
Committee Meeting

of

SENATE ENVIRONMENT AND ENERGY COMMITTEE
and
ASSEMBLY ENVIRONMENT AND SOLID WASTE COMMITTEE

“The Committees will receive testimony from invited speakers concerning the Department of Environmental Protection’s recently adopted “Protecting Against Climate Threats - Resilient Environments and Landscapes” (NJ PACT-REAL) rules and regulations”

LOCATION: Committee Room 4
State House Annex
Trenton, New Jersey

DATE: April 22, 2026
11:00 a.m.

MEMBERS OF COMMITTEE PRESENT:

Senator Bob Smith, Chair
Senator Linda R. Greenstein, Vice Chair
Senator Carmen F. Amato, Jr.

Assemblyman James J. Kennedy, Chair
Assemblyman Paul Kanitra
Assemblyman Antwan L. McClellan



ALSO PRESENT:

Madelynn K. Correnti
Eric Hansen
Christina Denney
Patrick Raya
*Office of Legislative Services
Committee Aides*

Sadie Novak
Celia Smits
*Senate Majority
Committee Aides*

Thea Sheridan
*Senate Republican
Committee Aide*

Elizabeth Theodore
*Assembly Majority
Committee Aide*

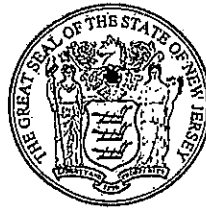
Brett Philip
*Assembly Republican
Committee Aide*

***Meeting Recorded and Transcribed by
The Office of Legislative Services, Public Information Office,
Hearing Unit, State House Annex, PO 068, Trenton, New Jersey***

Bob Smith
Chair

Linda R. Greenstein
Vice-Chair

John F. McKeon
Parker Space
Latham Tiver



Madelynn K. Correnti
Eric Hansen
Office of Legislative Services
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NEW JERSEY LEGISLATURE

SENATE ENVIRONMENT AND ENERGY COMMITTEE

STATE HOUSE ANNEX · P.O. BOX 068 · TRENTON, NJ 08625-0068
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COMMITTEE NOTICE

TO: MEMBERS OF THE SENATE ENVIRONMENT AND ENERGY COMMITTEE

FROM: SENATOR BOB SMITH, CHAIRMAN

SUBJECT: COMMITTEE MEETING - APRIL 22, 2026

The public may address comments and questions to Madelynn K. Correnti, Eric Hansen, Committee Aides, or make bill status and scheduling inquiries to Stephanie Cenneno, Secretary, at (609)847-3855 or e-mail: OLSAideSEN@njleg.org. Written and electronic comments, questions and testimony submitted to the committee by the public, as well as recordings and transcripts, if any, of oral testimony, are government records and will be available to the public upon request.

The Senate Environment and Energy Committee and the Assembly Environment and Solid Waste Committee will meet jointly on Wednesday, April 22, 2026 at 11:00 AM in Committee Room 4, 1st Floor, State House Annex, Trenton, New Jersey.

The committees will receive testimony from invited speakers concerning the Department of Environmental Protection's recently adopted "Protecting Against Climate Threats – Resilient Environments and Landscapes" (NJ PACT – REAL) rules and regulations.

FOR DISCUSSION ONLY:

SCR106 Scutari/Burzichelli/Testa (pending referral)	Determines that DEP's "Protecting Against Climate Threats" rules, adopted January 20, 2026, are inconsistent with legislative intent.
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Issued 4/17/26

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James J. Kennedy
Chair

Alixon Collazos-Gill
Vice-Chair

Ravi S. Bhalla
William B. Sampson IV
Michael Inganamort
Gerry Scharfenberger

Christina Denney
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COMMITTEE NOTICE

TO: MEMBERS OF THE ASSEMBLY ENVIRONMENT AND SOLID WASTE
COMMITTEE

FROM: ASSEMBLYMAN JAMES J. KENNEDY, CHAIRMAN

SUBJECT: COMMITTEE MEETING - APRIL 22, 2026

The public may address comments and questions to Christina Denney, Patrick Raya, Committee Aides, or make bill status and scheduling inquiries to Melissa Berrios, Secretary, at (609)847-3855 or e-mail: OLSAideAEN@njleg.org. Written and electronic comments, questions and testimony submitted to the committee by the public, as well as recordings and transcripts, if any, of oral testimony, are government records and will be available to the public upon request.

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Kristiane Huber
Officer, U.S. Conservation
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mej: 1-143

SENATOR BOB SMITH (Chair): So, welcome to the most interesting Joint Committee in the Legislature.

Jim and I were asked to provide an informational base for the Legislature as it thinks about the REAL and PACT rules. And, one of the ways we do that kind of stuff is do a joint committee -- Earth Day was an obvious choice. The PACT rules and the REAL rules have tremendous implications for New Jersey citizens, businesses, and New Jersey's environment.

So, we're happy to get together with both Committees. And, with your permission, Chairman, can we call who is present on the Assembly side-- Who is the secretary for the Assembly side? Or, the Committee Aide from the Assembly side? Would you announce who is present?

UNIDENTIFIED SPEAKER: Yes; Eric is going to handle it.

SENATOR SMITH: Eric is going to handle it.

All right, Eric, would you announce who is present from the Assembly side?

MR. HANSEN (Committee Aide): Sure.

We have Assemblyman Kanitra, Assemblyman McClellan, and Chairman Kennedy.

SENATOR SMITH: OK, and on the Senate side, Eric, call the roll again.

MR. HANSEN: We have Senator Amato, Senator Greenstein, and Chairman Smith.

SENATOR SMITH: OK, so, we have a very interested group of legislators on this topic.

A little explanation is required. First of all, we have 10 witnesses. We don't have 11 or 12. And, the reason for that is we tried to find those people who have been active in the PACT-REAL rule development and significant stakeholders, or who have unbelievable expertise in that area. So, that's how you got into the list of the magnificent 10.

Which doesn't mean that we don't want to hear from 11, 12, 13, 14. But, what we're going to do, we're going to keep the record open for seven more days, and who should they send-- If they have cards and letters, who should they send it to?

UNIDENTIFIED SPEAKER: The OLS Aide--

SENATOR SMITH: Eric?

UNIDENTIFIED SPEAKER: --SEN email.

ASSEMBLYMAN JAMES J. KENNEDY (Chair): Eric's the man today.

SENATOR SMITH: So, do that one more time-- Because what I'm saying is nobody is boxed up. We want to hear everybody's point of view, except it's not efficient. Because there's only 173 people who want to speak about this; the 173 people can get their licks in.

We're going to-- We have a court stenographer here; we're taking record of the hearing. And, on your Committee agenda you have the OLS website OLS website or communication vehicle, OLSAIDE -- A-I-D-E -- SEN@njleg.org. And, the plan is to take everything -- the transcript from today's hearing, plus any cards and letters you or your organization want to send in, as long as it's received by Wednesday next week -- which is what day of the week, does anybody know?

These are the hard--

UNIDENTIFIED SPEAKER: The 29th.

SENATOR SMITH: The 29th of April.

And, what we're going to do is to send this package out to every one of the 120 legislators in the State and the front office so they can see the opinion of the various stakeholders or experts on this issue.

And, I think it would be a good idea just to repeat the history. So, PACT-- The PACT initiative was spurred by Governor Murphy's Executive Order 100, issued in January of 2020, where he directed the DEP to undertake a rulemaking to, "Integrate climate change consideration such as sea-level rise into its regulatory and permitting programs, including but not limited to land-use permitting; water supply; stormwater; and waste-water permitting and planning; air quality; solid waste; site-remediation permitting.

In response, the then-DEP Commissioner Catherine McCabe issued an administrative order initiating the rulemaking process on March 2, 2020. The DEP issued a framework for its rulemaking and began stakeholder outreach. The initial New Jersey PACT-REAL Rule Proposal was published on August 7, 2024. And, after extensive stakeholder feedback, the DEP issued a notice of substantial change to the proposal on July 21, 2025, and formally adopted the rules with substantial changes on January 20, 2026. And, many of the development permits and standards affected by the rules will be effective on July 19 of this year.

So, that's the historic context of what we're looking at today.

Chair, is there anything you would like to throw on the table?

Other than we're all open ears?

ASSEMBLYMAN KENNEDY: Can I throw it?

SENATOR SMITH: Sure; whatever you want to throw.

ASSEMBLYMAN KENNEDY: (laughter)

No, I'm good.

SENATOR SMITH: OK, so-- And, again, just before our first witness, we've got a couple of factoids from you -- for you. And, they are as follows:

More than half a million acres of New Jersey land is highly vulnerable to environmental hazards.

Factoid Number 2: 98% of our coastline is projected at medium or very high risk to sea-level rise -- threatening residents, the economy, natural resources, and wildlife who rely on the coastal zone.

Number 3 factoid: FEMA flood insurance maps are not based on current data but instead are based on historical data looking back 100 years. Which leads to an underestimate of flood risks. Between-- A little more on that: Between 1996 and 2019, 12% of New Jersey flood claims paid by FEMA occurred outside the existing mapped flood area.

Factoid Number 4: Over the last 50 years, storms that have resulted in extreme rain increased by 71% in New Jersey, which is faster -- a faster rate of increase anywhere -- in any other place in the United States of America.

And, the last factoid, New Jersey has experienced storm-related damages equivalent to 5.7% of the State's gross domestic product since 1980 -- nearly double the national average at 3.1%. A little background.

So, our first-- Our first witness, who is very, very unique, is Mark Mauriello. His curriculum vitae is bigger than my calendar. And, I would like to point out to you why we think he's an especially important witness -- if I

can find his resume. I think I have it. And, I'm going to go from the back forward. He looks like a very young guy, but he's got some miles on him.

From 1980 to '82 he was a Project Specialist at the DEP on the Geological Survey. From 1982 to '87 he was a Senior Environmental Specialist in the Division of Coastal Resources. February '87 to '89 he was a Principal Environmental Specialist, again in the Division of Coastal Resources. From '89 to 2001, he was the Supervising Environmental Specialist in the Bureau of Coastal Regulation. From 2001 to 2002, he was the Senior Environmental Specialist in the Office of Coastal Planning and Program Coordination. From 2002 to 2006, he was a New Jersey DEP Land Use Regulation Leader. From 2006 to 2008 he was the Assistant Commissioner of the DEP in the Land Use Management Section. And, then, he was the DEP Commissioner -- you would think he'd finally get there -- he was the DEP Commissioner from 2008 to 2010. He's the guy -- depending on how old you are -- who took over after Lisa Jackson. Lisa Jackson, you remember, went onto the Federal EPA.

So, again, while he looks really young, he's got a lot of miles on him, and he did us a great favor. I think about a week ago he had hip surgery, so at tremendous inconvenience -- and, I'm sure, pain -- he was available to us today.

Mark, if we can move you up to a microphone, we need your experience and guidance.

Oh, I forgot the best part. He's been a member of a development firm doing land-use applications and providing advice for development. So, we truly have a man for all seasons.

Take it away.

And, by the way, the question to everybody is, are we going in the right direction? Should we make any changes, including going further? And, what are the impacts on all of us if we go with the rules, or we don't go with the rules? So-- And, if you have any suggestions for improvement.

MARK N. MAURIELLO: Bear with me just a moment; thank you.

SENATOR SMITH: It's not a problem. Make yourself comfortable, if you can.

MR. MAURIELLO: Well, good morning, everyone.

My name is Mark Mauriello. As Senator Smith said, I'm here today to speak in favor of the DEP's adopted REAL rules.

I would like to thank Senator Smith, Assemblyman Kennedy, and members of the Committee -- I see my good friend Senator Amato -- for holding the hearing; a very important issue.

As we all know, we live with these problems of flooding and storms. We always have and we always will. And, it's particularly ironic -- sweet irony -- that you're holding this hearing on the 56th anniversary of Earth Day, which is really a legacy for the environmental community. When you think of what that represents -- but, more importantly, what happened in terms of the formation of the U.S. EPA; the establishment of the Clean Water Act, Clean Air Act.

So, Senator Smith, around--

SENATOR SMITH: And, by the way, all under President Richard Nixon.

MR. MAURIELLO: I'm sorry?

SENATOR SMITH: All under President Richard Nixon.

MR. MAURIELLO: That's right.

SENATOR SMITH: One of our most environmental presidents.

MR. MAURIELLO: Good point; yes.

So, the Senator rattled off my experience at the DEP over many years. I am a coastal geologist by training, and much of my time at DEP while I was in various capacities managing different groups and doing a lot of regulatory work -- permitting work -- rule writing, I was always involved in coastal hazard management aspects of the -- of the New Jersey program. So, it meant I spent a lot of time out doing storm-damage surveys with the State Police; I spent a lot of time working with FEMA on post-storm activities. And, we always tried to learn. Our mission-- We were regulators by charge; that's what it's all about. These laws that are enacted -- whether it's CAFRA (indiscernible), charge us with regulating development along the coast, and that was the charge. But, we always tried to be smart in terms of how we did that and, more importantly, how we learned and evolved over time in response to so many external factors.

Beyond my experience at DEP, I've also been a coastal resident my entire life. My family owned a beach block home in Lavalette for more than 50 years; I've been living in Long Branch for the past 16 years. So, I understand what it's like to be a coastal resident, and in cases, the challenges that residents face with living at the coast, dealing with big bureaucratic agencies like the DEP; permitting; so forth. So, I feel like I have a certain perspective that is valuable beyond the actual -- the work of the DEP.

The Senator said I've been working for 16 years now for a developer. So, I now have an opportunity, working with a very aggressive company, of learning what it's like to be on the other side of these regulations.

We're a regulated entity; we own coastal properties; we're affected by these REAL rules. And, so, I think it gives me a unique perspective that I hope will help inform some of the decisions that you'll have to make.

I want to make it clear that I personally had no involvement in the drafting or promulgation of these rules. I didn't attend any stakeholder meetings; I didn't review drafts; provide comments either informal or formal. I do track what's going on with the Department, and I do speak with people who might reach out to me for guidance. But, really, my remarks today are more focused on the obligation that the Department has to embrace comprehensive planning and regulation as a means to protect people and property along the coast. And, this is entirely consistent with the legislative mandate of CAFRA -- and, I'll touch on that in a minute.

So, in terms of the setting, New Jersey's coastal zone has a long history of storm and flood hazard vulnerability, which, in the context of geologic time, is largely attributed to sea-level rise. And, so, in evaluating options and strategies to mitigate current and future hazards -- and, that's really the future part, is really why we're here today -- because DEP is taking a position that we cannot focus narrowly on today's conditions, because we've done that for many, many years and we always wind up on the losing end when the next storm rolls in.

So, a couple of facts that we have to acknowledge -- and, forgive me, some may repeat a little bit of what the Senator offered -- but we have more than 150 years of tide gauge data from Atlantic City and Sandy Hook, all showing a documented sea-level rise of more than 1 foot over the past century and an increase in that rate more recently. There's no question that sea level is rising. There may be questions on how we project those rises in

the future, and many times that's where the debate gets a little bit bogged down -- how much sea-level rise? The fact is, nobody has a crystal ball and can tell you what that number is. But, we have a lot of great science that can take that data, look at other science and other data, and project various scenarios. So, while you might debate how much, how quickly, there's no debate about what's happening.

We have historical shoreline data that goes back to the 1850s, and I personally retrieved much of that from the national archives when I first started at the Department. It's showing chronic erosion everywhere on the oceanfront with very few exceptions. Occasionally, around a tidal inlet you'll get processes that cause accretion. North Wildwood used to be the poster child for too much beach. But, everywhere along the oceanfront, the shoreline is eroding.

FEMA's flood insurance rate maps all show-- As all these maps are revised and adopted over time, they show flood hazard areas are expanding and flood heights are expanding. So, you're getting, horizontally, more areas inundated by flood water, and the flood heights within those areas are rising as well. We know that the number of people and density and value of development in these hazard areas continues to increase, and we saw stark examples of that even right after Sandy, where some of these coastal communities that had been heavily impacted along the oceanfront immediately rebuilt; they allowed for higher-density zoning to put more people and more development in these areas. So, we know, again, one of these external facts.

Storm-related response and recovery costs continue to escalate, which creates a significant financial burden that requires new ideas for

managing development in these vulnerable communities. We can't keep doing things the same way and expect a different outcome. And, coastal properties continue to sustain flood and storm damages, and taxpayers continue to contribute significant sums of money to storm damage response and recovery. This affects everyone. People throughout the state are paying for what happens along the coast or along the riverine floodplains throughout the state.

So, here we have this rulemaking that's subject to hearing, and some of the questions come up as, "Where's the authority for that? Where's the direction for that?" And, I'll just read a very brief -- briefly -- from the Legislative findings of CAFRA, which declare that New Jersey's bays, wetlands, inlets, estuaries, and barrier beaches together constitute an exceptional, unique, irreplaceable, and delicately balanced natural environmental resource called the coastal area. And, that certain portions of the coastal area are now suffering serious adverse environmental effects resulting from existing development activity, impacts that would preclude multiple uses which support diversity and the best long-term social, economic, aesthetic, and recreational interests of all people in the state.

This is-- Again, this is the finding of the statute. Therefore, it is in the interest of the people of the state that all coastal areas should be dedicated to those kinds of land uses, which promote the public health, safety, and welfare; protect public and private property; and are reasonably consistent and compatible with the natural laws governing the physical, chemical, and biological environment of the coastal area. It is further declared that the coastal area in the state will suffer continuing and ever-accelerating serious adverse economic, social, and aesthetic effects unless the

State assists in accordance with the provisions of this act -- CAFRA -- in the assessment of impacts stemming from the future location and kinds of development within the coastal area on the delicately balanced environment of that area. The Department shall, pursuant to the provisions of the Administrative Procedure Act, adopt rules and regulations to effectuate the purpose of this act.

So, this is what it's all about. The Legislature enacts a statute; the Department is charged with writing rules and adopting rules and revising rules to effectuate the purposes of the act. And, that gets back to those different terms I cited about public safety, public health. So, given these findings, it's clear that, one, the Legislature recognized the importance of DEP oversight of coastal development. And, also, that DEP has both the authority and the obligation to undertake rulemaking to ensure effective implementation of this statute.

Now, historically, DEP has initiated rulemaking in response to a number of events, so the rules are not stagnant; they're not static, nor should they be. Events -- major storm events; changing environmental conditions; new science and data -- very important; post-storm damage surveys; lessons learned from storms, and opportunities to deal with the administrative side of this business, which is permit reform; permit streamlining. If you look back over time, the Department has initiated rulemaking to establish numerous -- what we call the "easy permits," general permits; permits by rule; permits by certification. So, you have a whole range of rulemaking activities the Department is undertaking -- much of it substantive based on the findings of the statute, and much of it administrative to try to ease the burden not

just on the regulative public, but on the small number of people who are sitting in the office up the street, trying to manage all this work.

So, as we consider climate science and building science that supports rulemaking -- because that's really what this is about -- we need to acknowledge the inherent uncertainty involved. And, this is something we can't hide behind. As a scientist, I know this is the reality of all scientific endeavors. Science is critically important, but it is also imperfect. But, rather than discounting the science based on these uncertainties -- which is not the right way to go -- the REAL rules appropriately focus on established scientific trends and likely scenarios. We cannot and should not let relatively small degrees of uncertainty derail sound regulations that will enhance public safety; that will better protect people and property along the coast; and will reduce the taxpayer burdens associated with post-storm response and recovery.

So, in terms of FEMA's role, many people falsely believe that FEMA and the National Flood Insurance Program framework provides sufficient protection in coastal flood hazard areas. And, historically, the framework is mainly one of reducing damages to structures built in flood hazard areas -- not to avoid building in flood hazard areas. FEMA was never a land-use program; FEMA created the NFIP in 1968 via the Stafford Act to create an incentive program for people to build better buildings so that the national -- at the national level, taxpayer burdens on response and recovery could be reduced. So, it was never a matter of FEMA saying you can or can't build here, FEMA just said, "If you're going to build here, you're going to need this insurance; you have to build a certain way."

And, the primary requirement of the FEMA standard is elevating buildings to what we call a “1% chance annual flood,” which is the 100-year flood, which, as we know today, is a relatively small flood event. Now, more recently, the national policy has evolved to flood-risk management, which is a concept that recognizes that floods will happen and humans cannot prevent flooding, but we can manage flood damages and impacts on the built environment, using a variety of tools in order to reduce damages and be more resilient from floods. It also recognizes that the most effective tools to manage flood risk rest with communities and states through land-use and building codes, as well as planning that considers current and future social, economic, and environmental conditions in the local community.

And, this is what DEP has accomplished in adopting the real rules, which recognize clearly some of these external factors. It recognizes that increased -- increasing populations focused in high-risk flood areas; changes in sea-level rise and storm intensity and flooding due to a changing climate; rapid advances in technology for flood mapping, forecasting, land contour mapping and data collection, compilation, and utilization for actions related to flood-risk reduction -- including graphic displays to communicate risk and increase risk awareness.

And lastly, what they’re clearly seeing -- not just in this recent Federal administration, but historically -- decreased funding at the Federal level, meaning that states and locals will no longer be able to externalize the consequences of building that risk by relying so much on Federal aid. And, for those who believe that compliance with the minimum standards of the NFIP and reliance on FEMA’s flood insurance rate maps is sufficiently protective, history has shown again and again this is not the case. Flood

insurance rate maps that were developed as an insurance rating tool are wholly inadequate in maintaining accurate delineations of the special flood hazard area, and base flood elevations -- so much so that the Code of Federal Regulations of the NFIP recognizes the inadequacy of these maps and the minimum designing construction standards of the NFIP, and encourages State and local jurisdictions to adopt higher standards based on regional historical data, coastal erosion trends, and future conditions. This is exactly what the DEP has accomplished, again, with the adoption of the REAL rules.

Now, every time a rule is published, a proposal, the pushback is always there. And, we used to have a joke that if both the development community and the environmental community are upset, maybe we've found the right spot in the rulemaking, because clearly someone is going to feel like their axe is being gored. So, the pushback against the adoption is not surprising, and it's certainly not unprecedented. Political attitudes and decisions regarding adaptation often address immediate concerns relative to the next election cycle -- and, that's the narrow view thinking that often creates a problem where we're always trying to catch up; we're behind the eight ball. That focus, rather than the long-term solutions embodied in the REAL rules-- This is especially true in cases where prudent adaptation measures require upfront funding, while project benefits accrue later. We tend to maximize economic development and local tax revenue now, but seemed less concerned about economic and social hardship that will result from failing to employ more effective land-use control measures that are often politically unpopular, but would enhance community resilience in the future.

And, we have clear evidence that current flood policy is not sufficiently protective. The number of Federally declared disasters has gone

up dramatically over the past decades, from an average of 13 per year in 1950 to an average of 141 recently. And, even more dramatic: The percentage of the disaster cost picked up by the Federal taxpayers has increased from just 20% to more than 75%. So, when you think of that, who is paying for all this? It's not necessarily the unfortunate people who are subject to those storm impacts and damages; it's the Federal taxpayer.

This history of Federal aid results in an expectation that government will always be there to rescue communities with public funds for storm recovery. There's no guarantee that that will continue to happen, and we've already seen that with some of the Federal pullback on funding for mitigation, disaster assistance. Given this pattern of repetitive damage and public recovery spending, it's not surprising that states and communities are often less motivated to implement difficult adaptation decisions necessary to enhance future sustainability. With more of the responsibilities and costs shifted to states and municipalities, we would expect their resulting trend of more cost-effective, long-term adaptation solutions, which is what the REAL rules are attempting to accomplish.

Now, in terms of higher standards-- And, I'd say the rules are quite lengthy. A thousand pages; there's a lot of-- There are a lot of changes in there. There has been a lot of focus, though, I would say, on specific aspects of the rules that apply in the oceanfront communities specific to freeboard requirements -- which is building elevation -- and the establishment of projected inundation zones -- areas that we know, based on these trends, will be inundated by floods during certain events.

