



RESILIENT NJ RESILIENT RARITAN RIVER AND BAY COMMUNITIES

APPENDIX N:
Risk Rating 2.0 Outreach

August 12, 2022



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Summary

This appendix provides an overview of the Risk Rating 2.0 program, as presented by FEMA Region 2 at an informational session organized by the Resilient NJ RRBC Project Team to provide local officials with information they can use when communicating about the program's goals and impacts on their communities.

In addition, the project team conducted an analysis of the potential impact of Risk Rating 2.0 for property owners in Middlesex County.

OVERVIEW OF RISK RATING 2.0 DATA FOR MIDDLESEX COUNTY

Current Flood Insurance Information

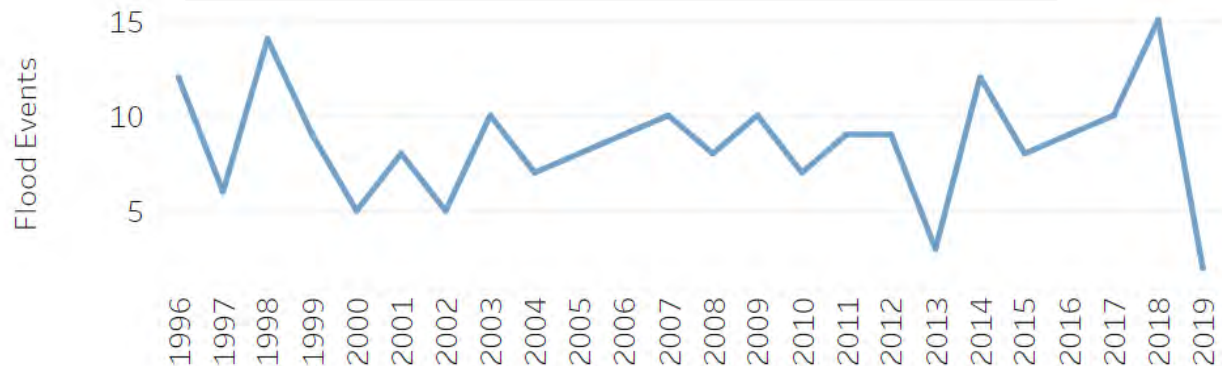
The State of New Jersey

| | |
|------------------------------------|----------|
| Policies in Force as of April 2022 | 206,226 |
| Number of NFIP Claims for FY 2022 | 231 |
| Average Claims Payment for FY 2022 | \$28,935 |

Middlesex County

| | |
|--|---------|
| Policies in Force for FY 2022 | 3,352 |
| Average Annual Cost of Flood Insurance | \$1,462 |

Historical Flood Impact in Middlesex County



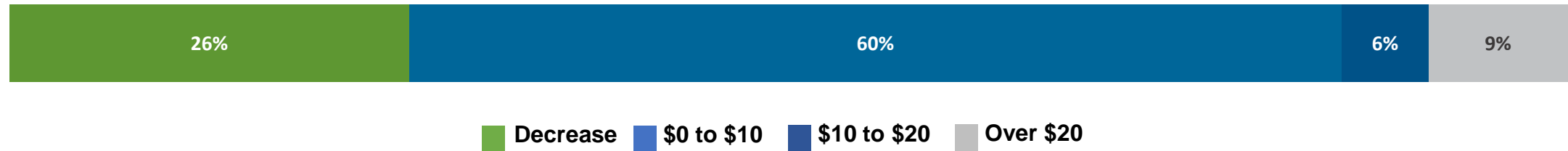
The following 3 of 25 Municipalities in Middlesex County are considered CRS Eligible Communities

| Municipality | CRS Class | % Discount for SFHA | % Discount for Non-SFHA |
|------------------------|-----------|---------------------|-------------------------|
| City of Perth Amboy | 8 | 5 | 5 |
| Borough of South River | 10 | 0 | 0 |
| Township of Woodbridge | 5 | 25 | 10 |

Since Risk Rating 2.0 does not use flood zones to determine flood risk, the NFIP rate discounts will be uniformly applied to all policies in the participating community.

Middlesex County Expected Monthly Premium Changes

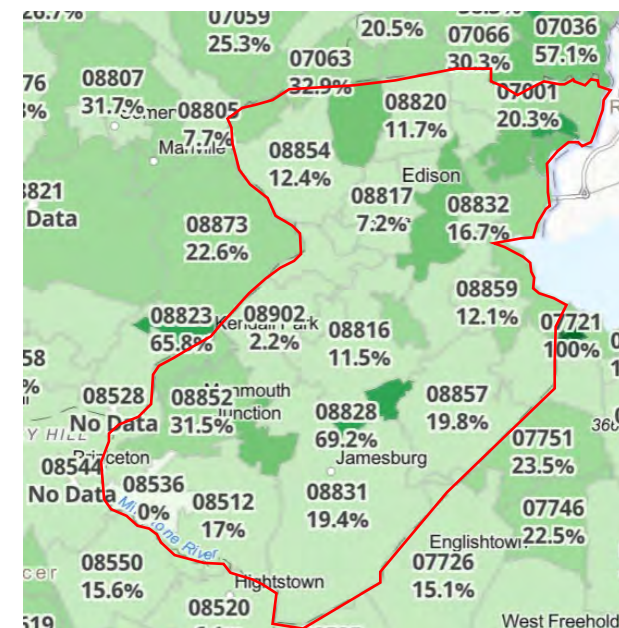
Middlesex County Monthly Premium Changes in Year 1 of RR2.0



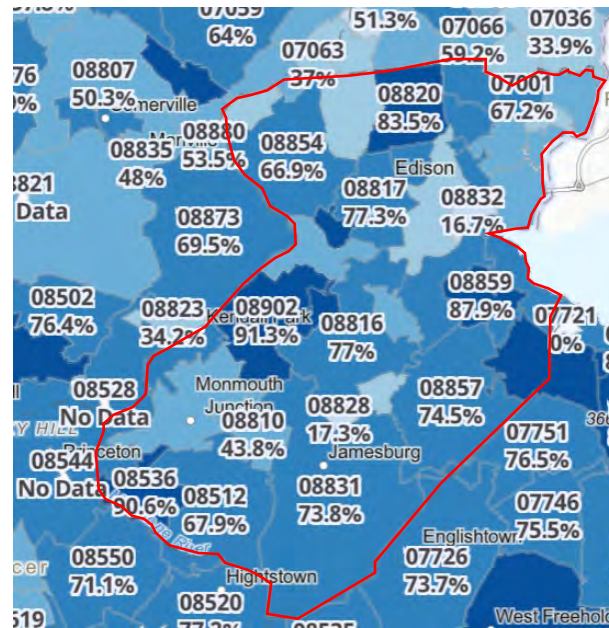
The information depicted above is FEMA's estimated projections for how monthly premiums will change in the first year of Risk Rating 2.0

Risk Rating 2.0: Expected Changes for Middlesex County

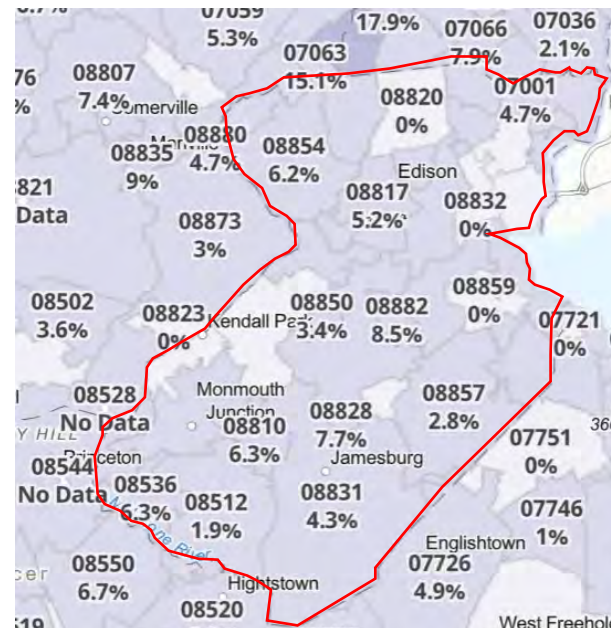
All NFIP Policies: Percent of Policies with Decreased Premiums



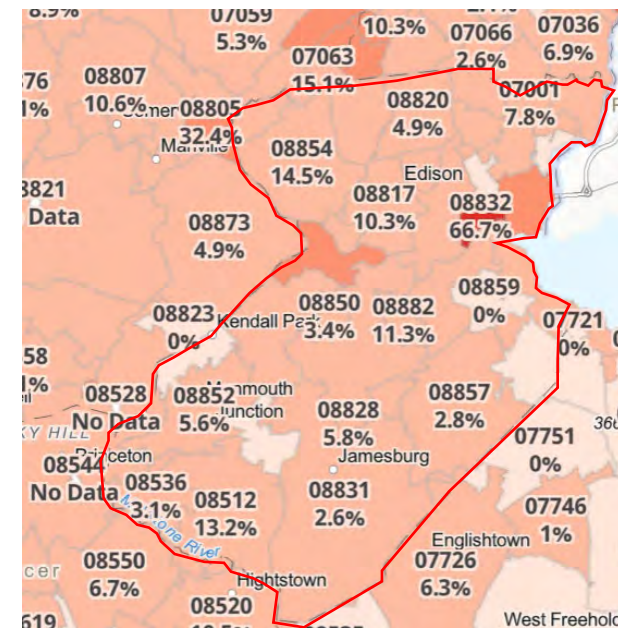
All NFIP Policies: Percent of Policies w/ Premium Increase \$0-\$10/month



All NFIP Policies: Percent of Policies w/ Premium Increase \$10-\$20/month



All NFIP Policies: Percent of Policies w/ Premium Increase \$20+/month



INFORMATIONAL SESSION

Resilient New Jersey

Risk Rating Informational Session Recap

On June 28th, 2022, Arcadis hosted an information session for local officials on Risk Rating 2.0, as well as planned state regulatory reforms.

NJPACT Resilient Environments and Landscapes (REAL) Reforms Presentation – Vincent J. Mazzei, Jr. P.E., NJDEP

- Addressing the Unavoidable Impacts of Climate Change
- Affects of Tropical Storm Ida
- Application of New Flood Hazard Areas
- Application of New Stormwater Management Standards

Risk Rating 2.0 Presentation – Thomas Song, FEMA Region 2

- General Overview of New Methodologies – Differences in Rating Variables
- Risk Rating 2.0 Promotes Equity: Individuals will no longer pay more than their share in flood insurance premiums based on the value of their homes
- Comparison of Legacy Rating System and Risk Rating 2.0 Rate Analysis
- What is not changing with Risk Rating 2.0
 - Statutory rate caps on annual premium increases
 - Availability of premium discounts
 - Transfers of policy discounts to new homeowners
 - Use of Flood Insurance Rate Maps for mandatory purchase and floodplain management
- Community Rating System (CRS) Discounts – Uniformly applied to all policies in the community
- Benefits of an NFIP Policy
- Risk Rating 2.0 Case Studies – Tyler Ardron, Risk Reduction Plus

Attendees

- Community Members (City of Hoboken, Woodbridge, Middlesex Co, South River, Newark)
- Members from the Middlesex Co Office of Planning
- Members from the New Jersey Department of Environmental Protection (DEP)
- Members from the New Jersey DEC
- Members from the YMCA
- Members of the Arcadis Team

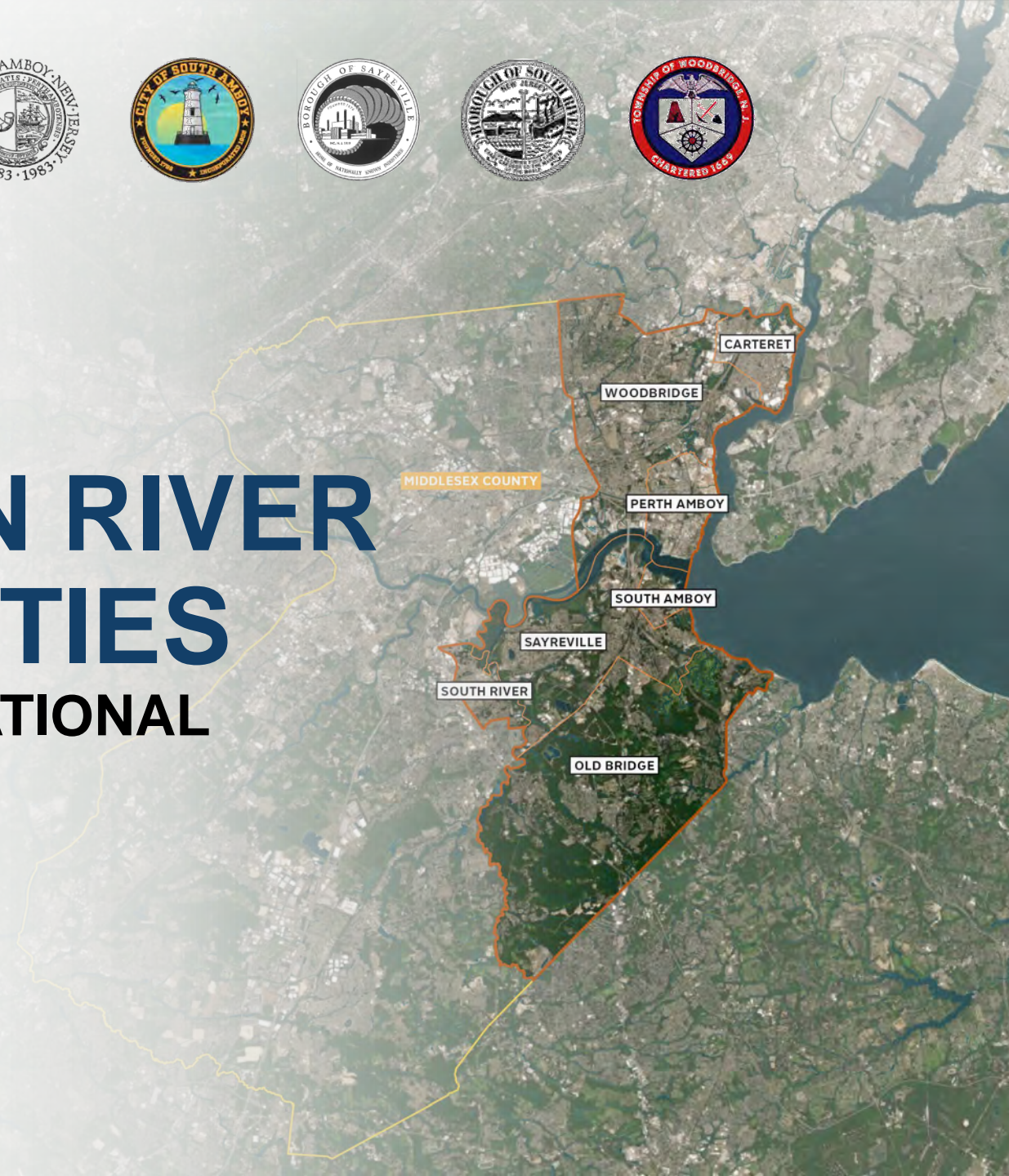




RESILIENT NJ RESILIENT RARITAN RIVER AND BAY COMMUNITIES

RISK RATING 2.0 / NJPACT INFORMATIONAL
SESSION

JUNE 2022 – TASK 6.8



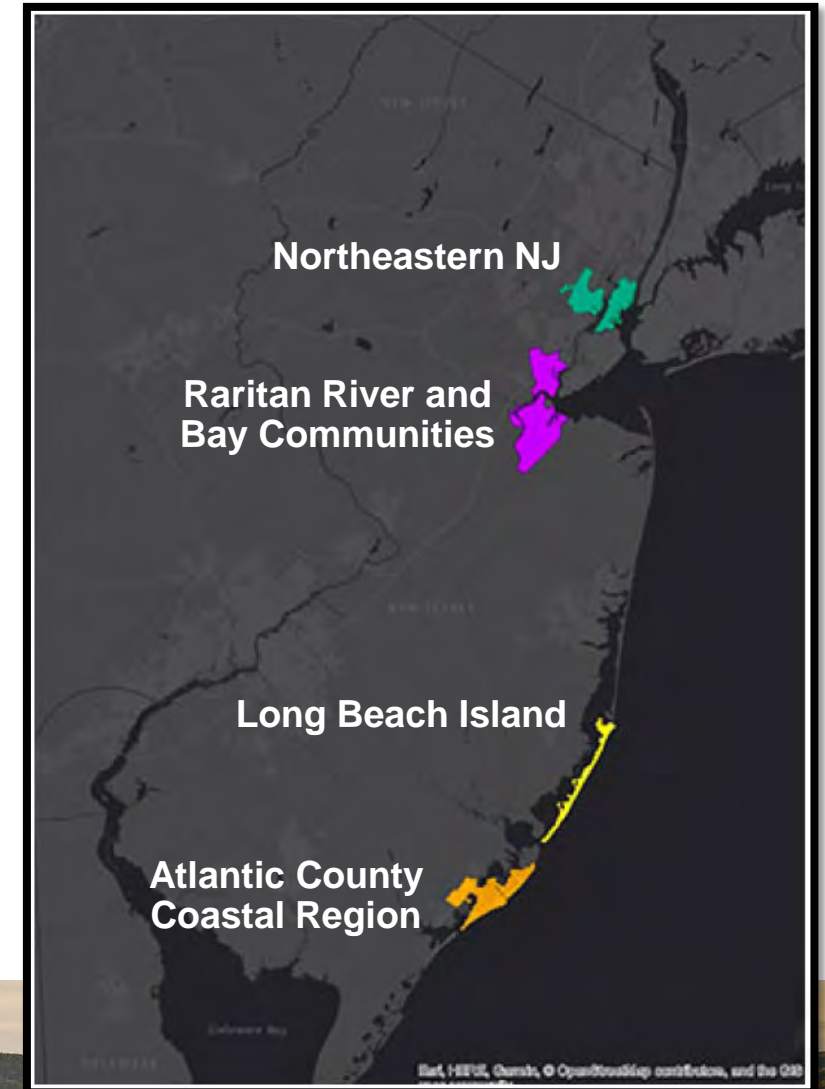
AGENDA

- **Welcome and Background on Resilient NJ**
Meghan Leavey, NJDEP
Mary Kimball, Arcadis
- **NJPACT Resilient Environments and Landscapes (REAL) Reforms**
Vincent J. Mazzei, Jr. P.E., NJDEP
- **Risk Rating 2.0**
Thomas Song, FEMA Region 2
Tyler Ardron, Risk Reduction Plus
- **Q&A**

PROJECT OVERVIEW

RESILIENT NEW JERSEY

- Funded and administered through the New Jersey Department of Environmental Protection (NJDEP)
- Four regional partnerships between local governments and community-based organizations
- Each region is supported by consultant teams contracted through NJDEP
- The project is focused on developing a **regional action plan** to address **flood-related hazards**
- **Input from the people who live, work, and play** in the regions will be critical to the success of the program



RESILIENT 

Resilient NJ Project Areas



RESILIENT NJ

RARITAN RIVER AND BAY COMMUNITIES

- **Resilient NJ – Raritan River and Bay Communities** is a partnership between Middlesex County, Old Bridge, Woodbridge, Sayreville, South Amboy, South River, Carteret, Perth Amboy, and the YMCAs of Middlesex County.



