

EXECUTIVE SUMMARY

STATE OF NEW JERSEY 2024 ALL-HAZARD MITIGATION PLAN



STATE OF NEW JERSEY 2024 ALL-HAZARD MITIGATION PLAN



State of New Jersey
Office of Emergency Management
NJ State Police Division Headquarters P.O. Box 7068, West Trenton, NJ 08628



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New Jersey Operations Center During Superstorm Sandy





ACKNOWLEDGMENTS

The State of New Jersey 2024 All-Hazard Plan Update was a collective effort of the New Jersey Office of Emergency Management – Recovery Bureau (NJOEM) and the State Hazard Mitigation Team (SHMT). Further, the Federal Emergency Management Agency (FEMA) Region 2 provided technical support for this Plan update. This update process expanded the involvement of State agencies, regional stakeholders, and academia with an interest in mitigation within the State. The data and information, guidance and input of these participants were invaluable and have made this Plan a much stronger mechanism to promote mitigation statewide at all levels of government.

NEW TO THE PLAN

STATE HAZARD MITIGATION PLAN UPDATES BY SECTION

1.0 INTRODUCTION

- The introduction includes the new plan organization and a summary of changes made during the 2024 Plan update.

2.0 PLANNING PROCESS

- Extended outreach to include a wider range of stakeholders including community lifelines, climate change experts, and groups that support underserved communities.
- Over 180 plan participant members including 38 State agencies and 29 non-state agencies.

3.0 STATE PROFILE

- Reorganized the profile to align with the risk assessment.
- The new sections include the built environment, population and the economy, and ecosystems and natural assets.

4.0 RISK ASSESSMENT

- The risk assessment includes a three-tiered assessment.
- The risk assessment includes 11 natural and 11 human-caused hazards.
- Radon exposure and salt-water intrusion were added to the Geological Hazards section. Harmful Algal Blooms was added as a human-caused hazard.
- This plan changed the approach with assets to include state-owned assets and other public and privately-owned assets to be consistent with FEMA's updated policy.
- Analyzes impacts to FEMA's eight community lifelines and includes specific climate projections for flood hazards.

5.0 CAPABILITY ASSESSMENT

- Now a stand alone section (no longer included in the Mitigation Strategy section).
- Capability Assessment discusses building code adoption and enforcement, land use, National Flood Insurance Program administration, and flood risk mapping.

6.0 MITIGATION STRATEGY

- This plan update uses the BAToolSM Program.
- Newly identified mitigation actions identified for existing and new participants.
- Updated methodology for project evaluation and prioritization Potential Dams.

7.0 REPETITIVE LOSS STRATEGY

- Identifies actions the State of New Jersey has taken to reduce the number of Repetitive Loss (RL) properties.

8.0 COORDINATION OF LOCAL PLANNING

- This section is now 7.0 (previously Section 3.0).

9.0 PLAN MAINTENANCE

- Revisions are based on an evaluation of the operational feedback regarding the effectiveness of the plan maintenance procedures outlined in the 2019 SHMP.

10.0 EMAP

- The State passed the EMAP assessment and became accredited on September 27, 2023.

11.0 PLAN ADOPTION

- State approval and plan adoption process.



THE STATE OF NEW JERSEY 2024 ALL-HAZARD MITIGATION PLAN INCLUDES:

- Equity and climate change impacts
- Wider outreach to stakeholders in FEMA’s community lifelines sectors, climate change experts, and groups that support underserved communities.
- An enhanced three-tiered risk assessment (built environment, population and the economy, and ecosystems and natural assets).
- An enhanced capability assessment that discusses building code adoption and enforcement, land use, the National Flood Insurance Program (NFIP) administration, and flood risk mapping.
- An enhanced mitigation strategy using the BAToolSM Program and an update to the methodology for project evaluation and prioritization.

BACKGROUND

The State of New Jersey 2024 All-Hazard Plan (State HMP) is the cornerstone to reducing New Jersey's vulnerability to disasters. It is the State's commitment to reducing risks from hazards and serves as a guide for State decision makers as they commit resources to reducing the effects of hazards. Hazard mitigation distinguishes actions that have a long-term impact from those that are more closely associated with pre-disaster preparedness, response to an event, and recovery from an incident. Hazard mitigation is the only phase of emergency management specifically dedicated to breaking the cycle of damage, reconstruction, and repeated damage.

