BUILDING INNOVATION
Conference

# BEYOND CARROTS

## The Legal Sticks of Climate Adaptation Failure in Construction

# PRESENTERS

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ICC INTERNATIONAL CODE COUNCIL®

# CLIMATE LITIGATION

**MITIGATION**

**ADAPTATION**

# Agenda

1 2 3 4 5

## CLIMATE CHANGE CONDITIONS
Current & Future Projections

## INDUSTRY RESPONSE TO GROWING RISKS
Industry Practice & Changes

## U.S. JURISPRUDENCE TODAY
Case Law and Insights

## U.S. JURISPRUDENCE TOMORROW
Where Courts May Be Headed

## RISK MITIGATION
What You Can Do to Mitigate Liability

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# 1

# CLIMATE CHANGE CONDITIONS

## Current & Future Projections

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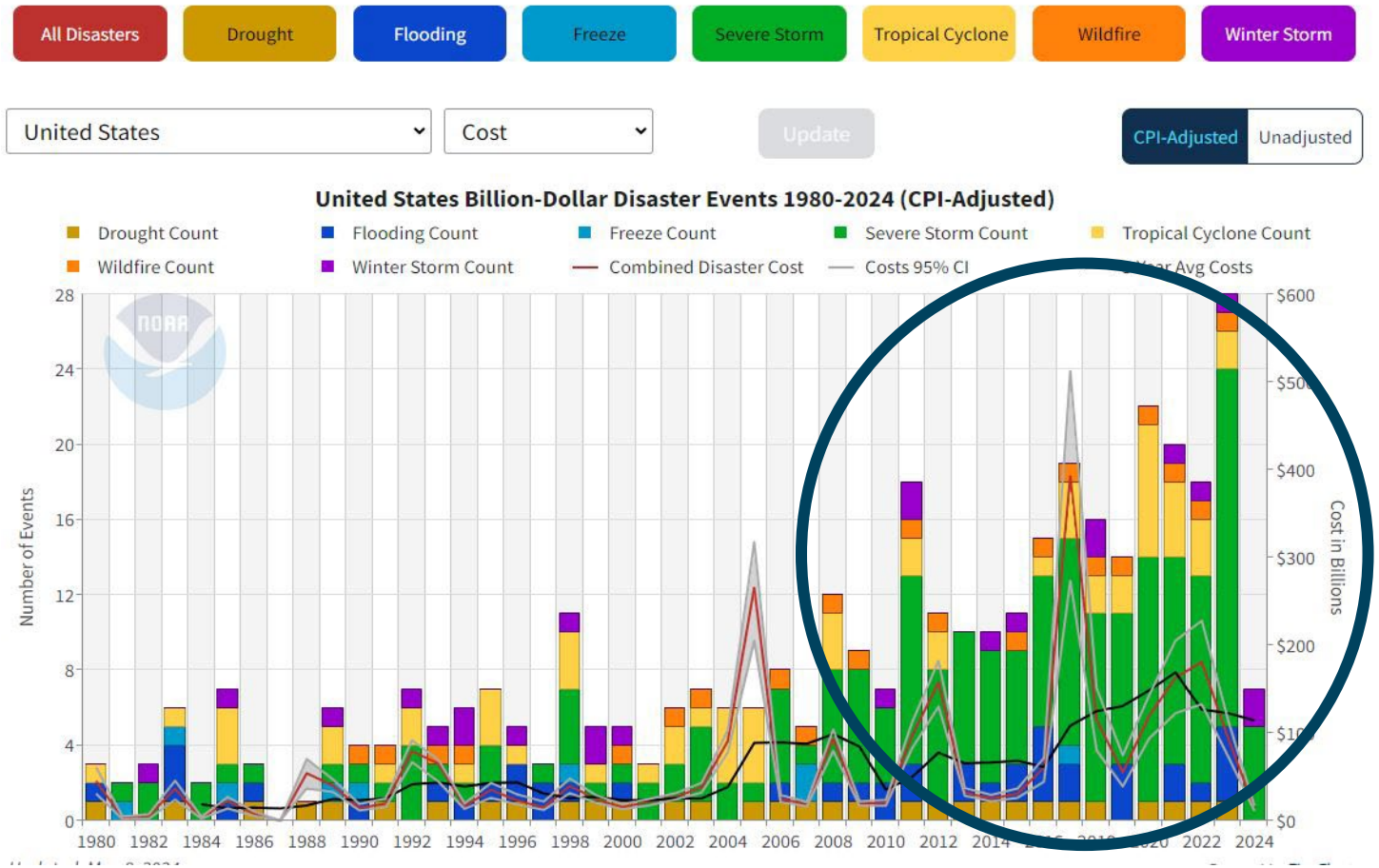
# CURRENT CONDITIONS