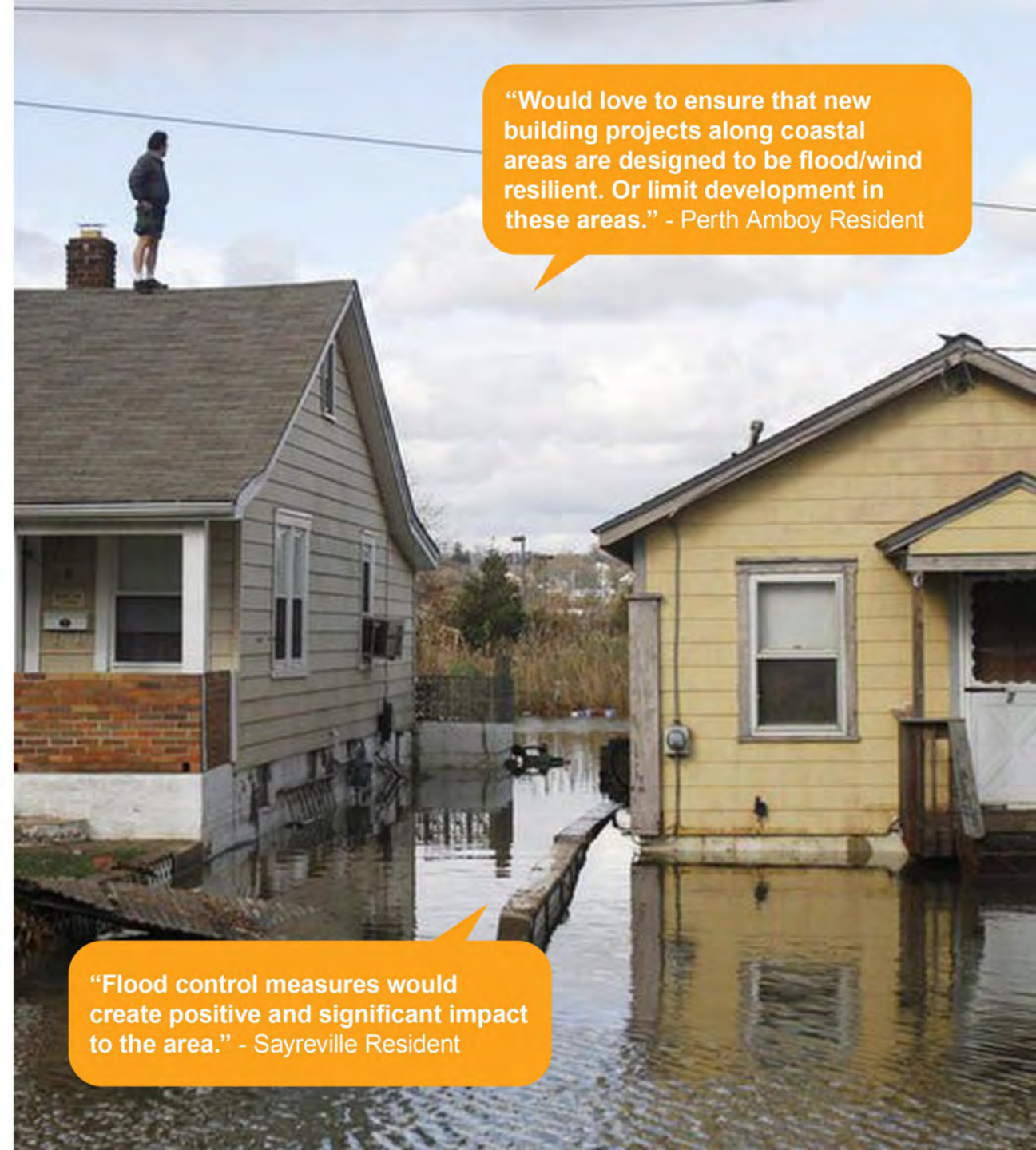
Representatives of the Region Team sit on the Steering Committee



REGION HISTORY AND IDENTITY

TODAY THE REGION IS A MICROCOSM OF NEW JERSEY, WITH A VARIETY OF LAND USES FROM SINGLE FAMILY HOMES TO DENSER, DIVERSE DOWNTOWNS, INTERSPERSED WITH LARGE OPEN SPACE NETWORKS AND TRANSPORTATION CORRIDORS THAT CONNECT THE REGION TO THE REST OF THE STATE AND NEW YORK METRO AREA.





“Would love to ensure that new building projects along coastal areas are designed to be flood/wind resilient. Or limit development in these areas.” - Perth Amboy Resident

“Flood control measures would create positive and significant impact to the area.” - Sayreville Resident



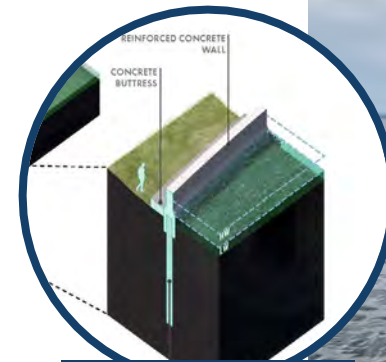
PREFERRED SCENARIO

PROTECT, RESTORE, AND TRANSITION

Combines elements of all three scenarios to create a long-term plan for more **resilient development** patterns, feasible **flood mitigation** projects, and transformational **open space/ecological improvements**.

Includes:

- Implementable **physical and nature-based infrastructure strategies** such as flood barriers, stormwater infrastructure, and wetland restoration
- **Policy and governance** actions to promote more resilient development and improve coordination across levels of government
- **Outreach, education and capacity building programs** to improve flood risk awareness and promote community adaptation



FLOOD BARRIERS



Perth Amboy Waterfront Bulkhead Repair



RESILIENT REDEVELOPMENT



Future Ferry Terminal. South Amboy, NJ



ACQUISITION & RESTORATION



Watson Crampton Buyout and Restoration Project. Woodbridge, NJ

NJPACT UPDATE

RESILIENT ENVIRONMENTS AND LANDSCAPES

May 25, 2022









Sean D. Moriarty, Esq., Deputy Commissioner
Vincent J. Mazzei, Jr., P.E., Assistant Commissioner

Department of Environmental Protection



NJPACT: Resilient Environments And Landscapes (REAL) Reforms

To address the unavoidable impacts of climate change, such as sea-level rise, extreme weather, and chronic flooding, NJDEP is pursuing targeted regulatory reforms that will modernize the land use rules and focus on increased resiliency throughout the State.

-  Better protect against chronic inundation, sea-level rise, and flood damage
-  Protect critical facilities and infrastructure
-  Increased protection of land and water resources
-  Address increases in stormwater
-  Incentivize planning for climate change
-  Encourage nature-based solutions
-  Support renewable energy deployment
-  Improve DEP permitting processes



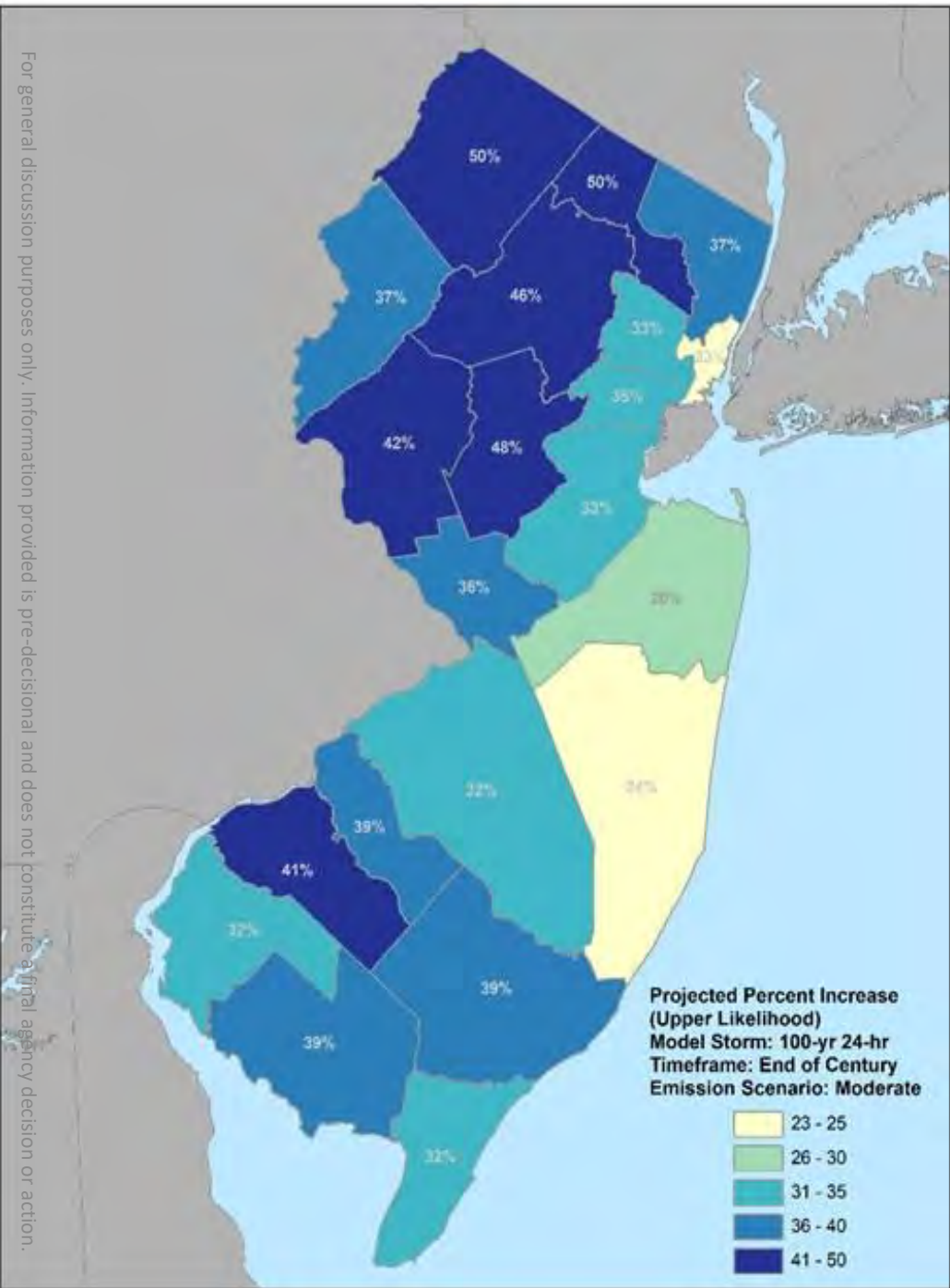
- ▶ Higher temperatures increase the energy in storms and allow the atmosphere to hold more water, which increases the potential for more intense precipitation and flooding
- ▶ By the end of the 21st century, heavy storm events are projected to occur 200 to 500% more often and with more intensity than in the 20th century
- ▶ Major flood events hit New Jersey in 2000, 2004, 2005, 2006, 2007, 2010, 2011, 2012, 2016, and 2021

NEW JERSEY'S INCREASING TEMPERATURES & PRECIPITATION

INTENSIFYING RAINFALL & FLOODING IN NEW JERSEY

- NJDEP and the Northeast Regional Climate Center, a National Oceanic and Atmospheric Administration (NOAA) partner, released studies in November 2021
 - confirming increases in precipitation across New Jersey over the last 20 years
 - projecting further increases in precipitation intensity over coming decades.
- The data presently used to analyze flood potential in waterways and in the design of stormwater infrastructure is outdated—it includes data only through 1999
- The precipitation expectations that presently guide state policy, planning and development criteria, and which rely upon data obtained through 1999, do not accurately reflect current precipitation intensity conditions





**More Rain =
More Stormwater
Runoff**

**More Runoff =
Increased Riverine
Flow**

**More Flow =
Higher Flood
Elevations**

CURRENT PRECIPITATION

Since 1999:

- The 2-year storm has increased as much as 5%
- The 10-year storm has increased as much as 7%
- The 100-year storm has increased as much as 15%

FUTURE PRECIPITATION

Over the coming decades:

- The 2-year storm is likely to increase by as much as 24%
- The 10-year storm likely to increase as much as 27%
- The 100-year storm likely to increase as much as 50%

To make the data more user-friendly, DEP developed a weighted county-by-county average of adjustment factors for publication in the amended rules.

REMNANTS OF TROPICAL STORM IDA

- **Record rainfalls**

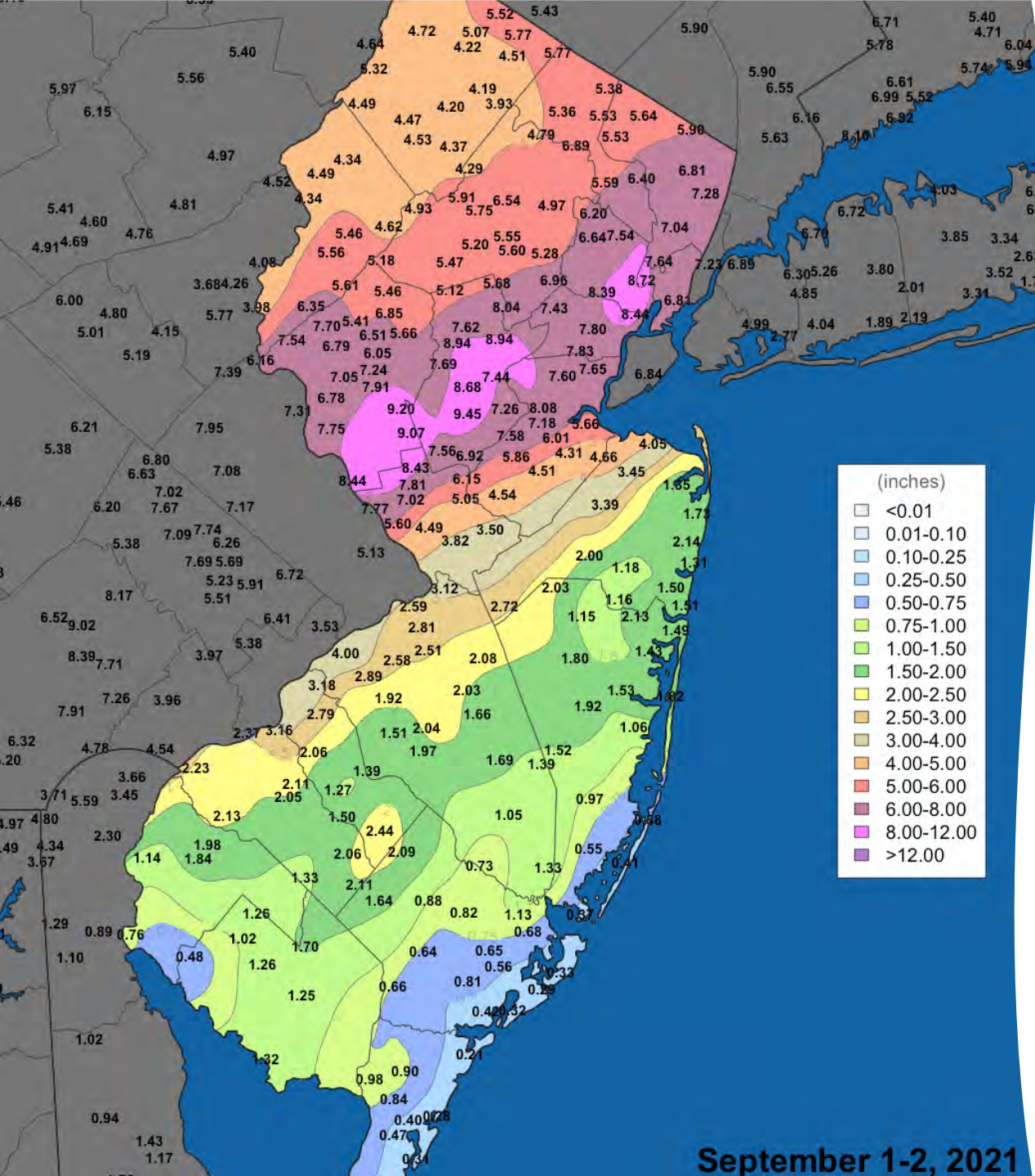
- Newark experienced an all-time record for highest one-hour rainfall total (3.65 inches)
- Documented 10+ inches of rainfall in parts of Hunterdon, Essex, Middlesex and Union Counties

