



Planning and Legal Issues Related to Climate Change

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International Climate Agreements

Agreement	Targets Established	Signatories	U.S. Ratification
United Nations Framework Convention on Climate Change (UNFCCC) 1994, Rio	Voluntary goal of reducing GHGEs from developed countries to 1990 levels by 2000	198 Countries (“Parties”) have signed on and ratified	Treaty and received US Senate ratification
Kyoto Protocol 2005	1st Commitment period: Binding targets to reduce GHGEs 5.2% below 1990 levels by 2012 2nd Commitment period: 18% below 1990 from 2013 to 2020	Focus on “developed” Countries (37 total + EU)- over 120 countries signed	U.S. non-”ratifier”
Copenhagen Accord 2009	4% below 1990 levels by 2020 – not binding. Cuts in emissions required to hold the increase in global temperature below 2 degrees Celsius	114 Parties- Submit individual plans	No U.S. Senate Ratification needed
Paris Agreement December 12, 2015	Global rise in temperature “well below” 2 degrees Celsius + limit increase to 1.5 degrees Celsius (you chose your target and plan to achieve it)	196 Countries (developed/non-developed)	Acceptance & approval are both methods to bind a nation

US Approach to GHG Reductions

- Response within U.S. (Prior to Paris):
 - In 1965 President Lyndon B. Johnson’s Scientific Advisory Committee Panel on Environmental Pollution reported that unabated CO₂ emissions would, by 2000, alter the climate, and Johnson charged Congress to address the problem
 - Section 1605(b) of the 1992 Energy Policy Act has program to track GHG emissions, weak reporting standards, no verification, and no penalties for companies that do not report
 - Numerous attempts at legislation
 - Mass v. EPA: EPA has authority to regulate CO₂ as pollutants based on the definition provided in CAA section 302(g)
- Endangerment finding = 6 GHGs may be reasonably anticipated to endanger public health and welfare, and four of them—CO₂, methane, NO_x and hydrofluorocarbons—are emitted from automobiles, which would allow their regulation under CAA section 202
- Additional Federal Rulemaking and now “rollbacks”
- Uncharted territory



The Law: Where Does Climate Change Show Up?