So, the higher standard part of it -- and, I've been involved independently and collaboratively, a lot of work on this -- and we've seen

again and again that minimum regulatory requirements for building construction are insufficient to protect properties from storm and flood damages, especially as flood hazard vulnerability increases in response to these future conditions. Hurricane Sandy provided ample evidence of this, with fully compliant homes being inundated with flood waters and damaged and destroyed by storm waves. So, these are people who built their homes to the code -- the municipal code; the FEMA code. And, there's a presumption when you do that, that you're safe. I mean, after all, this is State regulation; municipal regulation; FEMA; Federal Emergency Management Agency. And, yet, we see time and time again those fully compliant homes absolutely wiped out in these storm events, because these are minimum standards which are not sufficiently protective.

In order to address the problem in the future, the REAL rules are providing a regulatory framework of more stringent standards for building construction, which have proven effective in significantly reducing storm and flood damages and associated recovery costs. Over time, these reduced damages offset increased construction costs associated with enhanced standards compliance. So, the idea is, yes, there's an increased cost to comply with new regulations for building elevation, for example. But, if you break down those costs over the life of the structure and then you look at the reduction in building damages, what you begin to see is that those costs essentially offset and overtake the damage side of the equation.

The higher regulatory standards included in the REAL rules are based, in part, on the work of a number of talented scientists at Rutgers University, including Dr. Robert Kopp and Dr. Tony Broccoli -- I think I saw Tony here today -- both highly regarded climate scientists whose research

focuses on past and future sea-level change. The interactions between physical climate change and the economy and the use of climate-risk information to inform decision-making. And, it's really-- We're fortunate that we have a robust climate science program at Rutgers University that can support the work of the Department here. The Department doesn't have the expertise to be able to do the science work, and we never had sufficient expertise, nor will we ever have that. So, the reliance on these unbiased science coming out of Rutgers University was appropriately considered in defining future sea-level-rise projection scenarios and delineating flood inundation zones. And, it represents a credible foundation that is entirely consistent with CAFRA and DEP's mission to mitigate storm and flood hazards. As I said, we're fortunate to have these non-partisan scientists and the Rutgers team supporting the important work of DEP.

Established hazard mitigation planning has demonstrated the importance of mapping current and future flood hazards and inundation zones. And, since New Jersey has a de facto "no retreat" policy, and CAFRA guarantees a right to rebuild storm-damaged structures, the Flood Inundation Zones codified in the REAL rules represent a critical element of an overall comprehensive strategy designed to address future flood hazards and protect people and property. Now, that de facto "no retreat" policy -- think about that. We have overbuilt in these areas, and everyone always laments, "Boy, if we only knew then what we knew now, we never would have built in this part of the community. We would have created larger buffer zones, more conservation zones." The reality is, this is what -- the cards that we've been dealt. We have this development, we have a policy of no retreat, and that's

embodied in the coastal rules; it's literally written into the CAFRA statute that property owners have a right to rebuild storm-damaged homes.

So, here you have the Department trying to manage development consistent with the statute and those legislative findings, but don't have a tool that allows them to relocate development out of hazardous areas. These homes are there, and they are staying there. Now, people that say, "Well, we have a Blue Acres program, we have a Green Acres program," both very important and very, very successful programs, and a number of the Committee people here have been -- we can thank for that. But, those are voluntary programs. So, everything that's going on with these REAL rules, you have to view in the context of a state that has a de facto "no retreat" policy. We're here, right or wrong; we're here, and that's the way it is.

So, what can we do? How can we develop and redevelop given that constraint, in a way that is more protective over time? In terms of this, the higher standards for building elevation -- these have been well documented by a number of studies, including FEMA's Mitigation Assessment Teams that are deployed after major disasters to assess the causes of building failure from flood and storm events. And, I would refer you to the Hurricane Sandy Mitigation Assessment Team report for New Jersey, that details the damages to structures not just residential but public, commercial, and essentially defines a series of causes of that damage. And, there are a lot of contributing factors to the damages, but it's a very detailed report.

And, my point is, there's no question about the benefit of what DEP is trying to accomplish with the REAL rules. It's not as if you'd say, "Gee, I wonder if that's going to be protected?" We know it will be, because we have copious amounts of data and information to support that.

I served as a member of the MAT team -- the Mitigation Assessment Team -- post-Sandy. I was out with FEMA doing damage surveys throughout Ocean County. I had done that with FEMA going all the way back to 1984, my first dance with them after a coastal disaster in 1984. I can attest to the findings of the report relative to highly vulnerable coastal inundation zones and building elevations. The REAL rules address that head on.

In terms of structural elevation-- And, again, FEMA -- FEMA is a national program. So, everything they do, they have to look at through the lens of the nation. Every coastline is different. You have rocky coasts; you have sandy coasts; you have coasts that are subsiding; you have coasts that are elevating due to tectonic processes. So, they take a very generic approach to their work, because it affects so many different geographic areas. And, that is why the code of Federal regulations includes provisions that encourage states and communities to do more based on local conditions; based on local knowledge; and local experience.

So, while FEMA recommends a freeboard standard of 3 feet above the base flood elevation, and while there's a debate about how much freeboard is necessary, the American Society of Civil Engineers and the Association of State Floodplain Managers recommend even a higher freeboard standard, based on changing conditions; increased watershed development; impervious cover; climate change-induced increases; and extreme weather events; chronic and episodic coastal erosion; and sea-level rise.

So, the REAL rules appropriately include these science-based freeboard standards that will reduce future building damages and associated

recovery costs will provide for public safety and will reduce the cost of flood insurance. And, you hear a lot about, “Well, the rules are going to make it more expensive to build a house in the coastal area;” the real estate values in the coastal area are off the charts everywhere. And, so, when you look at the fact in a vacuum and say, “Will it cost more to comply with a higher freeboard standard?” it absolutely will.

We talked about the benefits side of the equation, and looking at it, but just to give you some idea -- the cost of adding freeboard and installing a more building-resistant foundation at the time of construction is modest -- .25% to 1.5% of building cost per foot of freeboard. But, the benefit of doing so can be significant, particularly in coastal areas subject to wave effects. Under current flood premium rate structures, in just a few years’ time for most buildings, flood premium discounts will be sufficient to recover the incremental costs borne by property owners to incorporate freeboard at the time of initial construction or reconstruction.

As the NFIP moves for more accurate actuarial ratings, an aggressive freeboard is as much about saving on future flood insurance premiums as it is a higher safety factor. And, the ASFPM -- Association of State Floodplain Managers -- has calculated that. A couple of examples: Two feet of freeboard could equate to roughly a 40% to 60% discount in a flood insurance premium. A 3-foot freeboard would equate to 50% to 70%. So, the idea is the higher you’re building, the less risky, the less vulnerable it is, and it’s recognized on the insurance side with a lower premium rate. Because it’s all about risk -- insurance against risk.

And, as I-- I just have a few more comments. I do think-- And, having been directly involved in implementing a number of rules through my

time at DEP, implementing the CAFRA statute amendments of 1993, the implementation is always challenging, because we're -- the Department -- is entering into new areas of regulation; new standards; and I think we have to be cognizant of how the State can assist effective property owners as the rules roll out; they become subject and effective to these properties. The first one -- and, it can't be overstated -- is that I think the Department needs to work aggressively with the Legislature, the State Police Office of Emergency Management, and FEMA to establish and/or identify sufficient mitigation fundings to assist homeowners with additional costs to meet the new standards. This can be modeled on a program that FEMA had for many years called the "Increased Cost of Compliance." So, on one hand government is implementing new requirements for building design and construction to enhance safety, and there are opportunities to provide assistance to homeowners to do it as an incentive and as a means of some relief.

At this time, it's particularly important. We don't know where the Federal Government is at the moment. The first year was a little bit rocky, with the initial-- I'll say, and I'm drawing a blank on the DHS Secretary who just retired, but immediately clawed back mitigation funding that had been in the pipeline in every state. So, here you have states -- whether you're a blue state or a red state -- you're trying to implement mitigation projects to help communities, to help residents. If you don't have the funding, the mitigation does not happen. Those who have the wherewithal will be able to do this, and that's what we saw post-Sandy. You look around the state and you saw some areas were rebuilt quickly, typically, in the more affluent communities. You go into other areas, and perhaps the Bayshore communities of Monmouth County, still have not rebuilt. And, so,

we have to provide assistance to those who need it to meet these standards, and as they rebuild and be able to do it in a manner that's more protected.

The other issue that comes up is that-- And, we saw this after Sandy where individual communities, some of them adopted higher freeboard requirements. This has the potential to create zoning conflicts with building-height requirements in the community. It could impact setback requirements based on new means of egress and access to these homes. And, so, I think that the communities that are affected by these new rules, particularly those that are going to result in the higher elevations for buildings, they need to look at zoning changes as a whole and look at what makes sense within the community to establish a framework for regulation under the MLUL that does not subject property owners to individual zoning variance requirements. The worst thing we can do is have one arm of the government requiring someone to build a home a certain way, and then the other arm of government saying, "Well, it's inconsistent with zoning, you have to go to the zoning board for a variance." Which means you have to hire professionals to represent you. So, it's something to think about. And, I think communities can get together on this and figure out ways to accomplish those types of zoning change.

I do think that the Department should consider certain hardship exceptions in the implementation of the new rules to resolve unavoidable regulatory conflicts in limited and specific circumstances. These are going to happen; they happen now. DEP does have certain hardship exception provisions in their rules, and it's not open season on avoiding the rules. And, I know it both as a regulator and as a developer -- the fact that DEP will entertain a request for a hardship exception doesn't mean you'll be able to

get it, and there's -- there's a high bar established for those types of exceptions. And, I think with this type of a rule, I would encourage the Department to look at that as a means to ease the implementation and ensure effective implementation over the long run.

And, then, in terms of the actual staff implementing the rule, there's always a period of time in which things are identified in terms of process, administrative process, permitting procedures, and I think the Department has to closely look at it right from the get-go, and the Commissioner has to be ready to take action whether it's in the form of an administrative order or other guidance or directives to the staff on implementation issues that become obvious problems early. This is not-- Rulemaking is never perfect; there are always problems, unforeseen consequences, and I think the Department has to be responsive and has to be paying attention early and often to how they can help.

So, in summary, a changing climate -- including more extreme storm and flood events; acceleration and relative sea-level rise; increasing coastal erosion; and expanding floodplains -- require that New Jersey implement more aggressive adaptation plans to protect people and property in vulnerable coastal areas. Implementation of the REAL rules represents an appropriate, science-based regulatory framework, consistent with the reality of coastal hazards and the statutory obligations of CAFRA. We need to acknowledge that coastal storm and flood damages always exceed expectations -- *always*. Therefore, we need robust regulatory standards that will help break this cycle of repetitive storm damage and ensure the long-term protection of people and property. As we evaluate the REAL rules, we need to weigh the cost of action -- which is what the rules are doing -- versus the

cost of inaction. Inaction which will jeopardize the health and safety of coastal residents, and it will result in more extreme damage and public recovery costs.

And, lastly, I think we need to have an honest discussion about what the rules do and don't do without the information -- misinformation and, you know, "The sky is falling" attitudes that you always hear when rules of this nature are promulgated. It's not helpful to the regulated public; it's very confusing; and we're not doing them justice by the misinformation. My experience on that-- Thirty-five years ago, I sat in this room, an oversight committee on CAFRA 2; I sat here with the Assistant Commissioner John Weingart, and we were answering the craziest questions about what the rules were going to do in the coastal area, much of which was patently false. And, we sat there and we answered the question and said, "No, that's not it." We learned a few things, and we did make adjustments to those rules along the way.

But, as I said, this is important business, and we don't want to fog it with misinformation that only communicates and frustrates the people we're trying to serve -- the coastal residents who are trying to do the right thing and who deserve to understand the significance of the rules, what they do, and what they don't do. The REAL rules don't create no-build zones; they don't trigger new flood insurance requirements; they don't prohibit reconstruction of storm-damaged homes. Rather, these are science-based higher regulatory standards that will better protect people and property in the future, while also lessening the taxpayer's financial burden associated with storm damage response and recovery.

So, again, I'll leave with-- Remember that we're a "no retreat" state. We're Jersey tough -- call it Jersey tough, whatever you want. We're in there, we're staying there. That is the de facto policy in New Jersey, and it's obvious because local governments and property owners generally advocate for the status quo. The high value of real estate and land has been a driving force for the policy, and with too much invested in the densely developed shore to consider anything short of holding the line. So, right or wrong, we've made that decision, and it goes back to my prior comment. This is the arena in which we are trying to regulate and protect coastal residents and coastal properties.

We've made the decision to maintain a static footprint on a very dynamic landscape. They don't jibe, but that's where we are. We've armored shorelines with bulkheads and sea walls; we spend millions of dollars a year on temporary beach nourishment. But, given that this de facto policy has hamstrung the Department for years, and not being able to look at more progressive policies in terms of acquisition and relocation away, requiring more storm-damaged property on the oceanfront-- Given the hand that they're dealt, I think we need to embrace the complimentary regulatory tools that the REAL rules provide in promoting enhanced building design, engineering, and construction.

And, finally, it's all about getting past this short-term thinking. We have to get beyond what we see today to address future conditions that will continue to impact the New Jersey coast for years to come. We're playing a long game here, and promoting short-term interests at the expense of long-term interests is bad policy, and will simply exacerbate the problems we continue to grapple with. Will the REAL rules positively impact me in my

lifetime? Probably not. But, will the REAL rules positively impact my children and grandchildren? Most definitely. And, this is the legacy of the rules, to think beyond our own short-term interests and consider the long-term protection and financial interest of future generations of homeowners and taxpayers. There's no better way to celebrate the legacy of Earth Day.

Thank you very much for the opportunity to speak with you.

I would be happy to answer questions -- however you want to do this, Senator.

SENATOR SMITH: First of all, let me publicly say thanks for coming down within a week of a hip operation. I mean, that's courage at its best.

And, thank you for all the information.

Are there any members of either side of the Committee that have a question for Commissioner Mauriello?

Yes, sir. Assemblyman.

ASSEMBLYMAN KANITRA: Thank you very much, Chairman.

So, I have a few questions. That was a long -- a long speech; it was I think like 45 minutes or so.

And, one of the most important things I took out of it was that you were a builder, and you're advocating for rules that are going to cause there to be 300,000 homes in additional flood zones that are all going to need to build and spend money on these rules. I mean, you closed by saying that these rules would positively impact your children and grandchildren -- I think that might apply maybe disproportionately to some builders.

But, as a builder, there's a couple important components to this I wanted to jump into. First thing is, what's the average lifespan of a house?

MR. MAURIELLO: Fifty years, perhaps.

ASSEMBLYMAN KANITRA: Fifty years. When do you think that we'll be 1 foot higher in flood waters from where they currently are?

MR. MAURIELLO: I don't know.

ASSEMBLYMAN KANITRA: OK. Well, I will tell you-- You talked a lot about flood rise, and sea-level rise, and everything along those lines. But, I would assume that the gold standard is NOAA, right? And, the data--

SENATOR SMITH: The gold standard is no what?

ASSEMBLYMAN KANITRA: NOAA. N-O-A-A.

SENATOR SMITH: You mean that there won't be no sea-level rise?

ASSEMBLYMAN KANITRA: No, the-- They have quantified sea-level rise, OK. Sea level rose--

SENATOR SMITH: Yes--

ASSEMBLYMAN KANITRA: --last year 3.8 millimeters. At that rate, if sea level continues to rise at 3.8 millimeters per year -- which is essentially .15 inches, which is quantified by the Federal government; that's not me talking; that's not some conservative study, or anything along those lines -- it would be 80 years to go up 1 foot; 80.2 years, I'm rounding a little bit.

So, we're putting standards on people right now, when the average home life is 50 years. So, you've got some little old lady living down in my neck of the woods, in Lavalette, or Brick, or Toms River; she's been in there for 30, 40 years. All the value in her house is in the land, so now her roof goes, and her windows go. And, we're not just talking about new builds

-- over a five-year period, if she improves that house over 50% -- and, let's just say her house is only worth \$100,000 -- she puts \$51,000 worth of improvements into that house, she's now going to have to raise that home. Even though that house might already be 20, 30 years, and the life usefulness of a house is about 50 years -- you're right; I've looked at the data, and that's what it says. So, we are putting these rules on people when most of these houses won't even be around if the current level of sea rise--

SENATOR SMITH: Not to be a stinker, but is there a question in this for the Commissioner?

ASSEMBLYMAN KANITRA: OK, well, I do have a couple different questions, so I'll--

SENATOR SMITH: Please ask--

ASSEMBLYMAN KANITRA: --so I'll ask that.

MR. MAURIELLO: If I may--

ASSEMBLYMAN KANITRA: Sir, you said that you wanted to protect people; that the purpose of this was protecting people. Does it protect people if they can no longer afford to live in their own homes?

MR. MAURIELLO: Well, there are a few things I take exception with. First of all, there are a lot of people much smarter than I am who can talk to you about the rates of the sea-level rise; how they are not always uniform; what influences those. And, I encourage you to speak to those people.

SENATOR SMITH: And, they're on the panel today. Dr. Broccoli from Rutgers is here.

MR. MAURIELLO: That's right; that's my point--

SENATOR SMITH: You'll get a chance to ask that question.

MR. MAURIELLO: The other thing is I don't know where there is a house in -- I'm not sure your community -- that's a \$100,000 house. I honestly don't know that there is such a thing anywhere. But, you're talking about substantial improvements--

ASSEMBLYMAN KANITRA: You understand-- I have to--

SENATOR SMITH: How about letting him answer the question.

ASSEMBLYMAN KANITRA: Chairman, I just have to push back on--

SENATOR SMITH: Let him answer your question.

MR. MAURIELLO: I just, I take issue with that example of a house that is \$100,000. And, then, you're sort of insinuating that if she needs a new roof, it's going to be a certain amount, and ultimately she's going to trigger the 50% increase of a substantial improvement that would require compliance with the rules. And, I see that threshold being a lot higher than replacing a roof, and replacing some windows.

ASSEMBLYMAN KANITRA: Can I help you on one thing? Because you don't seem to understand the rules that you just spent 45 minutes talking about. But I do, because I just lived through it, because I did a renovation of my own home, OK.

Your house -- if I go and I buy your house, your house at the shore may be a \$750,000 house. But, that's the value of me purchasing your land and your home. If the structure that sits on it is dilapidated, you can easily go up and down the shores of the 10th Legislative District, on waterline and coast along the Barnegat Bay; in Bricktown (*sic*); in Toms River; in working-class neighborhoods where you can find homes on the water that

cost \$500,000, \$600,000, and they have little old ladies living in shacks in them where the home itself -- which is what this rule is predicated on -- is worth \$100,000. The *structure* is worth \$100,000.

If you improve that home over 50% over a five-year period, according to this rule, you will have to lift it. And, how much does it cost to lift the house, as a builder?

MR. MAURIELLO: I have to go back here -- I think your premise is incorrect, that it's the market value of the home is going to be the \$600,000-700,000; it's not going to be the cost to replace that small home. Now, you can have that discussion with your Building Official; you can have it with the FEMA Region 2 expert. But, I respectfully don't agree with that.

ASSEMBLYMAN KANITRA: I just had to raise my home because my home, the house assessed value was around \$150,000. It was a 100-plus-year-old home, and I had to raise it. My roof went; my HVAC went; my windows and doors went. And, when you came to a certain threshold, I was told that I needed to raise it.

So, either I was told false, and everybody else in my town and my area was told falsely, or I don't know what I'm talking about.

MR. MAURIELLO: I do find it interesting that you're talking about a home that's 100 years old. Earlier on, you asked me what--

ASSEMBLYMAN KANITRA: Well, they made them a lot better back then, didn't they?

MR. MAURIELLO: Earlier on, you asked me what the typical life is. And, the typical life is 50 years, but most homes are older than that--

ASSEMBLYMAN KANITRA: OK--

MR. MAURIELLO: --and, your example--

ASSEMBLYMAN KANITRA: --well--

MR. MAURIELLO: --of a 100-year-old home is--

ASSEMBLYMAN KANITRA: Fair enough.

The other question I have that is very important -- because you spent about 10 minutes saying that New Jersey has a de facto “no retreat” policy. You said that over, and over, and over again. And, you referenced CAFRA, and you referenced the CAFRA rules, which were written in the 1970s. I just want to read this to you, because these were from the documents that were associated with this rule.

The New Jersey Climate Resiliency Strategy in 2021 says, “Action must be taken now to prepare communities for the inevitable shift that will occur as people, businesses, and coastal functions move to safer areas -- alternately referred to as managed retreat. The result is the same; whether through individual or market decisions, people, businesses, and coastal functions will eventually move to safer areas. Further, coastal stakeholders may disagree about the implementation of managed retreat as a resilience strategy, but sea-level rise will ultimately make it a necessary consideration.”

So, now, considering that my district is 25 miles of coastline, and what the DEP is saying today, nowadays, totally conflicts with what you were saying, that there’s a de facto “no retreat” policy, and they’re actively saying that everyone is going to need to move away from coastal areas.

Can you explain that discrepancy, please?

MR. MAURIELLO: What I’m saying is that any relocation that happens or managed retreat is not going to be driven by the REAL rules. There are going to be a lot of other factors.

ASSEMBLYMAN KANITRA: So, there *is* a managed retreat coming! Buckle up, Jersey Shore, you're all going to have to move, right?

SENATOR SMITH: Mr. Kanitra--

MR. MAURIELLO: Please, I'd like to just--

SENATOR SMITH: --let the witness answer.

MR. MAURIELLO: --I want to get a couple things.

My experience shows that -- and, the research I've done -- is that managed retreat-- There is no managed retreat in New Jersey. People stay where we are. The places where we have retreated have been areas that were subject of catastrophic storm damages historically. Go down to the Borough of Longport, the southern end of Absecon Island. The first street on the southern end of Longport is 11th Avenue. They didn't just decide to call that street 11th Ave. when Longport was established; so, you have 11 blocks that were -- that don't exist anymore. Look at the oceanfront in Sea Isle City. I know Sea Isle City was one of the groups that signed on against the rules. They have a promenade, their boardwalk. It used to be two rows, two blocks of development seaward of that promenade; there was a railroad line that went through there. People move when they have to move, when the land is gone.

My point is that the effect of DEP's regulation is not going to require people to move. The bond markets might require it; the insurance or availability or unavailability might require it to move; a catastrophic event. But, it's not going to be as a result of these rules.

ASSEMBLYMAN KANITRA: Or you make it--

MR. MAURIELLO: That was my point--

ASSEMBLYMAN KANITRA: --or you make it so expensive by adding more rules on that they have to move anyway.

MR. MAURIELLO: I see people moving in everywhere. Come to Long Branch and walk around with me everywhere in the town--

ASSEMBLYMAN KANITRA: And, I appreciate your answer to my question.

So, the last thing I just had was-- Obviously, the purpose of this hearing is talking about if DEP even had the authority to make these rules. And, you referenced that there was just a skeleton crew of people over there in the DEP offices. I looked it up -- it looks like NJ DEP has about 2,000 workers in New Jersey, whereas the EPA has 12,000 Federal; FEMA has like 25,000.

Why does the DEP -- the NJ DEP -- think that they know better than the Federal government in this regard, and that they want to supersede Federal rules and laws?

MR. MAURIELLO: What rules and laws, you're referring to?

ASSEMBLYMAN KANITRA: We could easily wait until the FEMA numbers come out in a little bit, correct?