- **Severe flash flooding due to intense precipitation**

- Storm sewers were overwhelmed
- Streams and rivers couldn't convey so much water in such a short time
- More than 12 rivers exceeded their 100-year flood levels

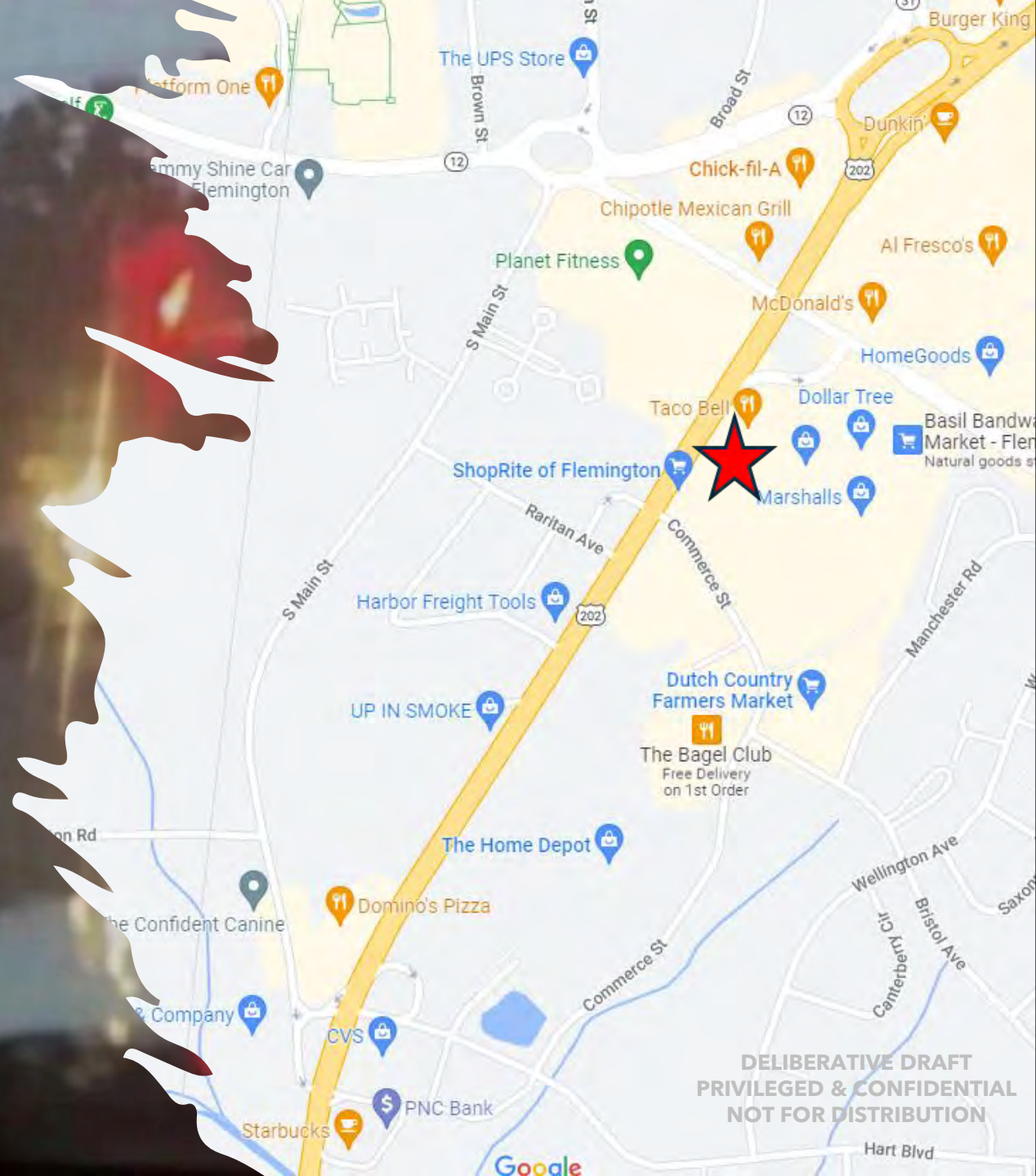
- **Directly resulted in the loss of thirty lives**

- Second deadliest natural disaster event to impact New Jersey in a century



REMNANTS OF TROPICAL STORM IDA

**Overwhelmed existing storm sewer
systems resulting in flooding along
roadways far from any streams**



DELIBERATIVE DRAFT
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For general discussion purposes only. Information provided is pre-decisional and does not constitute a final agency decision or action.

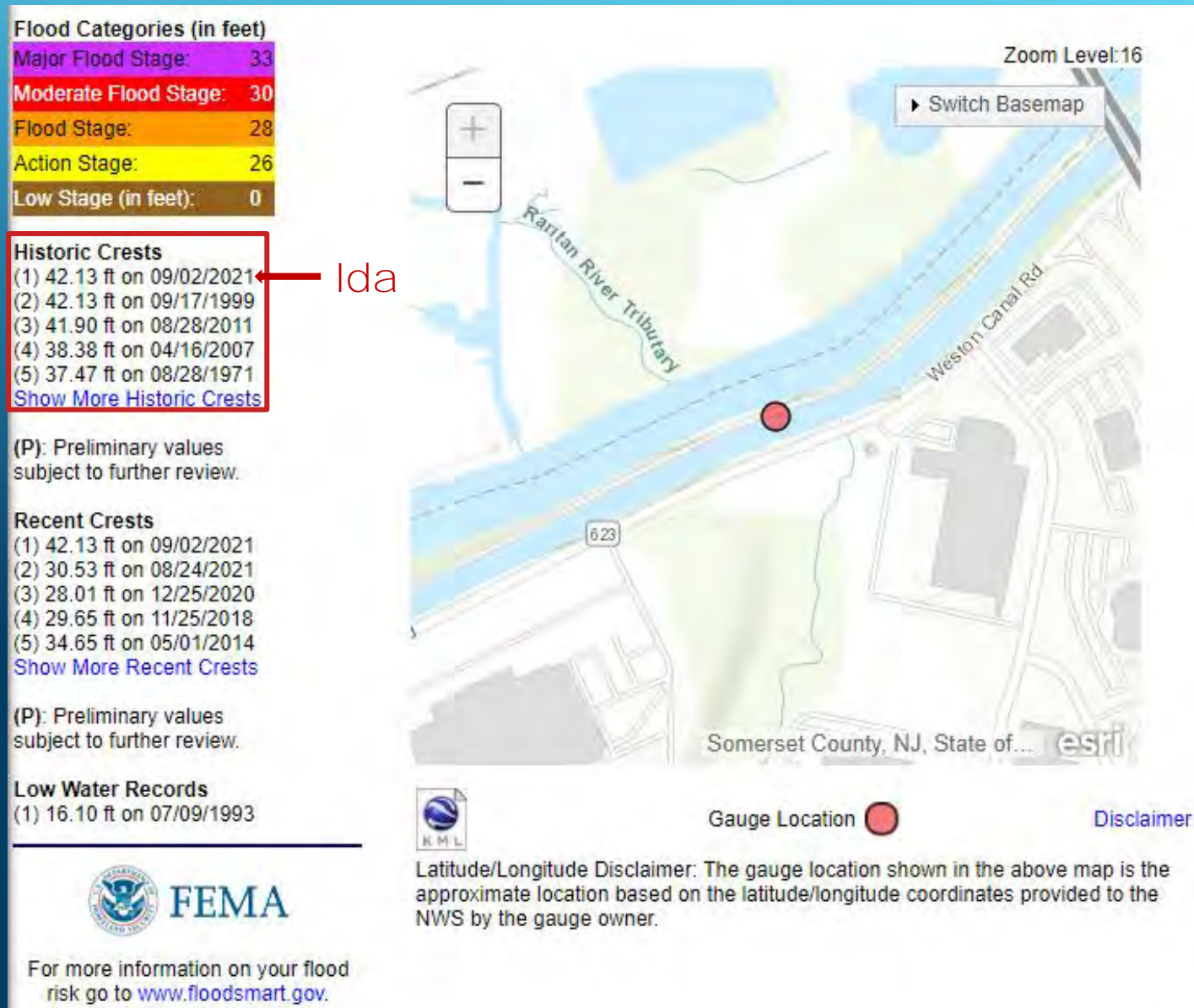
IDA COMPARED WITH EXISTING FLOOD HAZARD RULES: CASE STUDIES

- ▶ **The current FHACA Rules set the design flood elevation (DFE) as the higher of:**
 - ▶ **Flood elevation mapped by NJDEP (where available)**
 - ▶ **FEMA 100-year elevation plus 1 ft**
- ▶ **Ida case studies show average elevations of 3.1 feet above FEMA's 100-year flood elevation.**
 - ▶ **This is 2.1 ft higher than the current DFE.**

RARITAN RIVER AT BOUND BROOK



RARITAN RIVER AT BOUND BROOK

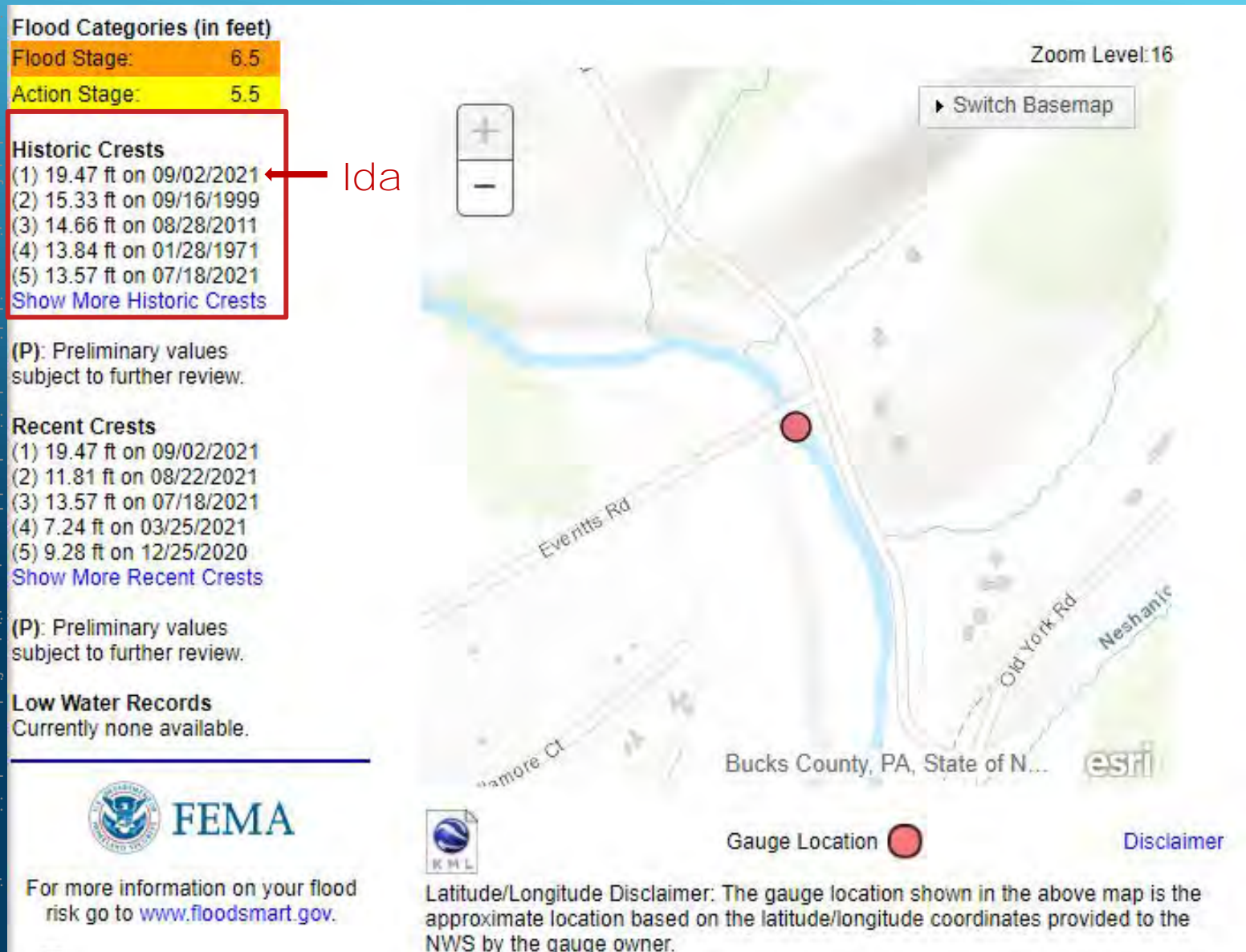


- Flooding during Ida equaled 1999's Hurricane Floyd, which was the highest elevation ever recorded at Bound Brook.
- IDA peaked at 42.13 ft NGVD (41.21 NAVD) which is:
 - 3.01 feet above FEMA 100-year elevation (38.2 ft NAVD)
 - 0.21 ft above FEMA's 500-year flood elevation (41.0 ft NAVD)
- The 500-year flood elevation at this location has been exceeded three times since 1999.

NESHANIC RIVER AT REAVILLE



NESHANIC RIVER AT REAVILLE



- Flooding during Tropical Storm Ida was more than 4.14 feet above 1999's Hurricane Floyd, which had previously been the highest elevation ever recorded at this location.