The State HMP 2024 update captures historic disaster experiences and presents the hazards New Jersey faces based on current science and research. The Plan has been prepared to outline a strategy to reduce risks from hazards and serve as the basis for prioritizing future project funding. The Plan has been thoughtfully prepared, administratively adopted, and approved by FEMA, enabling state and local governments to apply for and participate in the various FEMA-funded mitigation programs.

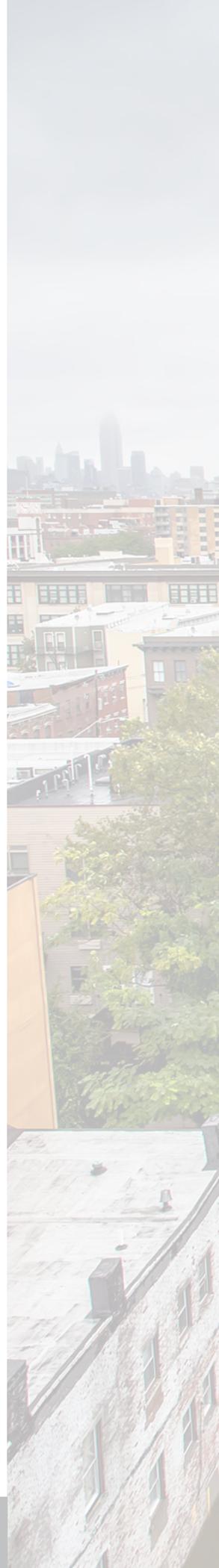
PROGRESS OF THE NJ STATE HMP

- Initial State HMP Adopted: April 2005
- First (1) State HMP Adopted : April 2008
- Second (2) State HMP Update Adopted: April 2011
 - Minor Revisions: November 2011
- Third (3) State HMP Update Adopted: April 2014
- Fourth (4) State HMP Update Adopted: April 2019
- Fifth (5) State HMP Update Adopted: April 2024

GOALS OF THE STATE HMP

For the State HMP Update, the New Jersey Office of Emergency Management and State Hazard Mitigation Team have revised the 2019 State HMP Goals and added a new goal (Goal #7) to align with the State's priority to reduce potential future losses from hazards and new FEMA guidance. The 2024 State HMP Goals include the following:

1. Protect life
2. Protect property
3. Increase public preparedness and awareness
4. Develop and maintain an understanding of increased risk from climate change impacts to natural hazards
5. Enhance state and local mitigation capabilities to reduce hazard Vulnerabilities
6. Support continuity of operations pre-, during, and post-hazard events
7. Reduce the risk of natural hazards for socially vulnerable populations and underserved communities



RESILIENCE RESPONSE TO URBAN FLOODING

CITY OF HOBOKEN, NJ

Flooding in Hoboken during Superstorm Sandy in 2012



Northwest Resiliency Park located in Hoboken integrates green infrastructure and innovative stormwater management (OLIN)



PLANNING PROCESS

Throughout the development of the State HMP update, NJOEM and the planning consultants reached out to State agencies, regional stakeholders, and academia to include a wider range of stakeholders including community lifelines, climate change experts and groups that support underserved communities.

New Plan participants include the American Red Cross, Department of Consumer Affairs, Department of Military and Veteran Affairs, NJ Economic Development Authority, Jewish Family Services of Atlantic County, New Jersey League of Municipalities, Monarch Housing Associates, New Jersey Department of Corrections, New Jersey Future, New Jersey Institute of Technology, New Jersey National Guard, New Jersey Water Support Authority, New York City OEM, Norwescap, Pennsylvania OEM, City of Philadelphia, PSE&G, NJ Water Supply Authority, Stevens Institute of Technology, and The College of New Jersey.

