

Climate Change: Legal and Planning Solutions

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Flooding, SLR and Storms

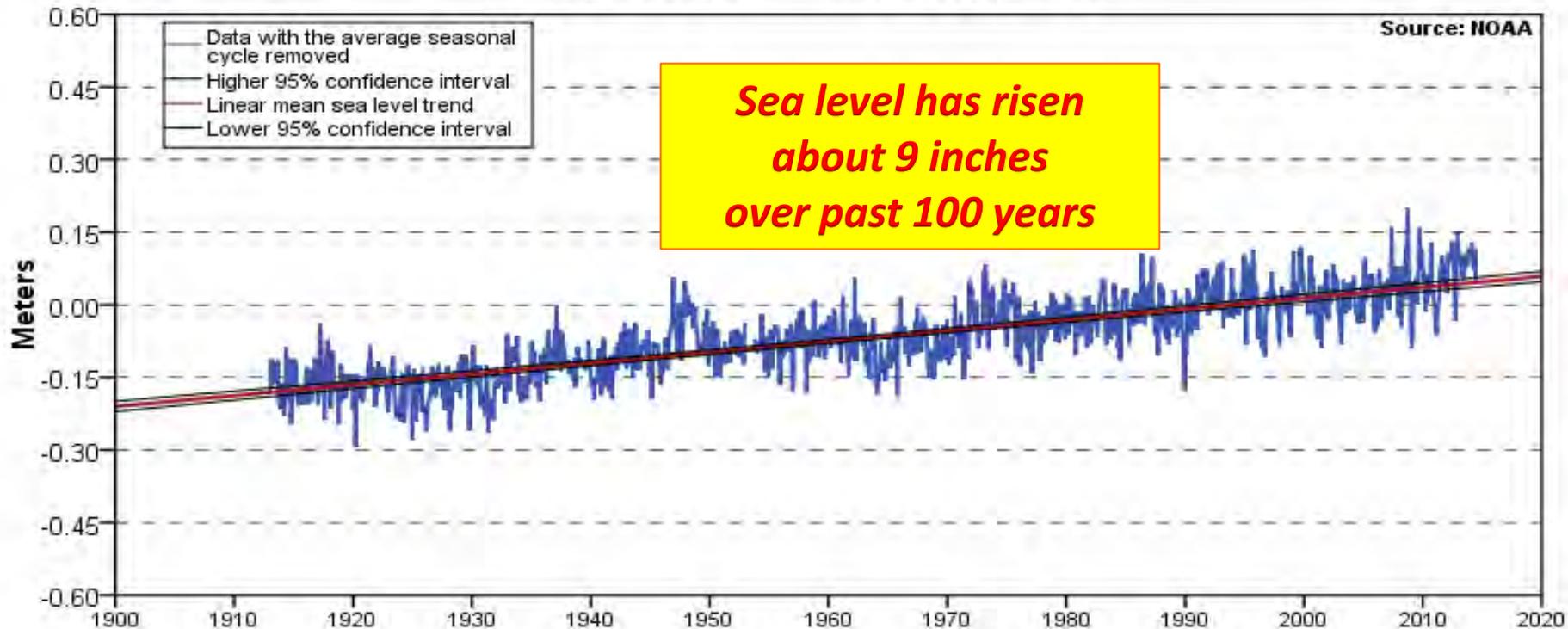


Pensacola 4/30/14

The Data: Historic

Key West, FL

2.24 +/- 0.16 mm/yr

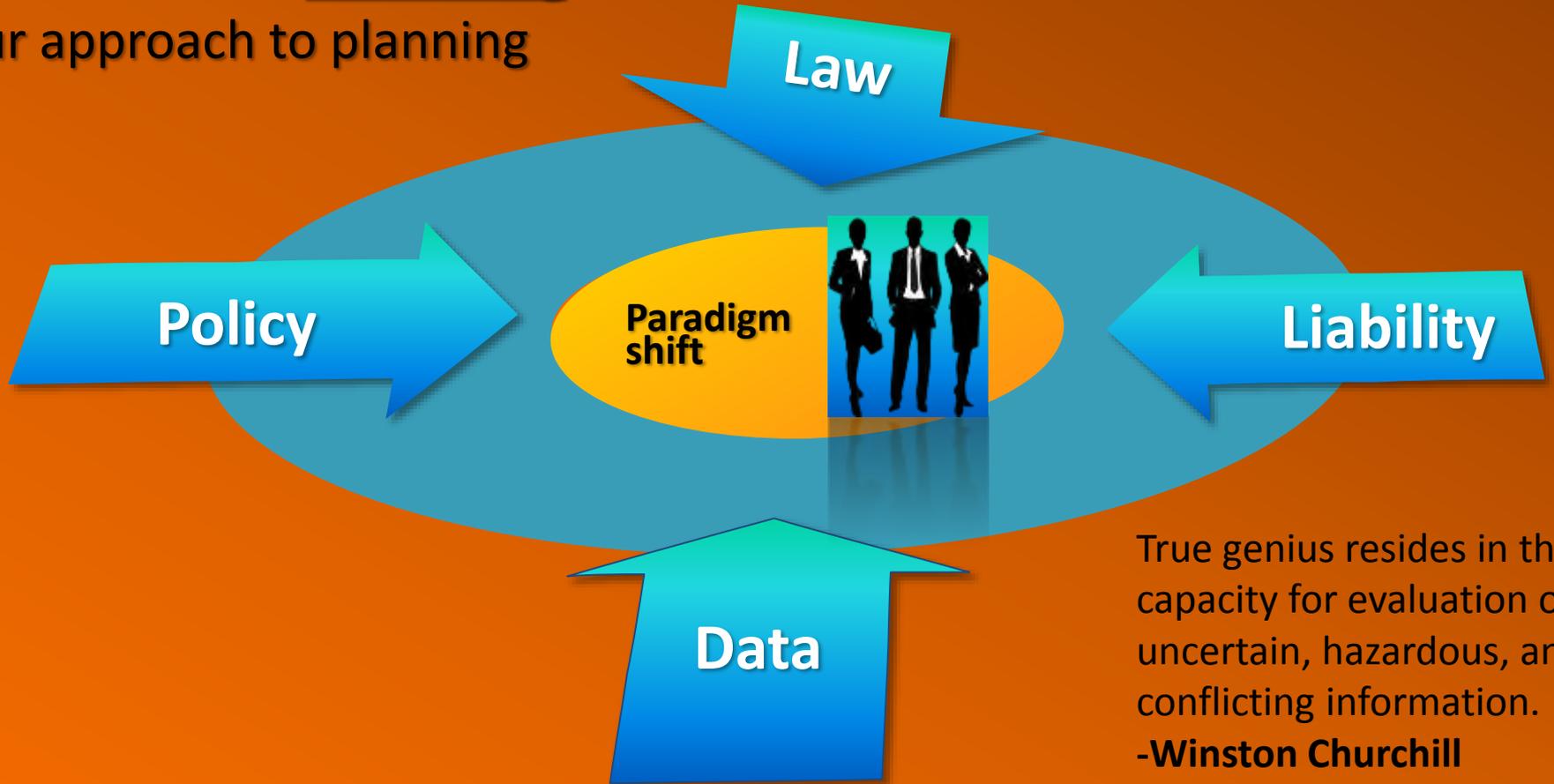




Looking for all the Signs

- El Yunque, Puerto Rico
- La Mina Cascada
- Water elevations 4 feet below normal
- 9/6/2015

Increasing liability, new policy and better data are **influencing** our approach to planning



True genius resides in the capacity for evaluation of uncertain, hazardous, and conflicting information.
-Winston Churchill

Global Framework



- United Nations Framework Convention on Climate Change (UNFCCC) (1992) voluntary goal of reducing GHGs from developed countries to 1990 levels by 2000
- Kyoto Protocol (1997) binding targets to reduce GHGs 5.2% below 1990 levels by 2012
- Copenhagen Accord
- U.S. Response
 - Attempts @ legislation
 - Mass v. EPA
 - Supreme Court EPA has authority to regulate CO₂, reporting for sources emitting over 25,000 MTCO_{2e}
 - No legally-binding cap on GHGs
- Regional / State / Local Government Responses (Planning, preparing and analyzing.....)
- **COP21 in Paris December 2015????**

Law: Where Does Climate Change Show Up?