MILLSTONE RIVER AT MANVILLE



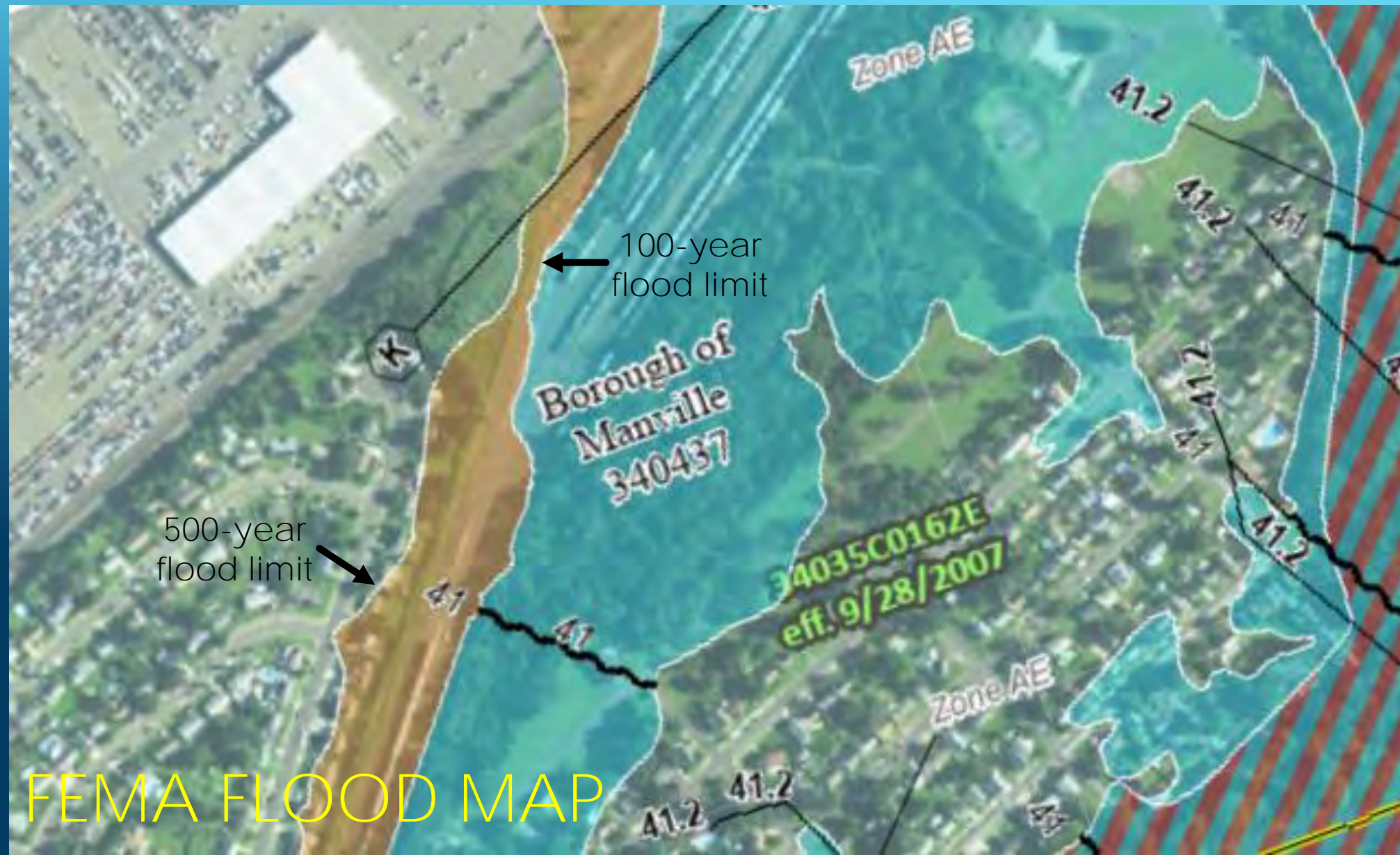
BEFORE IDA

MILLSTONE RIVER AT MANVILLE



DURING IDA

MILLSTONE RIVER AT MANVILLE



FEMA FLOOD MAP

MILLSTONE RIVER AT MANVILLE



BEFORE IDA

MILLSTONE RIVER AT MANVILLE

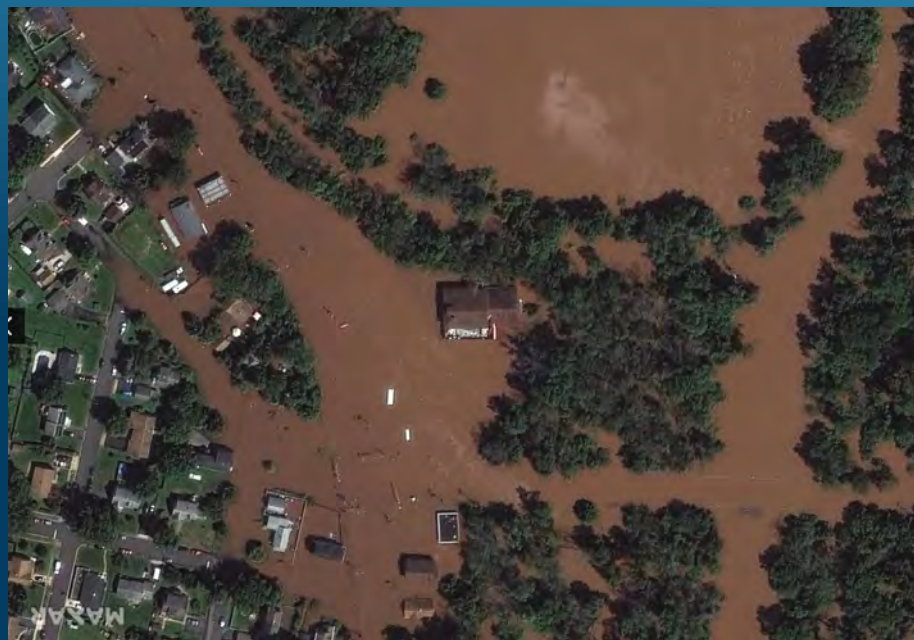
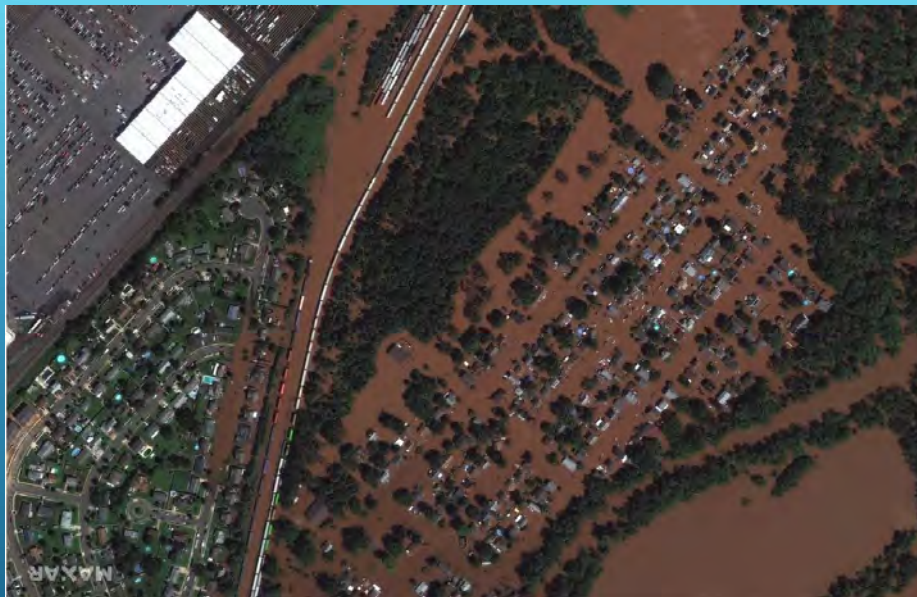


DURING IDA



MILLSTONE RIVER AT MANVILLE

- Flooding peaked at roughly one foot above FEMA's 500-year flood elevation (43.5 ft NAVD) which is **2.5 ft above** FEMA's 100-year flood elevation (41.0 ft NAVD).
- Flooding in Manville therefore peaked at approximately **3.5 feet above** FEMA's 100-year flood elevation.

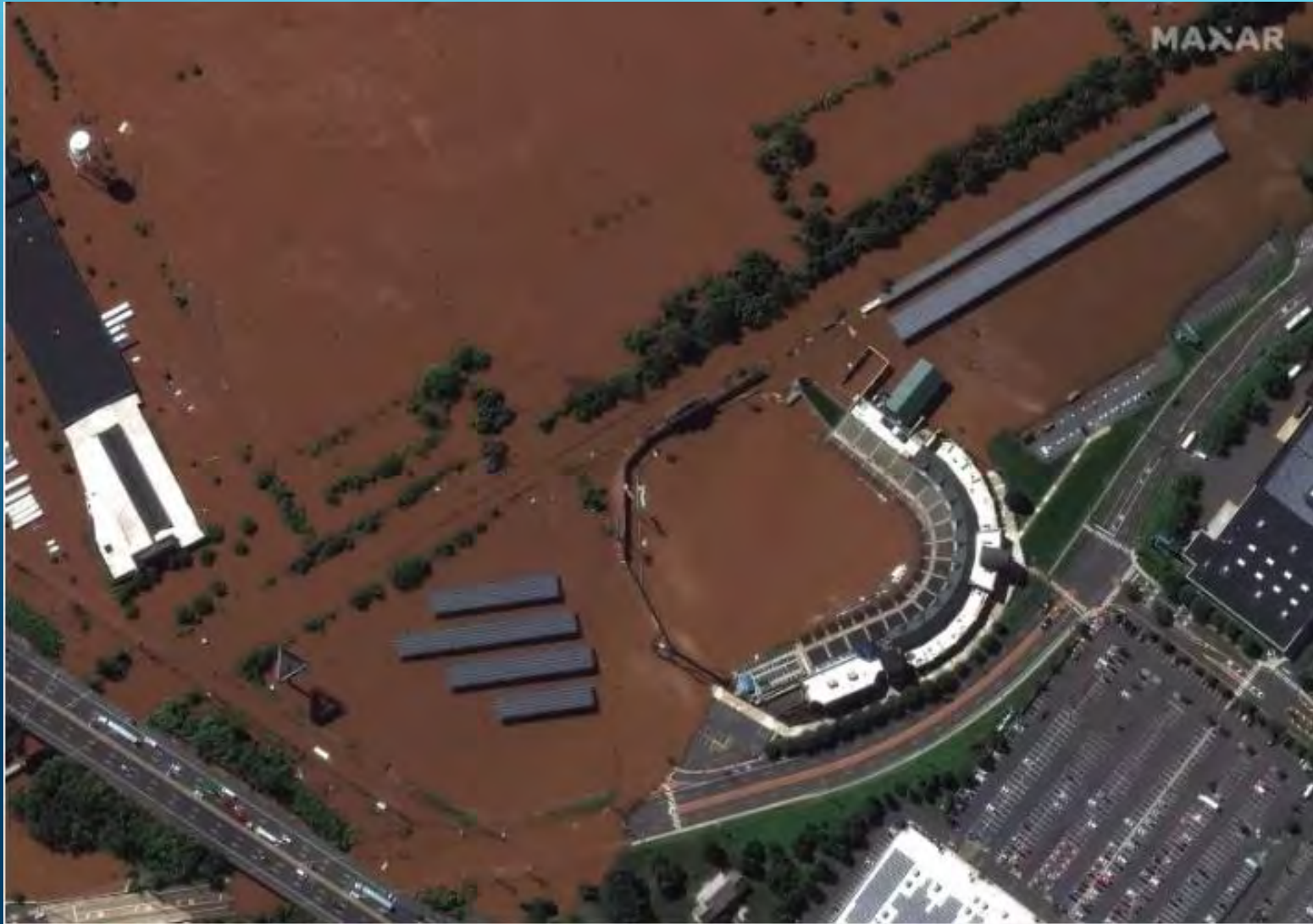


RARITAN RIVER AT BRIDGEWATER



BEFORE IDA

RARITAN RIVER AT BRIDGEWATER



DURING IDA

RARITAN RIVER AT BRIDGEWATER



FEMA FLOOD MAP

RARITAN RIVER AT BRIDGEWATER



- Flooding peaked roughly at FEMA's 500-year flood elevation (41.0 ft NAVD) which is 2.8 ft above FEMA's 100-year flood elevation (38.2 ft NAVD).

IDA COMPARED WITH EXISTING FHACA RULES:

- ▶ To help protect communities from future flood damage, the DFE along streams and rivers will be raised by 2 ft above current standard.

New DFE is the higher of:

- ▶ Flood elevation mapped by NJDEP (where available) plus 2 ft
- ▶ FEMA 100-year elevation plus 3 ft

When calculating flow rates to determine DFE:

- ▶ Compute flow rates based on future anticipated 100-year precipitation
- ▶ Model design flood based on 125% of the computed flow rates

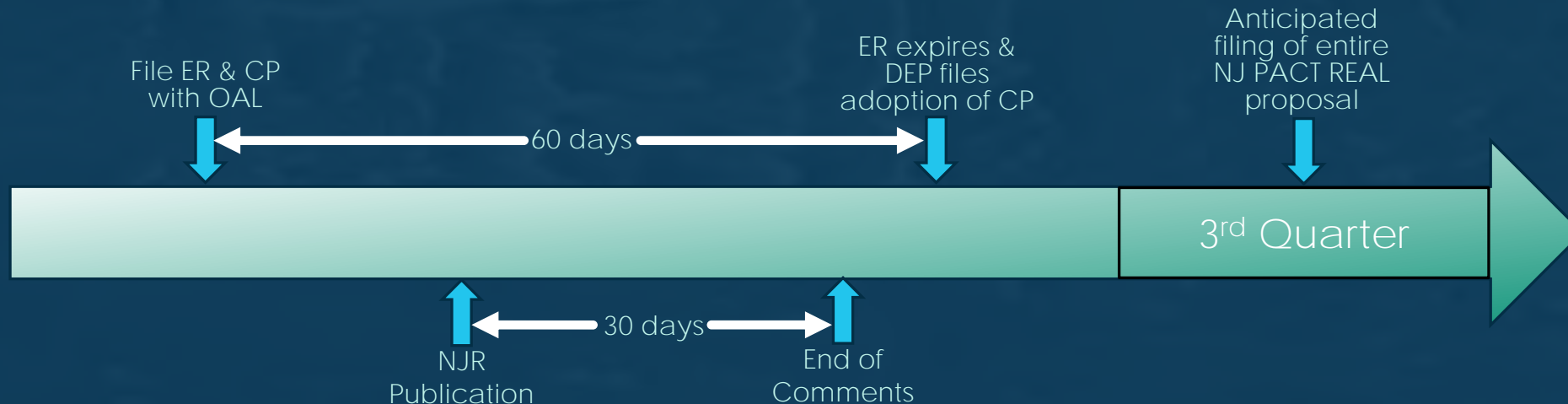
EMERGENCY RULEMAKING

- Addresses three issues related to increased precipitation due to climate change:
 1. **“Current” rainfall data used by our rules was** computed only through 1999
 2. Rules do not account for future increases in precipitation due to climate change
 3. Designs based on current flood mapping are not protective for future conditions:
 - Mapping reflects prior flooding patterns
 - Does not reflect changes due to climate change

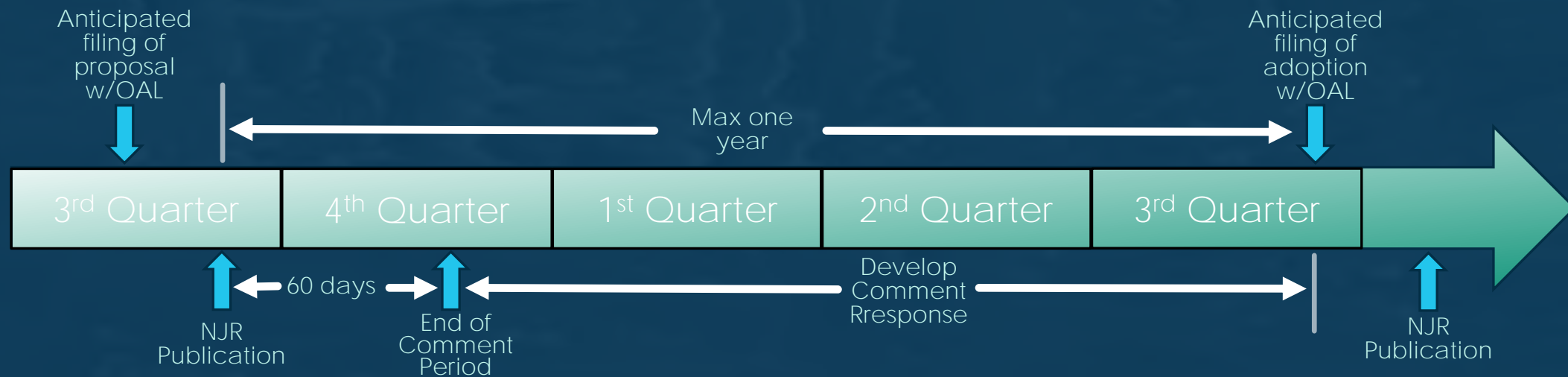
SCOPE

EMERGENCY RULEMAKING

- The Administrative Procedures Act provides that an agency can make emergency amendments to administrative code upon a finding of imminent peril to public health, safety and welfare
 - New rules become effective upon filing with Office of Administrative Law and are valid for 60 days
 - NJDEP will file both the emergency rulemaking and a concurrent proposal to enable the emergency provisions to remain in place past 60 days
 - Both the emergency rulemaking and concurrent proposal will be published in the New Jersey Register, followed by a 30-day comment period



NJPACT RULEMAKING



EMERGENCY RULEMAKING

KEY POINTS

1. Raises fluvial (non-tidal) design flood elevations by two feet
2. Requires use of future projected precipitation when calculating design flood elevation
3. Ensures that permits and authorizations under the FHACA rules meet minimum NFIP standards and relevant sections of the UCC
4. Requires stormwater BMPs to be designed to **manage runoff for both today's storms and** future storms
5. Removes use of Rational and Modified Rational methods for stormwater calculations

EMERGENCY RULEMAKING

PURPOSE

- To ensure that new investments are suited to:
 - **Manage today's rainfall, runoff and flooding**
 - The likely future conditions over the life of an asset
- Supports the wise deployment of Ida recovery and water infrastructure investments
- Informs new development and reconstruction; does not apply to existing development