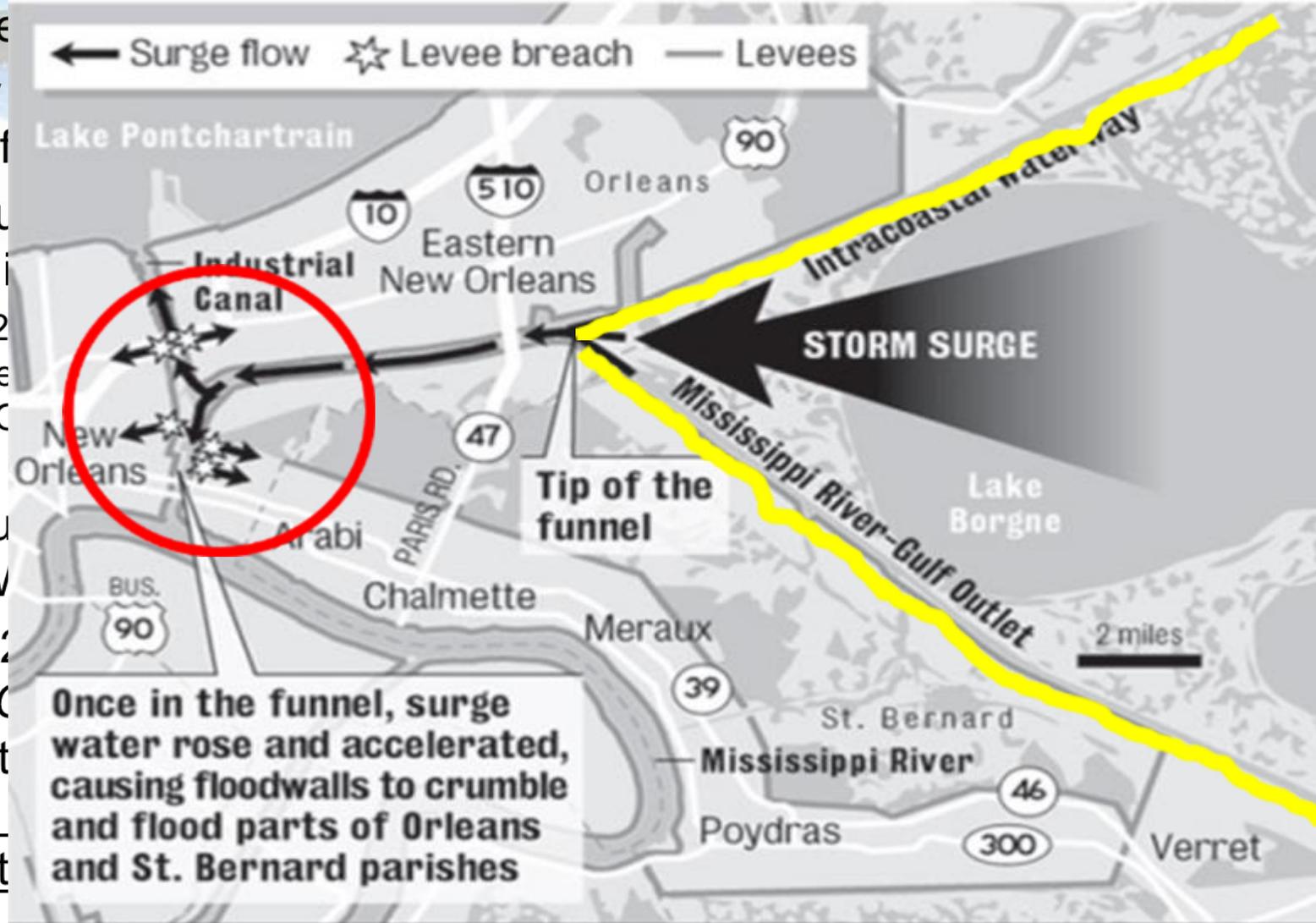
- ESA
- NEPA
- CAA
- CWA
- MMPA
- FOIA/1st Amendment
- Energy Policy Act
- Global Climate Change Research Act
- Corporate Reporting/Securities Disclosure
- FTC
- “Cap-and-trade” regulation where GHGE’s are capped and allocated through the distribution of “allowances” representing a right to emit.
- Regulate vehicle standards
- Regulate activities (public and private), failing to regulate or regulating too much
- Green & Energy Building/Codes (New Mexico case)
- Protestors and scientists
- Failure to consider climate in permits
- Money damages and common law claims
- Protect my future

Temporal

- Corps not liable
- Case originally maintenance of
- MRGO contributed to **protection** and i
 - "Certainly by 2 provide the me eroded MR-GC Braden wrote
- May 4, 2016 Ju the Lower 9th V
- Appeal July 6, 2 on: *Arkansas* (for government Amendment to flooded property

STORM SURGE DURING HURRICANE KATRINA

Much of the area's flooding from Katrina resulted from storm surge that rocketed through a narrow "funnel" created where the Mississippi River-Gulf Outlet (MR-GO) joins the Intracoastal Waterway (GIWW).



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Plaintiff v. Fossil Fuel Companies

- Kivalina- Nuisance claim for \$ from the energy industry for flooding damage caused by oil
- Connecticut entrusted E decide how and that it w to issue the
- Comer v. M claims pree and plaintiff their injuries conduct (nuisance / trespass claims damage property in Katrina).
- San Mateo County, Marin County and the City of Imperial Beach v. Chevron- (37 D's) public private y knew both for rring to anies' behavior credit ientific evidence and persistently create doubt."