**Source:** NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2024). https://www.ncei.noaa.gov/access/billions/.

# 1.1°C WARMING CONTEXT

> Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above [pre-industrial levels] in 2011-2020.

**Source**: IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II, III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds)]. IPCC, Geneva, Switzerland, pp. 1-34, doi: 10.59327/IPCC/AR6-9789291691647.001

# FUTURE STATE: Best Case

> Continued greenhouse gas emissions will lead to increasing global warming, with the best estimate of reaching 1.5° C in the near term in considered scenarios and modelled pathways.

**Source**: IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II, III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds)]. IPCC, Geneva, Switzerland, pp. 1-34, doi: 10.59327/IPCC/AR6-9789291691647.001

# FUTURE STATE: "Speeding Train" Metaphor

> Every increment of global warming will intensify multiple and concurrent hazards (high confidence).
>
> Deep, rapid, and sustained reductions in greenhouse gas emissions would lead to a discernible slowdown in global warming within around two decades…

**Source**: IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II, III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds)]. IPCC, Geneva, Switzerland, pp. 1-34, doi: 10.59327/IPCC/AR6-9789291691647.001

# NOT *JUST* CLIMATE: It's The Way We Build

**Table 1: Population Living in the Floodplain, 2011-2015**

| | Total | Share of U.S. Population |
|---|---|---|
| 100-year floodplain | 15,000,304 | 5% |
| Combined floodplain | 30,239,796 | 10% |
| U.S. | 316,515,021 | 100% |

*Sources: American Community Survey, U.S. Federal Emergency Management Agency, NYU Furman Center*

**Source**: National Preparedness Report (Dec 2023).

"Two out of three communities in the United States need to incorporate the latest building codes.

2

# INDUSTRY RESPONSE TO GROWING RISKS

## Industry Practices & Changes

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# AIA RESILIENCY STUDY (2022)

- Architects ranked **natural hazards/climate impacts ranked 3rd out of 13** important resiliency considerations
- **Most architects: code is NOT sufficient** to make a building resilient enough to enable building to withstand all likely hazards in their location.
- Architects report that **25% of projects are design above code requirements.**
- **Most clients and contractors: code IS sufficient** to make a building resilient enough to enable building to withstand all likely hazards in their location.
- 37% of architects reportedly **relying on climate projection data**

**Source**: Resiliency in the Built Environment Research Report, by The American Institute of Architects (AIA) and Owens Corning

# HGA & MCAP STUDY (2022)

- 36% A/E respondents **offer climate resilience/adaptation services**
- 93% noted **familiarity with climate-future projection data**
- 34% **use this data to inform design/planning**
- Majority are using future-forward **data from publications** (IPCC and regional fact sheets, rather than raw scientific data)
- **Biggest use** for climate projection data: to inform conversations with clients and climate risk assessment for design strategy
- **Biggest barrier** for use of climate projection data: clients aren't asking for it

**Source**: Climate Forward? How Climate Projections Are(n't) Used to Inform Design, by HGA and the University of Minnesota Climate Adaptation Project

# 3

# U.S. JURISPRUDENCE

## Case Law and Insights

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# STANDARD OF CARE

## Ordinary Persons

"Reasonable Care"