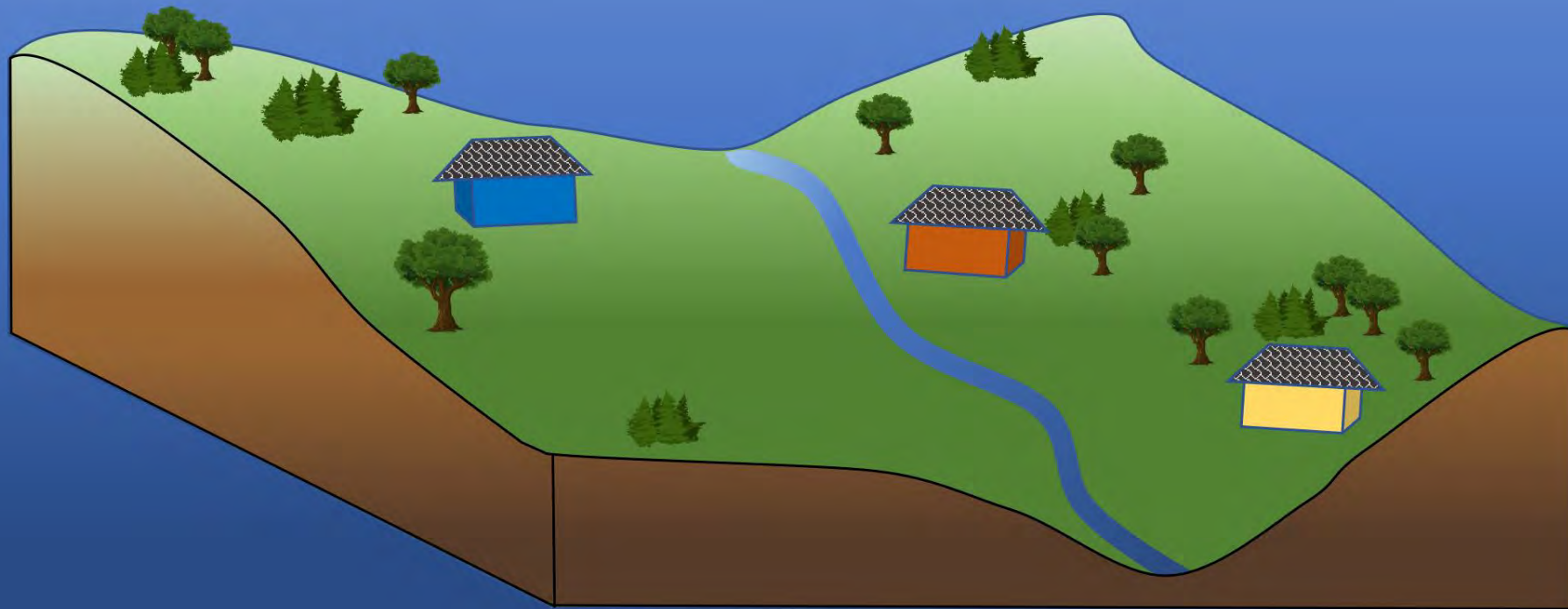
APPLICATION OF NEW FLOOD HAZARD AREA STANDARDS

All regulated activities are subject to the new standards upon filing rulemaking with OAL unless:

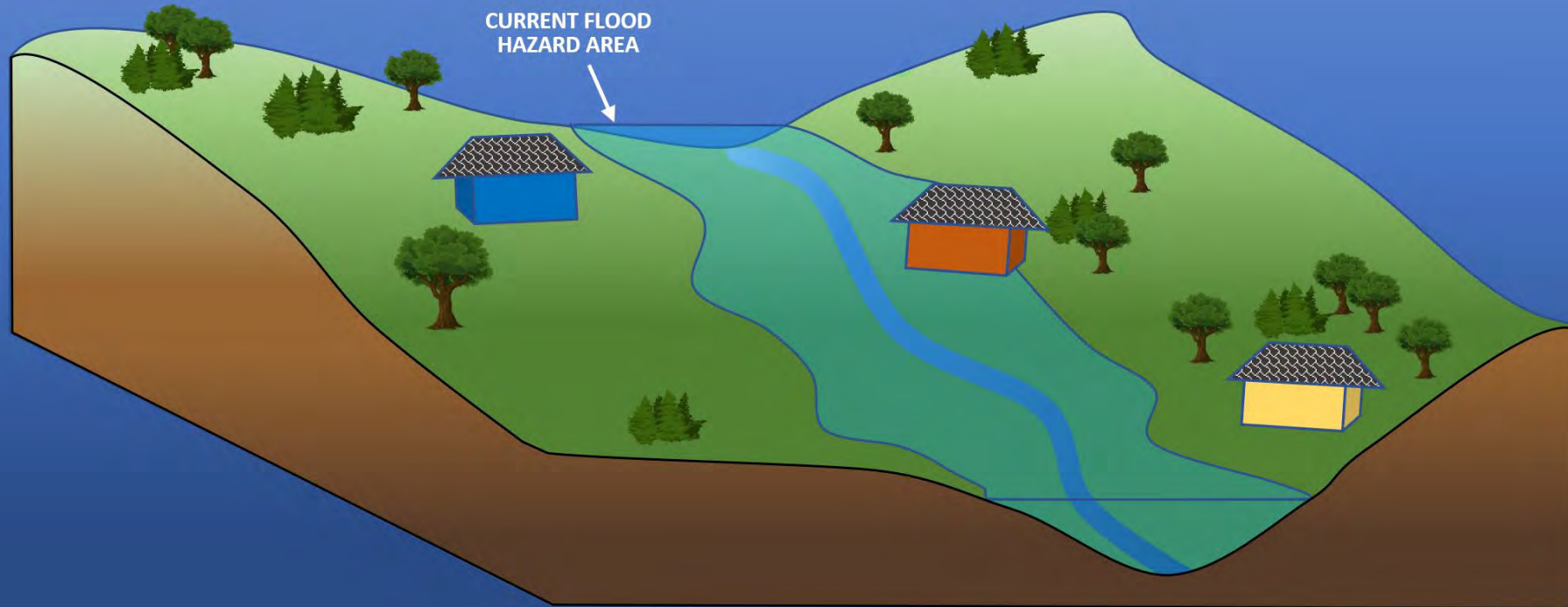
- ▶ The regulated activity is part of a project that has a valid FHA permit (See N.J.A.C. 7:13-2.1(c)1)
OR
- ▶ The regulated activity is part of a project that needs an FHA permit and a complete application for such was submitted to NJDEP prior to emergency rulemaking
OR
- ▶ The regulated activity is part of a project that did not need an FHA permit prior to rulemaking where:
 - ▶ The project received all necessary Federal, State and local approvals prior to rulemaking and
 - ▶ Construction commenced prior to rulemaking (See N.J.A.C. 7:13-2.1(c)4)

Note: Obtaining a flood hazard area verification or applicability determination prior to rulemaking does not automatically exempt a new project from the new standards

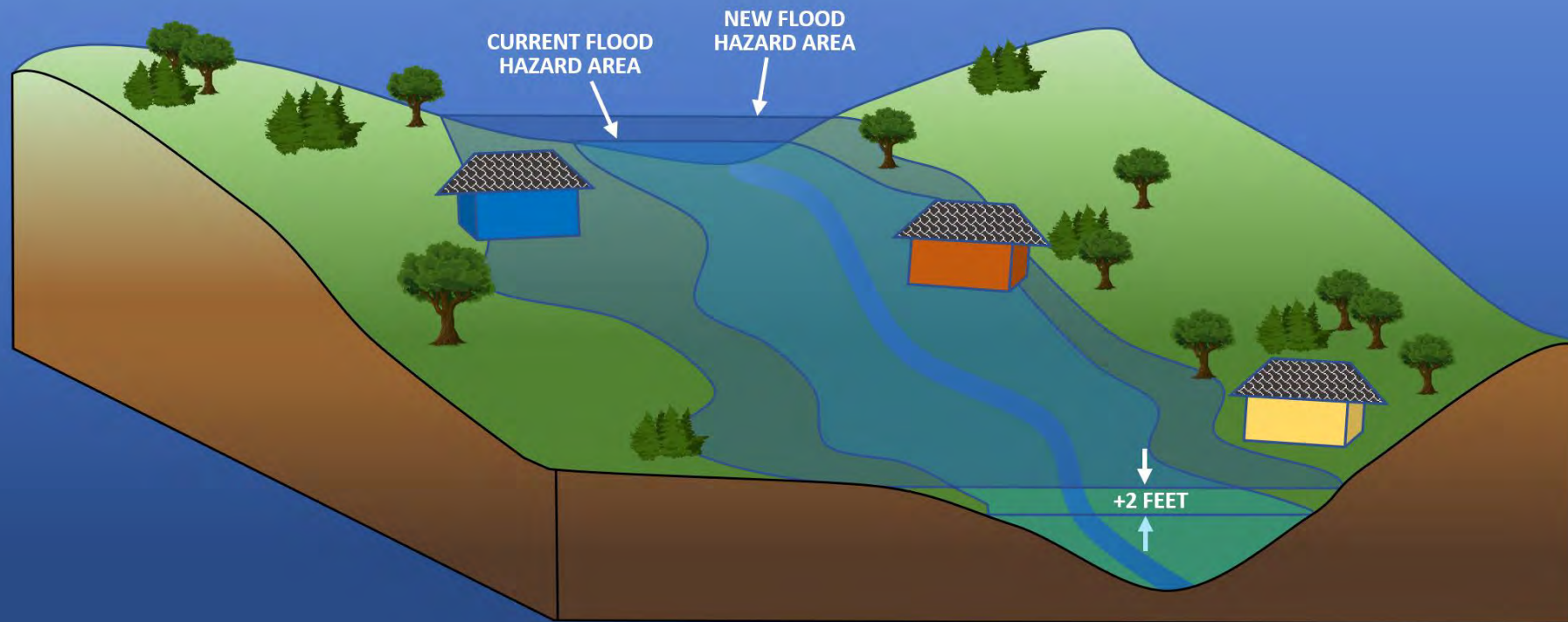
Effect of New Flood Hazard Area Design Flood Elevation



Effect of New Flood Hazard Area Design Flood Elevation



Effect of New Flood Hazard Area Design Flood Elevation



APPLICATION OF NEW STORMWATER MANAGEMENT STANDARDS

All Major Developments are subject to the new standards upon filing rulemaking with OAL unless:

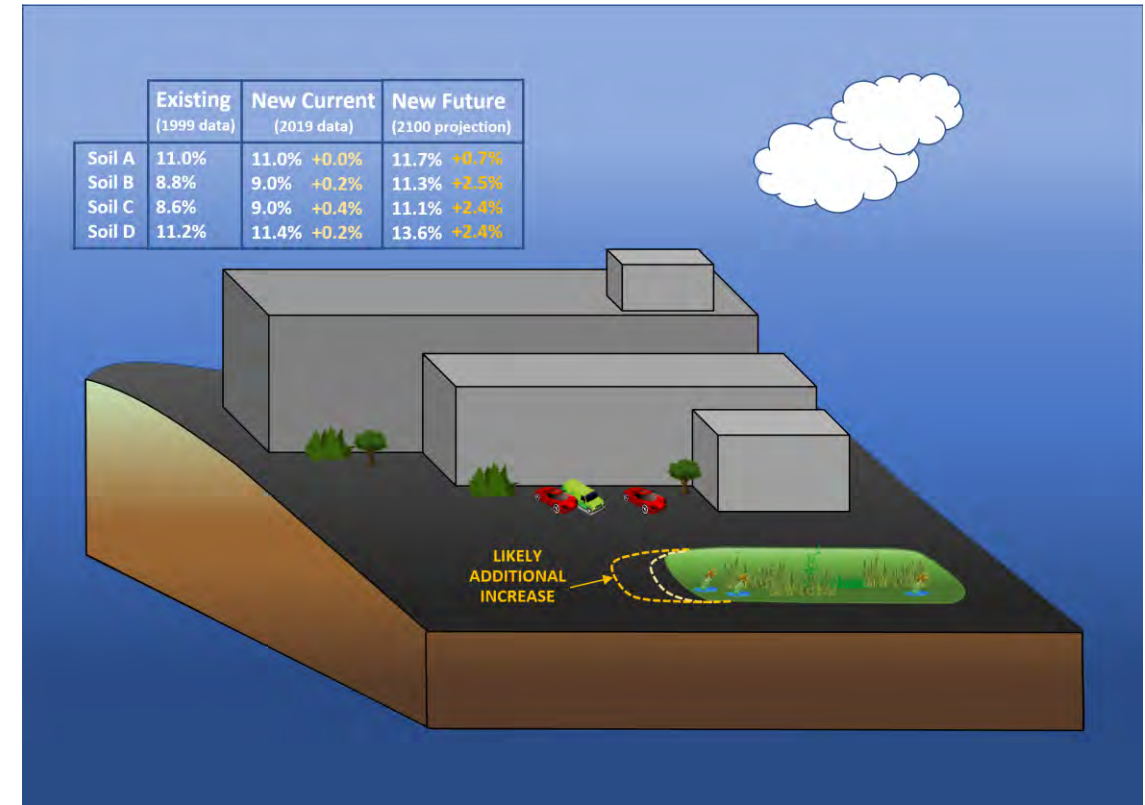
- The project needs an FHA, CZM, FWW or Highlands approval and a complete application for such was submitted to NJDEP prior to emergency rulemaking (See N.J.A.C. 7:8-1.6(b)2)
- OR
- The project does not need NJDEP approval and has received certain local approvals pursuant to the MLUL prior to emergency rulemaking (See N.J.A.C. 7:8-1.6(b)1)

Municipalities must amend their municipal stormwater ordinance within one year of the emergency rulemaking

- Projects covered by RSIS must meet new standards immediately (unless covered by N.J.A.C. 7:8-1.6(b)1)

IMPACT OF PROPOSED RULE ON STORMWATER MANAGEMENT

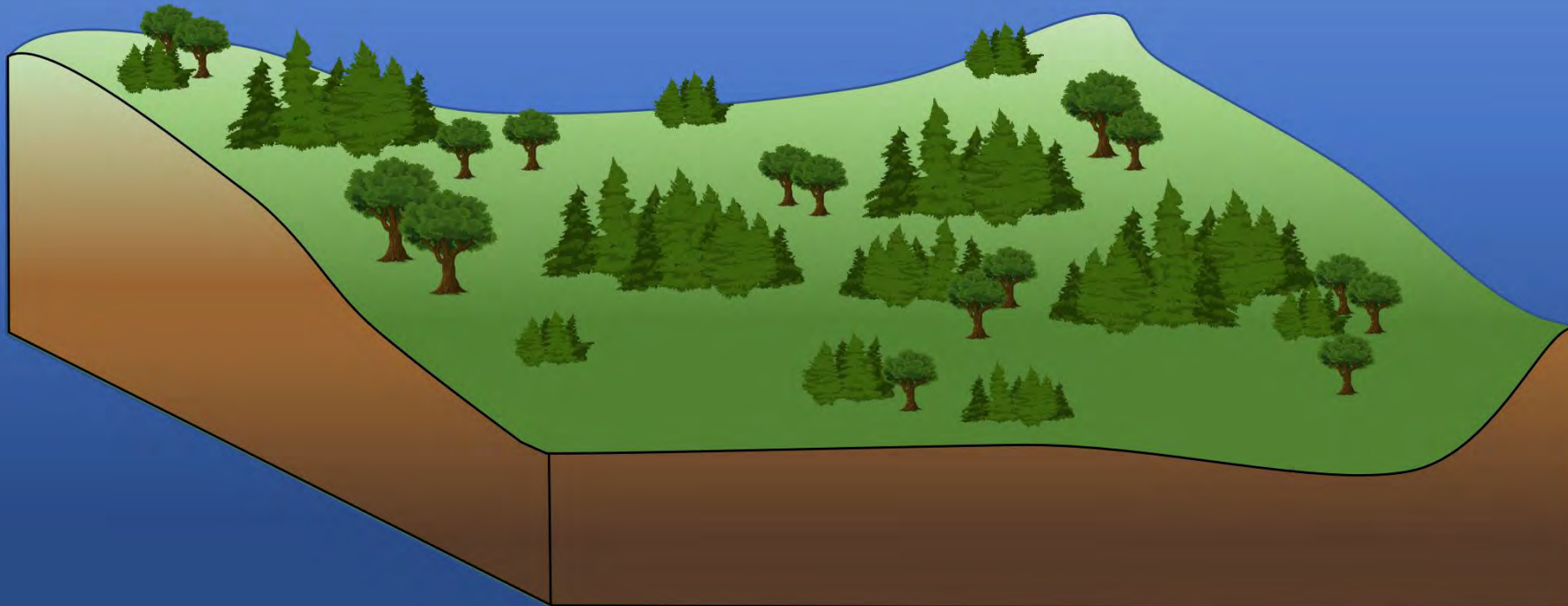
- Accounting for existing increased rainfall and preparing for likely further increases results in nominal additional effort or cost during development
- Greater runoff and flood control can be achieved, for example, with a 2% increase in the amount of property required for stormwater controls
- Regulation would be deployed consistent with Governor EO 100 approach of utilizing flexible standards commensurate with risk recognizing that no one-size fits all



EXAMPLE:

2.5 Acre Site

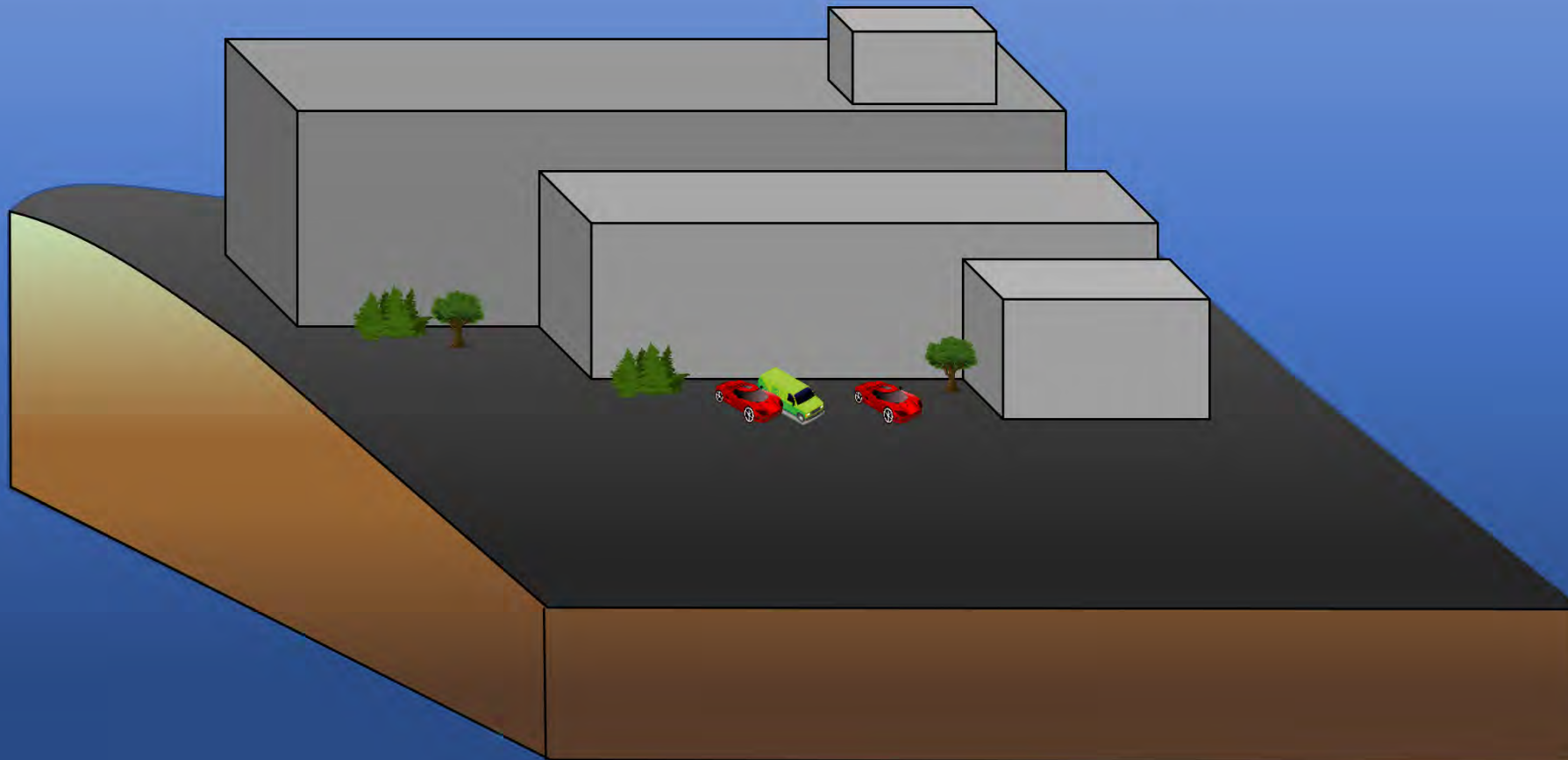
Existing Conditions: Forested and Undeveloped
Sussex County



EXAMPLE:

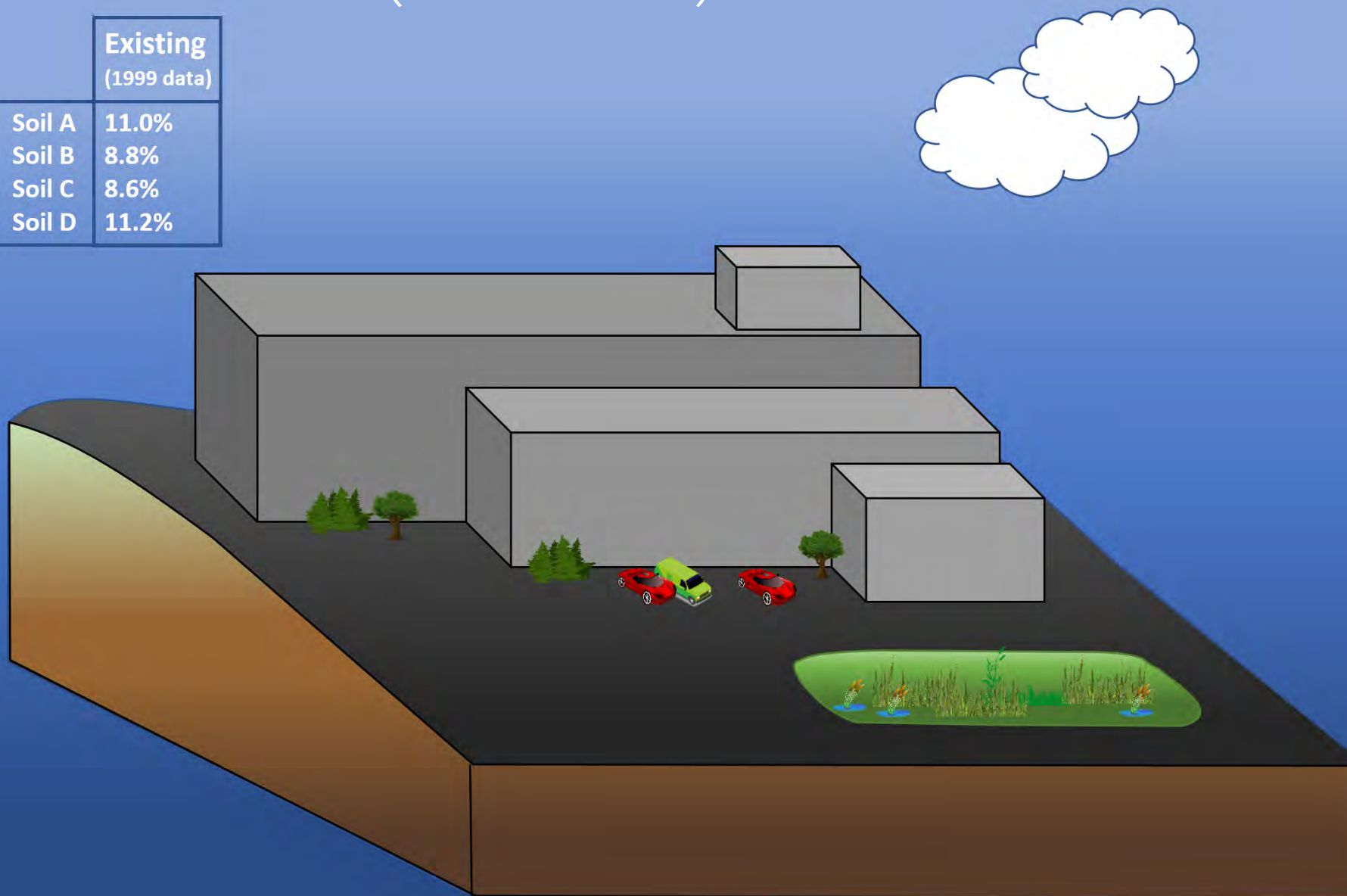
2.5 Acre Site

Proposed Conditions: Parking Lot and Warehouse
Sussex County



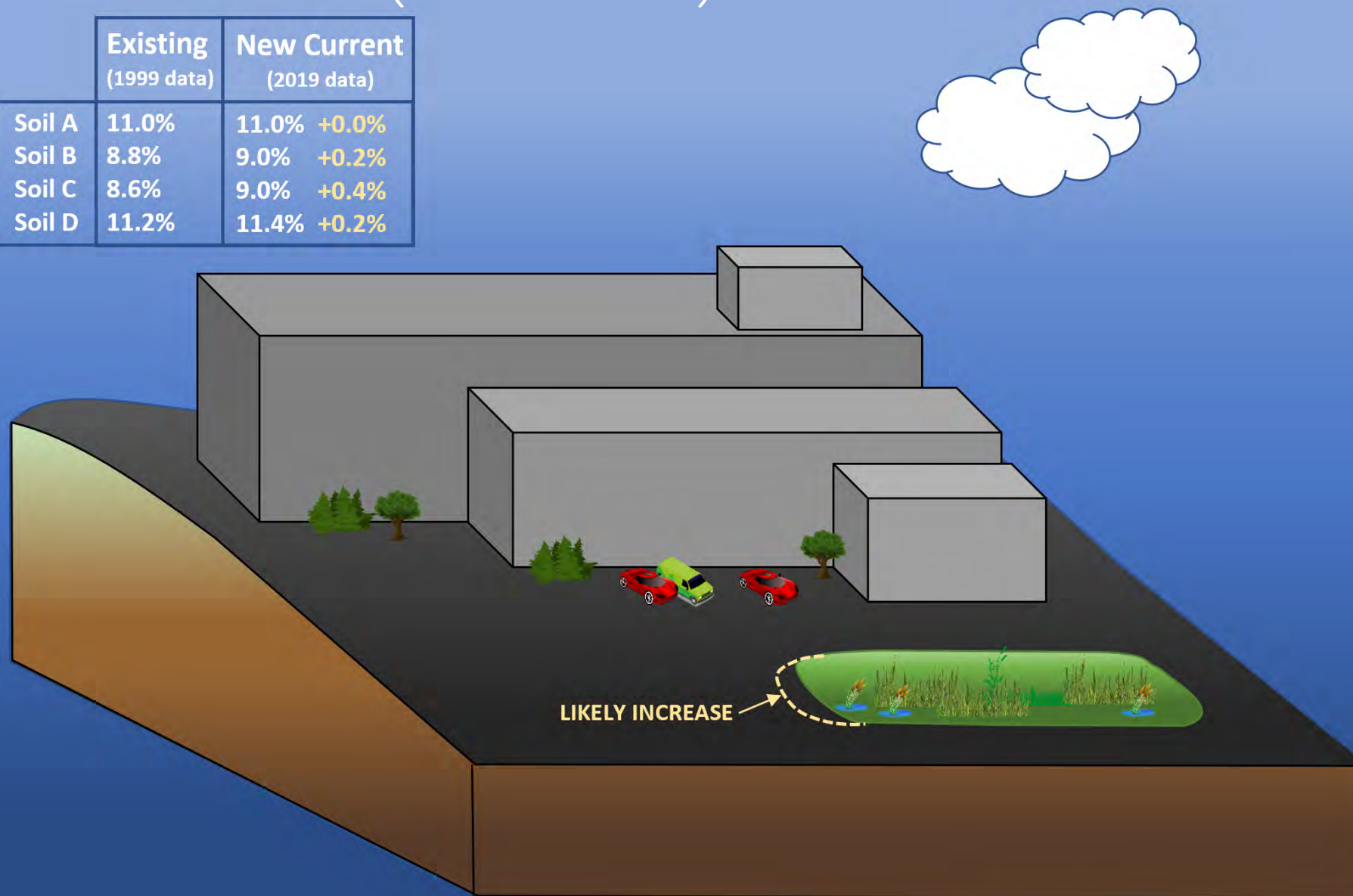
SIZE OF BMP (% OF SITE)

| | Existing (1999 data) |
|--------|-------------------------|
| Soil A | 11.0% |
| Soil B | 8.8% |
| Soil C | 8.6% |
| Soil D | 11.2% |



SIZE OF BMP (% OF SITE)

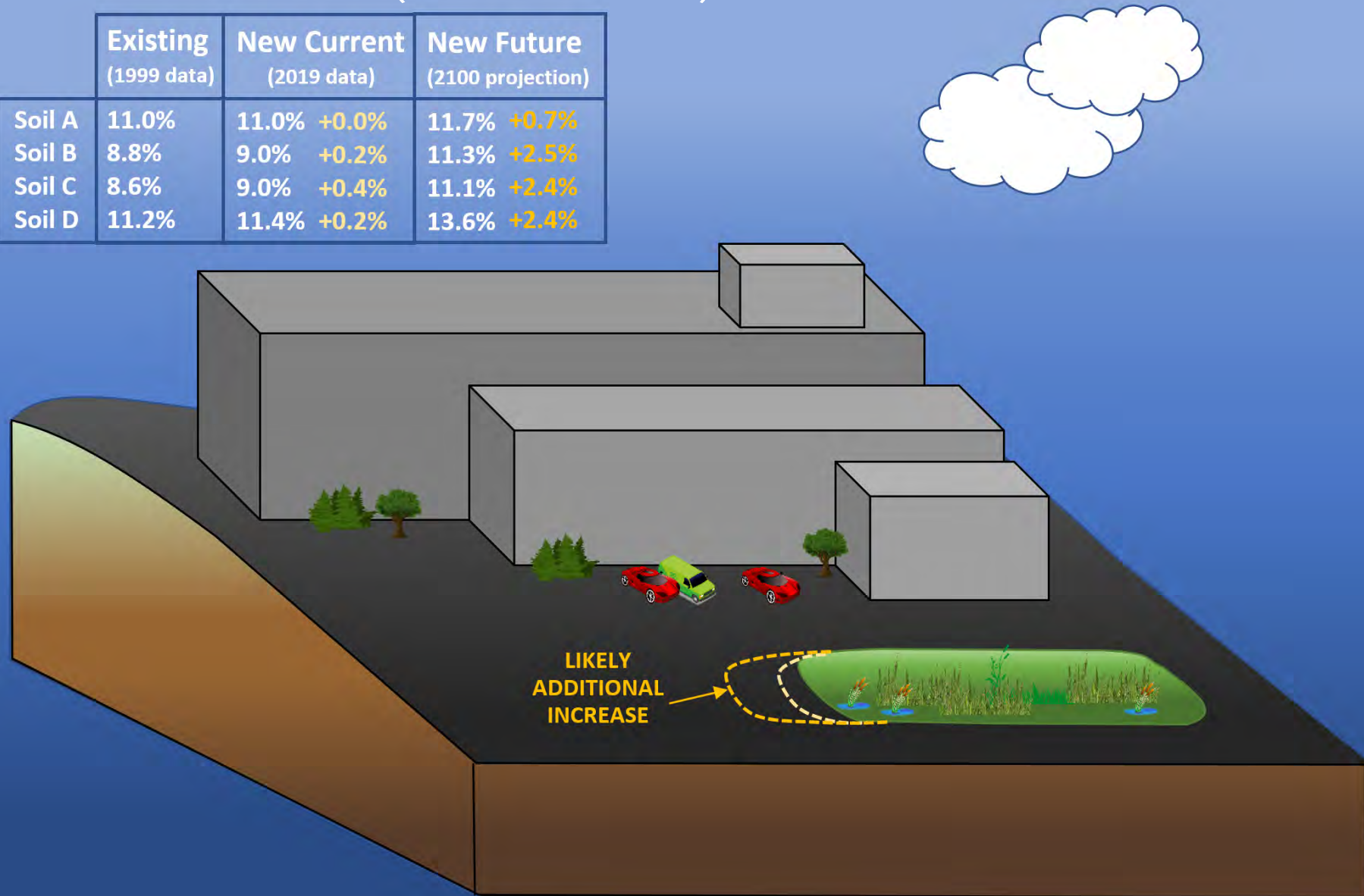
| | Existing (1999 data) | New Current (2019 data) |
|--------|-------------------------|----------------------------|
| Soil A | 11.0% | 11.0% +0.0% |
| Soil B | 8.8% | 9.0% +0.2% |
| Soil C | 8.6% | 9.0% +0.4% |
| Soil D | 11.2% | 11.4% +0.2% |



LIKELY INCREASE

SIZE OF BMP (% OF SITE)

| | Existing (1999 data) | New Current (2019 data) | New Future (2100 projection) |
|--------|-------------------------|----------------------------|---------------------------------|
| Soil A | 11.0% | 11.0% +0.0% | 11.7% +0.7% |
| Soil B | 8.8% | 9.0% +0.2% | 11.3% +2.5% |
| Soil C | 8.6% | 9.0% +0.4% | 11.1% +2.4% |
| Soil D | 11.2% | 11.4% +0.2% | 13.6% +2.4% |