USSC in Kivalina- if an individual driving a car (and thus contributing to emissions) could also be a defendant, how can a court determine who was liable?

- Causation v. "substantial factor"
- Vulnerability assessments as evidence?

Post Storm Litigation: Why Its Important

Flooded homeowner sues bank for recommending he reject flood insurance

By L.M. Sixel | October 2, 2017



Deola Ali bought a house in Kingwood six years ago and considered buying flood insurance. Instead, he says, he followed the advice of his mortgage lender, which said he didn't need flood insurance because the property wasn't in a flood plain.

Ali v. JP Morgan Chase Bank

- Homeowner received mortgage financing advise, home insurance advise, flood insurance advice from Chase Bank in 2011. Negligent, unlawful advice on the need for flood insurance. Homeowner relied on Chase's wrongful advice leading to a foreseeable injury.
- Filed 9/23/17 in U.S. District Court Southern District of Texas, Trial set for 2/18/19.
- Claims of Negligence, Negligent Misrepresentation, and Strict Liability in Tort.

Other Evolving Legal Aspects

NFIP Reform

- FIRM Existing Flood Risk
- Technical Mapping Advisory Council
- Future flood risk
- Expired 9/30 and reauthorized until 12/8
- Band aid or full reform?

CRS

- Sea Level Rise Credits ~ 500 pts.
- Mapping
- Improvement of rating score
- Example- County x receives a CRS score of 5, but to improve to a 4, these points are pivotal.

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"
- Sea level rise calculator (2017) with 3 scenarios
- Guidance on Inland Climate Change
- Principles for Risk in Planning

NEPA

- Agency experience and expertise to determine whether a project requires an analysis of environmental impacts/changes that would be caused by the project
- "Rulemaking to ensure that the type and level of analysis is appropriate for the anticipated environmental effects of the project"
- 8/1/17 guidance on climate change impacts & indirect effects
- Early 2017- CEQ directed to withdraw

FFRMS

- Federal investments implemented through Hazard Mitigation Grant Program and the National Flood Insurance Program
- FEMA considers vulnerabilities in or near floodplains
- Land, construction, "federal"
- Example: FEMA funded 8/1/17

Florida Policy on GHG Reductions and Climate

- EO 07-127: Reduction of emissions to 2000 levels by 2017, to 1990 levels by 2025, and by 80% of 1990 levels by 2050 & California vehicle emission standards reductions (22% by 2012 and 30% by 2016).
- Building Efficiencies/Energy 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 later eliminated.
- HB 7135 (State and Local Government Buildings "greener")
- HB 7179 (PACE)- financing wind resistance/energy efficiency initiatives
- Adaptation Action Areas (2011)
- HB 7117 (Energy Bill- 2012)- increase solar output
- 2015- 5 Bills Passing Related to flood insurance, wind insurance, construction standards/building codes, Citizen's insurance, Peril of Flood (SB 1094)
- 2016- Solar Constitutional Amendments
- 2017- SB 90 on solar disclosures and Amendment 4 Implementation & Natural Hazards coordination

