Climate Change from the Legal and Policy Front

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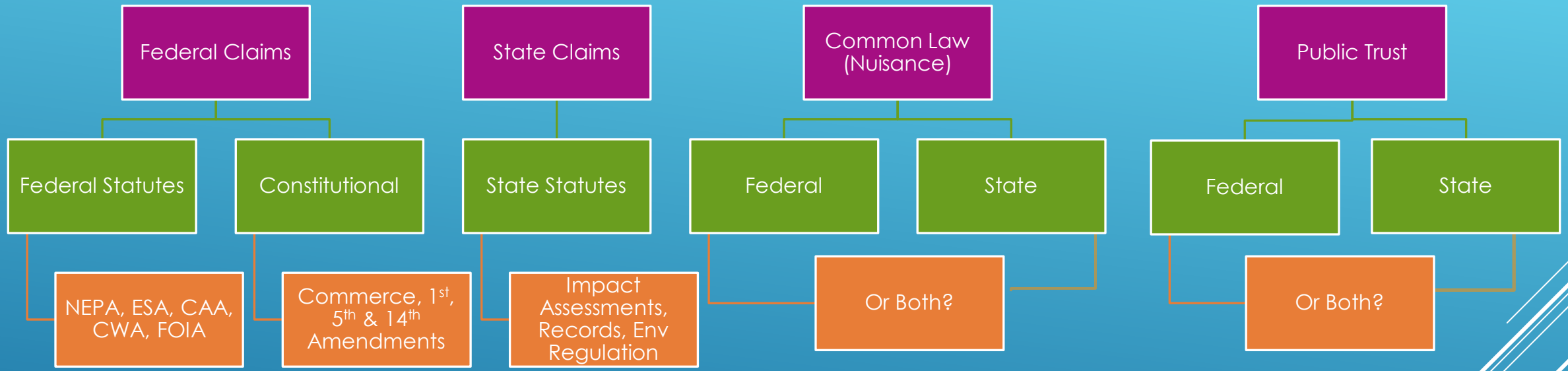
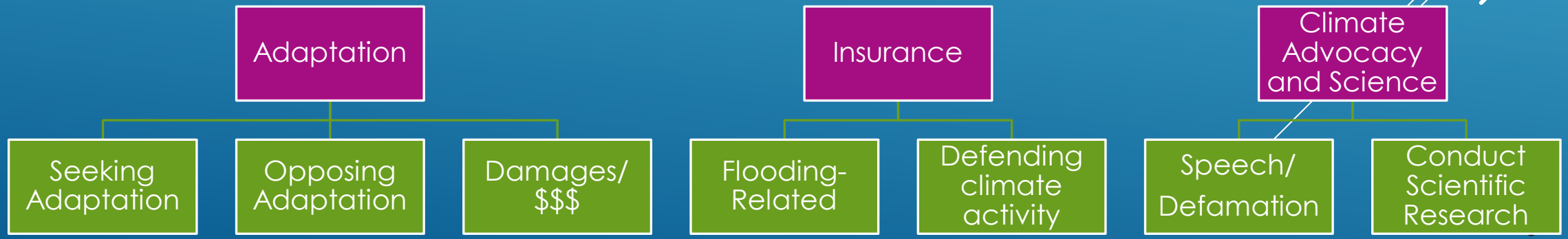
April 21, 2020

The Law: Where Does Climate Change Show Up?

1188 Cases as of 04/20- Columbia Law School Tracking Database





Other Evolving Federal Legal Aspects

NFIP Reform

- NFIP Authorization extended to 12/20/19 through Continuing Resolution
- Risk Rating 2.0 will incorporate a broader range of flood frequencies (2021)
- Better reflect a property's unique flood risks

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.
- Watershed Management Plan is key
- NOAA Intermediate High 2100 condition must be analyzed

Corps of Engineers

- Corps "(Engineer Technical Letter 1100-2-1) covering "Procedures to Evaluate Sea Level Change: Impacts, Responses and Adaptation" (July 2014)
- Previous Guidance 2009, 2011 and current 2013- "Incorporating Sea-Level Change Considerations in **Civil Works Programs**"- use of 3 scenarios
- 2019 Engineering Technical Letter on Procedures to Evaluate Sea level change: Impacts, Responses and Adaptation

NEPA

- Guidance from previous administration on application of NEPA with regarding to climate **AND** GHG analysis
- Withdrawn 2017
- New DRAFT Guidance summer 2019
  - Biggest change: **OMITTED**- NEPA reviews should address impacts of climate change on the project; for example, sea level rise affecting a coastal project site