- ESA
- NEPA
- CAA
- CWA
- MMPA
- FOIA/1st
- Energy Policy Act
- Global Climate Change Research Act
- Corporate Reporting/Securities Disclosure
- FTC

**734 total cases as of
February 2015**

- “Cap-and-trade” regulation where
GHG’s are capped and allocated
“allowances”
- Green & Energy Building/Codes (New Mexico case)
- Money damages and insurance coverage (common law claims)
- Protestors and scientists

(private),
too much

Florida Laws

- Reduction of emissions to 2000 levels by 2017, to 1990 levels by 2025, and by 80% of 1990 levels by 2050.
- Florida adopted California vehicle emission standards reductions (22% by 2012 and 30% by 2016).
- Building Efficiencies/Code, Chapter 553, F.S. increasing standards
- HB 7123: Model Green Building Code (2007)
- HB 697 (GHG reduction strategies in local government's Comprehensive Plan). Some requirements recently eliminated.
- HB 7135 (State and Local Government Buildings "greener")
- HB 7179 (PACE)- wind resistance/energy efficiency initiatives for financing (future use for flood mitigation?)
- HB 7117 (Energy Bill- 2012)
- Virtually nothing 2013/2014
- 2015- 5 Bills Passing Related to flood insurance, wind insurance, construction standards/building codes, Citizen's insurance

Florida's Law: How Far

Does it Go?

- **Comp Planning standards on data:** “Appropriate” and “professionally accepted” data (science on GHG emissions and climate change?)
- **Types of principles in planning:** “Use ecological planning principles and assumptions in the determination of the suitability of permitted development.”
- **Its “sprawl” if:** (VIII) plan or plan amendment allows for land use patterns or timing which disproportionately increase cost in time, money or energy of providing & maintaining facilities / services, including roads, potable water.
- **“Discourage the proliferation” of sprawl if:** project incorporates a development pattern or urban form that achieves four (4) or more of the following.... (IV) promotes conservation of water and energy.
- **Conservation element:** must contain principles, guidelines and standards for conservation that provide long term goals to protect air quality ...
- **Use of mapping tools:** CHHAs and AAAs? Define and provide permissive designations of areas.

SB 1094: Future Flood Planning

- Comp Plans must now include principles, strategies, and engineering solutions that reduce flood risks and losses within coastal areas in the Coastal Management Element of their Comprehensive Plan.
 - ... principles, strategies, and engineering solutions that reduce the flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise.
 - ... best practices development and redevelopment principles, strategies, and engineering solutions that will result in the removal of coastal real property from flood zone designations established by the Federal Emergency Management Agency.
 - ... site development techniques and best practices that may reduce losses due to flooding and claims made under flood insurance policies issued in this state.
 - ... consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable flood plain management regulations set forth in 44 C.F.R. part 60.
 - ... any construction activities seaward of the coastal construction control lines established pursuant to Section 161.053, F.S. be consistent with Chapter 161, F.S.
 - ... encourage participation in the National Flood Insurance Program Community Rating System administered by the Federal Emergency Management Agency to achieve flood insurance premium discounts for their residents.

Kivalina & Steadfast- Who is Going to Move the Alaskan Tribe?

- Nuisance claim for \$ from the energy industry for flooding damage caused by climate change.
- Supreme Court passes May 20, 2013 on reconsideration of appellate dismissal.
- "...if an individual driving a car (and thus contributing to emissions) could also be a defendant, and if so, **how a court could determine who was liable**"? - CAUSATION
- Steadfast had no duty under the CGL policies issued by it to defend its insured, AES Corp., against climate change/global warming-based causes of action (Vacated, Rehearing and Reaffirmed 4/20/12)
- Steadfast: did the damage result from an "occurrence"?
Answer: No (x2)
- "If an insured **knew or should have known** that certain results would follow from his acts or omissions, **there is no 'occurrence' within the meaning of a CGL policy...**"