STATE HAZARD MITIGATION TEAM (SHMT) PARTICIPANTS



2024 STATE HMP PLAN PARTICIPANTS:*



SUMMARY OF PLAN PARTICIPATION:

38
STATE AGENCIES

29
NON-STATE PARTNERS

180+
PLAN PARTICIPANTS

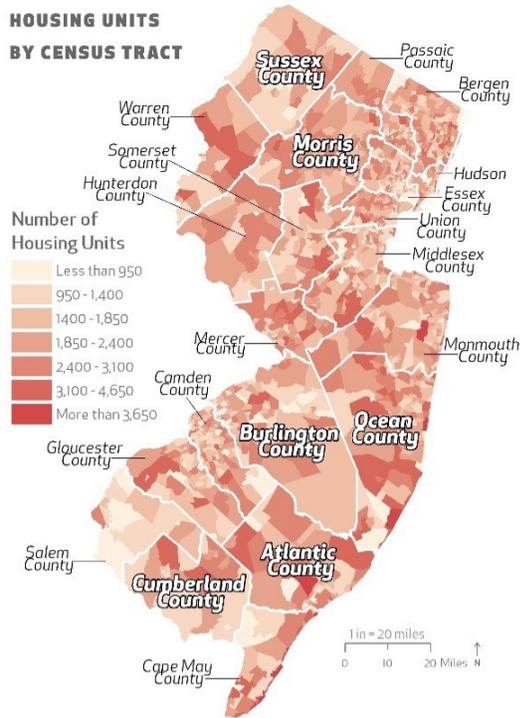
*Each of the 21 Counties also participated in this plan update. For more information, see Section 7.0 Coordination of Local Planning.

STATE PROFILE

THE STATE PROFILE INCLUDES INFORMATION ON NEW JERSEY'S BUILT ENVIRONMENT, POPULATION AND THE ECONOMY, AND ECOSYSTEMS AND NATURAL ASSETS.

BUILT ENVIRONMENT

HOUSING UNITS BY CENSUS TRACT



COUNTIES WITH THE MOST HOUSING DENSITY

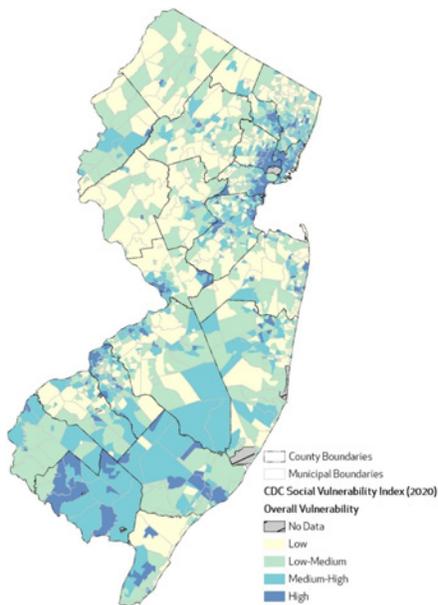
(ACS 5-yr 2015, US CENSUS 2020)

(Housing Units per Square Mile)

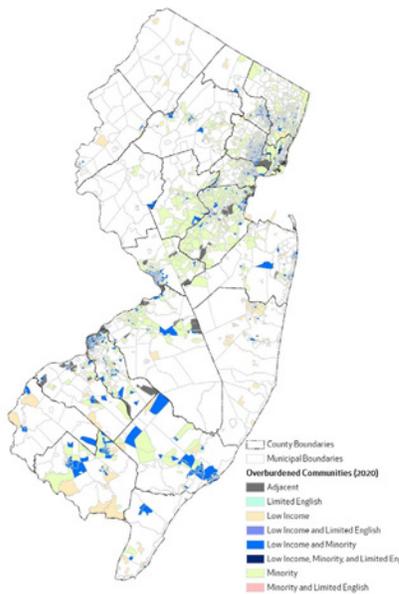
1. Hudson: 5,941
2. Essex: 2,487
3. Union: 1,951
4. Bergen: 1,519
5. Middlesex: 964

SOCIALLY VULNERABLE POPULATIONS

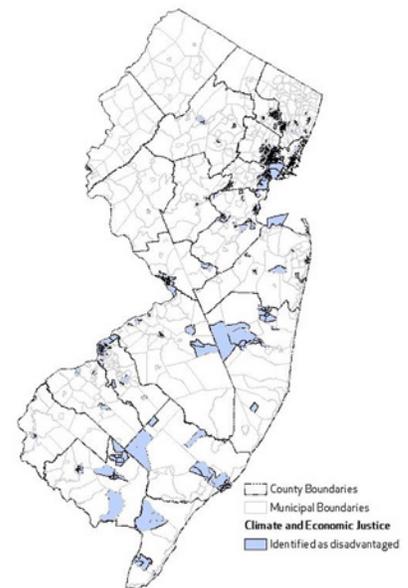
For this State HMP update, New Jersey used three different data sets to identify communities that have been underserved and/or have socially vulnerable populations.



