



# 2026 New Jersey Coastal & Climate Resilience Conference

Tuesday March 10, 2026 / 02:15 PM - 02:30 PM

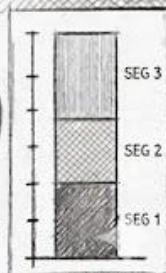
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*User-Funded Nature-Based  
Solutions for Coastal Resilience:  
A Pragmatic Financing ...*

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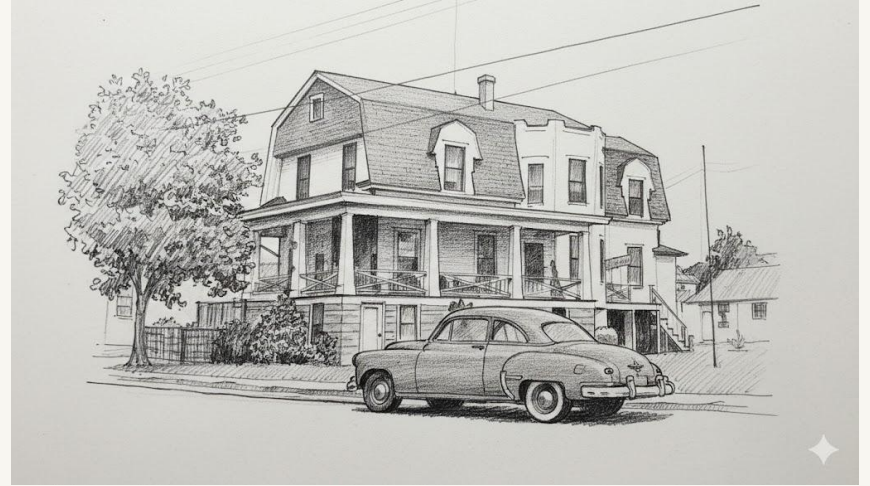


Marty





*Fortescue, NJ — Delaware Bay, c. 1950s*



*Wildwood Crest, NJ — c. 1950s*

***This is what we are protecting.***

# CAPE MAY: THE FEDERAL MATH

14

years since  
Sandy (2012)

\$24.3M

FEMA grant for  
a few hundred feet

Not done

gaps remain on  
Delaware Bay side

## What the record actually shows — not a projection, not an extrapolation:

Cape May has worked longer and spent more per foot than almost any NJ town. They are still not fully protected. That is the argument.

**Feb 13, 2026:** \$24.3M FEMA Flood Mitigation Assistance grant authorized — east end only (Wilmington Ave area). Congressman Van Drew. City advisory committee mandated to continue exploring further extensions. *Source: FEMA FMA Grant Authorization Feb. 13, 2026 · Cape May County Herald*

# THREE CHOICES - 15yr NPV

	DO NOTHING	NATURE-BASED	STRUCTURAL (Seawall)
Investment (capital + maintenance)	\$0	\$11.0M	\$523.1M
Storm losses (15-yr NPV)	\$322.5M	\$48.4M	\$12.1M
Beach erosion / scouring (15-yr NPV)	\$21.2M	\$6.4M	\$70.8M
<b>15-YEAR TOTAL</b>	<b>\$343.7M</b>	<b>\$65.8M</b>	<b>\$606.0M</b>

Nature-based costs **\$278 million less** than Do Nothing over 15 years.  
Nature-based costs **\$540 million less** than Structural (seawall) over 15 years.

# CURRENT SYSTEM → DIFFERENT QUESTION

## THE CURRENT SYSTEM

Federal replenishment covers losses after storms

*Reactive — no asset built*

No incentive to invest in prevention

*Prevention cost falls entirely on towns*

Risk priced incorrectly (or not at all)

*Insurance doesn't distinguish protected vs. unprotected*

Result: \$343.7M in 15-yr loss

*Zero durable protection to show for it*

### ▼ DIFFERENT QUESTION ▼

## THE FRAMEWORK

What does durable protection cost?

Investment replaces loss — asset built

Who benefits — and who should pay?