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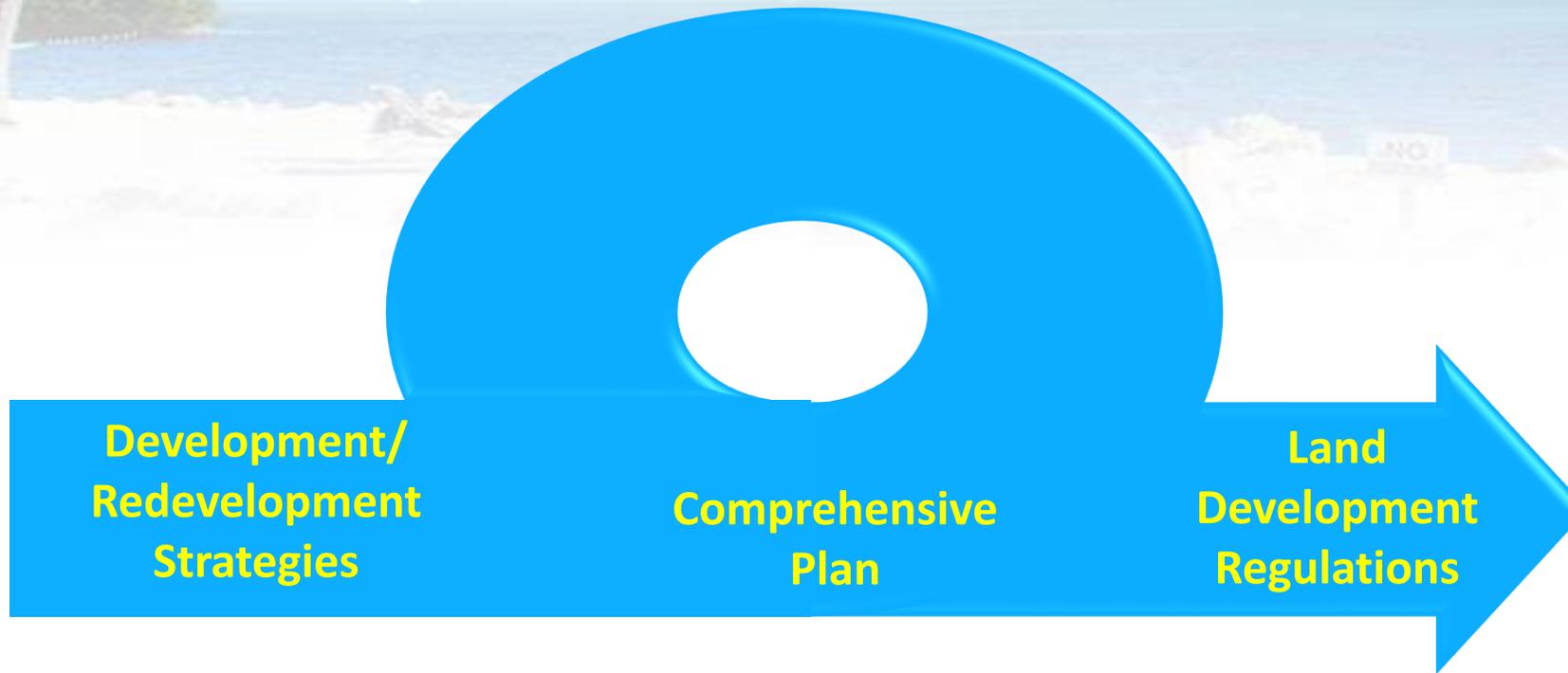
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Image: Terrell Forney

Sample Planning Strategy

How do these requirements relate to or affect planning activities and infrastructure investments in the short- and mid-term?



Short Term

- Compliance (POF) Strategy (timeline and scope)
- Frame “development”
- Short term capital projects
- AAAs

Mid Term

- Comp Plan Goals, Objectives and Policies
- Review land uses

Long Term

- LDRs: Development / design standards
- Areas subject to flooding
- ESLs
- Infrastructure LOS

What are local governments doing?

Adaptation Action Areas

- Local governments have incorporated a Coastal Management Element into their Comp. Plans
 - Municipalities such as: Ana Maria, Brevard County, Cape Canaveral, Cinco Bayou, Coral Gables, Hallandale Beach, and Tarpon Springs to name a few.
- Many Coastal Municipalities explicitly mention or address **sea level rise in their Comprehensive Plans**
 - Use of **AAAs** in Comprehensive Plans is becoming prevalent
 - Examples of AAA with a physical designation:
 - **Satellite Beach** designates Coastal High Hazard Areas as AAAs
 - **Village of Pinecrest** designates AAAs
 - **Broward County** sand bypass project at Port Everglades
 - **Ft. Lauderdale** 16 areas 38 stormwater projects
 - **Yankeetown** designated natural resource AAA

Flood Peril Legislation (SB 1094)

What are the principle requirements?