MR. MAURIELLO: I wish I had that much faith in how FEMA does what they do. And, it's not a bash on FEMA; it's their charge. But, clearly-- And, you can hear it from anyone-- Go talk to Mike Moriarty, former Regional Director of Mitigation at Regent II, very experienced Jersey guy. He'll tell you it's not enough. And, that's why the code of Federal regulations includes specific language encouraging states and communities to adopt these higher standards.

ASSEMBLYMAN KANITRA: And, that's why-- That's why DEP thinks they're smarter than the Federal Government, smarter than the legislators, and cut us out of the process, right?

MR. MAURIELLO: I wouldn't say that. That's certainly not how I would word it. DEP has a mission; they try to do the best they can with the tools, the staff, and the resources they have. In my tenure, we were always short-staffed, but we made it work. And, I imagine everyone in this room in their job wishes they had more time and more resources to do it.

But, it's not a matter of ego where they think they're smarter; it's not a personal bent at all.

ASSEMBLYMAN KANITRA: All right, thank you very much; appreciate it.

MR. MAURIELLO: Thank you.

ASSEMBLYMAN KENNEDY: We would like to have--

ASSEMBLYMAN McCLELLAN: Chairman, chairman--

ASSEMBLYMAN KENNEDY: --Jeff Kolakowski, from New Jersey--

ASSEMBLYMAN McCLELLAN: Chairman--

ASSEMBLYMAN KENNEDY: --Builders.

SENATOR SMITH: Oh, I'm sorry.

ASSEMBLYMAN McCLELLAN: Not a problem.

SENATOR SMITH: Another question; you don't get away so easy.

ASSEMBLYMAN McCLELLAN: Thank you for your time.

A couple things. What you're experiencing at DEP, and the permitting process, and things of that nature. You know, given the existing

backlogs in the application review, and the staffing limitations that the DEP has, how do you think they're going to manage this increase? Or, what would recommendations be to manage the increase of the permitting and the process that's going to happen, based on your experience, and what's going to happen with the NJ PACT rules?

MR. MAURIELLO: Yes, that's a good question.

It's legitimate and, fortunately -- or, unfortunately -- the Department has a lot of experience in how to shift resources to try to accommodate new programs, new regulations, and such. I think there are some examples out there that might provide opportunities for DEP to get the relief. I know the Department of Transportation has a program where they rely on certain outside consulting firms to do reviews of large projects, and then the DEP staff become essentially a supervisory role. So, these consultants aren't issuing permits, they're just doing the review work; they're teeing this up; and then the DEP, ultimately, will take that work and decide if the permit is appropriate or not.

And, the benefit there is you kind of shift the large technical, complex projects away and create opportunities for staff to deal with the single-family homeowners. We were always very sensitive to single-family homeowner projects, because the regulations apply to everything, whether you're a casino -- you want to build a casino; you want to build an industrial plant; you want to build a single house, or a dock. And, we were always sensitive to make sure that we focused resources on the single-family homeowner, recognizing limited -- more limited resources; they don't have the expertise or the wherewithal to hire the high-powered consultants.

So, there are some opportunities for new ways to do the permit work. But, quite honestly, it requires good, strong management where you identify resources that you have, and you shift. And, I know DEP has hired a lot of young staff. I've met and dealt with some of them, and I'm very encouraged that there are these bright young people who still want to come and work in government, which, today, is not a lot of people might see that as a career.

So, it's one of the challenges that I think Commissioner Potosnak will have to address. He's new, and welcome to the hot seat, because he's got his work cut out for him.

ASSEMBLYMAN McCLELLAN: Just two more, Chair.

And, how does the-- How do you feel the Department can reconcile the flood hazard area rules required? It's a 180-day permitting expiration provision, so the so-called intent is just to provide legacy protections and, particularly, projects require extended timeframes. So, how do you feel as though they can navigate that?

MR. MAURIELLO: Yes, those are difficult. I mean, certain applications are subject to a statutory timeframe -- flood hazard area permits being one; CAFRA permits. There's a whole world of other permit work, specifically under the Freshwater Wetlands Protection Act that is not subject to timeframes.

One of the things that I've witnessed as -- in my current life working for a developer, having to seek permits, is quite often you see a lot of inaction on those activities that are not subject to a statutory timeframe. On the other side where there's a clock ticking, the Department pays more

attention; they find ways to get those things done. It's not always quick; it's not *ever* quick, I should say. It quite often results in a request for extensions.

But, I do think there's enough experienced managers in that permit program, people who have been in the positions a long time, who understand the goal and don't get caught up in the process. And, they're always looking for ways to get to the end of a decision and get that decision out the door. I certainly don't have all the answers, and I don't spend a lot of time really thinking about how to solve those. I did that a lot in my career, and I enjoyed doing it; it was a challenge. And, I always felt that we did what we could with the resources we had, and we were fair in most cases -- fair and straight with the people that we dealt with. And, I would expect nothing less with the current administration.

ASSEMBLYMAN McCLELLAN: Gotcha.

And, one more question, Chairman.

SENATOR SMITH: Sure.

ASSEMBLYMAN McCLELLAN: So, there's 120 of us elected officials in this State. And, given the importance of these NJ PACT rules, and the global idea that we need to either raise properties or things of that nature, why would you think that the previous administration wouldn't want to have impact -- input -- from the 120 elected officials, or even the stewards that are here that are speaking today, to work together?

You know, climate change is not going to change by one person, or change by 9 million people in this state. It's got to be a global idea. And, why wouldn't you want other people to chime in on it, or just think that Rutgers has it and they know everything, or blame it on FEMA or our national

products? Why can't we do this globally together, as opposed to having one individual dictate how 9 million people in this state shall live?

MR. MAURIELLO: I agree with you. I don't-- I'm not familiar with how the stakeholder sessions work. I don't know about the degree of outreach to legislators and mayors. And, some of you legislators are former mayors -- you have the benefit of knowing what it's like to sit in the mayor's seat, and now at a higher level.

I would be a little bit surprised to know and learn -- and, I'm kind of reacting that way now -- that there's an absence of what you felt was a meaningful opportunity for input in the development of the rules by engaging between the Department and the Legislature. It's certainly not the way I operated, and what can be done now? Obviously, you have these two committees that might be able to pull together some sort of interactive work sessions, high level. I don't know the degree to which the League of Municipalities -- and, perhaps they're sitting behind me and will speak today -- but I agree with you, I don't-- I would never want to advance a rule of this magnitude without hearing from that group of people. The more people that you hear from, I always believe the better the outcome. You may not agree, and you may hear things over and over again that you don't believe are true, but to not provide that opportunity is certainly not my style.

ASSEMBLYMAN McCLELLAN: Thank you, sir, thank you for your time.

And, I hope you continue to heal quickly.

MR. MAURIELLO: Thank you; I appreciate that.

ASSEMBLYMAN McCLELLAN: Thank you, Chairman.

SENATOR SMITH: Thank you, Assemblyman.

All right, any other questions for Mr. Mauriello? (no response)

All right, Chairman Kennedy.

ASSEMBLYMAN KENNEDY: Jeff Kolakowski, New Jersey Builders.

The hot seat is all yours.

J E F F K O L A K O W S K I: Mr. Chairman, members of the Committee, as always, appreciate the opportunity to testify before you and to share my industry's perspective.

My name is Jeff Kolakowski; I am the CEO of the New Jersey Builders Association, representing the residential construction industry across the state.

Let me start with something important. We agree that climate change is real, and it's impacting New Jersey. Climate-- Sorry. Climate change presents real challenges, and requires new ways of doing business, building, and living.

But, here's the critical point: The only way New Jersey meaningfully adapts to climate change is through building and through rebuilding. New Jersey is already one of the most developed states in the nation. Most of our housing stock is decades old, and has been built to standards that do not reflect today's understanding of flood risk, of stormwater management, or resiliency. And, at the same time, we're facing a severe housing shortage, estimated at over 200 LMI, or low- and moderate-income units, alone; never mind us beginning to address the missing middle and providing workforce and middle-income housing for our state's residents.

So, we have two structural shortages across-- We have a structural shortage across our entire housing spectrum, and we have two

problems happening at once. One, we need more housing; and, two, we need more resilient housing. And, the solution to both is the same: We must accelerate development, especially redevelopment. And, every time we redevelop a property, we're making New Jersey more resilient. We elevate structures; we improve stormwater systems, and replace outdated infrastructure with modern, safer construction. And, it's important to emphasize that newer construction is inherently more resilient, more energy-efficient, and safer for occupants. Today's building standards reflect advances in flood protection, stormwater management building materials, and energy performance that simply did not exist decades ago. Simply put, newer buildings perform better against storms, in energy use, and in protecting the people who live in them.

But, at our current place, we are nowhere near close to meeting our challenge. If we are serious about climate adaptation, we need policies that encourage redevelopment, direct growth to appropriate areas, and remove barriers that slow projects down. Because if we make it harder to build, we make it harder to adapt. And, that leads to a broader point: A climate change in housing cannot be addressed in silos. What New Jersey needs is a whole government approach; one that aligns in environmental policy, housing policy, infrastructure investment, and economic development. Right now, these efforts are often working at cross purposes.

On the one hand, the State is pushing for increased housing production, implemented fourth-round obligations, and improving affordability. On the other hand, regulatory actions are making it significantly more difficult to build -- particularly in the very areas where growth is being directed. This disconnect undermines both goals. A whole

government strategy means coordination across all agencies -- DEP; DCA; Housing Mortgage Finance Agency; and the BPU. It means aligning permits so projects move more efficiently and predictably. It means investing in infrastructure to support smart growth in the right areas. It means directing development to lower-risk areas, while creating realistic pathways to redevelop higher-risk areas with more resilient construction. And, more importantly, it means evaluating policies based on a simple question: Do they result in more housing? And more resilient housing, or less? Because, if the answer is less, then we make both our affordability challenges and our climate challenges worse. New Jersey cannot regulate its way to deal with climate change and to become more resilient. We have to build our way there.

And, so, with that context, I wanted to address the REAL rule adoption; the PACT-REAL rules. The reality is that New Jersey, along with NJBIA, filed notices of appeal because we felt we had no other choice. This is not where we want to be as stakeholders, but there's a fundamental legal issue here -- separation of powers and limits of agency authority that we had to challenge. It's the Legislature's role to establish policy and grant authority to administrative agencies. In this case, the REAL rules represent a significant expansion of regulatory authority without clear legislative authorization. That is why action taken by the Senate President to introduce SCR106 is both appropriate and important. It speaks to the seriousness of the concerns surrounding this rule, that such action was deemed necessary.

We appreciate the Senate President's leadership, and the Legislature's willingness to engage on this issue at this particular hearing. This is exactly the type of situation where the oversight of the Legislature

plays a critical role, and a constructive role, in ensuring the right balance is achieved.

So, to highlight a couple of issues we had with the rulemaking and the rule itself, the rulemaking lacked meaningful stakeholder engagement by the regulating community. NJBIA submitted a 50-page comment letter on a 1,000-page rule proposal. And, it's important to emphasize that my concerns were not isolated. Broad coalition -- a diverse coalition of groups -- joined in this; it wasn't just development interests, and I was joined by my counterparts with the commercial sector NAOIP and the Apartment Association, and the Realtors, and I was glad to have the support of the real estate industry. But, it went way beyond that. Conference of Mayors were engaged with this; the League of Municipalities were engaged. A hundred and thirty mayors passed resolutions opposing this. Organized labor got involved, because they were concerned about job creation and future economic growth.

And, now we just heard that three counties not only led the charge to file a lawsuit to challenge this thing, but we just got a report that many municipalities are now considering joining that legal challenge. So-- Sorry; I forgot to finish my point.

So, when so many voices are heard from so many different perspectives, it warrants not just consideration, but recalibration. For a rule of this magnitude, the breadth of opposition signals that a stakeholder process fell short. Substantially, the rule goes way beyond addressing climate change; it fundamentally changes DEP's permitting programs. The previous testifier talked about CAFRA. And, maybe if we were talking about just changes to CAFRA, we'd have something more narrow that we could deal

with. But, we're not just dealing with changes to CAFRA and to our coastal areas; this goes way beyond our coastal area. It affects and impacts, and it makes changes to the entire regulatory suite at DEP. And, that's why this rule proposal, again, is 1,000 pages. It's not making narrow changes to deal with a narrow public policy.

Further, this proposal represents a major paradigm shift. For decades, land use and flood management in New Jersey across the nation has relied on established FEMA data and base flood elevations. The REAL rule departs from that, and from that framework, it moves to instead of basing our history and our land-use policies on historical data, it's now making projections into the future. There's a huge shift, and it's not just an update in how we look at it; it's a fundamental shift in how land use is regulated. And, that shift introduces uncertainty; increased costs; raises serious questions about feasibility across a wide range of projects.

And, now, layer on top of that the extreme and long-term conservative projections being used. Planning for conditions in the year 2100. Covering 83% of likely scenarios. It's over the top. We have long advocated; we participated in the stakeholders process and said, "Look, let's maybe look 30, 40 years out and see what that is, and maybe look every five-10 years and update it." But, no, we had to shoot for the moon and go 75 years out and, again, cover 83% of likely scenarios. And, what that means: Even if you base this rule proposal on the science, and you believe the science, that means there's a 17% chance that DEP is right 75 years from now. But, we are going to hold landowners to those rules today.

And, that brings me to one of the probably most significant flaws in this proposal, which is it's tone deaf to all of our other public policy needs

in the State. Every single rule proposal requires a job creation analysis; a housing impact analysis; a smart growth analysis. And, DEP did none of that. No meaningful cost benefit analysis; no quantification of impacts on housing production; no analysis on how many projects would become infeasible. The Department did not estimate property value impacts; evaluate the tax base implications; or assess how reduced development would affect affordability in this State.

And, it's important to note the Department's own analysis contains a fundamental contradiction. On the one hand, it suggests that rules may generate compliance-related jobs; more jobs for consultants and engineers and mitigation professionals. But, it fails to account for the broader economic reality that that's going to result in fewer projects. And, that means fewer construction jobs and fewer homes being built. And, so, that results in fewer housing opportunities for the entire housing ecosystem, because increasing regulatory (indiscernible) does not create true economic growth. It shifts resources toward compliance while suppressing construction.

And, then finally, I just want to comment on the timing and the broader policy alignment and how that can be not more problematic considering the circumstances we find ourselves in. We're in the middle of implementing our fourth round affordable housing obligations, one of the most significant and complex housing efforts the State has undertaken in decades. Municipalities, developers, the State -- everybody is working an already challenging process to meet our obligations and address our housing shortage. And, to introduce these sweeping changes to environmental and land-use regulations in the middle of this implementation causes additional uncertainty, additional cost, and creates additional barriers to housing

production. And, quite simply, it makes an already difficult process more difficult.

Separately, but more importantly, there's a fundamental inconsistency with the State redevelopment-- The State Development of Redevelopment Plan. For decades, the State has directed growth to planning areas one and two -- our urban cores, where redevelopment is most appropriate and efficient. Those are the areas where the infrastructure exists; where transit access is strongest; where smart growth principles tell us development should occur. Yet, these rules make it significantly harder to build in those exact locations. There are real consequences to that. A flood -- as flood hazard areas expand, more properties in those urban areas become newly regulated, putting downward pressure on property values and making projects harder to finance.

At the same time, the 50% improvement threshold that Assemblyman Kanitra referred to discourages investment -- reinvestment -- in existing structures, and requirements like dry access can effectively require raising offsite roadways -- something that is *not* feasible at all when you don't control access to those roadways. And, the combined effect is clear: We're discouraging investment in the places where we spent decades trying to strengthen, and we are trying to increase housing production and direct growth to the right places while we're adopting policies to make it harder to achieve both of those goals.

So, let me close with this. We all share the common goal of a more resilient New Jersey. But, resilience does not come with restricting development; it comes from replacing what we have with something better. New Jersey needs a strategy that builds its way to resiliency, not one that

regulates development out of existence. The REAL rule, as currently structured, does the opposite. We are hopeful that this process can be brought back to a meaningful stakeholder framework, so that together we can develop a balanced, practical solution -- one that allows New Jersey to advance its environmental housing and economic goals simultaneously.

Again, appreciate the opportunity to testify, and happy to answer any questions.

SENATOR SMITH: There appears to be no questions.

Thank you.

Oh, I'm sorry. Assemblyman.

ASSEMBLYMAN McCLELLAN: No problem.

Mr. Kolakowski, thank you for your time today; greatly appreciate it.

Just a couple things, kind of dealing with housing and economic impacts. Now, you've been able to go through the 1,000-plus pages of the NJ PACT-REAL rules?

MR. KOLAKOWSKI: Yes.

ASSEMBLYMAN McCLELLAN: Did I say that correctly?

So, in your going through that, did you see any quantified statewide economic impacts, including increased construction costs, reduced housing, feasibility, or impacts to municipal tax bases? Did you see any -- any of that from the DEP or from the past administration?

MR. KOLAKOWSKI: I think any good -- any reasonable person who looks at that could see those impacts. But, I don't-- To my point about impact statements, it seems like the only people who fail to appreciate those impacts were the DEP.

ASSEMBLYMAN McCLELLAN: Thank you.

And, how do the rules reconcile elevated design standards? As in, as substantial improvements; triggers that could affect affordable housing obligations; homeowner cost burdens; the potential impacts for property values, especially in most economically challenged neighborhoods, which seem to be low-lying properties and stuff like that in most counties?

MR. KOLAKOWSKI: I think Assemblyman Kanitra kind of addressed it, about the existing property owners, and how that will kind of stifle the ability for those homeowners to make investments.

And, I agree completely with his statement that-- I don't remember us having a default "no retreat" strategy. In fact, I think if the projections are true -- and, I think everybody acknowledges that we're going to have to retreat in some fashion at some point in the future -- we need to find other people to locate these people, too.

So, I don't think it's a static problem. In fact, I think that's one of the fundamental flaws of this rule proposal, is that kind of puts us in a lockbox and it says, "This is how we're going to deal with it." But, in order to deal with it, we have to look more long term. We have to look towards major infrastructure projects. Like, we're not retreating from the City of Hoboken, correct? We're probably going to come up with large scale infrastructure to deal with that. We're not retreating from the Gold Coast, right? And, that is all tidal, going up the Hudson River. That all impacts Jersey City, the Gold Coast -- we're not retreating from those areas. We're going to make substantial investments in those areas, both kind of from a micro-infrastructure standpoint, when we bring in new developments and they make the area better and more resilient.

But, we also have to look to long-term strategies, like what we saw in maybe Amsterdam when you do large sea walls. We always look at it from a shore protection, beach replenishment. There are other long-term strategy that we need to consider. People need to remember that the City of New Orleans has been existing under sea level for 80 years. They've engineered their way around this problem a century ago. Like, we can do better, and we can figure out ways to make New Jersey more resilient to the future climate effects we're going to experience.

ASSEMBLYMAN McCLELLAN: Gotcha.

Just two more questions, Chair.

SENATOR SMITH: Yes, sir.

ASSEMBLYMAN McCLELLAN: So, in your reviewing of the PACT rules, did you see if the DEP provided or demonstrated any requirements that are technically feasible or cost-effective in establishing these rules in our districts?

MR. KOLAKOWSKI: Again, I don't really think they look to the feasibility of projects. I don't think they really look to our overall housing needs; they didn't look at our infrastructure needs.

And, again, that's why kind of in my testimony I said we need a whole government approach. Because, in fairness to them, that is not their charge; their job is to myopically look at environmental protection. But, again, I think that was why this proposal was so flawed, because it myopically looked at it from just that perspective when we have many other public policy needs that converge and interact with this one public policy.

ASSEMBLYMAN McCLELLAN: Gotcha.

And, one more question, Chair.

And, in these rules-- Did you see the DEP address any constraints such as limited lot sizes? Is this-- Developmental patterns? Utility conflicts? The lack of control over site infrastructure when imposing DEP requirements like elevating dry access; expanding stormwater standards; or increased flood elevations?

MR. KOLAKOWSKI: I mean, I can go off on each one of those, and I did not. And, I'll mention a couple, and we'll go to the existing homeowners. And, people don't realize that when you meet the 50% threshold, not only do you have to raise your house, but DEP will treat it like new construction. So, you'll have to deal with 3% impervious cover limits, and I don't know how you do that on your smaller lots that just start where you think.

In the urban setting -- and, this is something, again, that goes beyond climate change -- they just decided to hoist more stringent stormwater requirements on all redevelopment projects. So, even if you're not in one of these flood hazard areas, you're going to have to deal with it. And, I think that will cycle not only investments in those more lower-lying areas -- to your previous question -- where we have homeowners that-- And, areas that are deteriorating already; it's only going to make those deterioration worse.

And, then you compound it on-- And, I think you hinted at this in your question, which is the dry access issues, and the fact that a property owner has no control over the infrastructure offsite -- or, very little control. We cannot go offsite and raise the road; we don't have the financial wherewithal to do that; we don't have the jurisdiction to do that. And, the biggest problem about that dry access provision that has been part of our kind of top priorities in looking for the DEP to change this is that there is no

standards. We don't know if dry access is required a block away from the building, or if it's 3 miles away. We don't know if dry access warrants means of egress for the residents there to get out, or if it requires emergency access vehicles to get in. And, then they talk about, they have a hardship waiver, but there's no standards by which to judge those hardship waivers.

So, it's a big word salad right now that doesn't really mean anything, but just will shut down development -- from our perspective.

ASSEMBLYMAN McCLELLAN: Gotcha.

Thank you Mr. Kolakowski.

MR. KOLAKOWSKI: Sorry to be a little bit--

ASSEMBLYMAN McCLELLAN: I appreciate that.

MR. KOLAKOWSKI: --more evasive.

SENATOR SMITH: Any other? (no response)

All right, if not, we have with us today the Mayor of Jersey City, James Solomon.

He-- On January 15, he was sworn in as the 50th Mayor of Jersey City, and he had been previously on the Town Council.

Mayor.

MAYOR JAMES SOLOMON: Thank you, Senator; thank you, Assemblyman; Committee members.

I very much appreciate the time, and I will try to be as brief as I can, because I know you have a number of other witnesses here.

So, I want to thank you all for looking at the REAL rules, and I want to share my concerns as the Mayor of Jersey City, where we absolutely do not want to see these rules thrown out, but we do want to see significant revisions made to them.

Before I get into those thoughts and comments, just very briefly wanted to talk through what we in Jersey City are doing on climate. Obviously, we have experienced the drastic negative effects of climate change like so many of you all have in your communities. Hurricane Sandy was extraordinarily devastating to Jersey City; Hurricane Ida resulted in some of the worst flooding we've ever experienced. And, we are taking action.

I am proud to be a climate mayor. Moving forward on that, we're fully supportive of legislation here to make ourselves more resilient and pay for that, including the Polluters Pay Act, which we think is a really important piece of legislation for this Legislature to advance, and to help cities like Jersey City address the reality of climate change. And, we have already put in place strong stormwater regulations within our own zoning code, done simply because we know we have to prepare to be able to absorb more water as our climate warms and as we experience larger and more devastating storms.

So, we are very, very committed to our work on climate change. We're excited to partner with those in the Legislature who are advancing goals to make our city and our state more resilient, and look forward to working with you all on those issues.

When it comes to the REAL rules, I want to say that we're asking for today is that -- rules that are I think better tailored to the realities of urban centers that advance our climate goals through smart development. So, with respect to the lobbyists here in the room today, I didn't ask them for an opinion on this. I very much went to our city planners first, and I said, "You all have pushed our stormwater regulations; you have been the leaders in building a more resilient New Jersey and (indiscernible) Jersey City -- what do you think?"