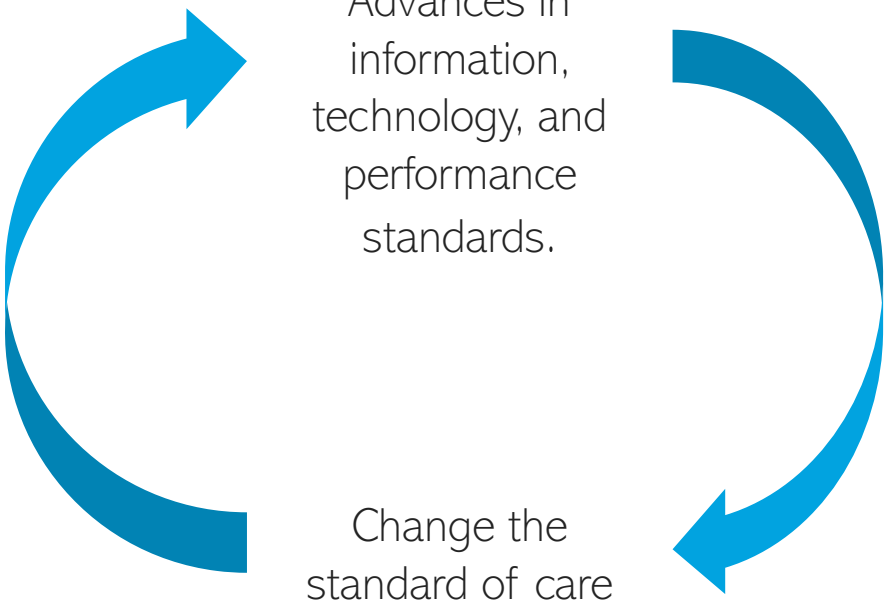
Exercise the degree of care ordinarily exercised by a reasonable person.

## Professionals

"Reasonable Skill and Care"

Exercise the degree of care ordinarily exercised by other similarly situated professionals

**As advances become the norm, the standard evolves.**



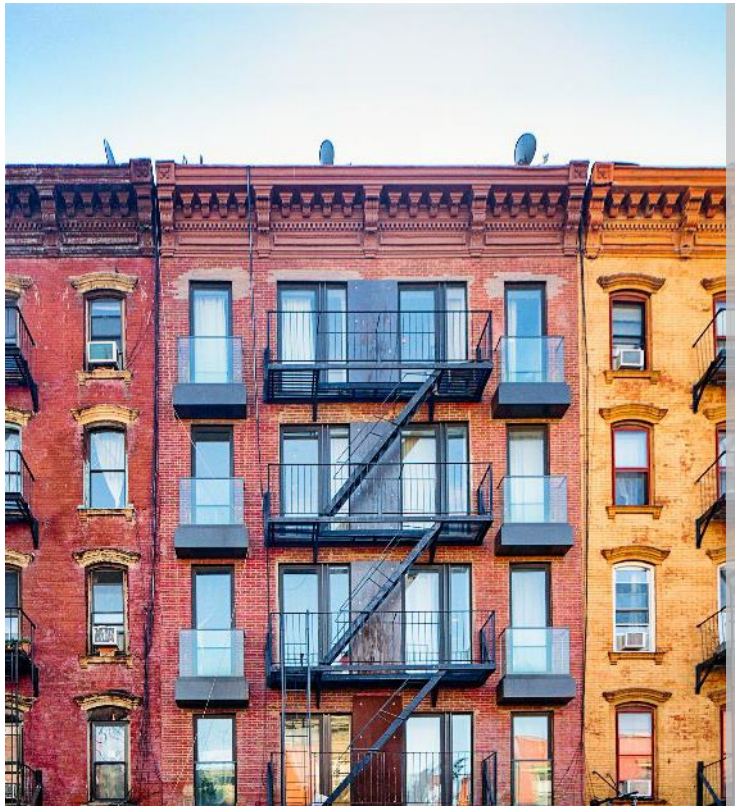
# STANDARD OF CARE: Foreseeability

- **1956-1959**
  Architect is hired and school is constructed
- **1964-1967**
  Publications emerge re: dangers of asbestos
- **1967-1970**
  Decedent attends school
- **1970s-80s**
  Federal and state regulation of asbestos
- **1982**
  School is closed for asbestos

> Whether hindsight reveals that greater precautions could have been taken to avoid the harm that eventuated is irrelevant if the injury could not reasonably have been foreseen at the moment the defendant engaged in the activity which later proves harmful.