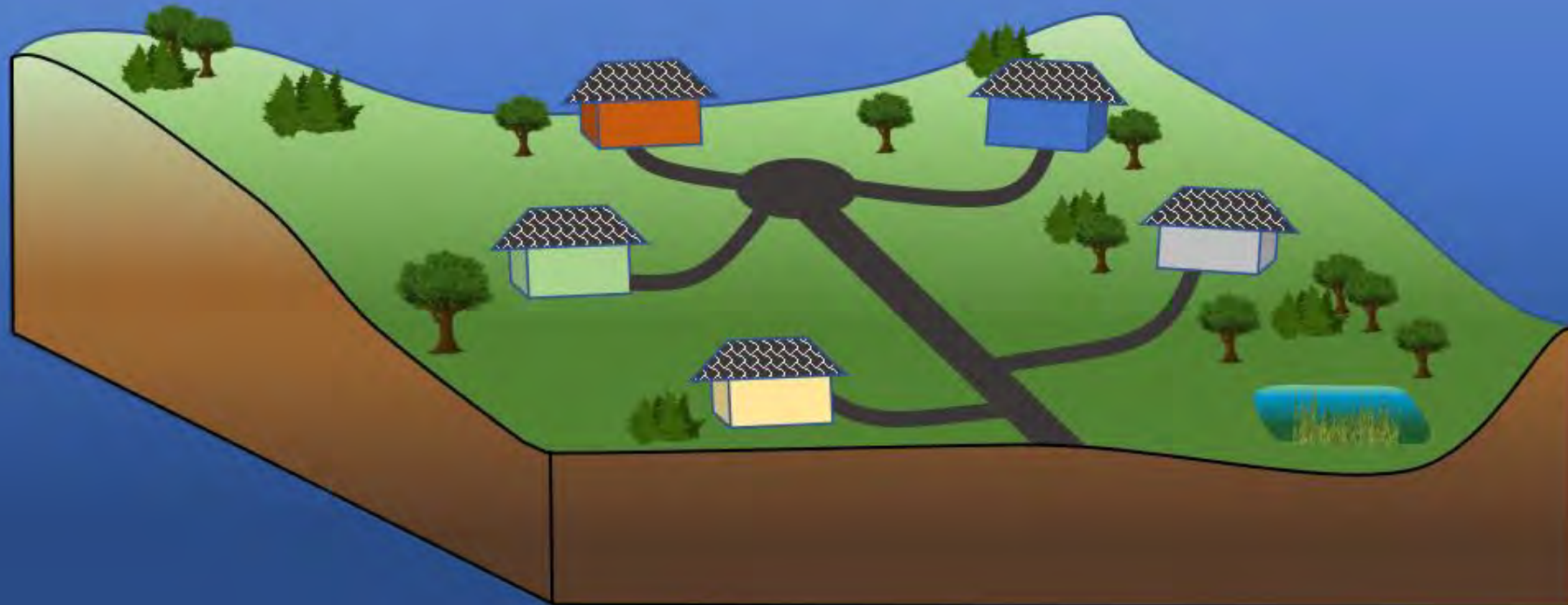


EXAMPLE:

2.5 Acre Site

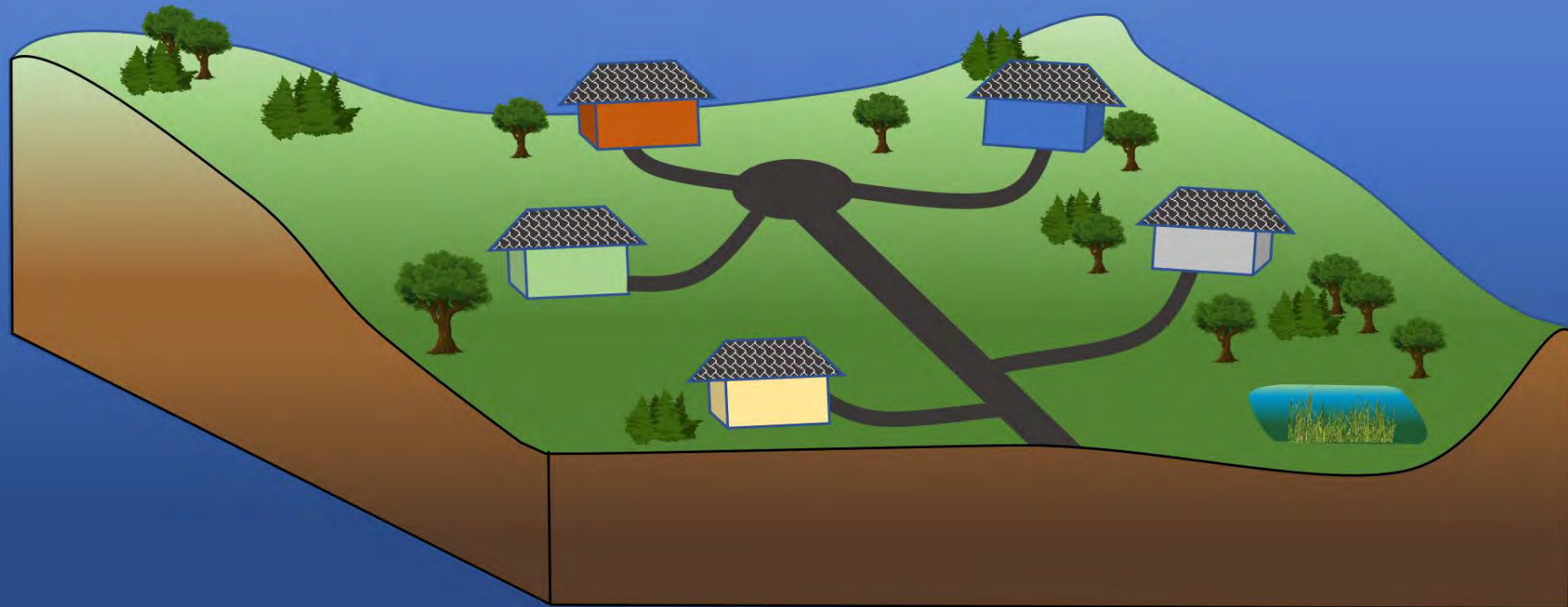
Proposed Conditions: Residential Subdivision
($\frac{1}{2}$ acre zoning)

Sussex County



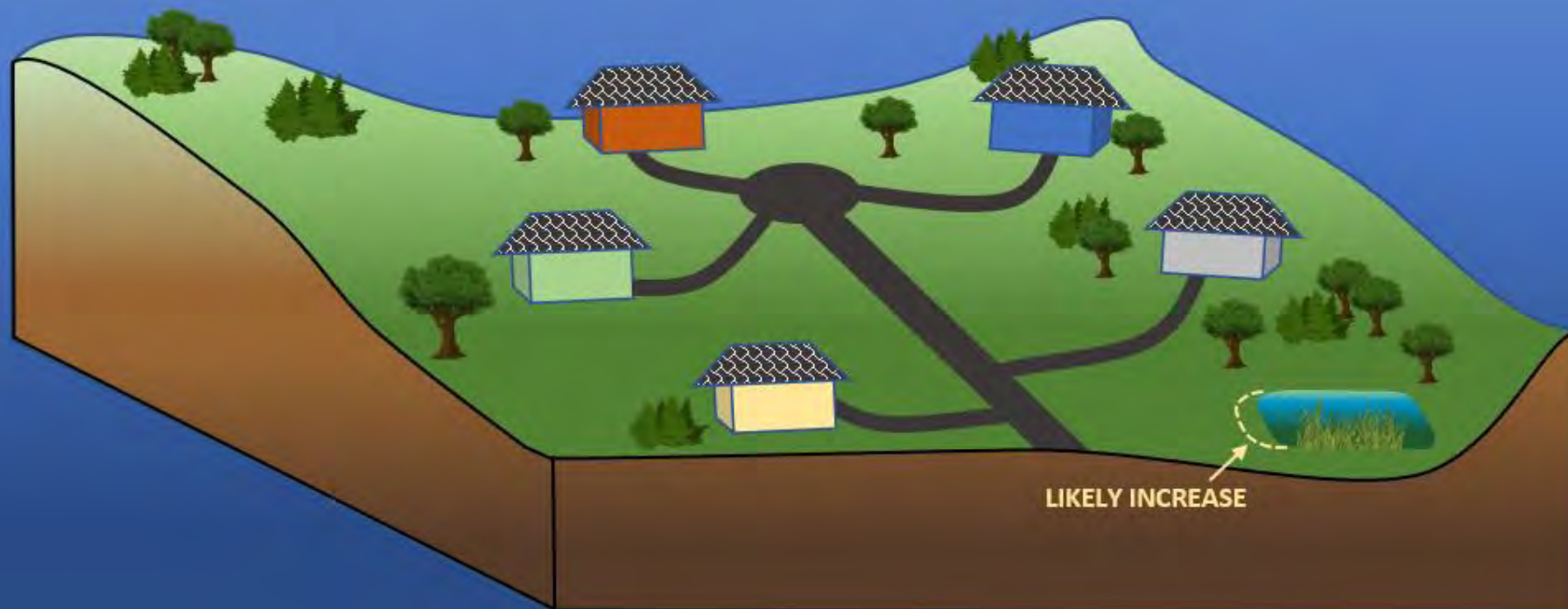
SIZE OF BMP (% OF SITE)

| | Existing (1999 data) |
|--------|-------------------------|
| Soil A | 4.1% |
| Soil B | 3.9% |
| Soil C | 4.3% |
| Soil D | 5.9% |



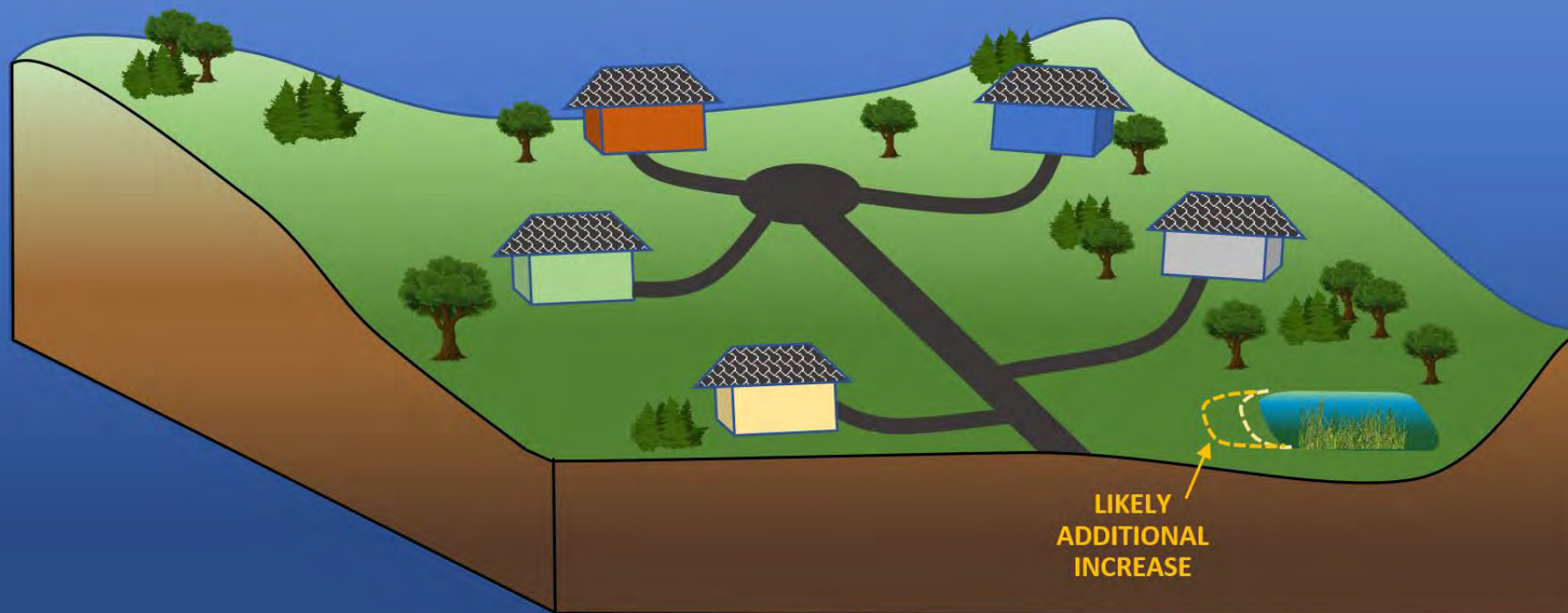
SIZE OF BMP (% OF SITE)

| | Existing (1999 data) | New Current (2019 data) | |
|--------|-------------------------|----------------------------|-------|
| Soil A | 4.1% | 4.1% | +0.0% |
| Soil B | 3.9% | 4.1% | +0.2% |
| Soil C | 4.3% | 4.5% | +0.2% |
| Soil D | 5.9% | 6.1% | +0.3% |



SIZE OF BMP (% OF SITE)

| | Existing (1999 data) | New Current (2019 data) | | New Future (2100 projection) | |
|--------|-------------------------|----------------------------|-------|---------------------------------|-------|
| Soil A | 4.1% | 4.1% | +0.0% | 4.8% | +0.7% |
| Soil B | 3.9% | 4.1% | +0.2% | 5.5% | +1.6% |
| Soil C | 4.3% | 4.5% | +0.2% | 5.8% | +1.6% |
| Soil D | 5.9% | 6.1% | +0.3% | 7.9% | +2.1% |





THANK YOU

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Reduce Disaster Suffering: Floodplain Management in a Risk Rating 2.0 World

Thomas Song | FEMA Region 2 | June 28, 2022



FEMA

What you see, is *not always* what you get



Abraham Wald

1902 – 1950



346,000

| CY | # IA Awards | Avg IA Payout | #Flood Ins Claims | Avg Claim Payout | Tot Claims Payout |
|------|-----------------|-------------------|-------------------|----------------------|-----------------------|
| 2021 | 44,164 | \$5,122 | 6,231 *ongoing | \$48,857 *ongoing | \$304.4 M *ongoing |
| 2020 | 9,757 *COVID | \$6,857 *COVID | 140 | \$18,739 | \$2.6 M |
| 2019 | | | 283 | \$23,651 | \$6.7 M |
| 2018 | | | 589 | \$34,153 | \$20.1 M |
| 2017 | | | 128 | \$28,602 | \$3.6 M |
| 2016 | | | 1,249 | \$21,507 | \$26.9 M |
| 2015 | | | 107 | \$14,955 | \$1.6 M |
| 2014 | | | 420 | \$17,542 | \$7.4 M |
| 2013 | | | 210 | \$12,046 | \$2.5 M |
| 2012 | 61,442 | \$6,883 | 68,530 | \$63,782 | \$4,371 M |
| 2011 | 49,280 | \$3,591 | 19,188 | \$34,076 | \$653.8 M |

13 Presidentially Declared NJ Disasters in past 11 years:

- Only 3 had Individual Assistance due to flooding (2020 COVID-19 Disaster was not a flood event)
- Remnants of Hurricane Ida claim payouts are 98% complete

Disaster assistance is designed to make a home “safe, sanitary and fit to occupy,” not to restore it to pre-disaster condition.

**statistics are not official and meant for informational purposes only*

Flood Insurance for Homeowners

EXTERIOR BUILDING COVERAGE

Drywall
Framing
Walls
Floors
Electrical systems
Insured building/foundation
Central A/C equipment
Window frames and panes

INTERIOR BUILDING COVERAGE

Furnaces
Cabinets
Water heaters
Window blinds
Debris removal
Some appliances
Permanently installed carpeting
Permanently installed bookcases

CONTENTS COVERAGE

if purchased separately

| | |
|----------------|----------------------------|
| Dresser | Mattress and frame |
| Clothing | Artwork (up to \$2,500) |
| Couches | Kitchen table and chairs |
| Food freezers | Clothes washers and dryers |
| TV/electronics | |



Basement Flooding

BUILDING COVERAGE

Basement items are covered under Building Coverage if they are connected to power and installed. Examples include:



Central Air
Conditioners



Electrical Outlets
and Light Switches



Furnaces and Hot
Water Heaters



Sump Pumps

CONTENTS COVERAGE

Basement items are covered under Contents Coverage if they are connected to a power source. Examples include:



Clothing Washers
and Dryers



Window Air
Conditioners



Freezers and
Contents

NOT COVERED

Items not specifically listed in the policy are not covered in a basement. Examples include:



Finished Basement
Home Improvements



Couches



Televisions



Family Photographs
or Keepsakes

Contents Insurance

Renters insurance typically doesn't cover flooding, and while a landlord may have flood insurance to protect the building, their insurance will not cover occupants' personal belongings.

A contents only flood insurance policy from the National Flood Insurance Program (NFIP) can fill gaps in coverage.



Flood insurance rates are determined for **each individual property** and **won't vary from company to company**, all things being equal.

Storm surge flooding spills into your bedroom

WHAT'S COVERED:

Clothing | Mattress | Bed frame/furniture | Artwork (up to \$2,500)

City drains backup from flooding into your bathroom

WHAT'S COVERED:

Bathmats | Shower curtains | Toiletries

Mudflow during a storm rushes into your kitchen

WHAT'S COVERED:

Kitchen table | Kitchen chairs | Kitchenware

Surface runoff from a storm overflows into your living room

WHAT'S COVERED:

Couches | Table/stands | Area rugs
TVs/electronics



Why Risk Rating 2.0: Equity in Action

Equity:

Individuals will **no longer pay more than their share** in flood insurance premiums based on the value of their homes.