And, their conclusion was that in these -- in their current form -- the rules would impose serious, unworkable burdens on development rehabilitation across Jersey City, and, most importantly on our end, our ability to build affordable housing. The requirement to elevate new and substantially improved construction 4 feet above FEMA flood standards would drastically increase building costs, and ultimately those costs would be passed to tenants, small businesses, and working families. The proposed inundation risk zones reach deep into historic neighborhoods, and would conflict directly with some of our historic preservation requirements. The definition of “substantial improvement” conflicts with that in the Uniform Construction Code, creating regulatory uncertainty that would be compounded by the five-year adjustments -- the automatic five-year adjustments written into the law, and the underlying climate maps used didn’t account and don’t account for some major infrastructure improvements in climate change -- resiliency improvements that we both have done and are in the process of doing.

Above all that is the impacts on affordable housing. Jersey City has been a leading driver of housing production in the state. Despite being 3% of the state’s population, we have built 15% of the state’s homes, and among that, many of those are deed-restricted affordable homes. Those major projects deliver significant, affordable workforce housing units, and they have complex and fragile financing. And, while the rules have a theoretical affordable housing exemption, our city planners are deeply worried that, in practice, it is extremely murky and would be difficult to obtain, and that regulatory risk will put the major affordable housing projects in Jersey City that we are currently advancing at risk.

So, what we would like the Committee to consider as you look at these rules is cities are not the enemies of climate resilience; dense, urban environments like Jersey City produce dramatically lower per-capita carbon emissions and sprawl. Our residents take transit, walk, and live in multi-family buildings that share energy loads. When we make it harder to build in cities, we push growth outward and into car-dependent communities and away from the infrastructure that already exists. So, any regulation that would inadvertently hurt affordable housing production in Jersey City may unintentionally harm our broader climate efforts. We joke, but we say it with seriousness, too, that the single best thing you can do to help the environment is to move to a city; take public transit; reduce your energy costs.

So, Jersey City welcomes strong climate regulation. We have voluntarily imposed strong climate regulations on our own in our city, but we want to make sure that those regulations are workable and that we can keep building the kind of dense, affordable housing that makes Jersey City and the State of New Jersey strong.

So, what we are asking to work with the Committee, with DEP, is on revisions to the current rules; revisions that better reflect development in urban areas; that better reflect the needs to build affordable housing. And, we are eager to partner with all on that effort.

So, thank you so much.

SENATOR SMITH: Thank you, Mayor.

ASSEMBLYMAN KANITRA: Chairman, can I ask a quick question?

SENATOR SMITH: Yes; a question, sure.

ASSEMBLYMAN KANITRA: Thank you for being here with us today, Mayor.

MAYOR SOLOMON: Sure; thank you, Assemblyman.

ASSEMBLYMAN KANITRA: You obviously showed a strong predisposition for cities and urban areas. What are your thoughts on single-family, standalone homes?

MAYOR SOLOMON: (laughter)

Broadly, or--

ASSEMBLYMAN KANITRA: However you want to answer, Mayor.

MAYOR SOLOMON: So, I mean, each community is different. In Jersey City, we do have single-family standalone homes. We have looked at zoning regulations; we have what we call the "R1 standard" in Jersey City. We recently revised those. They allow for buildings to be about 33 stories; they allow for two to three units per development. So, we have neighborhoods with single-family homes. Generally, in Jersey City, most of the development is multi-family.

ASSEMBLYMAN KANITRA: Do you personally believe that more new single-family homes should be built?

MAYOR SOLOMON: So, I think we need to have more housing production of all types. We have a housing supply crisis in the State of New Jersey. It's part of what's driving the intense increases in both housing costs, rental costs, and affordability is the biggest issue in my city. We've lost -- just to give you an example -- 3,000 members of the African American community of Jersey City have been displaced from our community in the

last 10 years, primarily due to housing costs increasing. And, that's a regional problem, so it involves New York City and New York state as well.

But, we need to build more housing. So, I would never say we could only build one type of housing; I would say each community is different, but we need to be building more housing.

Now, to the point I think a lot of the advocates here would say as well is that housing needs to be sustainable over the future. And, that's 100% right, and there's a little bit of a Goldilocks situation of, we've got to strike that balance right. How do we incentivize more housing production of all types, but do so in ways that are sustainable? That's why we imposed our stormwater regulations here, because we know we have to be able to absorb more water with the changes in climate change. But, obviously, we are concerned about how these rules are drafted in their current standard, that it doesn't strike that balance correctly.

ASSEMBLYMAN KANITRA: And, last question: Do you think-- Obviously, you support these rules. Do you think that these rules and the managed retreat that is talked about in some of DEP's own documents will force people out of communities like mine, into the cities? And, if so, do you think that's a good thing?

MAYOR SOLOMON: Well, we want -- we want people to live in Jersey City; we don't want them forced out of any community

ASSEMBLYMAN KANITRA: OK; all right.

MAYOR SOLOMON: We want people living in Jersey City, but not forced out of any community.

Here's what I would say, is this: We obviously have incredible amounts of development on the waterfront. Much of Jersey City's

development is in flood zones. I don't think anyone is thinking about people leaving those neighborhoods; if they did, that would massively decrease our housing supply. So, I think that applies to Jersey City; I'm not going to speak on other communities, but that's how I would approach it.

ASSEMBLYMAN KANITRA: Thank you very much.

SENATOR SMITH: Thank you.

ASSEMBLYMAN McCLELLAN: Chairman.

SENATOR SMITH: Yes, Assemblyman.

ASSEMBLYMAN McCLELLAN: Good afternoon, Mayor; thanks for coming.

MAYOR SOLOMON: Good afternoon, Assemblyman.

ASSEMBLYMAN McCLELLAN: Just one quick question that, as it-- For Jersey City itself, can you explain how these rules account for disproportionate impacts on vulnerable populations that you may have, including low-moderate income residents; seniors; individuals with disabilities? Particularly where elevation requirements may increase the cost or reduce accessibility.

MAYOR SOLOMON: Sure, absolutely.

I think affordability, as I said earlier, is our biggest concern. And, that is one of the lenses with which we review the regulations. We are concerned about costs being passed down to tenants. So, rents have increased in Jersey City substantially. That has driven a significant amount of either displacement or what we would -- technical term is people being "rent burdened," but, I mean, the practical reality of it is you're just spending too much money on your rent.

And, so, if these rules-- As currently drafted, we believe these rules will increase the cost of housing production, particularly affordable housing production, which will then lead to increased rents that will then make the City less affordable. So, that is a big concern of ours.

In terms of accessibility, this isn't something I've looked at as much, but happy to have our team look at that and make sure that we apply that lens to how it would apply in Jersey City.

ASSEMBLYMAN McCLELLAN: Thank you, Chair.

Thank you, sir.

ASSEMBLYMAN KENNEDY: OK, thank you.

MAYOR SOLOMON: Thank you.

ASSEMBLYMAN KENNEDY: Next we have--

MAYOR SOLOMON: Thank you all so much.

ASSEMBLYMAN KENNEDY: --Professor Anthony Broccoli, Rutgers University.

ANTHONY J. BROCCOLI, Ph.D.: Thank you.

Thank you again for the invitation to speak here today.

And, I'm going to talk a little bit about climate change and how it's affecting sea level and coastal flooding here in New Jersey.

The testimony I'm giving is based on the latest report by the New Jersey Science and Technical Advisory Panel on sea-level rise and coastal storms. This panel, which was led by my colleague Robert Kopp, was convened by Rutgers on behalf of the NJ DEP and the report was completed last year in 2025. The report -- which I'll refer to as the 2025 STAP Report, is intended to be policy relevant, not policy prescriptive, and it does not make recommendations about how decision-makers should use sea-level

projections. I will draw from the information in this report by discussing first global average sea-level rise and its drivers, before focusing more specifically on sea-level rise here in New Jersey.

Over the period from 1900 to 2018, the global average sea level rose at a rate of .7 inches per decade, but this rate has increased over time. Tide gauges and satellite observations show that global average sea-level rise has accelerated from 8/10 inch per decade in 1993, to 1.7 inches per decade in 2024. There are three major processes contributing to global sea-level rise.

First, as the ocean warms, the water expands, increasing the volume of the ocean. Thermal expansion has been responsible for just under half of the rise in sea level over the past several decades. A second driver of global sea-level rise is the melting of ice sheets and glaciers as the climate warms. During the past several decades, the great ice sheets that cover most of Greenland and Antarctica have been shrinking, as have almost all mountain glaciers throughout the world. The ice lost from these glaciers and ice sheets adds water to the ocean, which also accounts for just under half of the recent rise. The third driver of global sea-level rise involves changes in the amount of water stored on land -- primarily in lakes, rivers, reservoirs, and groundwater. But, this process accounts for only a relatively small portion of the total.

Turning our attention to New Jersey, sea-level rise along the New Jersey coast has been more rapid than the global average -- primarily because the land is sinking while water levels are rising. Some of the sinking or land subsidence is the very slow response of the Earth's mantle to the disappearance of the massive ice sheets that covered most of North America during the last ice age. Additional sinking results from the compaction of the

sediments that make up New Jersey's coastal plain. The compaction is a combination of natural processes and the withdrawal of groundwater from wells. Other processes, including gravitational effects and changes in ocean currents, also cause sea-level rise in New Jersey to exceed the global average. As a result of these processes, sea level in Atlantic City has risen by just over 1.5 feet since tide gauge records began in 1912.

Among the effects of the rise in water levels has been an increase in the frequency of so-called "sunny day flooding," in which flooding occurs even in the absence of coastal storms. During the 1950s, sunny day flooding in Atlantic City averaged less than one day per year, but the average rate has increased to about 12 days per year for the period from 2007 to 2024, with an all-time high of 23 coastal flood days in 2024.

As the ocean continues to warm and glaciers and ice sheets continue to melt, the acceleration of sea-level rise is expected to continue. The amount of sea-level rise that ultimately occurs in the latter half of this century depends, in part, on the magnitude of future warming -- which depends, in turn, on the future emission of heat-trapping greenhouse gases. The 2025 STAP Report focused on three emission scenarios developed by the climate and integrated assessment communities: low, intermediate, and high. The implications for future sea levels of each of these scenarios are presented in the report, but I'm going to focus on the intermediate scenario, which is most closely aligned with the projections of greenhouse gas emissions based on the policies that were in effect at the time of the report.

Relative to 1995 to 2014, New Jersey coastal areas are likely to experience a sea-level rise of .7 to 1.3 feet by 2040, and .9 to 1.7 feet by 2050. The panel uses ranges to represent the outcomes that have a two in three

chance of occurring; smaller or larger increases are possible, but less likely. By 2070, the likely range is projected to increase to 1.5 to 2.5 feet, with a further increase to 2.2 to 3.8 feet by 2100. These ranges do not include rapid ice sheet loss processes involving Greenland and Antarctica, that have potentially high impact, but whose likelihood is unknown because the current scientific understanding is not yet sufficient. If these potential rapid ice-sheet loss processes are included, the upper end of the likely range would increase to 1.9 feet by 2050; 2.8 feet by 2070; and 4.5 feet in 2100. Although projections through 2050 show only minor sensitivity to different emission scenarios, the amount of sea-level rise during the second half of the century will depend on future greenhouse gas emissions. Higher emissions will lead to greater sea-level rise, and lower emissions would cause a smaller amount. A table including such information is included as an attachment to my written testimony.

Rising seas will dramatically increase the threat of coastal flooding not only on our oceanfront beaches, but also along Delaware Bay, coastal back bays, and the estuaries of rivers such as the Delaware, Raritan, Passaic, and Hackensack, to name just a few. In a typical year, around 2050, Atlantic City is projected to experience between 29 and 148 days of coastal flooding; and, by 2100, the frequency would increase to between 227 and 359 days a year. But, the most severe impacts will occur when high winds from coastal storms drive water towards the coast. These storm surge events can raise water level several feet, and their effects will be added to the effects of rising seas. Hurricane Sandy was an extreme example, producing 5-9 feet of storm surge along much of the New Jersey coast. But even a strong winter storm, such as this year's late February snowstorm, can produce 2-3 feet of

surge. Coupled with a 3-foot rise in sea level, flooding approaching that, caused by Hurricane Sandy, would become a frequent occurrence.

How will climate change affect coastal storms? This is an important but challenging question that is the subject of ongoing research. There is good evidence that a warming climate will make hurricanes stronger; cause some of them to intensify more rapidly; and make them wetter. Whether they will change in frequency or if their typical tracks will change remains uncertain. Winter storms, often called nor'easters, are a more common occurrence along the Jersey Shore. Such storms typically bring the threat of some coastal flooding several times each year. The relationship between warming and the intensity of winter storms is not as straightforward as it is for hurricanes, and continued research will be required to anticipate how they will change in the future.

Despite the uncertainties that I've just outlined, we can say something about the bottom line for communities that are exposed to coastal flooding. There is high confidence that coastal flooding from future storms will be more frequent and more severe as rising sea levels raise the baseline for such flooding events. For example, some of my colleagues at Rutgers have estimated that the rise in sea level since 1880 caused about 38,000 more people in New Jersey to be affected by Hurricane Sandy's flood waters. The future rise in sea level will likewise increase the areas at risk of coastal flooding.

Many of our traditional strategies for planning for future weather and climate events assume that they will look a lot like the events that we have experienced in the past. Climate change invalidates this assumption. Instead, we must prepare for and adapt to conditions that will likely be quite

different from what we have seen in the past. Furthermore, climate change will not stop on a dime. To put it more scientifically, the greenhouse gases that are already in the atmosphere will eventually cause more warming than has been experienced so far. Climate change is more like a massive cargo ship that will keep going for some distance, even if the engines are turned off. Sea-level rise is particularly insidious, as the heat from global warming gradually accumulates in the ocean and causes glaciers and ice sheets to shrink.

With that sobering thought in mind, we must prepare for the changes in climate that are already in the pipeline, even as we may hope that policies are implemented to reduce greenhouse gas emissions worldwide. Adapting to a changing climate is a process that should be informed by the best available science. We can't adequately prepare if we don't know what impacts are coming. The work embodied in the STAP Report is intended to inform policymakers and stakeholders as they wrestle with the difficult decisions about how to address the changes that lie ahead.

To the Committee Chairs and members, thank you again for the chance to talk to you today about this timely and important issue.

SENATOR SMITH: So, I don't even know how to frame the question.

The-- We're on the precipice here of deciding future policy, especially with regard to new development in the State of New Jersey. And, when I listen to you, you may be the scariest speaker I've heard in a couple of years.

We're trying to find guidance about what's the right thing to do for our state. And, on the one hand you have higher cost of construction, maybe less available development; on the other you have the threat of

massive catastrophe. And-- Is there any way I can get you out of the ivory tower? Give us a little direction here. Should we even be doing higher, or are we being paranoid by suggesting the REAL and the PACT rules? And, I know that's a tough thing to ask a scientist, but we really could use a little -- a little more direction in terms of what you think the policy in the State of New Jersey should be. Not holding you personally responsible for it.

That's also going to be true for us. If next year we have a global ocean rise -- for example, the Thwaites Glacier in Antarctica. I don't know if you saw *The New York Times* actually sent a ship down to try and measure the degree of melting underneath the glacier; they couldn't get the measuring equipment into the glacier and get it done properly. But, they had some pictures that were pretty scary, and they talked about if the Thwaites Glacier went into the drink, we're going to be a couple of feet higher almost immediately.

Any from-the-heart direction, Doc? And, I know it's a tough thing to ask. All your life you're supposed to be the cold "give me just the facts" kind of person. And, we respect you for that. But, we legislators need help. Do you have any direction for us?

DR. BROCCOLI: Well, first of all, I certainly don't envy the decisions that you or any other policymakers have to make, because they do involve competing interests.

And, I don't feel-- I feel I'm getting out of my lane if I say too much about policy. But, what I can say is that I think it is urgent to try to account for the changes that we see coming. And, status quo is not a really good policy for a system that's dynamic and is changing this rapidly.

SENATOR SMITH: I guess that's as close -- that's as close as we could get you to the edge, but it's all helpful.

Any questions for Dr. Broccoli?

Yes, sir, Assemblyman.

ASSEMBLYMAN KANITRA: Thank you, Chairman.

Thank you for being with us here today.

I have a question. I was looking-- Listening to your numbers that you gave, you said sea-level rise has gone up about 1.7 inches per decade; extrapolated that out, which means that it's gone up about 43 millimeters per decade, which is very similar to the numbers that I found on my own. But, then you said -- you gave the 2040, you gave the 2040 date. We're 14 years away from that date.

What do you think is going to drastically change so seismically that will cause the sea-level rise -- that your numbers, my numbers, seem to stand up to -- to change so seismically in a span of 14 years?

DR. BROCCOLI: So, there's a couple of things. First of all, the numbers that I gave for future sea-level rise are not with reference to today; it's with reference to a baseline period that was towards the beginning of this century. So, some of that rise has already occurred.

The second thing that's important to note is that the numbers that you quoted from my testimony, and the numbers that you found yourself, are numbers for global sea-level rise. But, sea level is rising more rapidly in New Jersey than it is globally. Furthermore, NOAA, on their website, indicates that sea-level rise is accelerating, just as I said, so that the sea-level rise that's occurred over a more recent period of time has been more rapid than the sea-level rise that has occurred in the past. And, this is what

we expect because the pace of melting glaciers and ice sheets has increased, and because additional heat is going into the ocean, causing it to expand.

ASSEMBLYMAN KANITRA: So, that's what I was trying to get at, and I'm not a scientist, I'm just an Assemblyman representing the Jersey Shore.

But, you referenced -- and, you did just say there -- that it's going to go up because of sea ice melt. But, yet, earlier in your testimony, you said the likelihood of sea ice melt is unknown now because current scientific data limitations. And, that's what's concerning to me, because there's a conflict there, and it's not just a conflict; it seems a little insidious to me. Because everything that we've been doing here as a Legislature -- and when I say me, I certainly don't mean Republicans -- but we as in the majority, is predicated on this 2019 study. That's what kicked all of it off. And, that 2019 study factored in a foot of rise based on ice melt; it was in there. And, then, some subsequent studies brought that into question, and other people saw that got brought into question.

So, my understanding of what happened was that the State quietly employed Rutgers again to do a subsequent study, and that's when -- that subsequent study that didn't really see the light of day right away -- is when people in Rutgers finally admitted that the likelihood of ice melt was unknown. And, then it all changed. But, that didn't stop this train from moving down the tracks or anything along those lines. And, we still reference it when we're talking about how we're going to seismically go from this sea-level rise right now to, in 14 years, we're going to be under water.

So, I don't understand, why was that new change where they determined that it's unknown now, about ice melt, why was that held until

the public comment period was over recently? Do you have any clarity on that?

DR. BROCCOLI: The timing of the reports has nothing to do with the public comment period for any particular regulation. We do these reports every several years at the behest of the NJ DEP.

But, just to correct a couple of things, there is no inconsistency. It's not sea ice melt that we're talking about. Where the uncertainty lies is with the kinds of processes that Chairman Smith was talking about a little while ago. Whether or not a glacier is going to become unstable and discharge a lot of mass--

ASSEMBLYMAN KANITRA: Right--

DR. BROCCOLI: --into the ocean. We can't be sure that's going to happen. So, that's why this report and also the previous report specifically addressed those issues and pointed out what the uncertainty range was with and without taking those possibilities into account.

ASSEMBLYMAN KANITRA: But, glaciers become unstable because they would melt, right? That's what would cause an instability with a glacier, short of somebody sitting on it with construction equipment and hammering away at it, right?

DR. BROCCOLI: The kind of instability that we're talking about for the Thwaites Glacier in Antarctica is because that-- The glacier melts from warm water in the ocean reaching it from below. And, so, that's the process that's very difficult to monitor; it's difficult to know how rapidly that's happening; and it's difficult to know how fast the glacier would respond once it started to melt more rapidly.

ASSEMBLYMAN KANITRA: And, yet, that same line of thinking doesn't apply to any other ice that isn't quantified as a glacier?

DR. BROCCOLI: No, there's plenty of evidence of what's going on with the other parts of the system. Glaciers in the mountains, for instance, are much easier to monitor. Research scientists fly over these glaciers, measure their extent, keep track of the water that's flowing off of those glaciers. So, we have a good handle on what's happening now for those mountain glaciers that are a big source of sea-level rise.

ASSEMBLYMAN KANITRA: Understood. It just seemed to me very mysterious why this new unknown didn't come out until after the comment period was ended. It seemed very convenient, but that's just from a layman.

So, thank you very much.

SENATOR SMITH: Anything else you would like to say?

Doc, are you done? Anything else you would like to say?

ASSEMBLYMAN McCLELLAN: (indiscernible)

SENATOR SMITH: Oh, I'm sorry.

You know what, we're going to move you to this chair.

ASSEMBLYMAN McCLELLAN: (laughter)

SENATOR SMITH: Sorry about that.

ASSEMBLYMAN McCLELLAN: In your eyesight-- That's all right.

I appreciate it.

Professor, thank you for coming--

SENATOR AMATO: I promise, Chairman, I'll answer tons of questions. We'll level it out a little bit.

ASSEMBLYMAN McCLELLAN: I don't know if you can help explain the justification of using the 4-foot sea-level rise scenario, based on less than the 17% probability, rather than the median projections.

And, also, how does that justify applying these assumptions uniformly across the state for the year 2100 without regard to the localization of the condition?

DR. BROCCOLI: So, a couple things.

First of all, I try to be-- I try to be humble about what I know and what I don't know. So, what I know is what the science tells us about the physical climate system. I am not part of the process of developing rules, so, I think any kind of rule development involves a balance of different considerations, including the tolerance for risk.

And, to just clarify what the range indicates -- the 17% number, there's only a 17% chance that the amount of sea-level rise will be above that number; not that there's only a 17% chance that it will reach that number.

SENATOR SMITH: Would you clarify that a little further? Because that 17, 83% thing, it's come up a hundred times.

Describe the subtle difference that we're talking about here.

DR. BROCCOLI: The idea in producing a range is to give an idea of the most likely scenario. So, the most likely scenario is the middle of the range, and that was arbitrarily set to be two-thirds of the range. So, that means there's one-sixth above, there's one-sixth below. Seventeen percent is approximately one-sixth. So, what it's saying is that there is a two out of three chance that it will be within that range, including that top number, and there's only a 17% chance that it will exceed that number.

SENATOR SMITH: Sounds like my statistics course.

(laughter)

DR. BROCCOLI: Yes, well--

SENATOR SMITH: Yes, but it's not-- You can't interpret the 17% side. I've heard some people say, "Well, we're fine, why should we enact these building standards because there's only a 17% chance that they're going to be flooded in the next X number of years?" Is that a valid way to interpret it?

DR. BROCCOLI: Well, I think-- I think it's a judgment that has to be made based on one's tolerance for risk. My wife and I have fire insurance on our house, but I don't think the risk of our house burning is anywhere near as high as 17%. So, it's a question of balancing consequences versus costs. And, unfortunately, that's the part that I'm going to punt on.

SENATOR SMITH: Got it.

Senator Amato.

SENATOR AMATO: Thank you, Mr. Chairman.

So, basically, the rules were promulgated upon a 2019 report from Rutgers that says that 5 feet sea-level rise, correct?

DR. BROCCOLI: The 2019 report, because the way the ranges were expressed, that included that larger number because it included some of those ice sheet processes. That's stated in the report, and it's also stated that they're uncertain.

In this latest report, we've just broken down the numbers in a little bit different way. So, in the table that's attached to my written testimony, you can see the numbers with or without making that assumption.

SENATOR AMATO: Right, and the assumption is in the year 2100, it's going to be 3.8 feet?

DR. BROCCOLI: For the intermediate emissions scenario--

SENATOR AMATO: For the-- Right--

DR. BROCCOLI: --and, without any of the unexpected or uncertain heavy ice loss from Antarctica or Greenland, then the upper end of the range is 3.8 feet.

SENATOR AMATO: OK, thank you.

SENATOR SMITH: I think we've concluded the questions.

SENATOR AMATO: Thank you, Chair.