FFRMS

- In place since 1977
- 2015 EO - construction in floodplains: methods from climate science, 2' above the 100-year flood elevation, or the 500-year flood elevation
- Federal investments (federal funds used for new construction, substantial improvement, or to address substantial damage to structures and facilities)
- Revoked 2017
- CDBG MIT Grantees (8/30/19)- Resi BFE + 2', "critical actions" 500 yr or 100-year + 3' (hospitals, nursing homes, police, fire & utility)



Kivalina, Alaska, a barrier island, is accusing energy companies of accelerating shore erosion.
Northwest Arctic Borough, via The Anchorage Daily News/Associated Press

What to expect with the rise of climate litigation

Mark Clarke
Friday, February 22, 2019 - 1:29am



Legal Actions & Climate

SEEKING DAMAGES, COMPELLING RESPONSE & GOVERNMENT EXPOSURE:
TORTS, NUISANCE, TAKINGS & INACTION

Torts & Takings

- Duty, breach, causation and injury
- Tort claims brought on grounds such as public and private nuisance, negligence, failure to warn, trespass and unjust enrichment
- **Early Examples:**
  - *Kivalina*- Nuisance claim for $ from the energy industry for flooding damage caused by climate change. *Dismissed on political question and specific emissions causation*.
  - *Comer v. Murphy Oil*- Mississippi Fed Court- property owners alleged oil company defendants released by-products that led to global warming, which produced the conditions that formed Hurricane Katrina, which damaged their property. *Dismissed because injury not traceable to defendant's conduct*.

- "Takings Clause" of the 5th Amendment = "[N]or shall private property be taken for public use, without just compensation."
- Inverse condemnation = a landowner may recover just compensation under the 5th Amendment for a physical taking of his property when condemnation proceedings have not been instituted.
- Are there exceptions takings? Yes, "public necessity" can be a defense to a takings claim when 1) there is an imminent danger and 2) an actual emergency giving rise to the actual necessity. Example: emergency adaptation measures.
- **Early and Current Examples:**
  - Flooding from infrastructure operations
  - Government implements an adaptation project that impacts property values
  - Government operates existing infrastructure and there are impacts

Why is this all important? 1) Some state and local governments are tying the impacts of climate change to industry actions; 2) As we plan and adapt, not everyone is not going to be happy with our decisions on infrastructure delivery.

Borough of Harvey Cedars v. Karan

- 3 story beach front home v. 22' barrier dune protection project
- Without project Karans had 56% chance of storm damage (over 30 years), with it, had 200 year "protection life"
  - Karans sought to exclude testimony on benefits of project
- Court determines "just compensation" when a portion of private property is taken for a public project – how do you calculate the "benefits"?
  - Benefits are general or special
- Trial jury awarded $375k in just compensation (upheld at appellate level)
- NJ Supreme Court says erroneous valuation-- look at FMV before and after project (consider testimony on benefits)
- Reverse and remand- so what did they get???????

St. Bernard's Parish: Government Inaction

- Corps constructs Project #1- MRGO (channel) and Project #2- levees and floodwalls in St. Bernard Basin.
- On October 17, 2005, St. Bernard Parish, with private owners of real property, located in the Lower Ninth Ward of the City of New Orleans, filed a Complaint in the US Court of Federal Claims invoking **the Tucker Act which waives sovereign immunity for certain claims including the Takings Clause under the 5th Amendment** alleging that the Corps constructed, expanded, operated, and failed to maintain MRGO (and only MRGO) increasing storm surge and causing flooding to private property during Hurricane Katrina. Basically, did the government "take" a flowage easement without compensation? Did government action cause the injury (flooding)?
- The court initially found that the Corps' **construction, expansions, operation, and failure to maintain MRGO caused** subsequent storm surge that was exacerbated by a "funnel effect" during Hurricane Katrina & other events, causing flooding that effected a temporary taking under the Fifth Amendment. Court found link between MRGO and flood impacts. Awards $5.46 Million.
- Appeals Court = No: Government cannot be liable on a takings theory for inaction and that the action in constructing and operating MRGO was not shown to have been the cause of the flooding. Court reverses takings claim.