Kivalina, Alaska

Flood Control Liability

- *In re Katrina Canal Breaches Consolidated Litigation* (Robinson), 647 F. Supp.2d 644 (E.D. La. 2009).
- 400+ plaintiffs sued to recover for Katrina-related damages and the Corps' mismanagement of the Mississippi River Gulf Outlet or MRGO.
- 7 of these plaintiffs (the "Robinson plaintiffs") went to trial. Plaintiff's win, Corps appeals to 5th Circuit and loses. No sovereign immunity, data was there & Corps was negligent (grossly).
 - No defense under Flood Control Act (no safe haven)
 - No exception under Federal Tort Claims Act (Corps did nothing to protect against storm surge effect)
 - Should have updated EIS under NEPA ** Ongoing obligation under NEPA to consider adapting to a changing climate **
 - Negligence (this could attach to privately constructed structures too)
- Scientific data "foreseeable" ie; sea level rise?
- Just under \$720,000 awarded to 5 plaintiffs BUT
- Corps dismissed from case (immunity argument being appealed), but further settlement with levee districts is forthcoming "maybe" (and appeals)-

New Life for Katrina Case

- A federal judge ruled that the MRGO created a "natural pro
- "Temporary
- Included Katrina on October 20
- MR-GO could be considered a "natural pro
- "Certainly not inevitably created by wetlands t



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**Why Should You Care
about Planning?**

Other Evolving Legal Aspects

NFIP Reform

- FIRM Existing Flood Risk
- Technical Mapping Advisory Council
- Future flood risk

CRS

- Sea Level Rise Credits
- Mapping
- Improvement of rating score

Corps of Engineers

- Corps “(Engineer Technical Letter 1100-2-1) covering "Procedures to Evaluate Sea Level Change: Impacts, Responses and Adaptation” (July 2014)
- Previous “Incorporating Sea-Level Change Considerations in Civil Works Programs”

NEPA

- Agency experience and expertise to determine whether an analysis of GHG emissions/climate change impacts would be useful
- “Rule of reason” to ensure that the type and level of analysis is appropriate for the anticipated environmental effects of the project.

FFRMS

- Federal investments implemented through Hazard Mitigation Assistance Grants and the Public Assistance Program
- FEMA grants for construction activities in or affecting a floodplain
- Land, land use, construction for “federal projects”

SCOPE & ORGANIZE

ASSESS

PLAN

IMPLEMENT & MONITOR

- Choose project area
- Convene partners & stakeholders
- Set resilience goals
- Identify sectors, services & assets
- Select climate scenarios & impacts

- Review existing conditions
- Evaluate assets' climate change vulnerability & risk
- Characterize vulnerabilities & risks
- Identify priority issues

- Refine resilience goals
- Select evaluation criteria
- Develop adaptation responses
- Evaluate and select adaptation responses
- Prepare response plan or integrate responses into other plans

- Implement high priority responses
- Utilize plans to seek funding
- Track progress and evaluate effectiveness
- Communicate accomplishments
- Assess new impacts information
- Revise priorities and strategies as needed

RESILIENCE

Resources for Planning

Tool	Data Created	Basis for Decisions
NOAA Sea Level Rise and Coastal Flooding Impacts Viewer	Preliminary look at SLR and coastal flooding impacts.	Establishing priorities for vulnerable infrastructure
The Nature Conservancy's Coastal Resilience 2.0	Storm surge, sea level rise, natural resources and economic assets	Identify opportunities for green infrastructure solutions
FDOT tool (Florida Sea Level Scenario Sketch Planning Tool)	Inundation and affected transportation infrastructure layers	ID transportation facilities potentially vulnerable to climate trends
U.S. Army Corps of Engineers (FEMA and NOAA) Sea-Level Change Calculator	Site-specific detail on projected flood elevations for 5-year intervals from 2010 to 2100	Additional safety margins above FEMA requirements- best available elevation data



Photo credit: Lobsterboatblockage.org

Other Considerations

- Insurance will be a limiting factor in terms of where we live or “retreat” to-
- Insurance companies will start to “consider” prospective factors in rates such as sea level rise-
- Communities may be “forced” to implement mitigation and adaptation strategies in response-
- Tying planning process to FEMA’s Community Rating System so strategies result in tangible benefits to people-

Bottom Line: There are multiple benefits of planning as an approach to address sea level rise-

Other Issues on the Rise

- The solutions: armoring and renourishment
- Retreat and property rights issues
- Sea level rise and “extreme” precipitation
- Insurance liability and coverage
- Water rights and scarcity
- Responding and rebuilding
- Immigration and refugee issues



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