**Case Citation**: *Barnett v. City of Yonkers,* 731 F. Supp. 594 (S.D.N.Y. 1990).

# STANDARD OF CARE: Codes



- **1989**
  Building identified as potentially hazardous. Owners notified.
- **1992**
  Ordinance requiring retrofitting within 15-years enacted
- **1998**
  Ordinance amended to extend compliance deadline to 2018
- **2003**
  Earthquake occurs and portion of the building collapses

> Generally courts have not looked favorably on the use of statutory compliance as a defense to tort liability. That is because a statute, ordinance or regulation ordinarily defines a minimum standard of conduct.

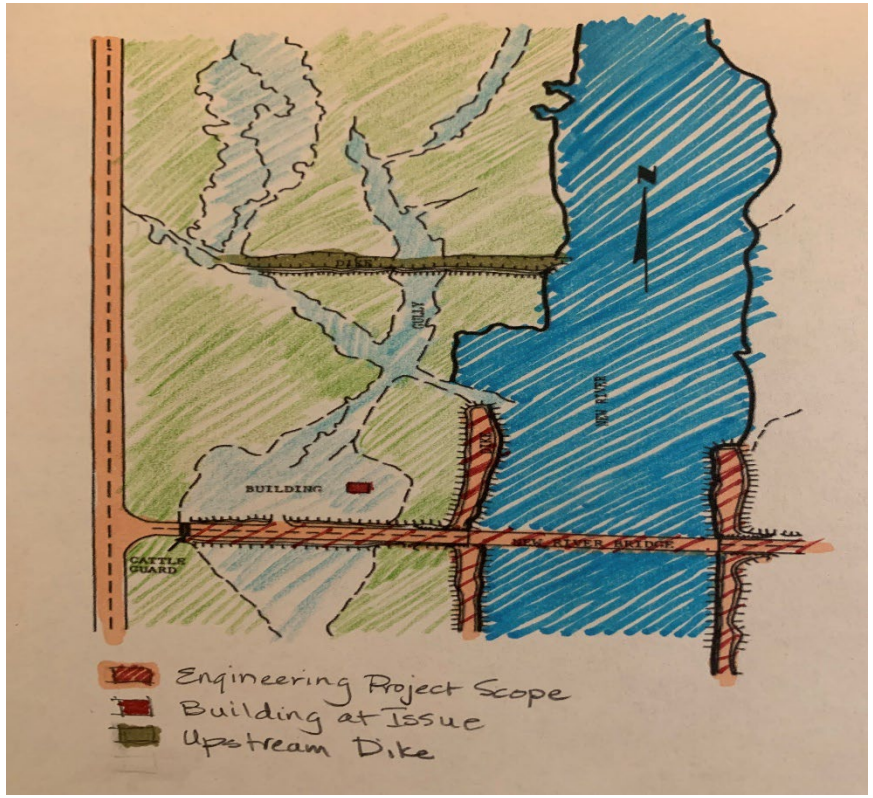
**Case Citation**: *Myrick v. Mastagni*, 185 Cal. App. 4th 1082 (2010).

# STANDARD OF CARE: Industry Practice

> A whole calling may have unduly lagged in the adoption of new and available devices…Courts must in the end say what is required; there are precautions so imperative that even their universal disregard will not excuse their omission.

**Case Citation**: *The TJ Hooper*, 60 F.2d 737 (2d Cir. 1932).

# FORESEEABILITY: Adjacent Properties




**Case Citation**: *L.H. Bell Associates, Inc v. Granger,* 112 Ariz. 440, 543 P.2d 428 (Ariz. 1975).

**1967**

50-year flood occurred at building location

**1969-70**

County hires engineer to design bridge to 25 year flood

**Sept 1970**

"unusually heavy rainfall" occurs at location; 100-year flood

# FORESEEABILITY: *L.H. Bell* Takeaways

"Evidence that a flood is a 25 year flood or a 100 year flood is certainly admissible as to the question of foreseeability but is not conclusive."

"An engineer (or other design professional) "does not warrant his service or the tangible evidence of his skill to be 'merchantable' or 'fit for an intended use.'"

"it was foreseeable that without culverts under the approaches to the road there was a reasonable probability that plaintiffs' property would be flooded."