More on Takings v. Torts at the Federal Level

- Traditionally at the Federal Level:
  - **Takings liability** can arise from an "authorized activity" (affirmative act). Takings liability does not turn on the level of care. Government must take a private property interest for public use by some specific action.
    - Did the specific action cause the injury?
    - Must show the damage that would have occurred without government action.
  - Example scenario #1: POs sue government for taking of property for **failure to maintain FEDERAL** roads or drainage structures inundated by tidal flooding. Not likely successful under a takings theory because there was no specific governmental act.
  - **Tort liability** can arise from "failure to act". Tort liability can turn on the government not adhering to a level of care or the lawfulness of a government action or inaction.
    - The challenge in a tort claim is whether or not there is sovereign immunity attaching because an action or inaction is discretionary (planning) v. operational.
    - The other challenge is showing that action or inaction caused the injury.
  - Example scenario #2: POs sue government under negligence claim for **failing to elevate** a **FEDERAL** road or install drainage structures impacted by tidal inundation. Not likely successful under a tort theory because the decision to elevate and install structures is likely a planning decision not subject to tort liability under sovereign immunity.

Traditional State and Local Government Tort Actions/Liability for Capital Improvements

Obligation/Duty/Action	Local Government Response/Authority
1. What is Sovereign Immunity for local government infrastructure? **Gov't liability waived(or not) for infrastructure decisions.**	Section 768.28, F.S., **waives governmental immunity** from tort liability for injuries caused by the negligent actions of the state committed within the course and scope of carrying out official government acts.
2. Is a local government required to upgrade infrastructure? **No.**	A governmental entity's decision to **upgrade or improve or not** to upgrade or improve is a **planning level function** for which there can be **no tort liability**. *Trianon Park Condo. Ass'n v. City of Hialeah*, 468 So. 2d 912, 920 (Fla. 1985); *see also Dep't of Transp. v. Konney*, 587 So. 2d 1292, 1295 (Fla. 1991)
3. Does the local government decide the level of maintenance? **Traditionally yes.**	[A] county is **not obligated**, nor can it be compelled, to perform or provide for any **particular construction or maintenance**, except such as it **voluntarily** assumes to do. *Ecological Development, Inc. v. Walton County*, 558 So. 2d 1069 (Fla. 1st DCA 1990) The **County**, and not the courts, **dictates the level of maintenance and accessibility necessary**. *Id. & State ex. rel. White v. MacGibbon*, 84 So. 91 (Fla. 1920).

Traditional State and Local Government Tort Actions/Liability for Capital Improvements

Obligation/Duty/Action	Local Government Response/Authority
5. What are planning versus operational decisions? **Planning level functions are those requiring basic policy decisions, while operational level functions implement policy.**	**Examples of planning**: constructing road medians, initial infrastructure planning decisions, road alignment, traffic control device installation, or the improvement of roads and intersections **Examples of operational**: failure to warn of known dangerous conditions at an intersection (ie; vegetation obscuring signs), failure to place signs at railroad crossing, failure to warn of improperly constructed manhole cover
6. Why is planning versus operation important? **Sovereign immunity and liability.**	**Planning-level** decisions are **immune** from a tort suit, but **operational-level** decisions **are not**. *Commercial Carrier Corp. v. Indian River Cnty.*, 371 So. 2d 1010, 1021 (Fla. 1979).
7. Are planning level decisions reviewable by courts? **Generally no.**	The decision to **build or change a road** and all determinations inherent in such a decision are of the judgmental **planning** level type. To hold otherwise would supplant the wisdom of the judicial branch for that of the governmental entities whose job it is to determine, fund and supervise necessary road construction and improvements, thereby **violating the separation of powers doctrine**. *Dep't of Transp. V. Neilson*, 419 So. 2d 1071 (Fla. 1982).

Jordan v. St. John's County: Government Inaction

- Property owners of Summer Haven Beach access homes by county-owned road "Old A1A". Portions of road became inaccessible from natural forces (ongoing condition since prior to 1979 when County acquired title). In 5 years prior, County spent more than 25 times average cost per mile on average annual maintenance
- 2005 residents sue County for **(1) declaration of duty to maintain (tort)**, (2) an injunction compelling County to maintain at a certain level, **(3) inverse condemnation for diminished access (taking)** and (4)/(5) inverse condemnation for temporary moratorium. County counterclaims seeking determination that it solely has authority to determine maintenance levels.
- Trial court finds in favor of County. 5th DCA finds summary judgment not appropriate for (1) and (3). Regarding the trial court's summary judgment for the County, 5th DCA finds:
  - "The County has a duty to reasonably maintain Old A1A as long as it is a public road dedicated to the public use."
  - "We do not hold that the County has the duty to maintain the road in a particular manner or at a particular level of accessibility." However, the County's discretion is not absolute."
  - The County "must provide a reasonable level of maintenance that affords meaningful access [to Respondents' properties] unless or until the County formally abandons the road".
  - "There is a right to be compensated through inverse condemnation when governmental action causes a substantial loss of access to one's property even though there is no physical appropriation of the property itself".
  - "The loss of the most convenient access is not compensable where other suitable access continues to exist."
  - "Governmental inaction – in the face of an affirmative duty to act – can support a claim for inverse condemnation." Florida Supreme Court declines to review.
  - Disputed issues of fact remain for trier of fact such as cause and degree of diminished access, reasonableness of County's maintenance and whether or not it equates to abandonment.
- County appeals to Florida Supreme Court, who declines
- Case settles- use good fair effort to maintain as is; use good faith efforts to keep access open; good faith efforts to acquire property with right of first refusal etc.
- Stelzenmuller v. Franklin County