Centers for Disease Control and Prevention (CDC) Social Vulnerability Index (SVI) (2020)



Overburdened Communities under the New Jersey Environmental Justice Law (2020)



White House Climate and Economic Justice Screening Tool (CEJST) (2022)



The annual value of ecosystem services in New Jersey was estimated to be \$8-19 billion, many of which will lessen the impacts of climate change.

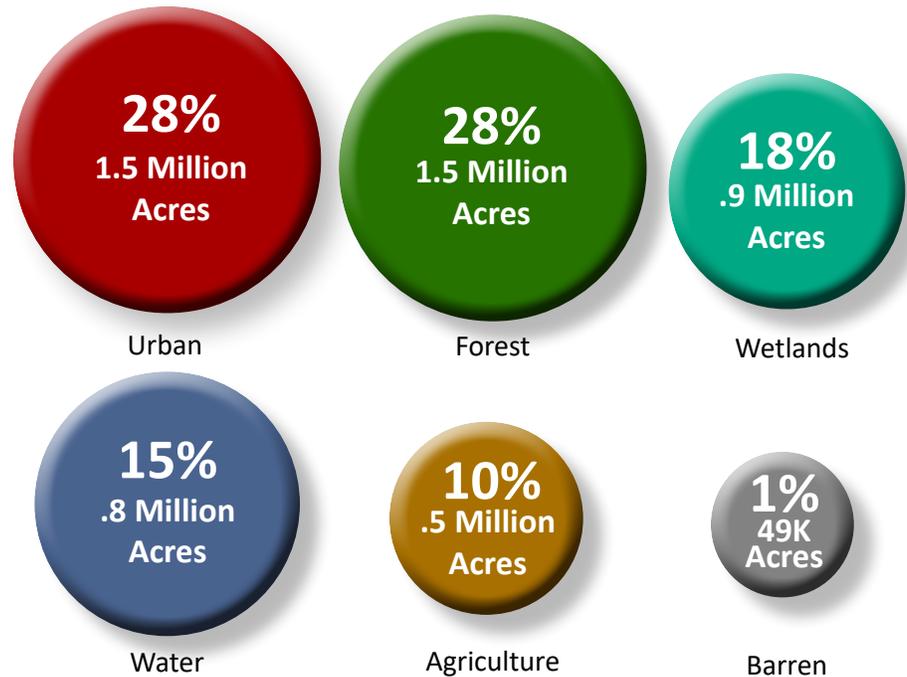
-New Jersey Department of Environmental Protection, 2021

IMAGE: SALT MARSH IN THE DELAWARE BAY

ECOSYSTEMS AND NATURAL ASSETS

Strengthening the resilience of ecosystems is part of a holistic approach to climate resilience. Supporting the health and diversity of ecosystems ensures that as climate changes, they continue to provide valuable services like water filtration, flood attenuation, food production, and carbon sequestration. In financial terms, the annual value of ecosystem services in New Jersey was estimated to be \$8-19 billion, many of which will lessen the impacts of climate change (NJDEP, 2021).

NEW JERSEY'S CHANGING LANDSCAPE



IN **26** YEARS
NEW JERSEY HAS SEEN AN
INCREASE OF **26%** IN
URBAN LAND AND A
DECREASE OF **26%** IN
AGRICULTURAL LAND.



1/3 OF NEW JERSEY IS
COMPOSED OF WETLANDS
AND WATER BODIES.

Note: This information was not updated for this plan update.

RISK ASSESSMENT

This risk assessment provides a factual basis for activities proposed by the State of New Jersey in its mitigation strategy. Hazards that affect New Jersey are identified and defined in terms of location, extent, magnitude of impact, previous events, probability of future occurrences (including the potential effects of climate change), and vulnerability assessment. The HMP profiles 22 hazards.