SENATOR SMITH: We appreciate you coming down again.

DR. BROCCOLI: Thanks for having me.

SENATOR SMITH: Thank you; we appreciate your information.

All right, let's talk a little insurance.

We have, from the American Property Casualty Insurance Association, David Snyder. And, he is actually the Vice President of the APCIA. It's a national trade association for home, auto, and business insurers.

Mr. Snyder.

DAVE SNYDER, J.D.: Good afternoon, Mr. Chairman, and members of the two Committees.

Thank you very much for, A, holding this hearing, considering the importance of the issues that you've heard from all different sides in a particular debate -- particularly on this day.

You know, I'm struck with a new generation of astronauts who are showing pictures of the Earth from space, and I recall a discussion with Alan Bean, a prior generation astronaut who actually walked on the moon,

and he said, “The thing that I recall most of all was flying through the darkness of space and seeing that little blue and green ball and thinking, “You know what? That’s all we have.”

So, thank you very much for holding this hearing today.

I represent a national trade association with about 1,200 insurers and re-insurers who write business in all of the states and about 100 countries around the world. We work very closely with our industry colleagues here through the ICNJ.

I have a set of slides, and I’ll run through those slides very quickly in view of the time, and in view of the excellent testimony that you already heard.

My purpose today is not so much to comment on the particular rule that’s already been the subject of significant comments pro and con; but, rather, to add value in terms of addressing the larger issues in the debate.

So, in the first slide, there is the comparative global map of disaster costs from 1980 through 2026. And, as you can tell from that, New Jersey is one of the states that has had some of the highest disaster costs during that period of time -- something you all know very, very well due to the uniqueness of the state, its geography, and other factors. And, your work today and previously has been a good faith effort to reduce that on the behalf of your constituents.

Now, the next slide is something we all know. We’ve been through a very difficult homeowners insurance market cycle. The hope is that things are going to start to improve at least marginally, and that seems to be the case. So, what’s caused that cycle? Well, first of all, macro-economic pressures. Most importantly, the record inflation that struck right

after the pandemic; from a property casualty standpoint, about the worst thing that can happen is you predict your claims will cost X, and suddenly they cost X amount more than your premiums reflected. Climate is a factor for us in several ways: First of all, increasing weather severity and volatility; but, also, demographic shifts in disaster-prone reasons. And, finally, because we're heavily regulated, our relationship with our regulators and the government in general is a fundamental element.

Now, the next slide -- just as an example of the increased costs that we've been dealing with. And, there we compare real estate costs with increase in premiums for homeowners insurance. And, the fact of the matter is that the inflation rate, while it's improved somewhat in the general economy -- unless new circumstances change that -- the reality is that in construction materials, those costs have kept going up at a significant rate.

My next slide refers to one of the most recent reports from an unbiased source, the Government Accountability Office, that did a comprehensive report on homeowners insurance. And, the fact that I want to emphasize for purposes of this hearing is that according to their stakeholder work, there's strong support for stronger building codes; funding for improving infrastructure; and overall improved efforts to reduce losses that are preventable. So, it's not just our objective today is not just to yet redefine the problem again, but to speak with you about what we've learned are solutions that might be relevant to your particular debate on this particular rule.

First of all, we realize that, fundamentally, it's got to be a partnership; it's got to be all of government, the insurance industry, the building sectors, local government, Federal, and State government all have

made decisions in the past that have led positively or negative to where we are today, and we all need to be part of the solution. So, what we have found important for State and local government is to look at grant programs and low-interest loans for resilience. Some homeowners just simply can't do it on their own, and, so, there is a role for government. There's also a role for the insurance industry.

And, I want to here base some learning on some actual state programs which started in the state of Alabama, extended into the state of Louisiana, and now are being widely considered across the country. It's basically a three-part approach. The standard for resilience is the science-based insurance institute for building and home safety standards -- and, we'll talk a little bit more about them in a minute -- that are used as a basis for government grants and actuarially sound insurance premium discounts. You put all that together, and that has produced some very successful results -- which I'll talk about in a minute -- that started out the (indiscernible) -- the great laboratory of public policy the (indiscernible) are proving how effective they really can be, including in this area.

I talk about catastrophe savings accounts. There is a critical role for modern building codes. And, government infrastructure is something that simply needs constant attention and funding.

Now, what are some of the actual real world positive results of some of these general policy discussions that I've been talking about? And, here is a slide -- financial return on investment from resilience. Alabama has documented their return, not only in terms of reducing losses and insurance premiums, but also as buildings met the higher IDHF standard that was part of a program. They were actually more desirable for consumers, so their

prices went up as well, reflecting the improvement in safety. And, there are other examples of what we have seen in other states that might be part of the fabric of how New Jersey moves forward to address the larger issues that are in the context of a specific discussion today.

And, the next slide provides more detail on financial incentives for resilience. The state of California, for example, has documented the importance of good standards on rebuilding after an event occurs. And, I have several slides providing the work by the California Department of Insurers.

So, what's the rule of insurers? So, our rule is, first of all, to collect and use good data and make that available to public policymakers and other stakeholders in the process so that we can work together in an effective partnership. It's our rule as well to promote innovative science-based resilient building products and solutions and standards that will, in fact, actually work to mitigate the risk of loss and provide safer environments for the people who have lived in those buildings.

More specifically, insurers are leading the efforts in working -- as we are today -- with you all, and are absolutely committed in the future supporting resilience and mitigation programs of the types that I've talked about. We do believe that stronger building codes and land-use policies are important. We fund science-based research; our models are forward-looking, because it is no longer enough to look to the past. We rather need the best science and prediction for the future, in terms of looking at risk that we're talking about today. And, we invest in underwriting climate and renewable energy.

I talked a minute ago about the Insurance Institute for Building and Home Safety -- that's the next slide. They have issued standards on fortified homes to deal with the wind peril; there is a similar one, fire-ready homes in wildfire areas. And, those standards can be extremely useful to governments and others in terms of crafting programs that will actually work to reduce losses and moderate insurance premiums.

The final couple slides indicates -- and the source is the National Institute of Building Sciences -- what the upside can be in terms of return on resilience. And, I provide that for your use as well.

So, finally, the concluding takeaways -- we are dealing with extreme events. They require, however, a joint cooperative effort. An example I use is, some years ago, we had talked on the issue of highway safety. How did we do it? The government established minimum car safety standards. The industry came forward and met those standards and offered new innovation. The insurance industry was there providing -- through the Insurance Institute for Highway Safety -- science-based information, useable by both the industry and government. And, together -- at least for a while -- and needing constant renewal, we addressed what was an out-of-control highway safety issue. We think a formal model, working together, is the one thing we can address the issues that relate to climate change; that are increasing cost and losses for our individuals, our communities, and ultimately insurance costs. And, working together, we're convinced that, based upon what we've seen in other states, we can actually make a difference. And, we know that's what you're all about.

Thank you very much, Mr. Chairman, for the opportunity to add at least a thread to the fabric of this discussion.

SENATOR SMITH: Well, I think we need to ask a question or two.

I'm looking at that slide that said, "Mitigation saves," which I think is third from the end -- "Mitigation saves."

MR. SNYDER: Yes.

SENATOR SMITH: So, you have two categories on top -- riverine flood and hurricane surge. What are the ratios? For example, in riverine flood, where you say, "Adopt code 6-to-1," are you saying for every dollar you invest, you save six, or yield six? What's the ratio?

MR. SNYDER: The-- You said what's the ratio-- Is 6-to-1--

SENATOR SMITH: Of what? What's the six; what's the one?

MR. SNYDER: It's the investment of a dollar against the code that's in place in other categories. I can provide some background information on the slide; I appreciate your questions and will do that.

SENATOR SMITH: Well, OK, so-- But, trying to get to it, I assume that what you're saying here is-- OK, actually, you say it. Overall benefit slash cost ratio. And, you are then-- You have, like, five categories. Adopt the code; do stuff above the code; a building retrofit; lifeline retrofit; and Federal grants. And, I think you're making an argument that for some dollars invested -- which would be the second row down -- you get a benefit of so much. So, for adopting a code, you say it costs a billion dollars; the benefit is \$13 billion per year.

MR. SNYDER: Right.

SENATOR SMITH: And, then, you go above the code that costs you \$4 a year, but you get back or you save \$16 billion.

So, the thematic on that is that if you do stuff, you save either on insurance premiums -- or is there something else?

And, I guess the insurance question I want to ask you is, the rules are not about wildfires. The rules are basically about floods, or surges, or sea-level rise -- they're more water related. The PACT rules and the REAL rules -- I think -- are more water-related -- subject to correction by anybody. If we don't do the REAL rules, the PACT rules, don't put these higher elevations, which are now at 4 feet -- they were 5 originally, but they were cut down to 4 -- and it's for new construction, or when you significantly modify your existing structure, the new rules kick in. If we don't adopt them, what's the insurance impact? And, if we do adopt them, what's the insurance impact?

MR. SNYDER: Yes, we're getting much better at being able to project that. And, in fact, the states of Alabama and Louisiana in particular either mandate or allow actuarially sound discounts. So, there's now evidence of, if you do this -- and this needs to be science-based and has credibility -- if you do this then you can expect your insurance premiums to (indiscernible)

SENATOR SMITH: Can we get anything back from the insurance industry that kind of puts a ballpark on it? Because, that's some of the stuff we should consider when we decide to change the rules; don't adopt the rules; or adopt the rules. I mean, it's a factor; it's a number that will affect all the homeowners and business property owners in this -- in these districts.

Could you-- And, I don't expect you to have this today. But, is there a chance you could get an estimate to us on what the impact would be on an insurance if we adopt the rules; if we don't adopt the rules; or if we modify them?

MR. SNYDER: With respect to the particular rules of discussion today, we-- I think what will be important is to see what comes out at the end of the process. We've not looked at the particular rule to be able to predict anything at this point, and listening to the debate this morning, it's not entirely sure what will ultimately come out of that. And, the rules are directed primarily to flood, which would be more National Flood Insurance Program issue.

We can say, though, that with respect to the programs that I've talked about, we've reached a precision that says if you do X that Y will result in the building environment; in the built environment. The area that you're talking about is -- is both long-term and more difficult to predict because of exactly the factors that you heard discussed today. But, we are available to assist in any way at the end of the process when the basic tradeoffs and public policy is determined by the State.

SENATOR SMITH: But, we're at the end of the process. We have adopted rules, and we're now looking at un-adopting the rules. So, we're at that point.

And, I don't know-- You may not be the right person--

MR. SNYDER: Yes--

SENATOR SMITH: --or your organization might not be the right person, but we probably, at a minimum, should write to FEMA and ask if there's anything -- what the impact on flood insurance will be in New Jersey, either adopting or not adopting.

We probably won't get an answer, but it might be good to ask the question. And, if you know of anybody in the industry who can help us

put a number on that, whether there's some value to adopting or no value or very little value -- that might help all of us.

MR. SNYDER: Let me take that back and see if I can provide someone who would be helpful on that particular rule.

But, I really-- I did want to just indicate that, in terms of some of the larger issues (indiscernible) context, we think that we have something to add in terms of those -- those issues.

SENATOR SMITH: We'd love to hear from you.

MR. SNYDER: But, the particular rule we haven't really been able to review, and it seemed early considering the controversy in the rule.

SENATOR SMITH: It's going into effect on July 19, is it?

UNIDENTIFIED SPEAKER: After July 19.

SENATOR SMITH: After July 19. So, it's-- This is a good time to weigh in on it, if you can. And, if you can't, we understand, too.

Any other questions for Mr. Snyder? (no response)

OK.

MR. SNYDER: Thank you, Mr. Chairman--

SENATOR SMITH: Thank you, sir--

MR. SNYDER: --thank you members of both Committees.

ASSEMBLYMAN KENNEDY: Next, we have Professor David
(*sic*) Garrett.

UNIDENTIFIED SPEAKER: Dan.

SENATOR SMITH: What's that? Dan?

It says David on your sheet.

UNIDENTIFIED SPEAKER: My apologies.

SENATOR SMITH: Are you Dan, or are you Dave?

DANIEL G. GARRETT, Ph.D.: Daniel, yes.

Thank you so much.

SENATOR SMITH: OK, thank you.

ASSEMBLYMAN KENNEDY: You got confused with the guy above you.

DR. GARRETT: That's all right, I'll go by anything; I'm just happy to be here.

Thank you to the Chairs, and thank you to the members, and thank you for holding this hearing. I'm really excited to also testify on this topic.

I also want to start by noting that I am a scholar of public finance, so I spend a lot of time thinking about State and local budgets, and thinking about fiscal spillovers. And, my real specialty and love is the municipal bond market; thinking about who is pricing risks and who is bearing risks; and where are those risks manifesting.

I do also want to highlight that I'm speaking in my private capacity and not on behalf of my employer, which is the University of Pennsylvania.

Why do we care about public finances in this particular venue, and in this particular context of these New Jersey REAL rules and regulations? States and municipalities in the U.S. raise a huge amount of money -- about \$500 billion a year, with a total amount outstanding about \$4.2 trillion around the whole U.S. In New Jersey, those numbers are in the realm of about \$90 billion that we borrow from investors to fund lots of investments in infrastructure; to fund ongoing investments; et cetera.

I want to highlight-- Where does this interact with rules about land use around the coastal floodplains, or inland floodplains? The fiscal well-being and long-run solvency of public borrows is impacted by climate threats and other environmental phenomena. So, investors require additional compensation in order to make investments in those public entities. So, that is to say the more sea-level-rise risk exists, the more that New Jersey municipalities and New Jersey, the State itself, is going to have to pay to investors to access financial markets.

The second thing is that most State and local investments in climate adaption and mitigation currently are and will continue to be financed through the municipal bond market. That is to say, how much we have to pay investors directly influences our ability to actually engage in future mitigation and adaption projects -- and, particularly, those sorts of infrastructure investments that have been mentioned by several speakers before me.

I also want to caveat, it's fun to look at municipal markets and say, "This is a really great place to figure out what risks a large group of people think exist." And, so, this is going to tell us something, that it's not just me sitting alone in my ivory tower, saying, "Let me calculate out what the risk is here." But, this is going to be-- People are going to be willing to buy bonds at certain prices because they perceive these risks; but, also, we're only going to be able to measure through the municipal bond market risks that are borne by the investors, insofar as the risks are borne by other taxpayers -- by, say, one community paying more in taxes; one community paying less in taxes; or receiving bailouts in the event of environmental failure. That's not going to

be captured by the municipal bond market. We're only going to really be looking at that priced perceptions of non-repayment.

So, in the next few minutes, what I really want to say is I really want to delve into the fiscal benefits of responsible environmental protection and abatement, and nothing that these environmental threats are priced, and trying to think about, what do we know about these environmental threats, and what mitigation-- What is kind of the fiscal value of these mitigation efforts?

What I do want to be clear about, if you zone out for the next few minutes, is that taking actions to mitigate large and correlated property destruction and losses due to climate change, such as sea-level rise and other environmental phenomena, is valued in the municipal bond market and can have a sizeable fiscal impact.

So, I will have more comments than I'm going to go through today that I've submitted; it's kind of my written testimony. But, let me highlight a few facts about public finance in general and public finance in the State of New Jersey.

Public finance is expensive -- by which I mean when the State and local entities in the U.S. borrow from capital markets. So, we want to build a new school, and we go out and we borrow \$20 million from investors, the relative amount that we pay those investors is higher than you might expect if you compare to other debt markets that had similar amounts of non-repayment risk. It's expensive. So, the U.S. number for how much interest is paid a year is about \$100 billion; in New Jersey, that number is more like \$3.4 billion. So, that was 2022 census government's number. To give you a sense of how big this is, that's about three times larger than all spending at

the State and local level on fire, and about the same order of magnitude as all of the spending on judicial and corrections facilities -- about \$3.8 billion. It's a very large fiscal line item of accessing financial markets.

So, OK-- And, I said it, I said this is an expensive market; it's expensive for us to borrow from investors. Why is that the case? What makes it expensive for investors to loan public entities money? Borrowing is relatively more expensive when investors perceive that that borrowing is risky. You have to compensate investors for any risks that they're taking on. So, that is, the investors see some potential likelihood that they're not going to be paid back, and then they require a higher interest payment basically from public borrowers.

Debt in New Jersey *is* expensive, in a relative sense, when compared to other states and compared to other municipalities. The debt levels are a little bit higher, and of course there are other things like legacy pension obligations that the State has been doing a really good job working with in the last few years that kind of maintained a relatively higher borrowing costs than some of the peer states. So, this is something that is important to the budget.

So, fiscal risks to a state can manifest in all sorts of ways. Anything that impacts the tax base of the state, or that requires expenditure by the state, are going to potentially put the investors in a position where they are worried they won't be paid back. What does that look like in reality? Let me give you kind of three examples of how fiscal problems manifest that are kind of outside the borders of New Jersey, just to give us a sense of what *can* exist. I should note, New Jersey has never defaulted. New Jersey as a State has had episodes where people have been concerned, but has never

actually missed an interest payment -- unlike your neighbors to the west who missed an interest payment in a panic in 1837. So, Pennsylvania does not have claim to that same pride.

So, they manifest in different ways. So, for instance, Detroit. They recently went through a very large bankruptcy after having decades of fiscal mismanagement and declines and tax revenues and outflows of the workforce and economic activity. This was a very slow burn; it happened very slowly. They were making promises to employees through pension obligations that they were not able to meet, and this kind of led to a slow burn that eventually did lead to a bankruptcy and large losses for investors and, of course, that requires large compensation to investors as well and for future borrowing.

There are other times where things happened based on just kind of more general fast mismanagement of fiscal resources, as in Orange County, California, in 1994, that had a pretty dramatic and sudden default based on some really bad investment in interest-rate derivatives. There are also defaults and bankruptcies that are precipitated by environmental phenomenon. One of the most famous is the U.S. is that of Galveston, Texas, in 1900, that was hit by a very large hurricane and storm surge. Within two weeks, the city government had recognized they would not be able to pay their debts. They needed to reorganize; they needed state support. And, so, of course, they did not technically miss an interest payment, but they did wind up not making those interest payments themselves. So, there are lots and lots of different ways in which this fiscal risk can manifest that investors are really worried about.

So, let me also note on that last example about Galveston, there is another kind of related idea that is important to think about while we're in New Jersey, which is how much risk does the State bear for the relative tax risks of our municipalities? So, in New Jersey, municipalities raise revenue from property taxes. So, that is damaging properties or making property owners unable or unwilling to pay their property taxes is going to lead to kind of being the main source of risk that people are worried about for local municipalities.

In the state, of course, we have income and sales taxes, is kind of the large players in terms of what taxes are collected. The academic literature has recently started separating states into what we call "Chapter IX states," and "proactive states." Chapter IX states encourage and allow their contained sub-jurisdictions to engage in the bankruptcy code through Chapter IX. Proactive states -- much like New Jersey -- take a really active role in forbidding their contained municipalities and sub-jurisdictions from actually accessing the bankruptcy code and taking an active role in stepping in making sure creditors are made whole, and making sure that the city is able to get back onto sound fiscal footing through kind of actions of the State and additional restructuring powers that the State provides on their own.

What this means is states like New Jersey that are proactive take a more active role in losses to the contained municipalities. That is to say, if a coastal community in New Jersey has a storm surge and loses all their infrastructure in such a way that they're not able to meet their own bond obligations in the future, New Jersey is going to have a larger role in handling that process and restructuring than many other states. So, that basically says New Jersey is providing a sort of implied insurance for the borrowing and

fiscal activities of people who are making risky environmental decisions. So, that's one of the really important ways in which the State is also, as a whole, going to be subject to the fiscal impacts of local decisions on the coastlines of the state.

OK, so, that's kind of some high level about New Jersey, about the bond setting. What do we know about sea-level rise? Is it priced; do investors care? The most recent empirical exploration of whether sea-level rise is priced in the municipal market was published three years ago by one of my former colleagues, Mike Short, who is also a professor at the Wharton School. What they do is they make a clever comparison, a very, very narrow comparison. So, they look all around the U.S., all the coasts in the U.S., and they pick every county that has at least two school districts -- and, they're both on the coast -- and they look at which one of those school districts has relatively more exposure to sea-level rise and floodplains, and which has less. And, they start off by doing a comparison starting around the year 2000. And, they can say, "Look, the borrowing outcomes and the pricing of financial obligations for these different municipalities are very, very similar over time.

I should note, also, a lot of the data do come from the New Jersey counties in particular. So, this is kind of built from data that happened in the state.

So, they're comparing these two school districts within the same county. And, what they can show is, over time, as our scientific expectations of sea-level rise have updated, and they have become a little bit more extreme over time -- particularly, say, between 2010 and 2014, there was an increase. What you can see in the bond markets is bonds issued by school districts with relatively more exposure to sea-level rise. That is to say, relatively more

of the properties paying taxes into that school are subject to these kinds of new increasing expectations of sea-level rise. Those school districts wind up paying their investors more to get them to buy the same bonds. That is to say, investors require a higher return for bearing this climate risk. And, they can show how that kind of grows over time.

What I want to highlight is, people who have kind of tried to update this with data, even in the last few years since 2023, have only shown this pattern as increasing. I should also note there are other papers in the literature -- again, they're documented in my written testimony -- that have higher estimates. What they basically argue is that an additional 10% of your properties leads-- An additional 10% of your local properties in your county, or within your school district boundaries, that have sea-level rise exposure-- Essentially, they're in a floodplain that's likely to be hit by new estimates; your borrowing cost goes up by about five basis points. Now, that sounds small -- five basis points is 0.05%. But, what it basically means is if a municipality in New Jersey has 10% more of their properties under -- that are threatened by sea-level rise, they could have borrowed .3% more cash promising the same cash flows to investors. So, essentially, we're not getting enough money when we actually interact with financial markets because we have this sea-level rise risk.

Now, I want to note in the last kind of minute here, we know sea-level rise is priced, but what can we do about it? Does mitigation matter? Now, it's really, really hard, I should note, in the academy to actually measure whether sea-level rise mitigation is effective and exactly what its value is, for public budgets. The reason is one of reverse causality. That is to say the places in the U.S. that are most able to adapt to climate change also happen

to be the places that are the richest and the most financially sophisticated. People who are doing the most adaption are the most able to do adaption, and they also happen to be the people who investors in the capital markets are most willing to give money to. So, there's kind of this built-in correlation to say people who have low borrowing costs also are doing climate mitigation. So, it's a really hard -- it's a hard question to answer.

What we can do is we can turn to the largest intermediaries of information in the market, which are credit rating agencies, and say, "Do they think climate mitigation exercises are helpful in actually lowering these risks that are priced in the market to sea-level rise?" The answer is yes. So, I would like to quote a few now, in the context of New Jersey.

And, I'm going to start with the August 11, 2025 S&P Report -- or Standard & Poor's, one of the major credit rating agencies in the municipal space -- upgraded New Jersey's credit rating. And, the language they used in the second paragraph of that upgrade report was the following: "Although physical risks are elevated, given New Jersey's long coastal exposure and the comparatively higher levels of air pollution, in part due to emissions from other states, the State actively works to manage these risks through strategic infrastructure investments including decarbonization; decarbonizing transportation in areas with poor air quality; and partnering with local governments and leveraging Federal funding for climate resiliency projects, et cetera."

This is one of the positive credit factors mentioned. This has been mentioned in reports going back a while. And, I want to note this isn't just some rogue analyst at Standard & Poor's trying to grind an axe or make a political statement about New Jersey. This is a very common thing

discussed in coastal communities about their tax base is almost entirely property taxes. The value and safety of that property is going to be key to the repayment that the bond holders actually wind up getting.