More on Takings v. Torts at the State Level

- Traditionally at the State and Local Levels:
  - **Takings liability** can arise from an "authorized activity" (affirmative act). Takings liability does not turn on the level of care. Government must take a private property interest for public use by some specific action. ***Jordan* says "Governmental inaction – in the face of an affirmative duty to act – can support a claim for inverse condemnation"**
    - Did the specific action cause the injury?
    - Must show the damage that would have occurred without government action.
  - Example scenario #1: POs sue government for taking of property for **failure to maintain LOCAL** roads or drainage structures inundated by tidal flooding. ***Jordan* says consider facts on "cause and degree of diminished access, reasonableness of County's maintenance and whether or not it equates to abandonment."**
  - **Tort liability** can arise from "failure to act". Tort liability can turn on the government not adhering to a level of care or the lawfulness of a government action or inaction.
    - The challenge in a tort claim is whether or not there is sovereign immunity attaching because an action or inaction is discretionary (planning) v. operational.
    - The other challenge is showing that action or inaction caused the injury.
  - Example scenario #2: POs sue government under negligence claim for **failing to elevate** a **LOCAL** road or install drainage structures impacted by tidal inundation. **Prior to the *Jordan* decision it was clear that the decision to elevate and install structures was likely a planning decision not subject to tort liability. *Jordan* says that discretion is not absolute, but whether or not the County performed a reasonable level of maintenance that affords 'meaningful access' was left to the trier of fact and remains unclear.**

ARGOS (2018)

- Circuit Court in VA Beach
- Argos applies for rezoning (denied by VA Beach City Council) from AG to RES for 38 SFHs
- After app filed, City' Comp Plan amended to require STW Analysis (including "Ad Hoc" criteria) that required analysis of 1.5' rise in tailwater to account for sea level rise (hence requiring more land for retention)
- Staff recommended approval of rezoning
- 7-3 of Planning Commission recommending denial:
  - "…that the single ingress/egress connection from the subdivision would be flooded from time-to-time because that section of Princess Anne Road floods from time-to-time" and that "[t]here were also concerns surrounding overall stormwater performance."
- Council denies rezoning
- Allegations (and $1,000,000 in attorney's fees)
  - "…a locality may not undertake a legislative act arbitrarily, capriciously, unreasonably, or contrary to statute."
  - 14th Amendment Equal Protection
  - Dillon Rule = only those powers that are expressly granted, those necessarily or fairly implied from expressly granted powers, and those that are essential and indispensable (stormwater regulations preempted to state and certain procedures to adopt more stringent ones not followed)
- **Trial held 4/23/19- court upholds City's position, no appeal taken**

5-POINT PLAN TO MANAGE INFRASTRUCTURE LIABILITY

1. Make planning v. operational decisions for infrastructure: Planning analysis and policy decisions about maintenance and upgrades are a good thing and inherently do not incur liability. Operationally, once you build it, you have to maintain it at a "reasonable level". And that's an ongoing obligation and cost.
2. Be clear about the levels at which you will maintain your infrastructure: *Jordan*- "We hold that the County has a duty to reasonably maintain Old A1A as long as it is a public road dedicated to the public use. We do not hold that the County has the duty to maintain the road in a particular manner or at a particular level of accessibility".
3. Maintain your infrastructure: Maintaining is a good idea.
4. Don't terminate maintenance without a formal procedure: Although the *Jordan* ruling is an anomaly and traditionally an affirmative government action has been required for a taking to occur, it is currently a relevant DCA decision. It's also likely "inaction" has to be "intentional" like a de facto abandonment.
5. Filling in the legal gaps: Develop local policy solutions that help manage expectations and fill in the gaps like, "reasonableness" of maintenance and levels of service.