- Development and redevelopment principles, strategies, and engineering solutions that reduce flood risks and losses
 - Elevation certificates submitted to DEM
 - “Flexible” flood insurance coverage
 - Other provisions such as flood insurance policy requirements
1. Development and redevelopment **principles and strategies**, that reduce the flood risk in coastal areas from high-tide events, storm surge, flash floods, stormwater runoff, and **the related impacts of sea-level rise**.
 2. **Best practices** for the removal of coastal real property from FEMA flood zones
 3. **Site development techniques** that may reduce losses and claims made under flood insurance policies
 4. Be consistent with, or more stringent than, the flood-resistant construction requirements **in the Florida Building Code** and flood plain regulations
 5. Construction activities consistent with **Chapter 161**.
 6. Encourage local governments to participate in the National Flood Insurance Program **Community Rating System**

Example Planning Efforts Around the State

Jurisdiction	Activity
West Coast Southeast Florida	Regional Collaboration and involvement of regional planning councils
Broward	Enhanced modeling: seawall heights and future conditions groundwater maps
Miami Beach	Stormwater pumps, road elevation and seawall policy
Ft. Lauderdale	Adaptation Action Areas (19), seawall ordinances for design criteria
Monroe County	Road elevation policy accounting for sea level rise and demonstration projects & SLR Modeling through CRS (to achieve “4” rating)
East Central FL	Satellite Beach- HAZUS modeling and plan development (new Volusia and Brevard initiatives)
St. Augustine	Historic properties, post-Matthew infrastructure and planning
Multiple Cities/Counties	Sustainability/Climate/Vulnerability planning initiatives (Central FL, West Coast, South Florida)
DEO	Pilot / demonstration vulnerability analyses in 3 communities