So, I'll go to another one. This one came from Moody's back in 2020. Moody's is kind of the largest credit rating agency in the municipal space. Since 2017, it has been their official policy to include in their credit rating analysis the presence of physical climate risk -- that is to say, things like sea-level rise, wildfires, et cetera. So, this is a quote from *Politico*, because I didn't have the subscription to Moody's that goes back all the way to 2020 -- sorry my subscription didn't work.

But, I can say Moody's says, "New Jersey's adaption of stronger building codes -- especially along the state's 130-mile coastline, is a credit positive because it will reduce communities' exposure to sea-level rise and other harmful climate changes--

SENATOR SMITH: We need some follow-up questions there.

Are you saying from these reports that the rating agencies gave us better ratings because we were considering climate mitigation, property protection measures like the REAL and PACT rules?

DR. GARRETT: So, let me note two things.

First, a credit rating is a confluence of factors. So, what makes New Jersey as a state able to repay its debts is a whole bunch of things. This is one of those positive credit factors. But, yes, it was specifically discussed relatively recently that the -- to use their exact words -- "Stronger building codes, especially on the state's 130-mile coastline, is a credit positive."

SENATOR SMITH: So--

DR. GARRETT: Yes, go ahead.

SENATOR SMITH: So, the obvious question -- at least I think it's obvious -- suppose we come to the conclusion that this is just too damn expensive to do these rules.

DR. GARRETT: Yes.

SENATOR SMITH: Is the opportunity for the credit agencies to re-rate us?

DR. GARRETT: So, they are taking into account their expectations of your future outcomes. And, I should also note the major driver of New Jersey credit ratings in the last, let's say decade, is the pension -- the legacy pension obligation.

SENATOR SMITH: The \$7 billion we put into the pension every year?

DR. GARRETT: Yes. So, that has been an amazing adjustment for how New Jersey's credit risk has been perceived, and that is the dominating factor in recent reports.

So, is this, stronger building codes, the key thing that credit rating agencies are talking about? It's not *the* key thing -- it is one of the first factors that they mentioned after mentioning the legacy pension obligations.

SENATOR SMITH: Is there any way we can find out the answer to that question?

DR. GARRETT: No. (laughter)

Unfortunately--

SENATOR SMITH: Well, that's an answer--

DR. GARRETT: --so, this is actually a good question.

So, credit rating agencies are large; they are regulated; they have three key stakeholders. So, they have stakeholders that are issuers -- which

is, say, the State of New Jersey; the City of Newark, et cetera. So, these are issuers -- local independent school districts, et cetera. They also have investors. So, to the issuers, they need to be seen as fair. And, issuers in the municipal space, they are issuer-paid most of the time. That is to say, issuers need to be willing to go to one of the three major rating agencies and pay for the ratings. So, they need to think they're fair.

Investors also need to think they're accurate, or else investors will buy bonds that are rated by one of the other agencies. They are also regulated by the Federal government for a variety of purposes, for the way in which investors use their -- use their ratings and for macro-credential purposes. That is to say, for financial stability.

So, they have these three -- these three constituencies, basically. What they do is they go in and look holistically at everything about a borrower past, present, mostly future. And, they try to say, "What is the likelihood this borrower is going to not repay their debts in the next 5-10 years?" And, those numbers are basically not ever exactly zero. Even if, historically, we know that Pennsylvania hasn't defaulted since 1837, New Jersey has never defaulted. Looking forward, there's some expectation that something bad could happen, and either municipalities in New Jersey or New Jersey themselves could default.

And, so, they're going to do an algorithm; they're going to do all sorts of crazy math; they're going to try different approaches than each other and try to make it -- see if they can be a little more accurate than the next person. They're not going to share their special sauce, and so it's very hard to say exactly where in your algorithm do you think our stronger building codes is changing our repayment likelihood. They're going to say that's our

secret sauce. And, of course, you can see they are -- they are relatively cold, analytical, and non-political. Which is why you're talking to me and not talking to one of them.

So, does that kind of answer your question?

SENATOR SMITH: It does. It does.

DR. GARRETT: I'm sorry that I don't have a better answer for you about that.

SENATOR SMITH: It's OK, I interrupted you.

DR. GARRETT: No, this is great.

Let me-- Let me just conclude with a handful of thoughts back to the issue at hand.

Is there any benefit to engaging climate-risk mitigation efforts like those in the NJ PACT and REAL rules and regulations? I think there's a lot of nuance on the cost side, and I think you're getting a lot of comments on those. What I want to highlight is there is a benefit. It is costly to continue bailing out and giving State fiscal packages to places where we know there are going to be future floods to rebuild, instead of trying to move that development elsewhere. That price is of course borne by New Jersey taxpayers, insofar as it is also borne by the investors in New Jersey debt. We can see that it is (indiscernible).

Putting a dollar value on it, of course, is really, really hard, because the full creditworthiness of the State is confluent to a lot of things, and how you put those things is not a trivial -- a trivial exercise. But, the physical risks associated with sea-level rise are priced in these debt markets. That price makes it expensive for the debt to invest in other priorities, and makes a costly investment in mitigation. Any actions the State winds up

having to take to mitigate risks in coastal communities -- this could be things like bailing out insurance companies or providing backstops. This could be things like taking on the municipal liabilities of the sub-jurisdictions in the state. These potential scenarios are repaying investors and maintaining the safe and healthy communities are at odds, and you have to compensate investors for the fact that they're going to be on the other side of that equation.

Thank you so much.

I am willing to take a few more questions.

SENATOR SMITH: I appreciate your comments.

Questions?

ASSEMBLYMAN McCLELLAN: Can I go first?

SENATOR SMITH: We're going to give you the first.

ASSEMBLYMAN McCLELLAN: Thank you. (laughter)

Thanks.

Thank you for your testimony today.

Just one question: Are you able to evaluate certain requirements from the DEP rules? Meaning-- And, able to inquire meaningful environmental improvements versus diminishing returns?

DR. GARRETT: I'm sorry, can you say that again?

ASSEMBLYMAN McCLELLAN: Are you able to evaluate from these rules that the meaningful environmental improvements versus the diminishing returns?

DR. GARRETT: That's the really good question, isn't it?

So, the idea is, are our existing rules good enough, or are these new forward-looking rules necessary? Or, are we already at the point where

people think our risk is pretty much mitigated? I think that is a really hard question to ask. I do think the insurance is the first place I would look; and, so, if our insurance testimony and organizations are able to give some numbers on exactly where this is going to fall on expected losses, that's where I would want to look first.

So, I don't know. I am not able to make a statement on that.

Thank you.

ASSEMBLYMAN McCLELLAN: OK, thanks.

That's all I have.

Thank you, Chair.

SENATOR SMITH: Assemblyman.

ASSEMBLYMAN KANITRA: Thank you, Chair.

Thank you for being with us here today.

It's clear that you are the market guru.

DR. GARRETT: I like muni bonds.

ASSEMBLYMAN KANITRA: OK, all right.

Look, I was a finance major for one year at TCU and then I dropped it to join Political Science, so I'm not at the same level. But, there is one part of what you were talking about that I feel like got left out in what's an important conversation to have. And, that's the housing markets itself as a result of these DEP rules.

So, first, I think everybody in the room -- you tell me if I'm wrong -- but the housing market is largely predicated on supply versus demand. Is that fair to say?

DR. GARRETT: I agree.

ASSEMBLYMAN KANITRA: OK. So, now you take a housing market throughout the entire state -- the east coast of New Jersey; the area along the Delaware River; anywhere that the Hudson comes into; all the rivers, tributaries, lakes; everything that it touches -- and you put in rules that almost, in many ways, make it too burdensome or too cost prohibitive to build. And, some of these rules, when you're starting to get into that, might even bring in fire codes. People might need to put sprinklers in their homes. People might need to have fire-rated walls, depending on how high up they go. Houses like mine -- 18 steps to get into the front door. And, I built them under the old rules, not under the new rules.

So, now you take this massive housing supply, of which we're adding 300,000 new homes, into a flood zone and putting these onerous burdens on people, and you're creating restrictions. Whether that's the little old lady who has trouble walking up her steps; or trying to figure out how you're going to get 19 switchbacks in for her handicap ramp; or how she's going to pay the \$100,000 to put an elevator in. If you say that that's the feasible aspect--

DR. GARRETT: Can I ask a clarifying question?

ASSEMBLYMAN KANITRA: Yes, please.

DR. GARRET: What share of land in New Jersey is actually hit by these new regulations?

ASSEMBLYMAN KANITRA: We anticipate an extra 300,000 homes would be put into the flood zone as a result of these rules.

DR. GARRETT: It's 17.5%, I think, if--

ASSEMBLYMAN KANITRA: OK--

DR. GARRETT: --if the literature came out?

ASSEMBLYMAN KANITRA: OK.

So-- And, I'm not asking you to do a mathematical calculation here. But, from my standpoint-- And, you referenced earlier; you said that coastal communities -- I see a councilwoman and councilman from Lavalette, New Jersey here, right behind you -- coastal communities are largely dependent on property taxes. And, property taxes are correlated with the home's value.

So, now, we pass these rules that essentially make it so that it's so expensive to build a home, or to renovate a home, or to build a new home in these areas -- or, there's physical limitations that would cause you to not want to build there. And, it just becomes so overly burdensome, a thousand pages of rules, that it creates less demand.

What's going to happen to the housing market in New Jersey in these coastal communities if we create less demand?

DR. GARRETT: So, I think there's a lot of really good points in your question.

I like your questions, by the way; they're really nice.

Can I go, actually, back to something that another speaker, Jeff Kolakowski said -- New Jersey Builders Association?

I think two things can be true at once. I think that there is a housing shortage; I think that is a very hard thing to deny. I'm not speaking necessarily of a housing shortage today. I do think that it's worth thinking about the housing shortage and environmental planning together. I also think it is-- What we have right now is a system where building in floodplains is implicitly subsidized by this backstop of the rest of the state. I don't think that's necessary or fiscally responsible.

I do think it is worth-- If you're going to constrain housing supply in one place, you should probably think about trying to relax that housing supply in other places.

ASSEMBLYMAN KANITRA: And, I appreciate what you said. But, in all fairness, it didn't answer my question.

Could these rules be so onerous-- I guess we'll start early. Could these rules be so onerous -- whether that is through physical limitations of people being able to walk up the steps; financial limitations of being able to pay for them; and just, there simply aren't enough rich people to fill every house in a flood zone in New Jersey -- could these rules create less demand for housing in New Jersey in the flood zone areas?

DR. GARRETT: Sorry, are you asking if it creates less demand for housing, or less supply of housing?

ASSEMBLYMAN KANITRA: Less demand. The supply's already built.

DR. GARRETT: Supply is already built. So, we could see less demand; we could see declines of housing prices.

ASSEMBLYMAN KANITRA: OK. OK--

DR. GARRETT: I do think any time you're thinking about changing policy, you are going to adjust away from the status quo. And, I could imagine people will experience declines in properties -- values of properties they currently own.

ASSEMBLYMAN KANITRA: OK, so literally as a result of these rules, we could see declining home prices in the flood zone areas.

DR. GARRETT: So, yes. Let me say yes, and also, that would come at the benefit of no longer subsidizing from the rest of the State budget.

ASSEMBLYMAN KANITRA: OK.

DR. GARRETT: So, I think yes, it would have a transfer from people who live in coastal areas and are currently subsidized to people who weren't.

ASSEMBLYMAN KANITRA: My finance professors at TCU would be happy with the answer that I got.

DR. GARRETT: (laughter)

ASSEMBLYMAN KANITRA: Thank you; appreciate it.

DR. GARRETT: Fun questions.

Thank you.

SENATOR SMITH: Thank you so much for coming in today.

Your testimony was fascinating.

DR. GARRETT: Thank you so much, Chairs.

And, for all the members, I appreciate it again.

Thank you.

SENATOR SMITH: And, how about Ray Cantor; New Jersey Business and Industry?

RAYMOND CANTOR, ESQ.: Thank you Mr. Chairman; members of the Committee.

Thank you for the opportunity to be here today.

We welcome the Legislature exercising its constitutional authority on this very important rule.

We also appreciate Senator Scutari's introduction of SCR106. SCR106 would find that the PACT-REAL rules are inconsistent with legislative intent. We agree with that legal conclusion, and will discuss it in more detail in our testimony today.

First, some introductions. My name is Ray Cantor; I am Deputy Chief Government Affairs Officer with the New Jersey Business and Industry Association. NJBIA is the state's largest business association. Many of our members are negatively impacted by the rule, which is why we are here today.

And, a full disclosure -- as Jeff Kolakowski mentioned before -- we are also a plaintiff in a lawsuit against these rules.

While I am here today representing our members, the business community, I thought since I am going to be talking about legislative intent, talking about regulations, I would just give a little bit of background of who I am and what I've done in the past.

Coming out of law school, I actually went to work for OLS. I was with OLS for 14 years in the Environment and Energy section. I staffed both committees that are before us here today. I left OLS and went to work for the Department of Environmental Protection. I was actually Assistant Commissioner for the land-use programs; the programs which are the subject of the PACT-REAL rules. So, I have a good deal of experience of how those programs operate. I also was Chief Advisor to the Commissioner of DEP for eight years, and I was in charge of all the regulatory programs. So, I have a good deal of experience both in the legislative side and on the regulatory side.

Significantly, I was also at DEP during Superstorm Sandy. I was in the room when we developed new standards for flood elevations -- the first ones in the coastal area in quite some time -- and, I was also there when we came up with a resilience strategy for the coast, where we worked with the Army Corps of Engineers to build out a uniform engineered beach and dune system from Cape May all the way up through Monmouth. So, I've been in the room; I know what these rules do; and have some experience there as well.

First, while I know the emphasis today is on sea-level-rise projections and the changes to the flood maps, this rule is much more than that.

I can't even get it out. (presenting stack of papers)

This is the PACT rule. It's not just sea-level-rise issues and flooding -- it's a lot more. We don't even have time to go through all the problems of these rules. But, Jeff had mentioned before a number of the issues that are with these rules. My testimony -- which I have submitted to you -- goes through a number of the major issues. But, one of the problems in even dealing with these rules is that there are so many issues, so many problems with every single page of this, that we don't even have the time in any form to go through all of that. So, I'm going to really address more relevant -- the sea-level-rise issues and the flooding issues.

I also want to start by stating what I will *not* be talking about today. I will not be denying the reality of climate change, nor the fact that sea levels are rising. These are undeniable facts, and New Jersey policymakers need to address to ensure that our citizens and business community are adequately protected. In fact, I offered the Commissioner of DEP, when he was working on the PACT rules, that if they were going to come up with a scientifically-based, reasonable rule, we would stand on the podium with them, announce those rules as the most protective in the nation. We believe that number really should be 2 foot by the year 2100. Unfortunately, the DEP went in a different direction and proposed and adopted -- I should mention only hours; hours before the Sherrill administration took over -- an unworkable extreme sea-level-rise and flood-regulatory standard that, if left

in place, will harm our economy and our residents without providing any meaningful protection from rising sea levels.

We are also not criticizing the excellent work of the scientists at Rutgers did in preparing the STAP reports, which served as the basis for the DEP's regulatory decision. When the 2019 STAP report came out, we applauded that effort as a great planning document to show the State and various communities potential alleys of what could happen. Where we had a problem was when DEP decided to make that document into a regulatory standard; that's when we think the problems occurred.

We will also note that in the fall the STAP Report was updated to include projections with and without low-confidence assumptions on rapid Antarctic ice sheet collapse. While the DEP had this report in their hands, and obviously relied on it and some of its projections for substantial changes, we did not get that report until after the comment period closed. There was also an interim report that came out that did comparisons of various sea-level-rise studies. That report was actually never released, and the only reason we even know about it is through a series of OPRA requests. We found out about it and obtained that report.

What this debate is all about is what regulatory standards should the Department adopt on future sea-level rise given the enormous amount of uncertainty -- even deep uncertainty -- in making those projections. We agree with a lot of the testimony that was given here today; there's no doubt that we need to do something. The question is-- Everyone says, "We need to do something; therefore, the PACT rules are great." That's not the end of the answer; that's the beginning of the question. We need to do something. The question is, what should we be doing?

As I was describing in my testimony today, projecting sea-level rise is far from a certain practice. There are significant areas of vagueness in science, and uncertainty in outcomes. I believe Professor Broccoli did not even disagree with that. To get to a 5-foot, and now a 4-foot sea-level-rise standard, the Department had to use a number -- a number of conservative assumptions. In doing so, it put the regulatory standard as very uncertain to occur, but will certainly have a negative impact on the State's economy, especially in our coastal and river communities. It is important to note -- I think everyone understands this -- that this rule is not just dealing with the shore; it applies on the Hudson River; down the coast; along the bays, including up the Delaware and Raritan bays; and, even in a number of tidal streams throughout the state.

DEP and the previous administration chose a regulatory standard that is going to cost people significant amounts of money and will likely drive some people from their long-held homes and businesses. The selection of such an extreme flood standard far beyond what the Federal government or any other state has proposed seems intended to being the first step in DEP's previously announced desire to start a managed retreat from the Jersey Shore.

Respectfully, such a major policy decision should be made by *this* body, not by a few regulators in the offices on the seventh floor of 401 East State Street. This is not the first time that the Legislature has expressed concerns with DEP going too far in setting regulatory standards. When the DEP set cleanup standards so stringent that it became economically impossible to clean up contaminated sites, the Legislature stepped in. It amended the Spill Compensation and Control Act to prohibit standards set

using redundant conservative assumptions. The PACT rule -- the PACT-REAL rules are flawed because they ignored this prior legislative prescription. It is only through the use of multiple, redundant, conservative assumptions that the Department selected the 5-foot and now 4-foot flood regulatory standard.

Like you did with the Spill Act, we call upon this body to likewise reject this overly prescriptive standard in favor of a more realistic standard. The STAP Report itself issues caution to regulators in using this report in setting regulatory standards. This STAP Report -- I'm reading from the '25 one, but the 2019 one had similar language -- as per previous STAP Reports, this report aims to be policy relevant, *not* policy prescriptive. The report does not make recommendations about how decision-makers should use projections. Such elections depend upon value judgements, such as the level of risk decision-makers and impacted communities are willing to accept when planning their long-term resilience goals, as well as how decision-makers in impacted communities choose to trade off near-term costs of risk reduction and long-term sea level.

I will add, as Mr. Kolakowski had mentioned before, there were also a number of other policy considerations that go into choosing a regulatory standard. We can't just look at what science may or may not be projecting and pick that standard.

So, what are these multiple, redundant, conservative assumptions that went into DEP's decision-making? The 2025 STAP Report itself details the highly variable nature of projecting sea-level rise. It contains three different emissions scenarios; projections over likely and less likely scenarios; and projections for five different time periods, from 2040 to 2150.

The likely range -- *likely* range -- itself varies between 17% and 83% probability, hardly a (indiscernible) scientific certainty. In total, the 2025 STAP Report presents 66 different sea-level-rise scenarios -- 18 if we only want to focus on the year 2100. This is hardly a document based on firm scientific certainty justifying an onerous regulatory standard.

The use of 2100 as the target itself is highly uncertain. While this is a simple comparison -- and I don't mean to negate the complexity of making these choices -- we can't even determine what the weather's going to be next week, much less what sea-level rises are going to be in the year 2100. I am not aware of any projections that DEP uses in any of its regulatory standards that sets a standard looking out 75 years from now and applying it now. This rule is unprecedented from a regulatory and policy standpoint.

Even if we accept the 2100 projection, the DEP chose to use the most conservative projection with the 17% confidence level. The adopted standard also incorporates the low-confidence assumptions of rapid collapse of the West Antarctic ice sheet. And, I know this is part of a conversation with Professor Broccoli and Assemblyman Kanitra, but this is a low-confidence assumption. The assumption adds 1 foot onto the projections of sea-level rise. The Department, in its regulator comments, went to great lengths to claim that we can't rule out the remote possibility of a rapid ice sheet collapse; that is true. A lot of things are unlikely to happen that can't be ruled out; however, the Department largely ignored the fact that there is no firm scientific evidence to support this collapse in the timeframe provided. There is significant scientific disagreement that it will happen, and there's no other jurisdiction in the world, that we are aware of, that incorporates this as a regulatory standard.

But, this is not how regulatory standards are or should be set. We cannot set standards to cover every possibility even if we don't have firm scientific evidence to support its occurrence. If we did this across the regulatory programs, we would not be able to build anything or do anything because the standards would be too strict. Regulatory standards need to be reasonable, based on what is likely to happen -- not what can't be ruled out. These types of projections are not what the Legislature intended when they passed the Flood Control Act and CAFRA.

The emissions scenarios themselves are based on modeled projections of what emissions may look like in the future, and how the climate and sea level may react. Needless to say, climate is a complex system with multiple variables; models are not very good predictors of how the climate system is actually going to act into the future. The fact that the Department itself lowered its standard from 5 foot to 4 foot, a 20% decrease in *one year*, speaks to the level of uncertainty of climate science projections.

And, while I have great respect for the authors of the STAP Report-- When I was at DEP, we invited Professor Broccoli and Professor Kopp to come in and brief us on sea-level rise, and I had Professor Kopp speak at our Energy and Environment Conference last year -- there is still far from certainty in the scientific community on the issue of sea-level rise. For instance, while the STAP Report is partially predicated on acceleration of sea-level rise and a projection this will continue, I can point to a major new study that came out in 2025 that looked at actual tidal gauges from around the world and found no acceleration in 95% of the measurements.

Even given all this uncertainty, NJBIA does support changing our tidal flood maps to reflect a 2-foot sea-level rise. Why do we feel comfortable

supporting a regulatory standard based on a projection to the end of the century? First -- and, this was mentioned; I'm not going to go over it much in detail -- but, New Jersey is sinking. We've been sinking for thousands of years; we'll continue to sink for thousands of years to come. And, that accounts for about 1 foot. And, that's why New Jersey is having a higher sea-level rise -- relative sea-level rise -- compared to the rest of the world. Our coast, much of the Mid-Atlantic, has been sinking.

The STAP Report presents a budget for sea-level rise, laying out how much relative sea-level rise we can attribute to various causes. Again, without delving into the science behind these projections, we recognize that some sea-level rise is beyond the 1 foot already described. Looking at the projections of the Inter-Governmental Panel on Climate Change -- the IPCC; that's the U.N.'s panel -- in its most recent report, AR6, and the reliance on the analysis we commissioned with the Climate Forecast Applications Network, we believe that additional sea-level rise between zero-2 foot is likely to occur this century. We do not believe that using the low-confidence projections of rapid ice sheet melt is warranted at all.

So, putting this all together, it's likely that New Jersey will have a relative sea-level rise of between 1 and 3 foot in 2100. Given the fact that we have 75 years-- We have 75 years to adjust these standards, and we have accurate tidal gauges that we can measure from year to year to determine if we are correct or not. We believe that 2 foot is an acceptable regulatory standard, considering all the scientific uncertainty, but certain economic impacts. A 2-foot sea-level rise projection is also consistent with recent standards adopted by DEP when talking about inland flooding.

So, why do we care so much about this rule? It's really simple. Real people, real businesses, real communities will be impacted. There will be people who won't be able to build their homes; businesses who won't be able to locate down the shore or rebuild to meet current economic needs. There will be businesses and homes that will need to buy flood insurance who never have before. Many of these properties are not currently in the Federal flood zones, and are probably unlikely to flood this century. There will be families who have owned their homes for generations, who may find it impossible to raise their homes to meet the new regulatory standards. There will be elderly or disabled people who will not be able to access their homes if they're building them an additional 4 foot above the existing base flood elevations. This proposal will harm real people. It will harm real businesses.

We all know that New Jersey is a high-cost state; we have an affordability crisis. We are also a highly regulated state. We should not add to that regulatory burden. These rules, especially along the shore and our river communities, will damage our economies, and will drive a negative perception that the coast is no longer an economic driver for New Jersey, but is a place that we need to retreat from. It's going to harm those perceptions, and that will harm economic opportunities down the shore.