NATURE-BASED HAZARDS



Coastal Erosion

Dam/Levee Failure



Drought

Earthquakes



Extreme Temperature

Flood



Geological Hazards

Hurricanes, Nor'easters, & Tropical Storms



Severe Weather

Severe Winter Weather



Wildfire

HUMAN-BASED HAZARDS



Animal Disease

Civil Unrest



Cyber Attack

Crop Failure



Economic Collapse

Fishing Failure



Harmful Algal Blooms

Hazardous Substance



Nuclear Hazard

Pandemic



Terrorism

NATURE-BASED HAZARD PROFILES AT A GLANCE

FLOOD

18.5%

OF NEW JERSEY'S LAND AREA IS LOCATED IN THE SPECIAL FLOOD HAZARD AREA (SFHA)

597

STATE FACILITIES ARE WITHIN THE SFHA

3,000+

BRIDGES AND TUNNELS

5,000

MILES OF ROADWAY ARE LOCATED WITHIN THE SFHA



WILDFIRE

1,500

WILDFIRES OCCUR ON AVERAGE EVERY YEAR

7,000

TOTAL ACRES BURNED

99%

ARE HUMAN CAUSED



STORM LOSSES

\$2.02 BILLION

ESTIMATED IN DAMAGE FROM HURRICANE IDA

\$873.6 MILLION

APPROVED IN DISASTER RELIEF

45 THOUSAND

HOMES

NFIP STATISTICS

188,781

TOTAL POLICIES

61,013

PROPERTY LOSSES

\$24,279

AVERAGE LOSS VALUE

\$6 BILLION

IN TOTAL PAYMENTS

FEMA HAZUS ESTIMATES

FLOOD



50 THOUSAND

PEOPLE SEEKING SHELTER DUE TO DISPLACEMENT

775 THOUSAND

TONS OF TOTAL DEBRIS ACCUMULATION



WIND



2 THOUSAND

PEOPLE SEEKING SHELTER DUE TO DISPLACEMENT

8.6 BILLION IN DAMAGES AND ECONOMIC LOSS FOR A 1% EVENT

EARTHQUAKE



5.9 BILLION

IN BUILDING-RELATED ECONOMIC LOSS

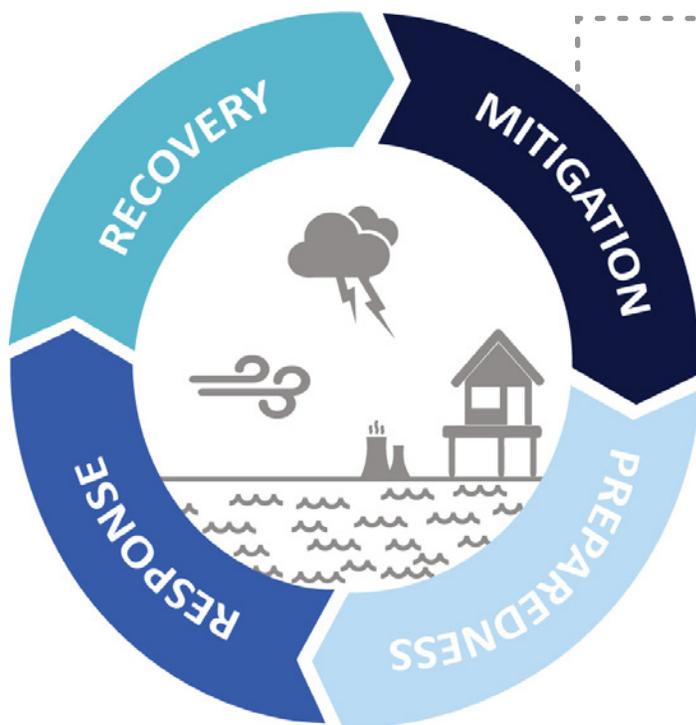


5.13 MILLION

IN UTILITY SYSTEM ECONOMIC LOSSES

13 MITIGATION STRATEGY

THE FOUR PHASES OF EMERGENCY MANAGEMENT



WHAT IS MITIGATION?

Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters. In order for mitigation to be effective we need to take action now—before the next disaster—to reduce human and financial consequences later (analyzing risk, reducing risk, and insuring against risk). It is important to know that disasters can happen at any time and any place and if we are not prepared, consequences can be fatal.

NEW STATE PRIORITIES AND APPROACHES TO HAZARD MITIGATION

- Working closely with local communities and stakeholders to develop comprehensive plans for recovery and to maximize disaster relief funds;
- Providing critical resources to rebuild housing, public buildings, small businesses, and infrastructure in a manner that is cost-efficient and disaster resilient;
- Developing hazard mitigation initiatives to create stronger communities;
- Cutting red tape and streamlining the regulatory framework for recovery and rebuilding;
- Incorporating compliance measures into the State's grant programs to ensure effective and efficient use of funds; and
- Coordinating mitigation investments among State agencies to provide for collaboration, community based mitigation approaches, and prevent perverse mitigation investments that increase long-term exposure to risk.

MITIGATION ACTIONS

TYPES OF MITIGATION ACTIONS

1. STRUCTURE AND INFRASTRUCTURE PROJECTS
2. NATURAL SYSTEMS PROTECTION
3. LOCAL PLANS AND REGULATIONS
4. EDUCATION AND AWARENESS PROGRAMMING



Surf City, NJ Dune Protection Project

PROGRESS IN MITIGATION EFFORTS SINCE THE 2019 STATE HMP UPDATE

11

ACTIONS (6.6% OF 166 TOTAL ACTIONS) WERE COMPLETED

64

ACTIONS (38.6% OF TOTAL ACTIONS) WERE INITIATED BUT WERE NOT COMPLETED

49

ACTIONS (29.5% OF TOTAL ACTIONS) WERE DETERMINED TO BE ONGOING ACTIVITIES AND/OR CAPABILITIES INTEGRATED INTO STANDARD OPERATIONS

21

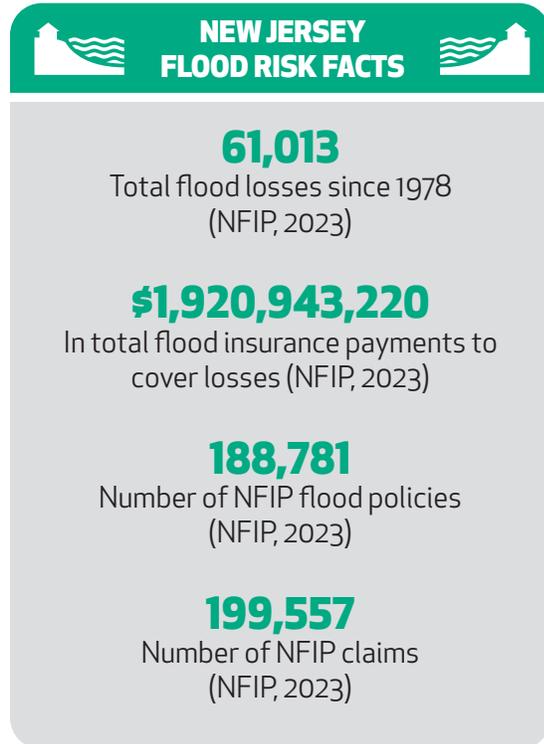
ACTIONS (12.7% OF TOTAL ACTIONS) WERE NOT INITIATED OR HAD NO REPORTED PROGRESS

21

ACTIONS (12.7% OF TOTAL ACTIONS) WERE DISCONTINUED FOR MANY REASONS, INCLUDING CHANGES IN PRIORITIES OR THE ACTION IS NO LONGER UNDER THE STATE'S AUTHORITY

15 MITIGATION STRATEGY

PROPERTY ACQUISITION AS A FORM OF MITIGATION



WHAT?

Property acquisition is where the community buys private property. By law, that property must remain open space.

WHY?

It takes people out of harm's way forever by removing development from vulnerable areas, and it helps advance community goals such as watershed protection and provision of open space.

HOW?

Acquisition projects are 75% funded by FEMA but are administered by State and local communities working together. Communities may offer homeowners who agree to participate in a buyout project up to fair market value of the home **BEFORE** the disaster struck. Buyouts are strictly voluntary.