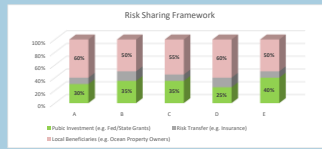
Beneficiaries bear proportionate share

Savings: \$278M vs. doing nothing

**This isn't cost-shifting — it's waste elimination.**

# PRAGMATIC FINANCING FRAMEWORK

Who pays · how much · when you can start



Illustrative Ocean Facing Town about 2 miles ocean front					
\$ Per Year	0	0	0	0	0
Local	\$2,375,204	\$1,979,336	\$2,177,270	\$2,375,204	\$1,979,336
ThirdParty	\$395,867	\$593,801	\$395,867	\$593,801	\$395,867
Public	\$1,187,602	\$1,385,535	\$1,385,535	\$989,668	\$1,583,469
	<b>\$3,958,673</b>	<b>\$3,958,673</b>	<b>\$3,958,673</b>	<b>\$3,958,673</b>	<b>\$3,958,673</b>

TIER	CONSERVATIVE SCENARIO	OPTIMISTIC SCENARIO
<b>Beneficiaries</b>	<b>50–60%</b> Property assessments · impact fees accommodation surcharge	<b>60–70%</b> Same + broader regional cost-sharing
<b>Risk Transfer</b>	<b>10–15%</b> Insurance premium reductions parametric cat bonds	<b>20–25%</b> NbS-linked discounts · broader market uptake
<b>Public</b>	<b>25–40%</b> NOAA / FEMA / HUD grants hardship provisions	<b>10–15%</b> Same — reduced as private share grows

## WHEN YOU CAN START

<b>NOW</b>	Property assessments · accommodation surcharge · beach/parking fees · development impact fees
<b>2–3 YR</b>	Insurance premium reductions · NbS-linked discounts · parametric cat bonds
<b>NEGOTIATE</b>	NOAA / FEMA / HUD grants · hardship provisions · regional coordination

*Some of this you can do before your next council meeting. Knowing the difference is the whole game.*

# NJ COASTAL RESILIENCE TOOL

## Mayor / Town Council

Beach tags are political — what's the minimum increase that covers the bond? Plug in visitor count. The tool tells you.

## State / Federal Official

Which towns have highest risk and weakest capacity? Compare two towns side by side. Thirty minutes each.

## Lender / Securitization

What's the asset-level resilience case? The financing framework was built with you in mind.

## Grant Applicant

How do I show local commitment without a property tax increase? Run fee scenario. Print surplus line. That's your application.

## Insurer / Bond Underwriter

What's the risk profile before and after investment? Section 3 shows who bears loss under each scenario.

## Skeptic

I think this is wrong. Good. I want to hear that.

EXECUTIVE SUMMARY — The Numbers That Matter				
Auto-populated from INPUTS   Print for council   Plain English labels throughout				
Municipality: Cape May Illustrative   Mayor:   County: Cape May   Date: March 10, 2026				
METRIC / OUTCOME	NJ STATEWIDE	YOUR TOWN	Methodology note	
<b>SECTION 1 — WHAT IS AT RISK</b>				
Total coastal property value at risk	\$14,450,000,000	\$325,000,000	Properties x market value by risk tier — held constant at today's value, excludes appreciation and climate risk scenarios (see ANALYST notes)	
15-year expected Sandy-level storm hits	1.0	1.0	Region-adjusted return period from INPUTS	
Annual expected property loss — no protection	\$337,166,667	\$12,250,000	35% blended loss rate (80/50/20% across risk tiers, probability-weighted)	
<b>SECTION 2 — BEACH ECONOMICS (annual cost even without a major storm)</b>				
Annual beach value lost — natural erosion (no action taken)	\$18,450,000	\$1,845,000	Miles x ft/yr natural loss x beach economic value per foot	
Annual beach value lost — IN FRONT of seawall (wave scouring)	\$61,500,000	\$6,150,000	Seawall reflects wave energy onto fronting beach — accelerates erosion 3x	
Beach tag + parking fee revenue potential (annual)	N/A — statewide	\$1,900,000	Accommodation fee + day-tripper parking — earmarked for coastal protection	
Beach fee net vs. annual erosion cost (positive = fees cover it)		\$55,000	This is the mayor's beach tag political rationale — can fee revenue cover erosion loss?	
<b>SECTION 3 — 15-YEAR COST COMPARISON (total cost of each decision)</b>				
15-yr total cost. DO NOTHING (accumulated storm losses)	\$8,876,084,664	\$322,487,505	15-yr unprotected storm losses, probability-weighted and discounted	
15-yr total cost. NATURE-BASED (project + residual risk, Scenario C)	\$1,530,137,812	\$59,380,090	Beach nourishment + dune NPV + remaining residual risk (threshold model)	
15-yr total cost. STRUCTURAL SEAWALL (capital + maint + beach scouring loss)	\$38,606,716,714	\$593,949,488	Seawall capital/maint NPV + accelerated beach erosion economic loss NPV	
<b>SAVINGS: nature-based vs. structural</b>	<b>\$37,076,578,902</b>	<b>\$534,569,398</b>	How much more expensive the seawall option is over 15 years	
<b>SAVINGS: nature-based vs. do nothing</b>	<b>\$7,345,946,852</b>	<b>\$263,107,415</b>	Positive = nature-based costs LESS than doing nothing — the investment case	
<b>Nature-based savings as % of total asset value at risk</b>	<b>256.6%</b>	<b>101.8%</b>	How large is the savings relative to what is actually at stake	
<b>SECTION 4 — CAN YOUR TOWN FINANCE THIS?</b>				
15-yr project NPV (nature-based, your miles)	See B-STATE STORY	\$11,006,964	Your coastline x dune cost NPV	
Annual Tier 1 local target (YOUR % / 10-yr bond)	N/A	\$605,383	15-yr NPV x your Tier 1 % / 10-yr bond	
Annual beach fees + impact fee revenue	N/A	\$2,200,000	Accommodation fee + day-tripper fee + development impact fees	
<b>FINANCING GAP or SURPLUS (annual — positive = surplus)</b>	<b>N/A</b>	<b>\$1,594,617</b>	Positive: local fees cover Tier 1. Negative: property assessment needed.	
"It was painfully obvious — the dunes worked." — Stewart Farrell, Stockton Coastal Research Center, after Sandy 2012				
"South Seaside Park (dunes): minimal damage. Seaside Heights (no dunes): lost its boardwalk and pier."				