Rather than set up a system of retreat, we should focus on systems of resilience. Until this body determines that we need to abandon the barrier islands, and our coastal cities like Atlantic City, Long Branch, Asbury Park or our river communities like Camden, Hoboken, and Jersey City, the emphasis should be on making these communities resilient. If some areas can't or shouldn't be protected, we need to have a public conversation about that -- and it should come from the Legislature, *not* from DEP alone.

What the DEP needs to do -- what this Legislature needs to do -- is engage in public -- engage the public and determine how and where we are going to provide resilience against the inevitable nor'easters and the hurricanes that will occur, and the sea-level rise that is also certain to occur.

The REAL rule, while professing to protect -- to be about protecting the public, does *not* provide any real protection. Resiliency needs to be part of a comprehensive planning process, like what was done with Superstorm Sandy when we rebuilt our beaches and dunes, working with the Army Corps of Engineers. You need the public to understand and accept the risks and cost. What this rule does is impose extreme regulatory standards on the few projects that come before DEP for permits. It does nothing to plan for our overall resilience in the coming decades and throughout the rest of this century. It is a piecemeal approach, and a bad one at that. The DEP has said that something like 95% of the lands in the newly created inundation risk zone are already developed or can't be developed, so this rule leaves the vast majority of development -- which may be impacted by storms and sea-level rise -- needing protection unless they come in for a permit to build.

Throughout the rest of my testimony, I talk about a number of provisions that are in this voluminous rule that are problematic; Mr. Kolakowski mentioned some of those. I won't get into those, but I already sent in my testimony, so I will stop there and take any questions you may have. But, again, I urge this Committee to take a more holistic approach to resiliency, not a permit-by-permit standard based on what we think is inadequate and unjustifiable scientific standards.

Thank you.

SENATOR SMITH: Any questions?

SENATOR AMATO: Yes, Chairman.

SENATOR SMITH: Yes, sir.

ASSEMBLYMAN McCLELLAN: Go, Senator.

SENATOR AMATO: Thank you.

Thank you, Mr. Chairman.

We all know the Sherrill administration is said to be prioritizing more streamlined and less costly regulations -- less red tape, so to speak. In your view, is there any way this rule created by the previous administration can go hand-in-hand with those priorities of the current administration?

MR. CANTOR: Take a look at it. Absolutely not. On every single page of this are new regulatory standards.

Mr. Mauriello mentioned before how the Land Use Program had simple permits, permits by rule, and general permits -- they're all being gotten away with. They're getting rid of permits by rule; they're making general permits into individual permits. There are provisions in here that require certifications on general permits. Some of the certifications will require engineers to certify that they're in compliance with the NFIP. When I was at DEP, we brought in the NFIP, and they told us we needed to change our standards to be more stringent. We brought in people from DCA; we brought in our engineers; our land-use experts; and we all tried to make sense of what the NFIP was requiring on one specific project. No one could figure it out, because the NFIP was not meant to be a regulatory document in that sense.

These rules require that engineers of all permits to sign off that they're in compliance with the NFIP. If nothing else, you're going to have to hire an engineer now. If nothing else, it's going to take longer to go through

those, and, in my opinion, there will be very few engineers who will even be willing to sign off on that.

So, to your-- To answer your question bluntly, Senator, this is going to add to an already overburdened department. Shifting people around the Department is not the answer. Having regulatory programs that actually work and can be implemented is the answer.

SENATOR AMATO: All right, that was your question, too.

You mentioned insurance rates. How will this rule impact flood insurance rates?

MR. CANTOR: Again, we agree that building to the NFIP's standards, building above the NFIP's standards -- which the current rule, by the way, already do -- will save insurance rates. We already have a requirement that you have to have 1 foot of freeboard above the existing standards. Going up even higher, we don't believe is going to have any significant impact on those rates of any impacts whatsoever.

SENATOR AMATO: Thank you, Mr. Chairman.

SENATOR SMITH: Assemblyman.

ASSEMBLYMAN McCLELLAN: Mr. Cantor, thank you for your testimony and always showing up for questions.

Given the impact of these rules expanding the regulations, and the inundation risk zones, under the Flood Hazard Area Control Act rules, the climate-adjusted flood evaluation -- excuse me, evaluation, affecting substantial portions of coastal lands including areas not currently experiencing flooding, how does it-- Speaking for the DEP, because you used to work for them, how do they justify the geographical expanse of these rules and the consistent overreach and regulation?

MR. CANTOR: Well, I am not going to speak for the DEP. I know Mr. Mauriello fell into the “we” category, and I do that sometimes, too, when I’m talking about DEP, “*We* don’t do certain things.” But, I will-- I am *not* speaking for the DEP, but I will use my knowledge there in doing so.

One of the problems with this whole process of what DEP has done is that these rules greatly expand the flood zone -- the inundation flood zone; the CAFE -- Climate-Adjusted Flood Elevation. And, your county in particular, I believe all of Cape May County -- except maybe one house -- is going to be considered to be in a flood zone with enormous economic impacts. But, DEP never put out the maps. They-- We had to hire our own experts to work through the (indiscernible) to put out those maps, but DEP never put out those maps. They never gave us an analysis of how many more acres of land would be impacted. Assemblyman Kanitra mentioned 300,000 additional houses -- I don’t think that came from DEP. DEP put this out and said, “You guys figure out what this means.” But, once you expand the flood zones, it’s going to have tremendous impacts.

I know people have mentioned that this will not be -- not require people to have flood insurance. The way flood insurance works right now is if you are in a flood zone set by FEMA, your bank, if you have a mortgage, they’re going to require you to get flood insurance. If you don’t have a mortgage, they’re not going to require you to get that. What we don’t know is how are banks going to react if you are now in the DEP-adopted CAFE, and the DEP’s flood zone, but not in the FEMA flood zone. It’s my experience with banks that they are very conservative, and it’s going to be some person sitting in some room somewhere that’s saying, “DEP said these areas are going to flood.” And, by the way, DEP is also making you put into

your deed -- if you come in for a permit -- a deed notice telling all future property owners that your property is going to flood. That in itself, by the way, is going to lower property values and cause tax appeals.

But, we believe that banks are going to react to these rules and begin making people buy flood insurance who never had it before.

ASSEMBLYMAN McCLELLAN: Thank you.

One more question, sir. So, how do these new regulatory layers align with balancing the requirements of the Environmental Protection, Economic Sustainability, embedded in CAFRA, and also the Coastal Zone Management rules?

MR. CANTOR: Well, again, we think-- New Jersey is a coastal state. We have been vulnerable to hurricanes and nor'easters throughout our entire history. We go-- We used to have a book up on the seventh floor in DEP of all the storms that hit New Jersey over the last 100 years. We've been vulnerable for -- since our beginning.

We believe in resiliency; we believe in setting standards and having protections. We don't want to see our residents harmed. We don't want to see our businesses impacted. Our economy is only as strong as our environmental protections and our resiliency strategies as you'll allow it to be.

This rule is not the answer. This rule is a permit-by-permit. You're going to be punished; over here you're not. And, long term, it's going to have a negative economic impact. We-- Hoboken, right after Sandy, there was a process "rebuild by design," where we took lots of different projects from around -- this is a HUD program, by the way -- and we picked Hudson

-- excuse me, Hoboken, for a resiliency project. And, that has been extremely successful, and Hoboken is now a much more resilient place.

I traveled recently -- or, not as recently-- Senator Smith, you travel all over. If you ever go to Venice -- which, by the way, has been sinking for centuries -- they have built an underground floodwall, basically, that if sea levels are rising due to storms or high tides or whatever, it inflates and protects the city. The Netherlands; the same thing. The Army Corps of Engineers is studying a back bay study right now. Those are the types of things we need to do to protect New Jersey residents and businesses. The PACT rule, it's couched in resilience; it's couched in protection; it's couched in sea-level rise issues; it doesn't do anything to really protect New Jersey. We need a holistic strategy, not a site-by-site, if we get you you're elevated; if we don't, you're not type of regulatory program.

ASSEMBLYMAN McCLELLAN: One more question; I'm sorry.

During Sandy, I lived in Ocean City, so we went base flood plus two right after Sandy for all homes recommended for building.

So, your recommendation is 2 feet -- an addition of 2 feet instead of the 4 that was 5? What's to stop the municipalities from-- So, say it's 2 feet with these rules, what's to stop municipalities from allowing their voting body to go up higher if they wish?

MR. CANTOR: We are a home rule state. And, I have great respect for-- Your county in particular I know has done an excellent job in their flood-mitigation planning. So, I have a great deal of confidence that they have done and will do and will continue to do what they can do and should do to protect your residents and citizens from natural disasters.

But, there's certain towns that may feel that they are more vulnerable, or that their residents will accept less risk and higher cost upfront. And, they may decide to go higher. I think there may be a few towns that already have. But, again, that's a town-by-town decision.

But, looking at it from a statewide perspective, we want to use the best science; we want to use the best projections. We don't want to over-regulate when we don't have firm science and understanding of what those risks are. Again, the STAP report itself says -- and, the interim report, by the way, which was still never released -- says that you may want for certain types of infrastructure to have -- maybe a hospital should have less risk, and maybe a house that is not going to last more than 50 years should -- may want to take more of a risk. We need to set a standard that makes sense for the entire state. If certain towns want to go higher, again, we are a home rule state.

ASSEMBLYMAN McCLELLAN: Thank you.

Thank you, Chair.

SENATOR SMITH: Any other questions? (no response)

Thank you very much.

MR. CANTOR: Thank you.

ASSEMBLYMAN KENNEDY: Next we have Michael Pisauro; Watershed Institute.

M I C H A E L P I S A U R O, Esq.: Good afternoon, Committee members.

Thank you very much for this hearing on Earth Day. It is exciting to be here today -- even though it's been a long hearing.

And, since the first Earth Day, environmental protection through the years and decades have steadily progressed and gotten better. The REAL

rules are an environmental rule; the REAL rules are a public health and safety rule. And, by and large, it really is a public health and safety rule.

And, I wasn't going to do this, but I'm going to, because Mr. Cantor pulled out the thousand-page REAL rule. Yes, it's a long rule. It's not the first, and it's not the only time DEP has issued almost a thousand-page rules. During the Christie administration, there were three rules dealing with multiple programs that were 900 or more pages. We do that. When we addressed the flood hazard, coastal and stormwater rules as we did in 2015 with almost a thousand pages -- we did that.

We have this REAL rule. You have heard some people say there really wasn't a stakeholder process. This rule was developed over four or five years -- actually, a little bit longer than that. There were, in the proposal, they list out all of the meetings DEP had. DEP had a hundred, a hundred-plus meetings; hearings; stakeholdering on the rule. I personally attended many of those. The stormwater changes had multiple stakeholdering meetings over a couple years, after the Green Infrastructure Rule was adopted in 2019, I think it was.

So, there has been a robust process. The REAL rule was released 90 days before it was actually published, and had a 90-day comment period. So, there has been a lot of time. And, I'm not going to -- I'm going to try not to repeat a lot of what was said, but there are a couple things I want to point out.

The REAL rules are not based upon extreme conditions. Dr. Broccoli testified to that. Senator Smith, you pulled that out. You have heard some people say there's a 17% chance we'll get the 4 feet of sea-level rise -- no; that's not accurate. Assuming we have moderate or intermediate

emissions -- and, we could question, given the current course of events, whether we're going to see those moderate emissions -- sea-level rise will be, by 2100, up to 4.4 feet, assuming the ice sheet melts, and 3.8 assuming not. So, 4 feet. There's an 83% chance that that's going to happen. Not a 17% chance. If it was a 17% chance, we may or may not be here today talking about it, because that probably never would have gone forward.

So, a couple things: The REAL rules do not create a no-build zone. It just clearly does not. And, there was testimony earlier that -- with 3% impervious cover (indiscernible). That was removed in the substantive change. And, Mr. Mauriello mentioned many, many, many of our rules -- almost all of our environmental rules -- if there are specific conditions on a lot that make compliance with the rules impractical, there are escape valves. From the flood hazard rules at 7:13-15.1 with the hardship exception, to transition or waivers in the freshwater wetlands. There's even a process under the freshwater wetlands if there's a regulatory taking for DEP to reconsider. The Stormwater Management Rules provide a relief valve in variances if it's technically impractical. And, the adoption of the additional stormwater rules in REAL have additional relief valves in there. So, these rules are protective. They create scenarios, but there's always escape valves; there's always abilities to address specific site conditions.

The REAL rules -- and, I realize FEMA's Flood Program and NFIP may have different standards -- but the REAL rule in its proposal specifically called out replacing your roof, updating your windows, will not trigger the elevation. You have 50% more damage, or you're creating a new habitable area -- yes. But, the rule specifically in the proposal -- and, I believe

in the substantive change -- discuss that, because DEP wanted to encourage weatherization to do that.

And, then, the flood insurance. We've heard a couple things. The flood insurance program is tied to FEMA. It's not tied to New Jersey's DEP regulatory program. DEP's flood hazard program has always been more protective in the Federal mapping. That has not created a flood of need for flood insurance. When DEP updated the inland flood protection rules, where we created additional -- recognized the existing flooding that was happening by 3 feet over the FEMA 100 floodplain, or 2 feet above DEP's delineations, no one testified in here today that those rules created an additional cause for flood insurance. Because it didn't. So-- And, it's not going to increase flood insurance rates. As Mauriello mentioned earlier, the community rating system specifically calls out that additional protections may be required, and this community rating system provides discounts for communities that do go above and beyond. So, New Jersey's REAL rules are one of those implementations that will likely see reductions in premiums to flood insurance.

And, then, I do a lot of work on stormwater. I do. I work with 30 communities within central New Jersey dealing with stormwater. And, we've all experience flooding. The day after the REAL rule was proposed, the Pennington area received 7 or 8 inches of rain in an hour. My 12-minute commute took over an hour and a half because the roads were flooded. That is a cost to our communities. In Ida, two or three police officers responding to a stuck car got swept away and were hanging onto a tree because of flooding. This summer, two women got flooded, swept out, swept off -- the car got swept off the road and drowned because of flooding. And, because I

probably have no life, I was watching Facebook many times this fall as storms -- not hurricanes, not nor'easters, but storms -- were hitting LBI and other of our coastal towns. And, the flooding on the street was extreme.

So, that's all a cost to our towns. Closing the roads; cleaning the roads; increased commutes; damage to property. That is all a cost that we are paying. The REAL rule is not making us pay those costs; we're paying it now. The REAL rule is setting up standards that, over time, will reduce those risks, will reduce those costs.

But, from a stormwater perspective, towns are dealing with flooding. The REAL rule does two things: It does a water quality perspective, improves water quality in New Jersey, which is vital. But, it also deals with flooding. Most of our communities were built before the '80s with no stormwater management. So, flooding is a real issue as storms increase and pervious cover increases. And, if we don't take the opportunity during redevelopment to make it better, the cost to reduce flooding and to resolve and build back from flooding is going to be on the backs of people in our municipalities. So, creating the, what DEP calls "the volumetric reduction standard," an inch and a quarter of rain, we need to hold onsite from green and redeveloped sites, gets to a flooding issue. It helps our communities, who are already struggling to solve it, to do so.

And, it does -- the REAL rule does use the best available science. You've heard a lot. Dr. Broccoli talked a lot about it; I'm going to reiterate, New Jersey is different. In the 23 years I have done environmental advocacy, I've always been told New Jersey is different so we need to use Jersey science. So, we are. Sea-level rise is increasing in New Jersey, and the moderate emissions by 2100 around 4 feet, with or without that sea ice melt, is going

to happen. You know, Assemblyman, you mentioned the average age of homes are 50 years. I saw something that said 60. The house that I was an infant in in the early 1970s is still standing. My sister-in-law lives in a house that was built in the 1850s, and the barn on the Watershed Institute's property was built somewhere between 1830 and 1850. Much of the property here in Trenton was probably built before the '50s. We have infrastructure. We should, as we build and rebuild, make sure that that infrastructure can handle the future. Not just buildings, but roads and pipes. Otherwise, we're going to be rebuilding and rebuilding.

As Mr. Mauriello also mentioned, the Federal government has been more and more stingy with rebuilding dollars and disaster recovery. The current President issued an executive order saying it is states' responsibility to build resiliency. FEMA last year came out with a memo saying it's states' responsibility to rebuild and recover from disasters. We are going to reduce the amount of money coming to states -- it's not the Federal government's responsibility to do that. So, where is the State going to get the money to do it if we're not going to get it from the Federal government? I think -- and, maybe this was not said -- New Jersey has historically been Number 3 in FEMA disaster claims. We have relied heavily on that money; that money is not here today.

So, as we reinvest in our communities, as we build in our communities-- Making sure that we're not having to pay that cost, because we will if we don't build it today. And, that cost, if we paid it today, would be a lot cheaper than if we paid it after the fact in recovery. The U.S. Chamber of Commerce and Allstate came out with two reports in 2024 and 2025, mentioning that -- give me one second -- for every dollar invested in

resiliency and disaster preparedness recovers \$13 in benefits. So, \$7 in economic (indiscernible) -- so, not as many jobs lost; not as many businesses disrupted; not as much economic development disrupted -- plus \$6 in reduced damage. And, that study was done again in 2025 and basically doubled down on that. They looked at, if we invested a couple different scenarios, if we invest it today over the next 10 years, money in resilience, what that recovery would be. And, it was basically the same finding.

And, I also-- And, I didn't start off as to who I was. I am an attorney; I've been practicing environmental and land use since about 2003. I've been environmental advocacy and working at the Legislature and DEP and the municipalities for much of that time. So, it would be remiss if I didn't talk about DEP's authority for these rules. And, it is clear DEP has the authority for these rules. Mr. Mauriello mentioned the coastal rules with that, but the Legislature has a long and bipartisan history of putting protections in place to protect and improve public health and safety for the environment. We have a long legacy in New Jersey -- much of New Jersey, as I mentioned, was built before any stormwater rules, built before flood hazard rules; built before many of our rules. And, now, we're trying to retrofit. But we-- This Legislature has always stepped up; has always put public health and safety first; has always made the hard choices to make sure our environment, for us and for our future, is a better place. And, I want to thank the Legislature for doing that.

But, the Flood Hazard Area Control Act specifically says -- asks DEP to delineate areas where improper development and use would constitute a threat to the safety, health, and general welfare from flooding. And, that is in NJSA 58:16A-52. And, it also asks DEP to update those

delineations periodically, understanding that they will change. And, in 2015 when this Legislature revised the Flood Hazard Area Control Act, it passed legislation and sent it to Governor Christie for signing. Governor Christie, at that time, vetoed that legislation -- not because he thought the Legislature was going in the wrong place, but he was concerned on two things. And, this is from his veto.

He wanted to make sure that the language was clear that the Department should be using the best available data. Not old data, not outdated data, but the best available data. And, then, Governor Christie in the veto said he was concerned that some of the language in that legislation could be used as an attempt to restrict New Jersey from going more protective. And, he suggested that that language be changed to say the delineation should be at least as protective as the FEMA maps. Explicitly acknowledging that New Jersey can and should go stronger.

And, that's what New Jersey did. We did that with the Inland Flood Protection Rule in 20-- I think it was adopted in 2023. The world didn't end; development has continued. Flood insurance-- Again, I have not heard anyone say, because of the Inland Flood Protection Rule, flood insurance had to be gotten for properties that weren't. The Freshwater Wetlands Protection Act -- again, one of those rules that the REAL rule addresses -- talks about the benefits of wetlands in providing natural means for flood- and storm-damage protection, and thereby the loss -- prevent the loss of life and property. The Wetlands Act of 1970, again, talks about the benefits (indiscernible) has for the promotion of the public health, safety, welfare, and to protect public and private property. And, lastly, the New Jersey Stormwater Management Act -- also, its goal is to reduce flood damage

including damage to life and property. And, that's exactly what the REAL rules do.

I think it is super clear that DEP had the authority to do this. They used the best available science; they used New Jersey-specific data and science in determining this. And, they chose, from a policy perspective, that we should be building to a standard we are hoping never to exceed. We should be building to a standard that hopefully is protective. We have, time and time again, seen climate projections; when we have gone back afterwards we have exceeded those projections. We have no-- As far as I'm aware, we have never undershot those projections.

Again, I would appreciate this opportunity. I think the REAL rules are important. Do I think they're perfect? Nothing is ever perfect. But, I think this process that got us here today to have the rules was better than I have seen in many years. And, I will leave-- One person who gave you cost estimates, Mark Mauriello, gave you very, very low estimates from (indiscernible)-- Oh, I want to also add, not every building has to do this. Residents in critical infrastructure -- so those hospitals -- have to do it, because it would be horrible that we're putting people in harm's way.

So, thank you very much for this opportunity. I look forward to questions, and I look forward to continuing this conversation.

SENATOR SMITH: Are there any questions for Mr. Pisauro?

Yes, sir. Assemblyman.

ASSEMBLYMAN KANITRA: Thank you, Mr. Chairman.

Thank you for being here with us today.

I mean, you threw the line out, and I'm going to bite on it, because you said earlier that we've never -- never overestimated anything.

I looked back, and I was looking at Legislature minutes and DEP stuff, and things from the Governor's Office back in the '80s and '90s, and I think they were trying to say that we all wouldn't be here today because the ozone layer was going to kill us all. But, regardless of that, I will go with what you just said. You said that in 2100, in 74 years, we're going to be up 4 feet in sea-level rise.

MR. PISAURO: Three-point-eight.

ASSEMBLYMAN KANITRA: Based on your own numbers and estimates, it would seem to indicate that you think that vast portions of my district, Senator Amato's district, the Assemblyman's district, will be -- will be under water. Would that mean that you are a proponent of a managed retreat from coastal areas and districts and towns like ours?

MR. PISAURO: Assemblyman, I have never taken a position on that. So, Mr. Mauriello mentioned that New Jersey has a policy of allowing rebuilding. There are going to be, quite honestly, parts of this state -- unless we build seawalls -- that will be under water.

Dr. Broccoli talked about sunny day flooding in Atlantic City. That's the reality of what is coming. How we choose to deal with that is a complex discussion. It's going to be happening whether we choose to have that discussion or not. There are going to be-- There are places that are eroding inland, and houses are coming closer and closer to the waterways. Same on the coast. We will have to address that.

ASSEMBLYMAN KANITRA: I appreciate that.

And, the one thing I'll just end on is you said that you've never taken a statement on managed retreat. I just would point out that in January of 2023, you said, "We need to stop developing in places we know flood

regularly.” After that, you’ve been quoted as saying, “One way to permanently eliminate the emotional and financial consequences of flooding is through reimagining the floodplain through buyouts.” And, then, in the Watershed Institute’s own guidance materials, there’s a section on managed retreat options that includes buyouts and adaptive reuses for the floodplain parcels.

Thank you.

MR. PISAURO: So, Assemblyman--

ASSEMBLYMAN KANITRA: I’m good; thanks.

MR. PISAURO: --exactly. It will be--

ASSEMBLYMAN KANITRA: Just-- All I was doing, it wasn’t a question, I just wanted to read some of your own quotes to you.

Thank you.

SENATOR SMITH: Assemblyman.

ASSEMBLYMAN McCLELLAN: Thank you for your time.

First, I just want to start with, it’s-- What bothers me more is that the DEP claims they had all these meetings. A meeting is something like a committee or something like that. I attended five -- I don’t know how many Mr. Cantor attended -- but meetings occur for something like this when you have feedback. The DEP didn’t give any feedback; they sat there and listened. So, you can say you had a meeting, but if you sit there and just listen and don’t have a discussion with people who are there; who are planners; who are economists; who are real estate agents; who are -- have all kinds of titles, in those communities, that’s not a meeting. You’re doing a listening session to try and check a box. That’s so disrespectful to the 9

million people in this state. And, that's what aggravates me about this so bad.