**Case Citation**: *L.H. Bell Associates, Inc v. Granger,* 112 Ariz. 440, 543 P.2d 428 (Ariz. 1975).

# FORESEEABILITY: Severe Weather Conditions

**Exxon's 110-acre Facility**

**NPDES Permit Requirement**

**Court's view: "good engineering practice"**

**Case Citation**: *Conservation Law Foundation v. ExxonMobil Corp.*, 448 F. Supp.3d 7 (2020).

# FORESEEABILITY: *ExxonMobil* Takeaways

> …'good engineering practices' include consideration of foreseeable severe weather events, including any caused by alleged climate change.

> …the appropriate inquiry is not whether the permit requires consideration of climate change but whether the permit requires consideration of weather events that [plaintiff] alleges threaten the terminal, including but not limited to those that might be caused by alleged climate change.

**Case Citation**: *Conservation Law Foundation v. ExxonMobil Corp.*, 448 F.Supp.3d 7 (2020)

# LAWSUITS AGAINST GOVERNMENTAL ENTITIES

## DeVillier et al. v. Texas

- Texas renovated an interstate by adding a concrete barrier that acted as a dam. It diverted water onto the properties of Devillier and his neighbors. The land had never flooded before. The damage to homes, vehicles, and livestock due to two floods in a short time was immense.
- Frustrated with pleas to Texas to compensate him, DeVillier took the state to court and sued under both the state and federal constitutions. The U.S. Supreme Court ruled unanimously that the Fifth Amendment gives people a right to sue a state when a state government takes their property.

# LAWSUITS AGAINST GOVERNMENTAL ENTITIES

## Argos Properties II, LLC v. City Council for Virginia Beach

- Developer challenged denial of rezoning application when city said stormwater plans must account for sea level rise.
- Climate change and sea-level rise law continues to evolve.
- Case upheld government's authority to incorporate sea level rise factors into local planning and regulatory initiatives.

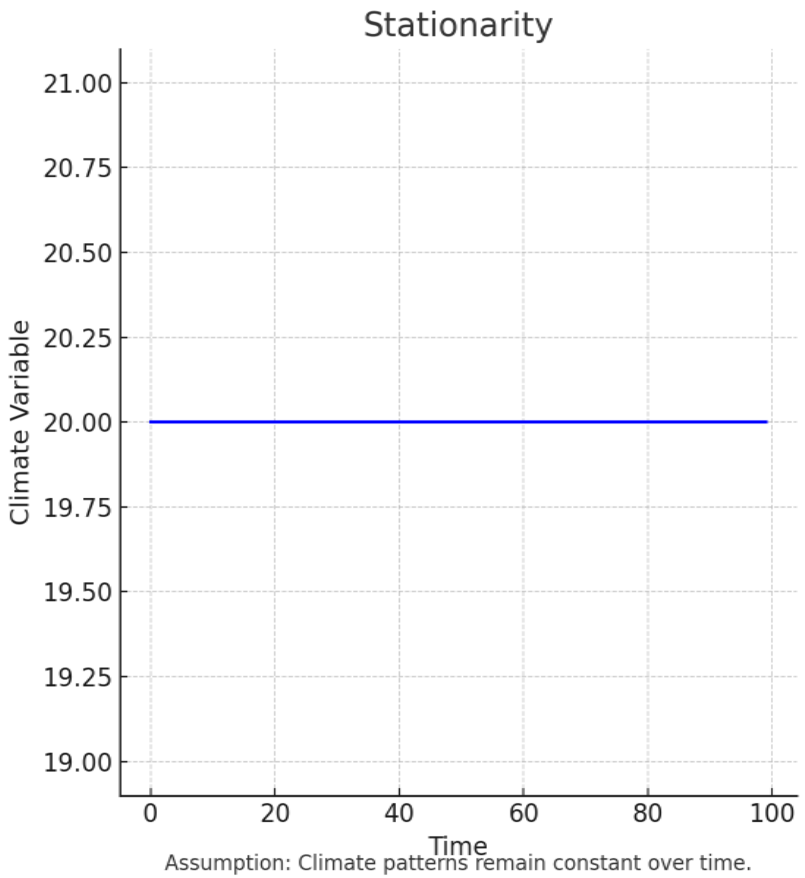
## Battery Park Citizens Neighborhood Association v. Battery Park City Authority

- Lawsuit challenged resiliency project that would demolish and rebuild park.
- Allegation that BPCA rejected an alternative resiliency plan based on unreasonable and incorrect assumptions about storm surge, sea level rise, and wave action.
- The court stated that it was required to defer to the Battery Park City Authority's determination regarding the design standards for coastal resiliency projects intended to provide flood protection.