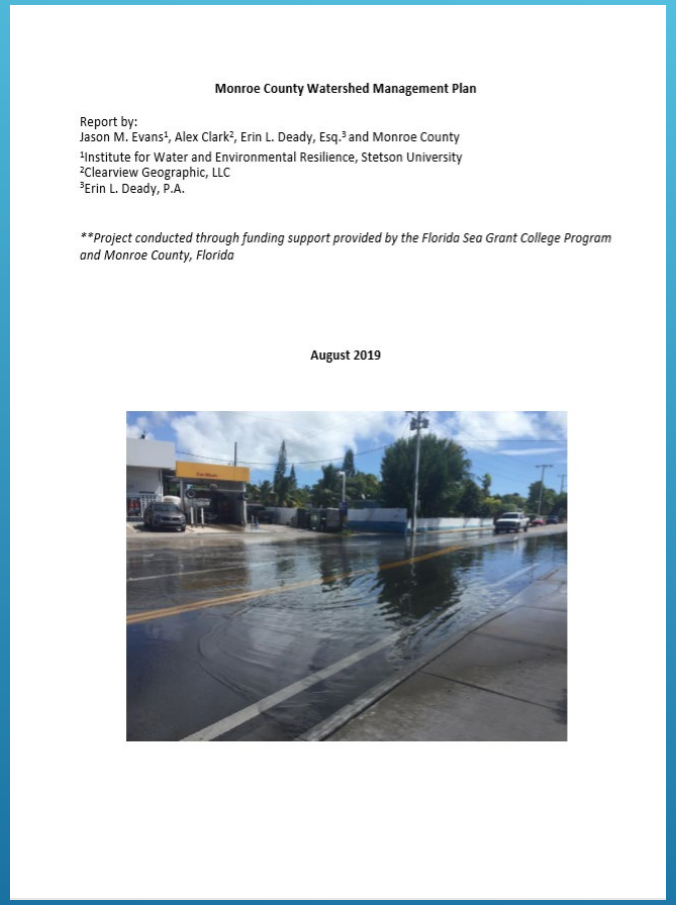
BUILDING THE BASE: RESILIENCE PLAN



GreenKeys Sustainability and Resilience Plan	• Included 165 recommendations in a 5 Year Work Plan
Sea Level Rise Vulnerability analyses	• Roads * Buildings* Water / Wastewater * Electric * Habitat * • Sea level rise projections from the *SE FL Regional Climate Compact*
Identified need for additional data	• More accurate road elevations • Countywide engineering level analysis for mile-by-mile adaptation • Projecting sea-level rise into the future
County Investing in Economic and Climate Resilience	

IMPLEMENTATION EXAMPLES: 1ST STEP: MORE ACCURATE DATA AND TOOLS

1. Implementation has resulted in 4 successful grants to date
   - Site specific resiliency/vulnerability planning projects on facilities (ALF/Park)
   - NOAA Grant included:
     - Collaboration with FEMA and development of CRS Class 4 compliant Watershed Management Plan analyzing SLR
     - Real time assessment of stormwater structures countywide
2. Linkages with CRS in pursuit of Class 4
   1. Repetitive Loss Analysis
   2. Stormwater Maintenance & Capital Plan
   3. Flood insurance outreach
   4. Watershed Management Plan



Monroe County Watershed Management Plan

Report by:
Jason M. Evans[1], Alex Clark[2], Erin L. Deady, Esq.[3] and Monroe County

[1]Institute for Water and Environmental Resilience, Stetson University
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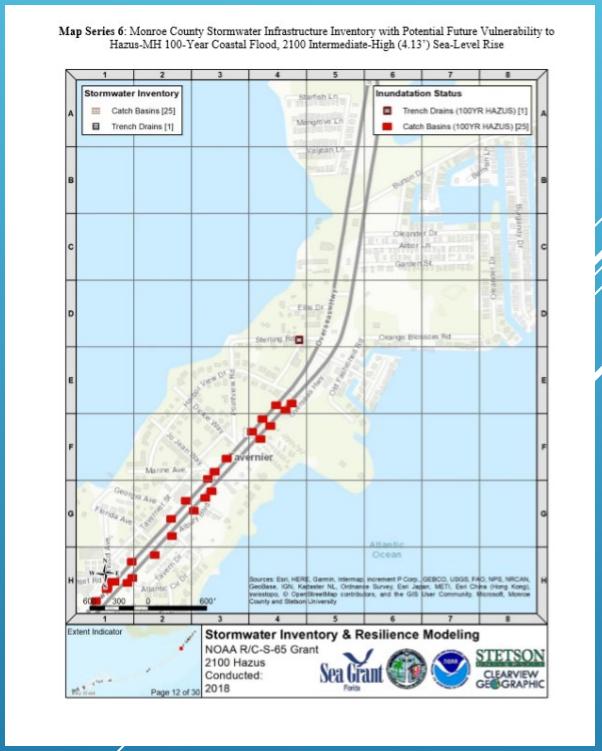
***Project conducted through funding support provided by the Florida Sea Grant College Program and Monroe County, Florida*