## Contact me if you want to see your numbers per the Excel tool

- If you represent a town — I will show you your numbers in 30 minutes.
- If you work in grants — I want to understand what applicants need.
- If you work in state or federal policy — I want to show you what towns actually face.
- If you're in insurance or risk transfer — the loss allocation model is worth your time.
- If you work in lending, securitization or bond markets — the financing framework was built with you in mind.
- **If you think this is wrong — I want to hear that too.**



ClickToTab	Description
1	Mayor's Appointment Worksheet
2	The Numbers That Matter
3	Enter Your Assumptions
4	Your Town's Exposure
5	Why Federal Rescue Cannot Scale
6	Your Town's Three Choices
7	Can Your Town Pay For This?
8	Done Effectiveness & Sensitivity
9	Done Effectiveness & Sensitivity



Category	Value
Exposure	1000000
Costs	500000
Revenue	200000
Net Cost	300000

*I'll bring coffee. Thirty minutes. Your numbers.*

DASHBOARD

INTAKE

EXECSUMM

INPUTS

A · RISK

B · STATE

C · COSTS

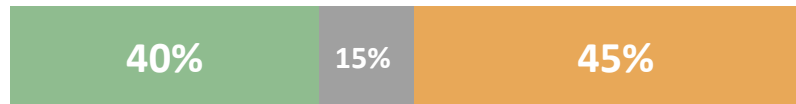
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E · SCENARIOS

*Every number in this presentation traces to a cell in one of these tabs.*

# YOUR VOICE ON COASTAL FUNDING

## Poll Results — Mapped to Framework



### Framework target:



Gap: 10% below framework on Beneficiaries, 5% above on framework on Public

## The Key Insight

"Allow nature to take its course" is not a non-answer.  
Property owners still pay — in damage rather than prevention.

The question is not WHO pays. It is whether beneficiaries pay through ACTION or through REACTION.

48 of 448 participants (11%) have responded so far.  
These results are early — and that is why your voice matters.

Answer the poll in the Whova app — I will share updated results post-conference.

## Raw Poll Responses (17 respondents, check two)

Response	Count	%	Framework Category
Property owners in coastal risk area	28	58%	Beneficiaries
Insurance companies	14	29%	Risk Transfer
Federal/state grants	36	75%	Public
All of state residents	4	8%	Public
All equally (no primary)	3	6%	Public
Allow nature to take its course	10	21%	Beneficiaries *

\* "Allow nature" = property owners absorb cost through damage, not prevention — still beneficiary-funded.