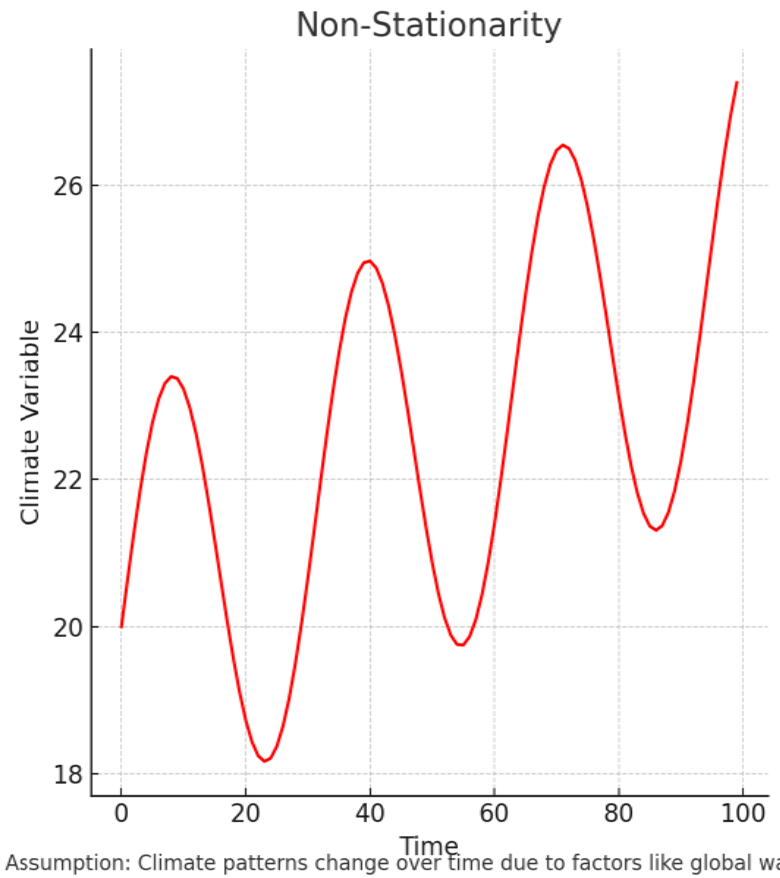

# U.S. JURISPRUDENCE TOMORROW

## Where Courts May Be Headed

# NON-STATIONARITY: The New Norm?




Assumption: Climate patterns remain constant over time.




Assumption: Climate patterns change over time due to factors like global warming.

Image Credit: Stationarity vs. Non-Stationarity Graph created by ChatGPT, an AI model by OpenAI, 2024

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# FRAMING YOUR ACTIONS
# How Courts May Evaluate Future Liability

### Avoiding Disruption

Courts want to avoid excessive disruption in settled law and traditional contracting methods

### Encouraging Adaptation

Courts aim to balance interests, costs, and utility to incentivize behaviors that mitigate climate risk

### Protecting Vulnerable Populations

Courts recognize that not all property owners can adapt or insure themselves

### Advancing Innovation

Courts want to promote some level of risk-taking to adapt when the circumstances could be catastrophic if no action is taken for fear of liability


# RISK MANAGEMENT TAKEAWAYS

## Mitigating Exposures

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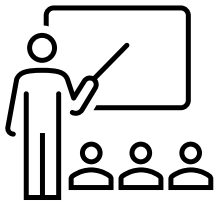
# NAVIGATING LIABILITY



## Anticipate & Adapt

Stay ahead by continuously updating your knowledge on laws, regulations, and the latest climate science. Adapt your practices accordingly.