August 2019



IMPLEMENTATION EXAMPLES: 1ST STEP MORE ACCURATE DATA & PILOTS

1. Pilot Projects in Big Pine (the Avenues) and Key Largo (Twin Lakes)
2. Meet 25 year projection of sea level rise + not exceed 7 days of flooding
    1. Interim Design Resolution
    2. Adopted 2017
3. Stormwater features include pumps: challenge is siting them (Comp Plan and right of way constraints)
4. 90% Design stage



Shaw Drive, Keysnews.com

ELEVATION RECOMMENDATIONS



ORIGINAL COST ESTIMATES OF PILOT PROJECTS

$5.8 M

	Twin Lakes Key Largo		Sands Community Big Pine	
Elevation	Length of Roadway Elevated	Total Roadway and Drainage Cost	Length of Roadway Elevated	Total Roadway and 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

$12.7 Million

$6.9 M

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

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

WHY THE URGENCY?





KEYS COUNTYWIDE ROADS AND STORMWATER PLAN

Task 1: Data Collection

Task 2: Engineering Analysis

Task 3: Concept Development

Task 4: Policy Review & Regulations

Task 5: Stakeholder & Public Outreach

Task 6: Implementation Plan

As part of the County's proactive sustainability approach this project is to merge climate change science and modeling, with transportation engineering and planning to develop a long-term roads adaptation plan based on design criteria, Sea Level Rise projections, adaptation methodology, policy/financing evaluation, and public/stakeholder outreach.

Average Length of County Roadway Segment	1,381.0	Feet	0.26	Miles
Total Length of County Maintained Roads	1,658,221.0	Feet	314.06	Miles
County Roads Spread Throughout 21 Different Keys, non-linear				
Total of 1202 Roadway Segments Throughout Project Limits				

FOCUS ON KEY AREAS



MCRVS_Scenario_B_2020_0406



MCRVS_Scenario_B_2020_0406

Where the Rubber Meets the Road

Differences Across the Keys

- **Differing elevations and impacts across neighborhoods**
- There may be areas where we **cannot maintain** a certain level of service
- We are likely looking at a **"range" of conditions** for levels of service based on what may or may not be possible
- This will impact where people continue to live and how
- **Private property** owners may need to contribute
- What does that mean for **funding**?
  - Ongoing capital improvements
  - Special assessments for the differences
  - Disaster recovery funds
  - Bonding



Transparency in Science and Policy

- Where is our **future growth** and demand for infrastructure and services?
- Use updated vulnerability analysis to determine existing and **future conditions** impacted by sea level rise
- **Determine the technical opportunities and constraints with drainage to avoid impacting adjacent properties**
- We will need internal and external input