THE STEPS OF A BUYOUT



An application for assistance is prepared by local officials with input from the community and those homeowners with destroyed or severely damaged properties. Their local officials will have been notified by the State of what the State's priorities are or other special restrictions decided upon by state officials.



The State receives and reviews the application and submits those deemed appropriate to FEMA for approval. FEMA reviews the applications to ensure they follow the rules, are environmentally sound, and are a cost-effective use of funds.



Once FEMA gives its approval, the State begins the acquisition process. The communities actually conduct the purchase and title transfer. Then the buildings are removed or destroyed by the community and the land is cleared.

ADVANTAGES

- Peace of mind because it reduces or eliminates most of your future risk.
- Fair compensation generally based on the pre-flood market value of your home.
- Less flooding in the area due to decrease in impervious surfaces.
- A chance for a new start.
- A means of recovery that is more advantageous than repair grants or loans.
- An opportunity to recoup, at least partially, your financial investment in property that has lost value.

DISADVANTAGES

- Having to move or starting new somewhere else.
- Despite efforts to compensate you fairly, property acquisition is not able to wholly compensate for intangible aspects of life.
- The process can be lengthy.

REPETITIVE LOSS STRATEGY 16

REPETITIVE LOSS & SEVERE REPETITIVE LOSS DEFINED

Repetitive Loss and Severe Repetitive Loss properties represent the most flood-prone properties in the state; the National Flood Insurance Program (NFIP) defines Repetitive Loss and Severe Repetitive Loss based on the definitions below. The Flood Mitigation Assistance Program uses a modified definition when determining eligibility for mitigation grants and cost-share. The state and the Community Rating System (CRS) program use the NFIP definition of repetitive and severe repetitive loss when planning for and mitigating risk to these properties.

NATIONAL FLOOD INSURANCE PROGRAM (NFIP)

Repetitive Loss Structure. An NFIP-insured structure that has had at least 2 paid flood losses of more than \$1,000 each in any 10- year period since 1978.

Severe Repetitive Loss Building:

Any building that is covered under a Standard Flood Insurance Policy and has incurred flood damage for which:

- 4 or more separate claim payments have been made under a Standard Flood Insurance Policy issued pursuant to this title, with the amount of each such claim exceeding \$5,000, and with the cumulative amount of such claim payment exceeding \$20,000; or
- At least 2 separate claim payments have been made under a Standard Flood Insurance Policy, with the cumulative amount of such claim payments exceed the fair market value of the insured building on the day before each loss.

FLOOD MITIGATION ASSISTANCE (FMA)

FEMA will select eligible flood mitigation project subapplications on a competitive basis for FMA as follows:

- Projects that will mitigate flood damage to at least 50 percent of structures included in the subapplication that meet definition 42U.S.C. 4104c(h)(3)(B)(ii) of a Severe Repetitive Loss (SRL) property: At least two separate NFIP claim payments have been made with the cumulative amount of such claims exceeding the market value of the insured structure.
- Projects that will mitigate flood damage to at least 50 percent of structures included in the subapplication that meet the definition of **a Repetitive Loss (RL) property: Have incurred flood-related damage on two occasions, in which the cost of the repair, on the average, equaled or exceeded 25% of the market value of the structure at the time of each such flood event.**
- Projects that will mitigate flood damage to at least 50 percent of structures included in the subapplication that meet definition 42 U.S.C. 4104c(h)(3)(B)(i) of a **SRL property: four or more separate NFIP claims payments have been made with the amount of each claim exceeding \$5,000, and with the cumulative amount of claims payments exceeding \$20,000.**

17,228

REPETITIVE LOSS PROPERTIES
IN NEW JERSEY (NFIP, 2023)

3,820

SEVERE REPETITIVE LOSS PROPERTIES
IN NEW JERSEY (NFIP, 2023)

2,961

TOTAL REPETITIVE LOSS AND SEVERE REPETITIVE LOSS
PROPERTIES HAVE BEEN MITIGATED (NFIP, 2023)

