the entitled party accepting full responsibility for such use, strict compliance with this Agreement and not holding AECOM liable in any way for any impacts on the forecasts or the earnings resulting from changes in "external" factors such as changes in government policy, in the pricing of commodities and materials, changes in market conditions, price levels generally, competitive alternatives to the project, the behavior of consumers or competitors and changes in the Client's policies affecting the operation of their projects.

The Deliverables may include "forward-looking statements". These statements relate to AECOM's expectations, beliefs, intentions or strategies regarding the future. These statements may be identified by the use of words like "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "project," "will," "should," "seek," and similar expressions. The forward-looking statements reflect AECOM's views and assumptions with respect to future events as of the date of the Deliverables and are subject to future economic conditions, and other risks and uncertainties. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, including, without limitation, those discussed in the Deliverables. These factors are beyond AECOM's ability to control or predict. Accordingly, AECOM makes no warranty or representation that any of the projected values or results contained in the Deliverables will actually occur or be achieved. The Deliverables are qualified in their entirety by, and should be considered in light of, these limitations, conditions and considerations.