Photo: Monroe County

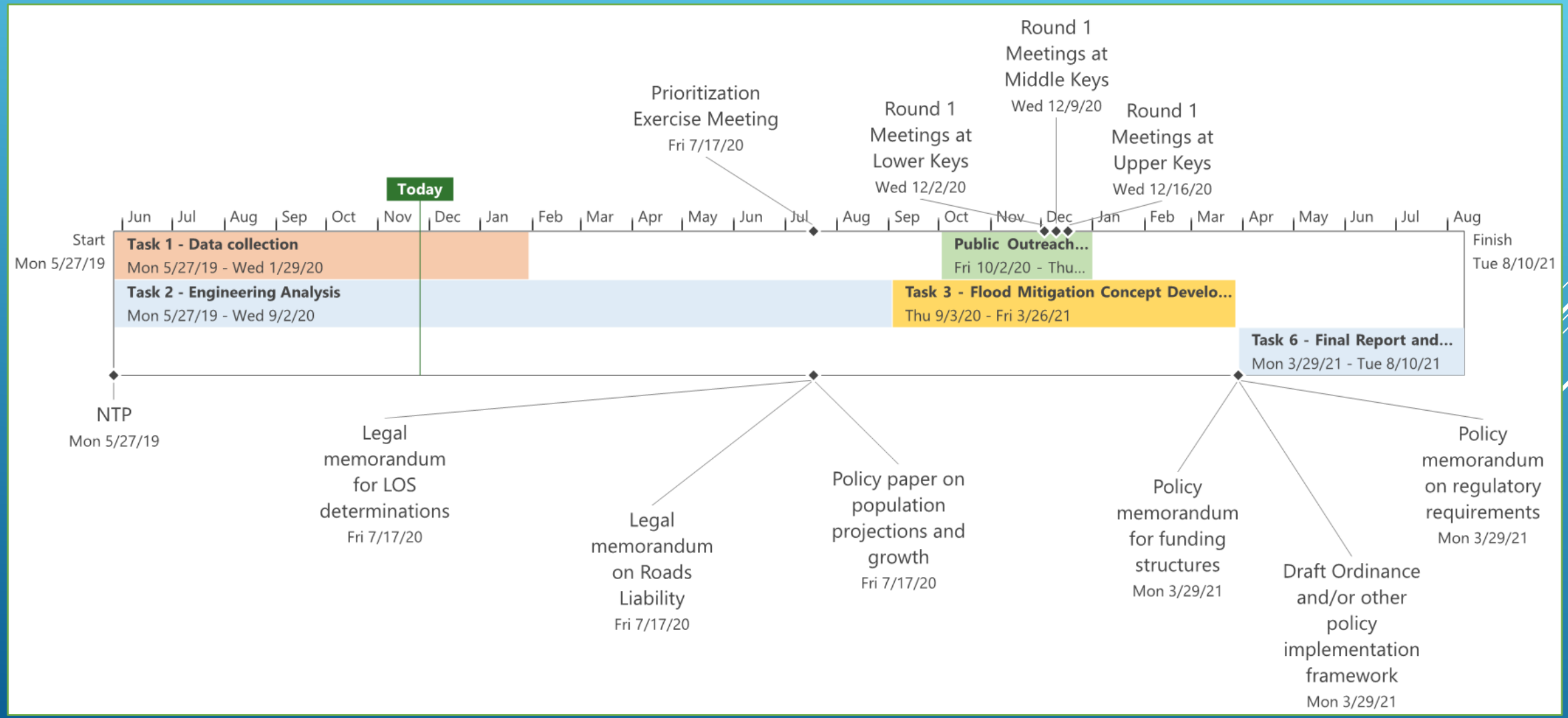
The New Vision of the Keys

- We may need to start looking at other methods of **construction** ("living with water")
- Other modes of **transportation** (based on water)



Photo: Monroe County TDC

PROJECT STATUS



EXISTING STORMWATER COMP PLAN POLICIES

- Policy 1001.1.1 (Water Quality Level of Service) : All projects shall be designed so that the discharges will meet Florida State Water Quality/Quantity Standards as set forth in Chapters 62-3 and 62-302.530, F.A.C, incorporated herein by reference. All projects should be designed in accordance with the Florida Department of Transportation and South Florida Water Management District standards and taking into account projections for climate change.
  - Policy being implemented through new Stormwater Manual and Layman's Brochure
- Policy 1001.1.6: Within three years of the adoption of the 2030 Comprehensive Plan, Monroe County shall evaluate the need to complete an inventory and analysis of existing public drainage facilities within the County and associated flooding issues.
  - Policy is being implemented through:
    - CRS Watershed Management Plan process
    - Updated and expanded in Countywide Roads and Stormwater Plan process



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ALIGNING POLICY INITIATIVES: EAR 5/1/21

Initiatives	Timeframe
Energy and Climate Element Updating now to incorporate all climate planning initiatives To be finalized in Evaluation and Appraisal Report based Comp Plan amendments	2013 Completed In process (RPG) 2020-2021
Peril of Flood Amendments To be finalized in Evaluation and Appraisal Report based Comp Plan amendments	In process (RPG) 2020-2021
Overall Integration of Sea Level Rise into other Comp Plan Elements To be finalized in Evaluation and Appraisal Report based Comp Plan amendments	In process (RPG) 2020-2021
Stormwater Policy Implementation Policy 1001.1.3 & 1001.1.6: Updating stormwater management regulations & inventory and analysis of existing public drainage facilities	In process (DEO Grant)