Planning Efforts from Around the State

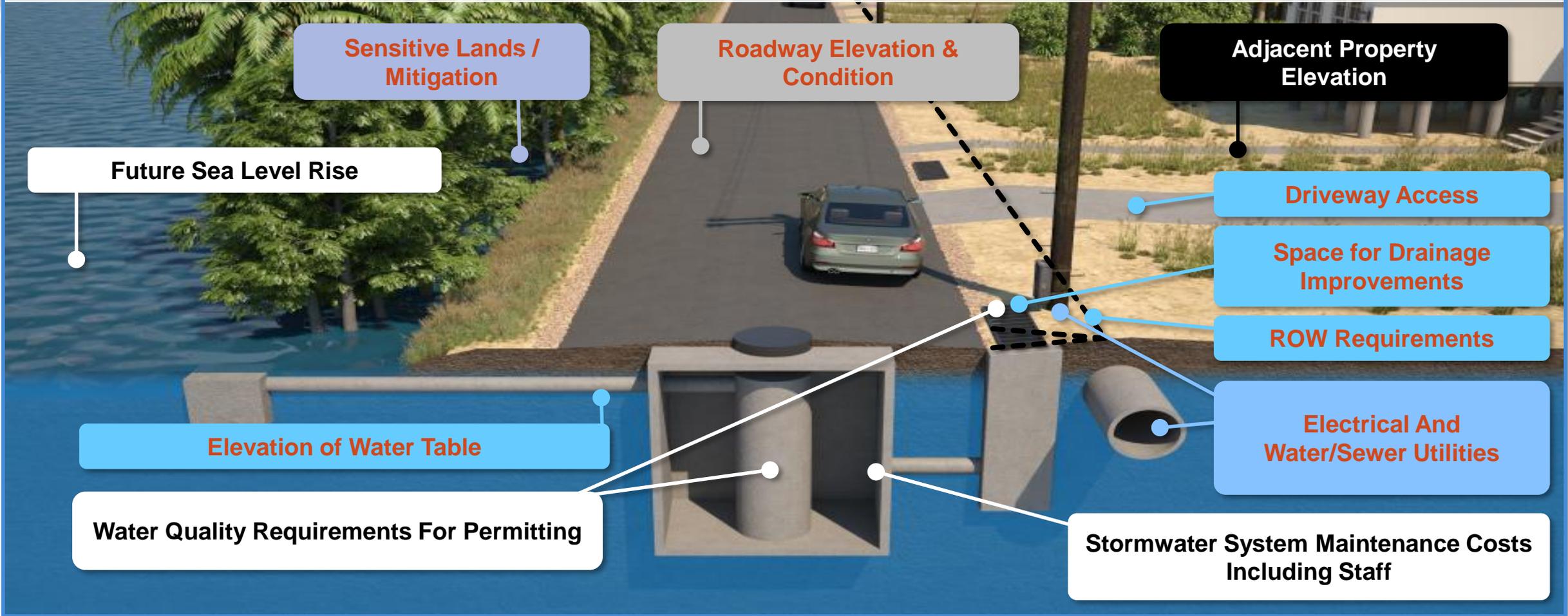
City of Sarasota

- Committed to 100% renewable energy citywide by 2045.
- Comprehensive Plan,
Environmental Protection & Coastal Island Element:**
- **Goal:** Reduce GHG emissions by implementing sustainable practices and green building technology.
 - **Policies:** encourage Federal and State bipartisan GHG reduction legislation; Support electric vehicles; Improve air quality by improving urban forest.
 - **Goal:** adopt, implement, and encourage community resiliency strategies to protect from Climate Change.
 - **Policies:** Reduce infrastructure vulnerability and monitor data. Improve mapping capabilities for vulnerable facilities. Consider SLR and storm surge data when planning future infrastructure.



Road Elevation Considerations

LOCAL CONDITIONS AFFECTING FINAL DESIGN RECOMMENDATIONS



Monroe County: Road Design Methodology

Final Roads Report: Appendix 1 narratively describes the steps in the process so they can be applied in other areas	Tidal datum based on current tidal epoch MHHW (NAVD88)	Elevation addition to not exceed 7 days of flooding annually based on 2015 sea level	Sea level rise estimate using IPCC AR5 Median (2015 to 2040)	Resulting target minimum elevation for roads (2040)** (NAVD88)
Sands Community	-1.1"	+ 6.0"	+ 5.4"	= 10.3"
Twin Lakes Community	-7.0"	+ 6.0"	+ 5.4"	= 4.4"

The negative values are in relation to the NAVD88 datum, where zero is a point approximately equal to the low point of the roadways in the two communities.

Initial Results – Conceptual Cost Estimates for Design Scenarios

	Twin Lakes – Key Largo		Sands Community – Big Pine	
Elevation	Length of Roadway Elevated	Total Roadway <u>and</u> Drainage Cost	Length of Roadway Elevated	Total Roadway <u>and</u> Drainage Cost
6"	0.25 miles	\$0.92 million	0.3 miles	\$2.22 million
12"	0.7 miles	\$4 million	0.35 miles	\$2.63 million
18"	0.8 miles	\$5.8 million	1.3 miles	\$8.9 million
28"	0.9 miles	\$7.3 million	1.5 miles	\$10.5 million

Costs factored in: Maintenance of traffic, mobilization, design, construction, 15% of costs for construction engineering and inspection, 25% contingency and stormwater features.

Costs not factored in: right-of-way (~12" is threshold), driveway improvements

Basic State Legal Concepts in Government Actions/Liability for Capital Improvements and Roads

But wait, there's one more thing to consider... government inaction (*Jordan v. St. John's County*)...