COORDINATION OF LOCAL PLANNING

UPDATES TO BETTER STANDARDIZE MULTI-JURISDICTIONAL ALL-HAZARD PLANS

This section has been reviewed and updated to provide an overview of the present processes utilized by the State (primarily New Jersey Office of Emergency Management) to support and promote mitigation planning at the county and local level and develop processes to help local jurisdictions obtain funding and technical assistance for mitigation planning. This State Hazard Mitigation Plan Update is intended to report on progress in this area and provide a clear, streamlined procedure for developing and supporting local planning. This section provides a description of the process used by the NJOEM to support:

- The development of local multi-jurisdictional mitigation plans through funding and technical assistance
- The development of mitigation projects through funding and technical assistance
- The process of plan integration into the Hazard Mitigation Plan (HMP)
- The development of knowledgeable floodplain administrators at the local level
- The support of local OEM and other officials through funding and technical assistance
- The support for integration of local HMPs into local land use policies and procedures
- The update and adoption of previously approved HMPs



Local Hazard Mitigation Plan Status, reported as of April 2023

Hazard Mitigation Plan	Edition	# of Eligible Municipalities	Approval Date	Expiration
Atlantic County	3	23	January 26, 2022	January 25, 2027
Bergen County	3	70	June 7, 2021	June 6, 2026
Burlington County	3	40	April 22, 2020	April 21, 2025
Camden County	2	34	March 7, 2022	March 6, 2027
Cape May County	2	16	June 18, 2021	June 17, 2026
Cumberland County	2	14	October 25, 2022	October 24, 2027
Essex County	3	22	June 4, 2020	June 3, 2025
Gloucester County	2	24	August 26, 2022	August 25, 2027
Hudson County	3	17 total with MUA	August 26, 2020	August 25, 2025
Hunterdon County	2	26	February 16, 2022	February 15, 2027
Mercer County	2	12	December 10, 2021	December 9, 2026
Middlesex County	2	25	January 27, 2022	January 26, 2027
Monmouth County	3	53	February 12, 2021	February 11, 2026
Morris County	3	39	January 8, 2021	January 7, 2026
Ocean County	2	33	July 14, 2020	July 13, 2025
Passaic County	3	16	January 8, 2021	January 7, 2026
Salem County*	2	15	January 6, 2017	January 5, 2022
Somerset County	3	23 total with special purpose districts	May 5, 2020	May 19, 2025
Sussex County	2	24	August 6, 2021	August 5, 2026
Union County	3	21	December 15, 2021	December 14, 2026
Warren County	2	22	January 10, 2022	January 9, 2027

*Plan is currently expired, though work is underway to update the plan. A draft of the plan was still under development in summer 2023.

PLAN MAINTENANCE

The development of a plan maintenance process ensures that the SHMP remains a “living” document that is intended to be changed and updated throughout its performance period. Maintaining momentum in mitigation strategy implementation can lead to significant long-term changes and overall risk reduction. As such, a formal process is required to ensure that the SHMP will remain an active and relevant document. The New Jersey Office of Emergency Management (NJOEM) is the responsible agency for the preparation and maintenance of the SHMP. The State Hazard Mitigation Officer (SHMO) is the individual responsible for overseeing the coordination, implementation, and maintenance of the plan collaboratively across the state.

EMAP



The Emergency Management Accreditation Program (EMAP) is a voluntary assessment and accreditation process for the emergency management programs of states, territories, tribes, and local governments. It provides the means for strategic improvement of and accreditation of emergency management programs. The State passed the EMAP assessment and became accredited on September 27, 2023.

EMAP requires states to assess the risks and vulnerability of people, property, environment, and its own operations from identified hazards. It also requires the State to include a consequence analysis for the hazards identified in the State HIRA.

PLAN ADOPTION

Plan Adoption discusses the State approval and plan adoption process, the statutes and Executive Orders that establish and define the authority of the Hazard Mitigation Plan, and the State’s assurances. The State HMP update was prepared and approved by the State Hazard Mitigation Team (SHMT). The completed Plan is considered a draft until it is adopted by the Governor of New Jersey.

FOR MORE INFORMATION ON THE SHMP

Contact:
Lt. Dinan Amin
State Hazard Mitigation Officer
 New Jersey Office of Emergency Management
 Division of State Police

Telephone: (609) 963-6900, ext. 6208
Fax: (609) 882-2025
Email: Mitigation@njsp.gov or Dinan.Amin@njsp.gov
Website: state.nj.us/njoem