## Contract with Caution

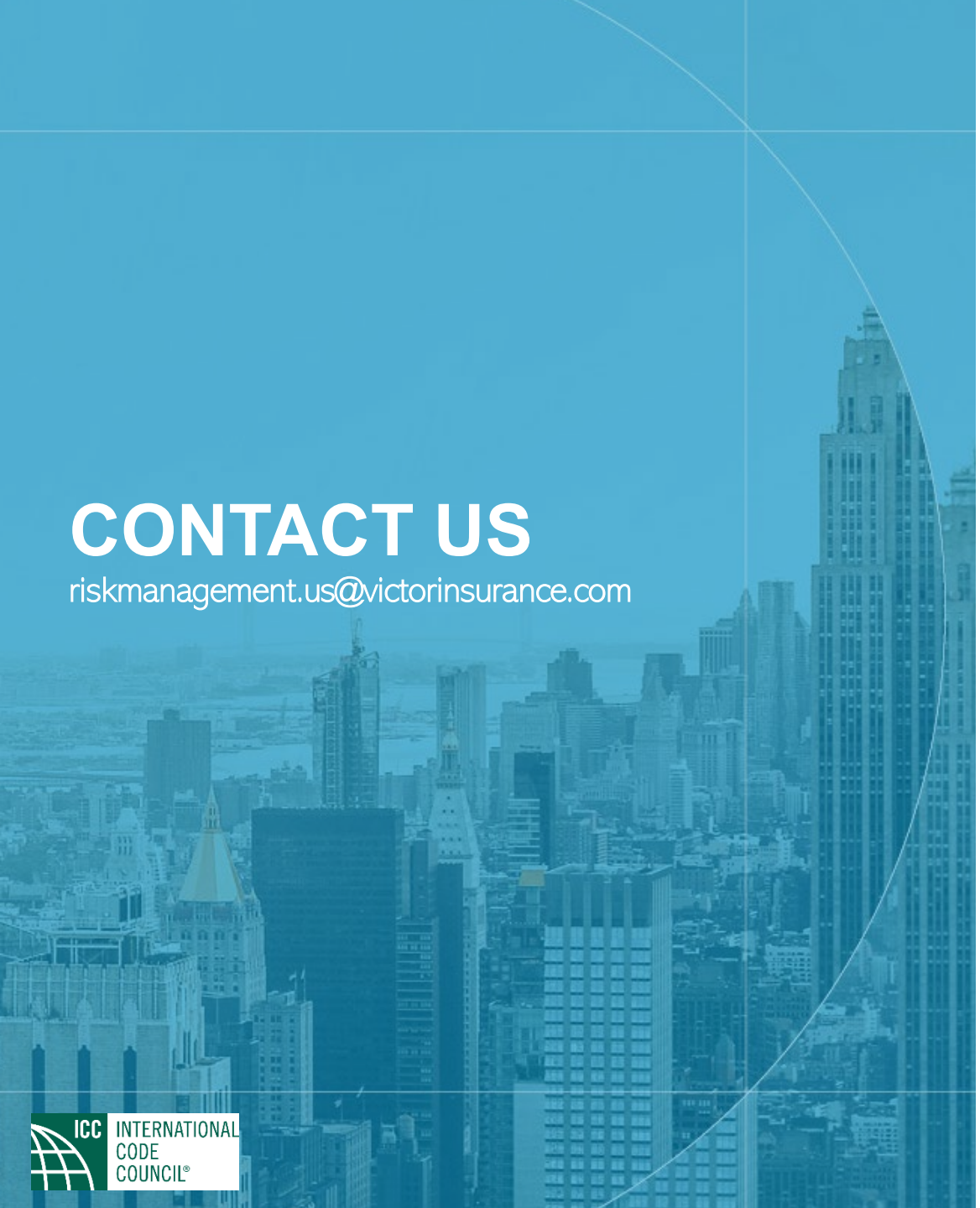
Safeguard your practice with contracts that recognize uncertainties and clearly define the scope of work in the face of changing climate norms.

## Communicate & Document

Engage openly, leverage climate experts and modeling services, and meticulously document all decisions and consultations.

## Invest in Insurance

Ensure your practice is properly insured and make the most of the risk management resources offered by your carrier.



## CONTACT US

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# QUESTIONS?

Thank You For Your Time