And, then, on the other end, you're going to say, "Well, Governor Christie vetoed the bill." How about Governor Christie vetoed it because it came to the Legislature. The Legislature voted on that and put it out there, and gave it a chance to be-- The Legislature didn't vote on this. There was no discussion on this. So, the DEP came up with these rules and they claim that they looked at questions that people submitted from these hearings that they had, and then they determined what they wanted to do. That's nothing, because they didn't answer any questions; all they did was, "The rules are the rules. We're going to placate everybody in this state by saying that we had these meetings up and down the state or in Zoom for people who couldn't do it." That's disingenuous and that's dishonest and the DEP should be at fault for that, and that previous administration.

So, anybody who comes up here and says that we had all these meetings and people had buy-in, they did not. So, excuse me for not answering a question, but that just bothers me to no end that I was up and down this state and nobody answered the questions; they just sat there and listened. And, no matter how many times I had the DEP Commissioner in front of me at that point in time, he wouldn't answer the questions. He would not talk about it. "The rules are the rules; we'll get back to you." "We had an opportunity for you to ask questions." Nobody had an opportunity to respond to any questions that were given. Nobody had any opportunity to talk to the commissioners of the DEP or the DEP representatives without having a response back from them.

So, it's disingenuous. So, let's not pretend that this is the right thing to do, because you didn't have any buy-in from the 9 million people in this state. You had it for one person, and that was that, and anybody who was working underneath them. And, the Governor walked out the door and said it's OK.

So, let's have a meeting; let's discuss it. I'm not saying that you don't know what you're talking about, because obviously you do. But, there's a lot of people in this state that know the same. And, you want to talk about Ocean City, because we have day flooding when the sun is out and it's all bright. And, I can tell you where it's going to happen at, because people who live there know that. And, they deal with it. So, let's talk to those people in those municipalities and see what flooding is, and what we can do to mitigate that. Let's work together. And, that's the problem; this is not together. So, those thousand-plus places were not together. They're one person. And, that's the problem that we have here.

So, when I put that resolution in last year that the Senate President is trying to adopt now, I knew what the issue was. Because Cape May County was up and down the state trying to discuss it. So let's have a formal discussion, and let's everybody have buy-in. And, that's what makes sense. If we want our world together, let's be together; let's do economies together; let's do global warming together. Let's do whatever we need to do; let's do it together, and let's not put in rules on a basis that one person doesn't even care about now, because he's out doing whatever he wants to do, and now the new administration is left to clean up and pick up those pieces.

So, that's the conversations we need to have. So, I apologize for going on a rant--

SENATOR SMITH: It's OK--

ASSEMBLYMAN McCLELLAN: --and, not allowing him to have a question--

SENATOR SMITH: It--

ASSEMBLYMAN McCLELLAN: But, that needed to be said--

SENATOR SMITH: We'll make your--

ASSEMBLYMAN McCLELLAN: --because I'm tired of people saying it.

SENATOR SMITH: --time tonight at the psychologist much less.

ASSEMBLYMAN McCLELLAN: Thank you.

SENATOR SMITH: And, we're happy to do that function.

Any other questions? (no response)

Thank you, Mr. Pisauo.

MR. PISAURO: Thank you.

SENATOR SMITH: All right, we have two last witnesses, who are going to win the prize for being able to sit for a long time.

Next is Dan Kennedy from NAIOP. Dan, he's the CEO of NAIOP in New Jersey. And, you may or may not know NAIOP is a commercial real estate development association, representing the owners, developers, and related professionals.

And, Dan, I think sometime in your prior life, you had some other experience? DEP was it?

DANIEL KENNEDY: Yes, that's where we first met, for sure.

SENATOR SMITH: OK, so, we'd like to hear your point of view.

MR. KENNEDY: Yes, I appreciate your time.

And, as a courtesy to all of the members, I'm going -- I'm trying my best not to repeat statements that were already made. I'll just try to reinforce some points.

So, good morning -- good afternoon, right; my comments were assuming we'd be doing the morning.

Dan Kennedy here. I'm a licensed New Jersey professional planner with a master's degree in City and Regional Planning from the Bloustein School at Rutgers. I have lived and worked in New Jersey my whole life, starting with living a few blocks off the Sandy Hook Bay in eastern Monmouth County, and now live and raise with my family a few blocks off the Delaware River in Burlington County -- all tidally-influenced areas.

I am proud to have previously served in senior roles in the State and County government, including running one of the recognized best land-preservation programs in the State in Burlington County. And, I currently serve on my local planning and zoning board. I now serve as the CEO of NAIOP.

Thank you for the commercial, Senator, on what we do.

The "I" and the "O" in NAIOP had stood for "industrial and office parks," but now we represent a full range of asset classes of commercial real estate.

We're testifying today in support of SER106, but we understand how complicated this matter is.

I want to first say that I think you heard testimony today that shows that this is not an us vs. them. I think it's-- There's no dichotomy here of-- You've heard folks who are opposing the REAL rules -- like we have

opposed the REAL rules for the last several years -- supportive of New Jersey putting in new environmental standards that are incremental, and that are more protective than essentially any other states doing theirs. So, there's no dichotomy here of do nothing vs. do everything. I think everyone here is trying to find the right balance for land use and infrastructure.

The one thing that hasn't been mentioned so far is infrastructure. All real estate, whether residential or commercial, requires good infrastructure. That's energy infrastructure; that's road infrastructure; that's transit infrastructure; that's water infrastructure, as well. All of those civil infrastructure projects require DEP permitting. And, most of that infrastructure is lined up in areas impacted by the PACT rules.

So, let me be the first to put on record here today that we also should be concerned about the infrastructure that drives public health and safety in the State as well. No serious person in a development community disputes that flooding, sea-level rise, and storm resilience are serious issues for New Jersey. Our members live here; they work here; they invest here; they build here. And, we have every interest in having communities that are safer, resilient, and economically sustainable.

The resolution recognizes that when the Executive Branch adopts rules with broad and lasting consequences for land-use development property rights -- I don't think anyone has mentioned property rights yet, so let me reinforce, property rights matter -- housing production, and local tax spaces, those rules should be carefully reviewed by the Legislature, which is finally happening.

So, credit to the Senate President and this Joint Committee for finally having an open conversation about these rules.

Assemblyman, I, too, have been in many, many stakeholder meetings. I would even -- I think calling it a stakeholder meeting is probably not even fair to the process. Those were-- Think about the context. Executive Order 100 happened in January 2020. What happened right after? So, we were doing all these rules in the context of dealing with the immediacy of the COVID pandemic, and the immediate impact in New Jersey obviously kept us working remotely much longer than many other states. So, a vast majority of this time was happening via Zoom, when State employees were nowhere near Trenton. We had no opportunity for the dialogue that is probably necessary to do this right. We were given PowerPoint presentations with big ideas and generalizations; no details or rule-proposed language was ever shared.

The process was honestly embarrassing for participants who both supported and opposed the effort. It concluded with the final adoption in the last 12 hours of the last administration, leaving the implications for Governor Sherrill and her team to figure out. So, that's where we are today -- sorting this all out. We're the ones who are in charge now, and I think it's a good time for a fresh start.

The REAL rules are not a minor regulatory update -- they will dramatically affect where projects can be built; how they will be developed; designed; how much they're going to cost; and whether they can proceed at all. For commercial real estate developers, this is not an academic issue -- it goes directly to whether projects are financeable, approvable at State and local levels, and can meet market demands. Producing a product -- say, a mixed-use multi-family product in a place like Jersey City -- that you have to look up to. Most of the urban centers in the state rely on a vibrant

streetscape, all the amenities on the street, and being able to go into a café; go into a bar; go into a restaurant -- that's the vibe. Office areas are-- The office environment here in New Jersey is that Class A, highly amenitized buildings are doing really well. And, buildings that don't have a lot of amenities are not.

So, what happens when you put amenities and improve a building? You're going to trigger that substantial improvement. So, it's going to be a detractor for our less-than-fully occupied office parks and structures all throughout the state, including Jersey City, Hoboken, all the way out to our rural areas is going to be a big consequence. This is not just a Jersey Shore thing. When you look at the imagery of some of our environmental friends and how they put out and promote this idea, you see images of dunes; you see images of boardwalks; you see images of single-family homes. And, I'm just here to say that it's just so much more than that.

Urban waterways are historically in areas where development took place in the state. So, if we're going to capitalize on redevelopment, these urban waterways that are tidally influenced need to make sure that we have regulatory policy that does not unintentionally shut down the very project that supports the goals of transit-oriented development. New Jersey Transit just put out a great and real transformative plan called the Land Plan, where they're trying to bring in additional transit assets for redevelopment to offset the issues that they have at the rate box that they can support their organization from an operational perspective. All the New Jersey Transit property projects that are foreseen to be producers of new economic development are within these areas. Why? Because most of the transit assets are within these areas that are tidally influenced.

So, we believe it would absolutely make it harder in the areas of the state that are accepted smart growth areas. We're not talking about building in the middle of nowhere -- we're talking about accepted smart growth areas, as per the State plan. These are the areas that we have wide agreement from State, county, and local government, that these are the places where we're supposed to build. The REAL rules throw that accepted agreement into the woodchipper. So, where are we going to build in the state if we can't build in smart growth areas?

We believe that the DEP failed to seriously consider these consequences when adopting the rules. And, that means fewer homes in the right places; fewer construction jobs; lower municipal rateables; and fewer opportunities to reuse our redevelopment land in smart and resilient ways. That's why the Legislature must simply not defer to the DEP on this matter. You are a co-equal branch of State government. You, as the elected representatives of the people, should examine whether these rules are consistent with Legislative intent; whether the economic impacts have been fully understood; and whether the State is striking the right balance between environmental protection and environmental growth.

From our perspective, SCR106 is a responsible and necessary step. It does not reject resilience; it does not reject climate risk. What it does is ask whether DEP's regulatory response was proportionate, lawful, and practical. We should be encouraging redevelopment in the right places that can support it, not erecting barriers that make investment impossible. We should be preserving the ability to adapt and build responsibly, not creating rules so rigid that they discourage the very resilience they seek to promote.

As we should be making policy through a transparent process with full debate, not by regulatory fiat, most land-use expert professionals that I know -- whether those are engineers, land-use lawyers, architects -- if you ask them if they truly, fully understand the full impact of this rule, I for one, as one of those professionals, could say I don't fully understand it because it's impossible to understand. We have no clue what these rules are going to actually do, because there's so much blended together.

SCR106 would give the Legislature the opportunity to restore the balance that the original legislation intended. We have detailed points that NAIOP would like the Legislature and the Executive Branch to consider, which were largely dismissed during the formal rulemaking process. All the comments you heard from folks like myself, my colleagues, Jeff Kolakowski, Ray Cantor, and others, were all put on the record during the rulemaking process, and summarily dismissed. So, it's not like these are any new rules.

So, with that, I am going to give you -- do a favor for you all and submit the rest of my comments on the record, and make myself available for any questions you may have in the context of NAIOP.

The thing that is most insulting is that, as a former DEP Assistant Commissioner, I know that there were items that were completely unrelated to climate change that advocates for environmental protection have long wanted to get done. There's a list of 15 to 20 throw-ins -- let me call them the kitchen sink items -- that were thrown in here in the trojan horse of this package. So, if you disagree with those items -- which have essentially nothing to do with climate change -- you're essentially a climate denier. And, that's kind of how we've been characterized. So, we think that there needs to be a recalibration of these -- the application of this projection of 2100. We

think there is five or six key issues that need to be changed about the climate impacts and how they're treated.

But, we think that the rule, no matter what happens -- all those kitchen sink items that have nothing to do with climate change, where this rule was a trojan horse to put them in place -- should be removed 100% from the rule package altogether.

Thank you for the opportunity to testify.

SENATOR SMITH: Any questions for Mr. Kennedy?

ASSEMBLYMAN McCLELLAN: Just one question.

SENATOR SMITH: Yes, sir.

ASSEMBLYMAN McCLELLAN: Good afternoon.

Just a quick question. Do you see a problem with doing something incrementally?

MR. KENNEDY: No, sir.

ASSEMBLYMAN McCLELLAN: So, if there was-- If you come back and-- Charge the Legislature, we're coming back every five or 10 years to review these rules, review tidal flooding and what's going on, and then you can apply it that way, is that a problem?

MR. KENNEDY: No, that's actually how it's intended. The APA, the Administrative Procedures Act, has an intention for all rules to be re-looked at every 10 years, now -- seven? Every seven years; thank you, (indiscernible). It had been five, and now it's seven, so it's a little bit longer.

So, I think that's the appropriate-- Every environmental standard that we have in this state -- air, land, and water -- the theory is it's incremental. Whether it's an MCL for drinking water, or an air standard, everything is couched in this incremental progress, and-- A plumbing

standard, for example. We're short on water, so we put new plumbing standards, and we feather them in so that, over time, over 30, 40, 50 years, we have a better regulatory environment.

There's a wide recognition from every single environmental standard that's put in place, so we can't do it overnight. These rules are the first rules that try to get it done like that (snaps fingers). That was a bad snap, but you know my point. 2100, that's also-- When you read DEP's final adoption proposal, they acknowledge that any projection past 2050 is pretty unpredictable. So, when you apply 2050 to this, if you accept DEP's rationale there, it gets you, like, to 1-2 feet. Which is what we've -- all of us have been pretty much saying from the start.

So, start at 1-2 feet. That's looking forward; no other state is doing that. New Jersey would still be a state leader in this space. And, then review every seven years whether that's enough, if the models are sticking forward, and then you add it, you feather it in incrementally as it goes. And, as a society, we have more time to adapt to these new standards while still reflecting an acknowledgement that our standards need to get better over time. And, that's how every other environmental regulation, except for this one, works in the State of New Jersey.

ASSEMBLYMAN McCLELLAN: Thank you, sir.

Thank you, Chair.

ASSEMBLYMAN KENNEDY: Not a question, just a comment.

Great last name.

MR. KENNEDY: Yes.

(laughter)

MR. KENNEDY: Solidarity with both chairs.

ASSEMBLYMAN KENNEDY: What county?

MR. KENNEDY: What's that?

ASSEMBLYMAN KENNEDY: What county?

MR. KENNEDY: What county?

ASSEMBLYMAN KENNEDY: Yes.

MR. KENNEDY: Cork.

ASSEMBLYMAN KENNEDY: Ugh.

MR. KENNEDY: Sorry.

ASSEMBLYMAN KENNEDY: One of those guys.

(laughter)

ASSEMBLYMAN KENNEDY: Wexford.

MR. KENNEDY: We'll make ourselves available for any questions afterward. We know this is not the end of the process.

I just wanted to credit the Senate President for stimulating this conversation for those who have put in bills.

Similarly, credit to you as well. The time has come; July 17 is going to come pretty quick.

Yesterday, the DEP Commissioner testified in Budget that he acknowledged there was an 18-month delay in letters of interpretation being approved by the DEP.

So, let me leave you with this: If we give a 180 days delayed operative date for this rule, from January to July, and then we have a DEP Commissioner acknowledging it takes 18 months to get a simple wetlands delineation, I think that calls for, without question, an extension of the application in this rule way past July for DEP to get its proverbial self together internally, so they can perform basic tasks of State government quicker than

18 months. So, you've got developers that are barreling forward to meet this July 17 standard that they will never be able to meet because in DEP's own testimony yesterday in Senate Budget, they can't even get basic functions of the DEP done in less than 18 months. And, a wetlands delineation is probably the easiest thing you're going to get from DEP in terms of an ask.

SENATOR SMITH: We good? (no response)

Dan, thank you for coming in.

MR. KENNEDY: Thank you, sirs.

ASSEMBLYMAN KENNEDY: Next we have Dennis Toft; New Jersey Chamber of Commerce.

Dennis is an environmental lawyer, and on the Board of Directors of New Jersey State Chamber of Commerce.

DENNIS TOFT, J.D.: Thank you, Mr. Chairman.

I am Dennis Toft; I am the Energy and Environment Initiative Chair on the Executive Committee of the State Chamber of Commerce. I am here today doing my impersonation of Michael Eggerton, as Senator Smith would say.

SENATOR SMITH: That's right.

MR. TOFT: I appreciate the time to testify in support of the concurrent resolution.

I will try not to be repetitive, recognizing that I am the last speaker -- although I always enjoy spending time in whatever committee Senator Smith is chairing. I know it's been a long day, so I will try to get to the point and not be repetitive.

There's a book called *Abundance*, which I highly recommend to all of you, written by Ezra Klein and Derek Thompson, who are both liberal

columnists. One of the things they say, and the point they make, is that our system of laws and regulations has gotten overly burdensome in many ways. They say laws meant to ensure that government considers the consequences of its actions have made it too difficult for government to act consequentially. That's what we have with the REAL rules. The rules are a hodgepodge, and they're making things too difficult, and they don't really address the flooding problem.

We have an infrastructure problem in the state. The infrastructure we have is not maintained well, and we need to invest in new infrastructure to address future flooding. As we learned from past tragedies, as Mr. Pisauro said, existing stormwater systems are not maintained well; they got blocked, and during significant storms, catastrophic results occur. The Legislature created the ability for municipalities to create stormwater utilities to address this problem, but only a handful of stormwater utilities have been created. Further use of this approach should be encouraged, and the Legislature should take it up again.

DEP announced just yesterday that under its program, two more regions have joined the Resilient NJ program. This is exactly the type of program where DEP encourages regional planning to deal with flooding. And, that's what needs to happen in New Jersey, not regulations that artificially create elevations on different sites. Similarly, if you look at the DEP street cleaning rules, they could be revamped in a way to make it easier for municipalities to prevent flooding by being able to quickly de-snag streams.

Investing in this stormwater infrastructure and resiliency projects will be more effective in the long term than elevating new structures on a site-by-site basis as contemplated by the REAL rules. These projects should

include nature-based solutions, like enhancing salt marshes, or creating new wetlands to absorb flooding. Infrastructure projects that take advantage of planned Federal dredging in New York Harbor and elsewhere, where the Army Corps of Engineers requires beneficial use of dredging material, create an opportunity for salt marsh restoration, and to create artificial habitat islands that, in addition to supporting wildlife, can provide flood protections.

Projects like this have been successful in other states. I'll refer you to the Poplar Island project in Maryland as a good example. We're working on a project now in Bayonne, at the Bayonne Golf Club, which will beneficially reuse dredge material from New York Harbor to create a new habitat island, both providing flood protection and habitat values. But, guess what? It's a regulatory morass to get that approved. If interested, I can provide more information about the project to the Committee, and anyone who would like to come up and visit the golf club can see it, because the golf club itself was built by reusing dredge material and provides flood protection to Bayonne.

I won't go into arguments about whether the number is 4 feet, or 2 feet, but, there are other obstacles that others have been noted to achieve this result. The first is the existing infrastructure is not being elevated. You can't easily elevate one property without dealing with the other infrastructure. There are other recent changes in DEP rules that make the process more difficult. For instance, site remediation rules limit the ability to reuse contaminated material, even on the same brownfield site. You have to remove the material; you have to go get clean fill from somewhere. The REAL rules assume that there's an infinite supply of clean fill material to elevate all these properties.

I know Senator Smith is well-informed on the dirty dirt law. That, too, will create an impediment to implementing the REAL rules because of the way it regulates soil around the State of New Jersey. If we want to have a comprehensive program to elevate properties, we have to take into account how we are going to do that.

The other thing that bothers me -- and, maybe this is just me, because I only have a science degree from a school in Massachusetts -- but, I remember fluid dynamics. When I elevate one property, what happens to all the properties around it? They're going to get more impacted, because my property is higher; creates a dam; and the other properties around it are going to get more impacted as a result. This is why we need to address the problem holistically, on a regional basis. Mr. Cantor referred to what happened after Sandy; the "Rebuild by Design" project in the Meadowlands, the one in Hoboken, are all great examples of how to do it.

There is some limited exemption from affordable housing in the REAL rules. I don't know how that works from an environmental justice standpoint. Again, infrastructure investment in EJ communities is needed, because those communities are often the most vulnerable to climate change.

As Mr. Kennedy mentioned, there are lots of other changes that were thrown into the REAL rules. More than a dozen of these additional changes create other problems, and I have two that are of particular note. One deals with sites where there is an existing impervious surface, and those are typically brownfield sites, and you have to now address stormwater in a different way on those sites, making it more difficult to redevelop them. Again, this was sort of a throw-in in the REAL rules.

There was another provision added to the rules that says if you get a DEP permit, you have to commence construction within 180 days. I have lots of clients who have developed lots of sites who get their DEP permit first, because they know it takes a long time, and they get their local land-use approvals; then they have to do resolution compliance; then they have to get financing. It's not realistic in every case to expect people to start building with 180 days of getting their DEP permit. But, this is now a requirement across all the DEP permitting programs.

So, that's the type of thing that calls for a comprehensive review of these rules, both as to the elevation change requirements and to meet the intent of the new administration's executive orders to make things cheaper, faster, and to cut red tape. Rules should be withdrawn, stayed; the Senate should adopt the resolution; and, we should have a real, robust stakeholder process going forward to address the issues of climate change and flooding in the state, taking into account not only elevation changes and changes to the DEP rules, but taking into account how we can become more resilient taking advantage of the resources that we have; maintaining the resources that have already been installed; and trying to move the State forward in a way that's protective of everyone.

I will submit my comments in writing, which are a bit more comprehensive, and I'm happy to answer any questions that you have.

SENATOR SMITH: Any questions for Mr. Toft? (no response)

Mr. Toft, I know you're going to be very disappointed, but you're the last witness.

MR. TOFT: Senator, I appreciate the time, and I always appreciate spending time with you.

So, thank you.

SENATOR SMITH: So, Senator Kennedy -- I'm sorry, Assemblyman Kennedy.

ASSEMBLYMAN KENNEDY: A promotion.

(laughter)

SENATOR SMITH: You can be a Senator; it's OK.

ASSEMBLYMAN KENNEDY: Thank you.

(laughter)

SENATOR SMITH: Anything you'd like to end with?

ASSEMBLYMAN KENNEDY: No. (laughter)

SENATOR SMITH: All right. Well, I'll end with one thought.

Which, is first, thanks to everybody for coming out.

We have a very important job, which is to relay this information to the rest of the Legislature. We have a decision in front of us.

My experience with stenographic records -- usually takes a couple of weeks. So, we will -- in a couple of weeks -- have a transcript of this hearing, which we're going to email to every member of the Legislature, and to the front office -- the Governor's Office. And, if anybody wants anything to submit to the record, a supplement, you already heard at the beginning the address for OLS -- send in your cards and letters, and we'll be happy to attach that to the record. We want to well inform the Legislature as they consider this decision.

And, let me thank everybody who came out today.

And, by the way, I hope now you all see the wisdom of not having an open mic. Even with 10 witnesses-- What time of day is it, 3:40? And, this is from 11 o'clock this afternoon. So, we've been doing this almost four

hours. And, it's a very important topic, but we tried to get the most knowledgeable people here today.

And, if anybody wants to make sure their thoughts are also included, just send in your cards and letter, and we'll attach it to the package that we send to the Legislature.

So, on that happy note, even though it's 3:40--

SENATOR AMATO: Is that what you recommend? Because, I was going to read a statement into the record, but is it easier just to submit it into the record?

SENATOR SMITH: I think it's just easier to submit it.

SENATOR AMATO: Perfect.

SENATOR SMITH: Unless people feel the need to listen to a statement at this point.

(laughter)

SENATOR SMITH: On that note, motion to adjourn.

Second?

UNIDENTIFIED SPEAKER: Second.

SENATOR SMITH: We're adjourned.

Thank you.

(MEETING CONCLUDED)