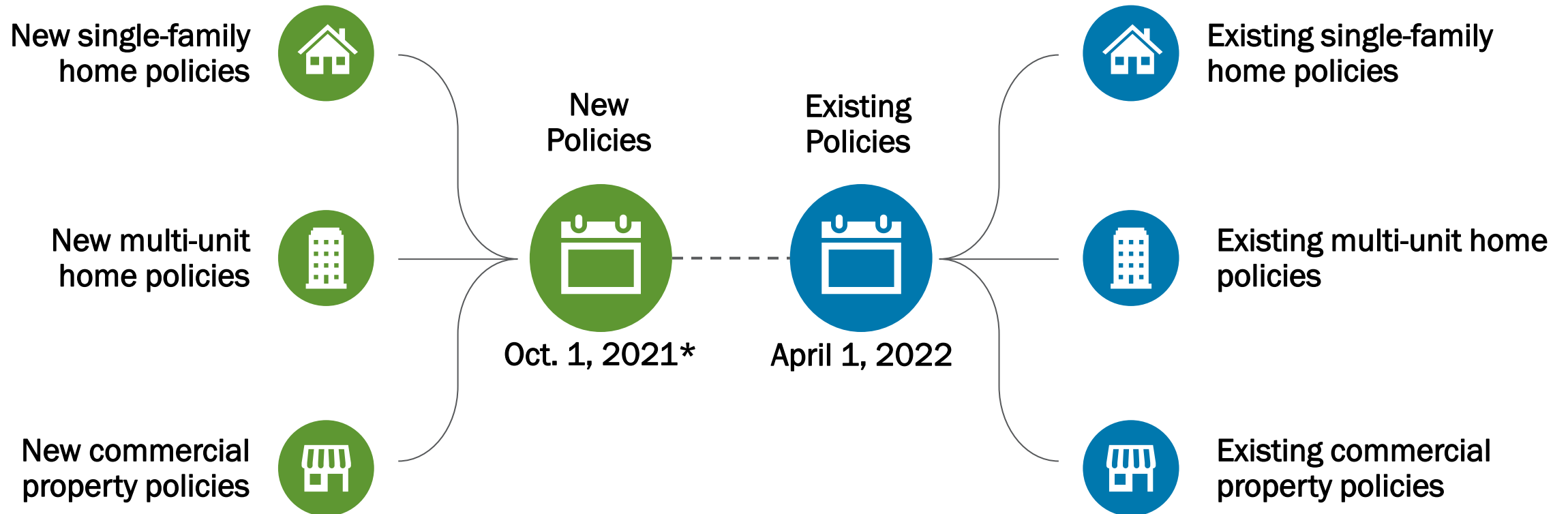
Roughly 2/3 of policyholders with older pre-FIRM homes will see a premium decrease.



FEMA

Federal Emergency Management Agency

Equity in Action – Phased Approach



Also beginning Oct. 1, 2021, existing policyholders eligible for renewal will be able to take advantage of immediate decreases in their premiums **at the time of renewal.*



FEMA

Federal Emergency Management Agency

Equity in Action premiums will more accurately reflect a property's unique flood risk by considering a broader range of variables.

Current Rating Methodology

FEMA-sourced data

Rating Variables

- Flood Insurance Rate Map Zone
- Base Flood Elevation
- Foundation Type
- Structural Elevation (Special Flood Hazard Area Only)

1% Annual Chance of Flooding (Frequency)

Fees and Surcharges



Risk Rating 2.0 Methodology*

FEMA-sourced data

Additional data sources: Federal government-sourced data, commercially available third-party

Cost to Rebuild

Rating Variables

- Distance to Coast/Ocean/River
- River Class
- Flood type — Fluvial/Pluvial
- Ground Elevation
- First Floor Height
- Construction Type/Foundation Type

Broader Range of Flood Frequencies

Fees and Surcharges

*Additional variables are not shown here



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Federal Emergency Management Agency

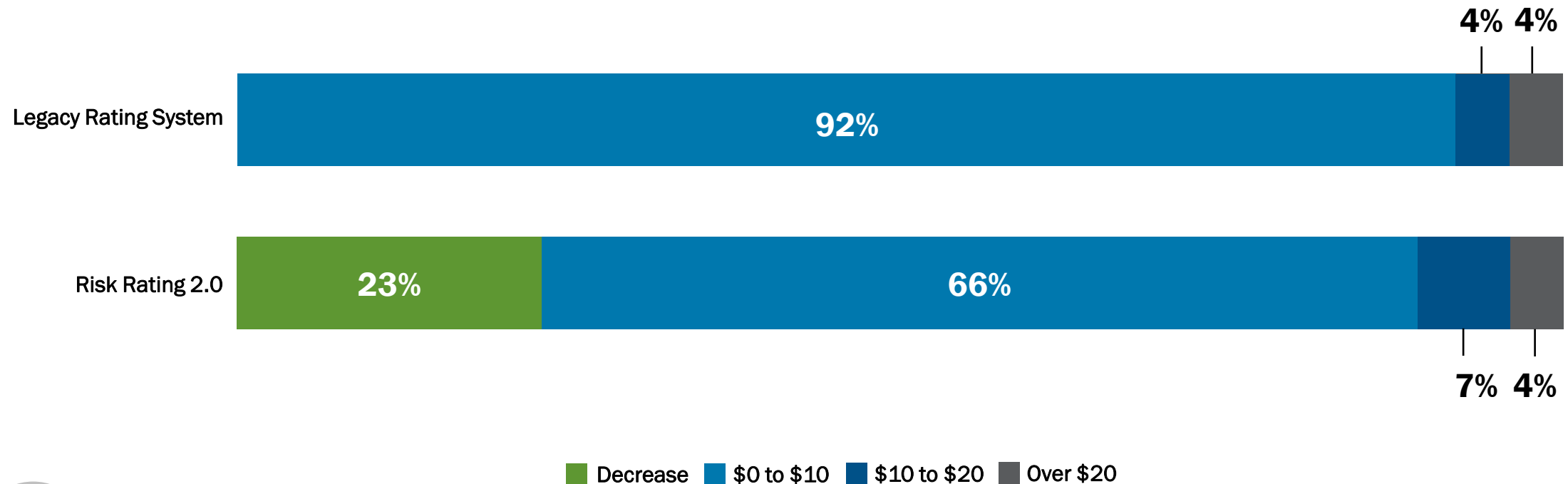
What is Not Changing

- Statutory rate caps on annual premium increases
- Availability of premium discounts
- Transfers of policy discounts to new homeowners
- Use of Flood Insurance Rate Maps (FIRMs) for mandatory purchase and Floodplain Management
- Availability of premium discounts for Community Rating System (CRS) participation



Legacy Rating System vs. Risk Rating 2.0

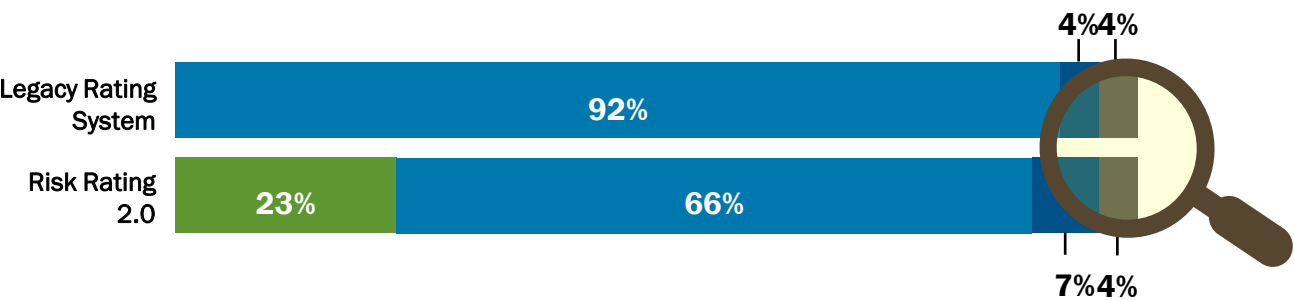
The graphs compare rate analysis under the legacy rating system to the Risk Rating 2.0 rating system.



FEMA

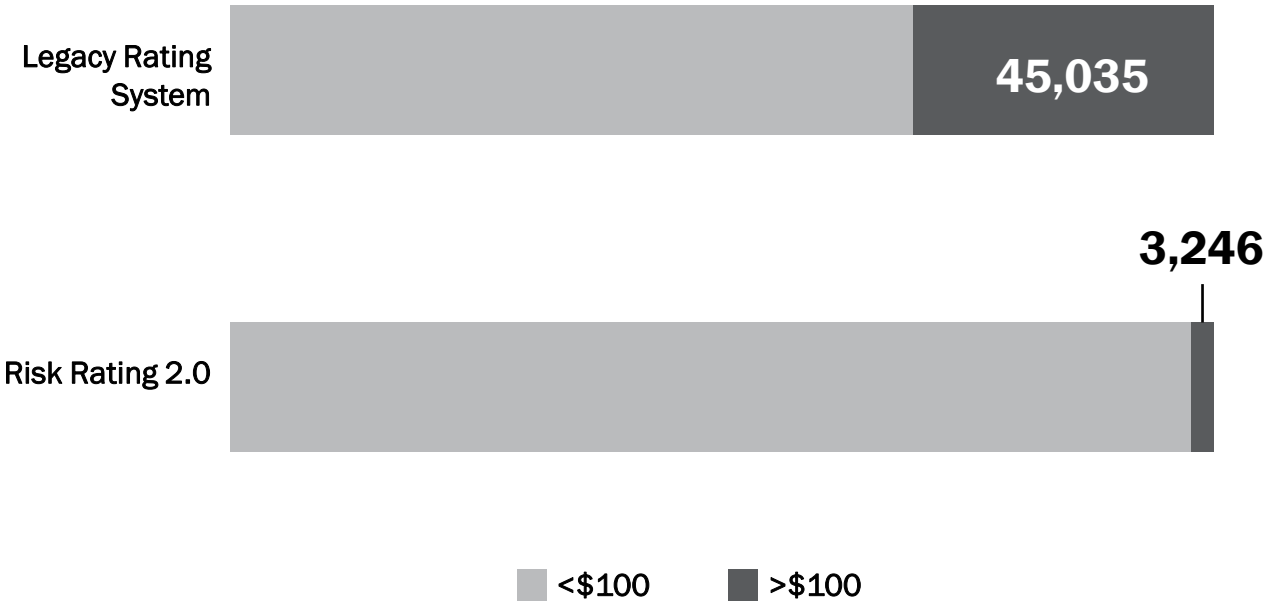
Federal Emergency Management Agency

Legacy Rating System vs. Risk Rating 2.0 – Policies Increasing >\$100/Month



Zoom in on Policies Increasing >\$100/Month

- Under the legacy rating system, **45,035** policyholders have seen premium increases of more than \$100 per month. The single-family homeowners in this group have an average replacement cost value (RCV) of **\$399,643**.
- Under Risk Rating 2.0: Equity in Action, only **3,246** policyholders will see premium increases of more than \$100 per month. The single-family homeowners in this group have an average RCV of **\$1,064,537**.



FEMA

What can policyholders with steep flood insurance costs today expect under Risk Rating 2.0?

| Methodology | Single-Family Home Maximum Policy Cost* |
|------------------------------|--|
| Legacy Rating Methodology | \$45,925 |
| Risk Rating 2.0 | \$12,125 |

Policyholders paying the most under the legacy methodology will see dramatic decreases when they transition to Risk Rating 2.0.



*Amounts shown include premium, fees, assessments, and surcharges

Equity in Action – Resource Investments

TECHNOLOGY: Cutting-edge technology and **best available data** used to make a **modern-day program**:

Private Sector
Rate Setting Methods



Private Sector
Catastrophe Models



Government Models, Available
Data, and Collaborations



FEMA



US Army Corps
of Engineers®



FEMA

Federal Emergency Management Agency

Equity in Action - Endorsements



“Based on FEMA's nationwide analysis, Risk Rating 2.0 will help ensure NFIP policyholders pay a **rate proportionate to their property risk**. The new initiative will also help FEMA identify and target mitigation grant dollars to the highest risk properties.”

NAR includes 1.4 million brokers, salespeople, property managers, appraisers, counselors, and others engaged in all aspects of the real estate industry.



“Pew fully supports FEMA’s updated approach and concludes that **Risk Rating 2.0 will better align rates with risk, create a fairer program, increase transparency and understandability, and encourage additional mitigation from policyholders and communities.**”



FEMA

Equity in Action – In the Press



Opinion: *Stopping price reform won't eliminate flood risk* ★ 4/2/2021



FEMA

“Better preparing the NFIP for the realities of climate change is an important policy task in the coming years.

Risk Rating 2.0 is the first critical step.”

*This article was written by Carolyn Kousky, executive director at the Wharton Risk Management and Decision Processes Center at the University of Pennsylvania

Equity in Action – In the Press

WSJ | OPINION

Op-ed: *A Step Toward Flood Insurance Fairness* ★ 6/25/2021

“Better pricing will help taxpayers ... More reform is needed ... But letting FEMA's changes move forward would be a small step toward fairness and solvency.”

*This article was written by WSJ's editorial board.



FEMA



Photo Credit: Mario Tama/Getty Images

Equity in Action – Industry Support

“We oppose efforts to delay this important initiative.”

Risk Rating 2.0...

- 1.2 million policyholders eligible for insurance premium decrease
- 90% will see a decrease or increase or less than \$10 a month
- More accurate and equitable way to determine a property’s unique flood risk
- Provide property owners information on their full risk rate

- American Rivers
- Association of State Floodplain Managers
- Enterprise Community Partners, Inc.
- League of Conservation Voters
- National Association of Mutual Insurance Companies
- National Institute of Building Sciences
- Natural Resources Defense Council
- National Wildlife Federation
- National Taxpayers Union
- R Street Institute
- Reinsurance Association of America
- SmarterSafer
- Smart Home America
- Taxpayers for Common Sense
- The American Consumer Institute
- The Pew Charitable Trusts



FEMA

Community Rating System (CRS) Discount

- Communities will continue to earn rate discounts of 5% - 45% on NFIP policies
- The discount will be uniformly applied to all policies in the community, that includes structures OUTSIDE the Special Flood Hazard Area.
- Post-FIRM minus rated policies will be excluded from the CRS discounts.





**NOT JUST A PRODUCT
BUT A PROGRAM**

Benefits of a NFIP policy:

- Policy holders cannot be dropped
- Policy cap is at \$12,125 for single-family homes
- Policies are transferable
- Mitigation credits
- Community Rating System (CRS) discounts
- Eligibility factor for certain FEMA Grant Programs (administered by the NJ Office of Emergency Management)
- Increased Cost of Compliance (ICC)

Affordability

- The 2018 Affordability Framework is guiding policy conversations
- The President's FY22 Budget includes a legislative proposal to provide affordability assistance
- A targeted assistance program would support low to moderate income policyholders
- We will continue to engage with Congress to reduce barriers to purchasing flood insurance



NFIP Marketing Content

Available Content

- Social Media Posts
- Social Media Calendars
- Videos
- Talking Points
- Drafted Email Templates
- Email Headers
- Multilingual Resources
- Webinars
- Trainings
- Articles

Links to Bookmark

- [Agents.Floodsmart.gov](https://agents.floodsmart.gov)
- [NFIP LinkedIn](#)
- [Resource Library](#)
- [Available Trainings & Webinars](#)
- [NFIP Articles](#)
- [NFIP Marketing Campaigns](#)



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Equity in Action – Learn More

Explore more about Risk Rating 2.0 – Equity in Action by visiting www.fema.gov/nfiptransformation.

Available Products and Resources

- [Equity in Action Fact Sheet](#)
- [Video: Defining a Property's Unique Flood Risk](#)
- [National Rate Analysis](#)
- [State Profiles](#)
- [ZIP Code-Level Data](#)
- [County-Level Data](#)
- [Methodology Data Source](#)
- [Premium Calculation Worksheet Examples](#)
- [Appendix D Rating Factors](#)



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Questions

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ADDITIONAL RESOURCES

Resources

General NFIP Resources

- [Community Rating System | FEMA.gov](#)
- [Flood Insurance | FEMA.gov](#)
- [FloodSmart | Why Buy Flood Insurance?](#)
- [FloodSmart | The National Flood Insurance Program](#)
- [The National Flood Insurance Program | FloodSmart | NFIPServices | Flood Insurance Data and Analytics](#)

Risk Rating 2.0 Resources

- [Risk Rating 2.0: Equity in Action | FEMA.gov](#)
- [Equity in Action Fact Sheet](#)
- [FloodSmart | Risk Rating 2.0: Equity in Action](#)
- [Renewing Flood Insurance Policies Under Risk Rating 2.0: Equity in Action](#)
- [Risk Rating 2.0 Equity in Action Phase II - Transition of Current Policies PowerPoint Slides](#)

Risk Rating 2.0 Technical Resources

- [FEMA Risk Rating Methodology and Data Report January 2022](#)
- [Risk Rating 2.0 Methodology and Data Sources - Premium Calculation Worksheet Examples](#)
- [Risk Rating 2.0 Methodology and Data Sources - Appendix D Rating Factors](#)
- [Levees in Risk Rating 2.0 \(fema.gov\)](#)

Premium Changes Under Risk Rating 2.0

- [Risk Rating 2.0 State Profiles | FEMA.gov](#)
- [State Totals: Projected Risk Rating 2.0 Premium Changes - All NFIP & SFH Policies \(arcgis.com\)](#)
- [All Policies by Zip Code: Projected Risk Rating 2.0 Premium Changes \(arcgis.com\)](#)
- [SFH Policies by Zip Code: Projected Risk Rating 2.0 Premium Changes \(arcgis.com\)](#)