1. What is the maintain v. upgrade obligation?	Generally cases have found there is a duty to “maintain” (roads) but <u>no</u> duty to “upgrade”. There is no direct case on duty to maintain or upgrade <u>from sea level rise</u> yet...
2. What actions can be taken or not? Planning versus operations.	Duty to maintain or upgrade due to sea level rise could depend on whether road design decisions are deemed “discretionary planning” actions or “non-discretionary operations/maintenance” actions.
3. Why is planning versus operation important?	Once you build it, you must maintain it with “reasonable care” to function as designed (now it becomes a non-discretionary operations).
4. Sovereign Immunity	Discretionary planning decisions are immune from liability under the Tort Claims Act. Cases have held there is <u>no liability</u> for failure to build, expand or modernize capital improvements, cases have deemed these “planning” actions (road widening). Nor liability for basic design of roadway and decision on whether or not to upgrade (planning level).

Public

- Plaintiffs-
Dr. James Hansen
– Allegation: we
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directing
• Defendant
• Trial: October



Aji Piper, WA



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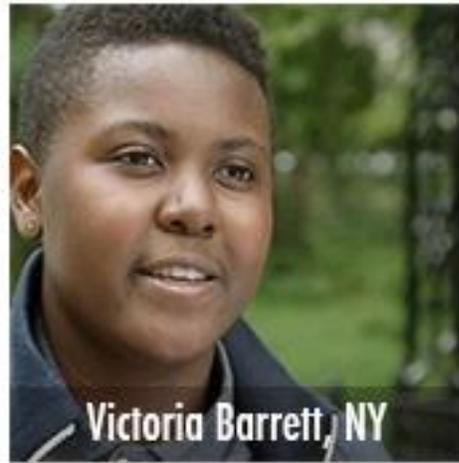
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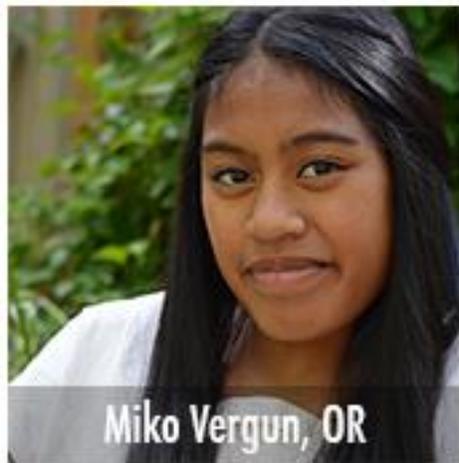
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M2D = DENIED → Commence Discovery

- 11/10/16 – “This lawsuit is not about proving that climate change is happening or that human activity is driving it.

For the purposes of this motion, those facts are undisputed. Questions before the Court:

- 1) whether D’s are respo
 - 2) whether P’s may chall
 - 3) whether this Court car powers doctrine.
- Motion for interlocutory a mandamus denied withoi
 - the request for relief from pot court had not issues a single
 - the Court is “not persuaded th the separation of powers doc
 - the novelty of the issues pres that issues would evade appe



Public Trust Theories- Aji P. v. State of Washington

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- In 2016, sued in King County Superior Court vs. Wash. Dep. Of Ecology, under Public Trust Theory, statutory emissions req.
- New Suit Filed
- Action by group that alleges that the state's climate change policy violated P's right to a clean and energy system and the state's obligations under the public trust doctrine.
- Alleges: P's a human cause of climate change.
- Seeking: Declaratory relief including vashn. Statute is invalid because it authorizes dangerous levels of CO2 in violation of P's rights and Injunctive relief, order requiring D's to prepare accounting of Wash. GHG and develop state climate recovery plan.



Reynolds v. FL

- Filed 1/16/19, 2d Circuit, 8 youth plaintiffs aged 10-19

- Claim
Plaintiffs
and A
Article

- Public
- State
- Remed

- GH

- Prepare and implement an enforceable comprehensive statewide remedial plan to stabilize climate system and protect natural resources



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Thank You

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