IDENTIFYING THE ISSUES FOR FUTURE PLANNING

- Integration of Countywide Roads into capital improvements planning process
- Updating other vulnerability work beyond roads/stormwater to form the basis for establishing adaptation action areas
- Shoreline assessment and policies
- Disaster recovery and rebuilding more resiliently
- Remaining growth in the Keys (2023)
- ROGO and transfer of development rights (evaluation of sea level rise vulnerability)
- Framing infrastructure commitments (deficiencies and growth/expansion)
- Land acquisition and evaluation of sea level rise
- Recreation and open space opportunities



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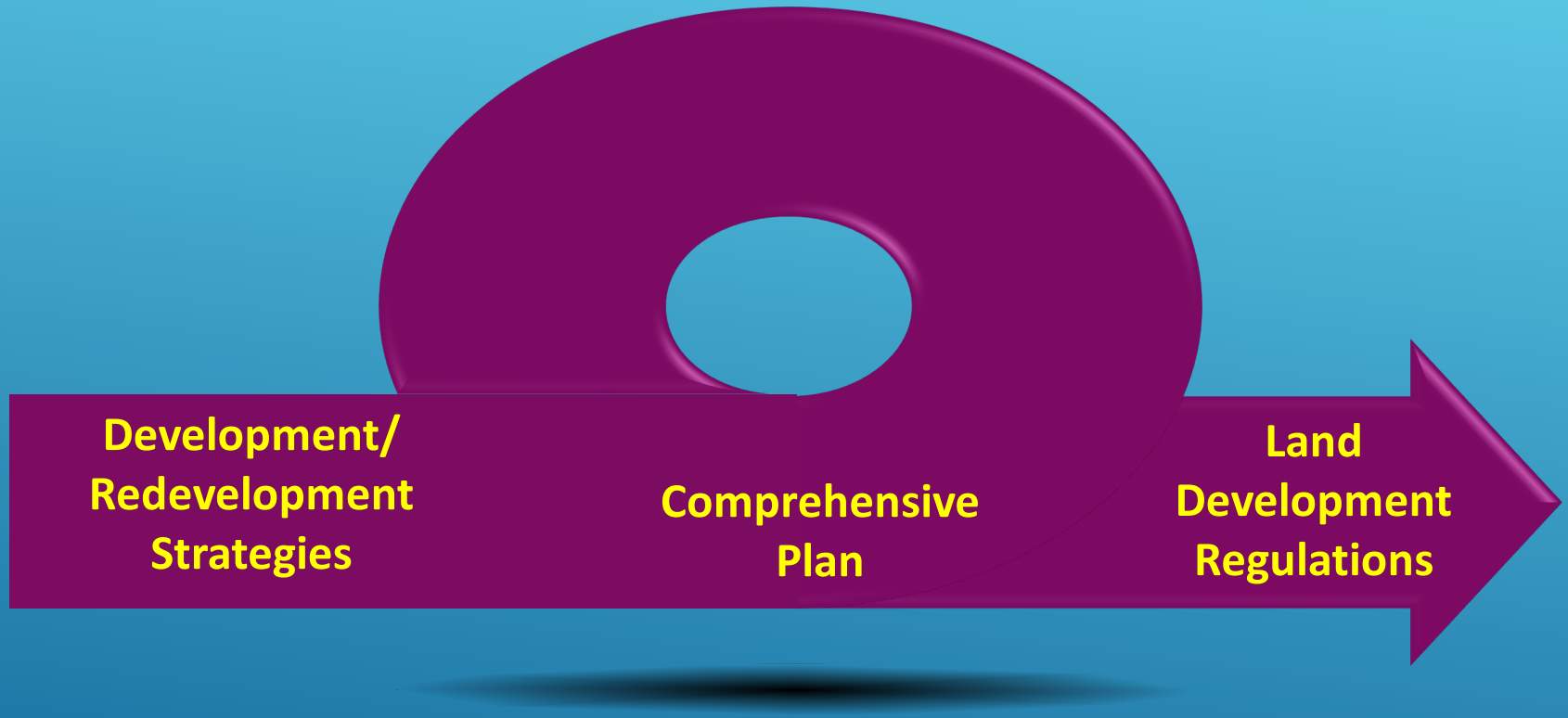
SAMPLE PLANNING STRATEGY

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)
- ID vulnerability
- 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

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

FUNDING STRATEGIES AND THE LAW

Taxes	Direct taxes (i.e., property taxes) and indirect taxes (i.e., sales taxes and use taxes) levied for lawful public purpose. Local discretionary sales surtaxes ie; infrastructure + resiliency?
Assessments/Special Districts	Charge against property receiving 1) special benefit and 2) fairly apportioned. Authorized by specific statutes or home rule authority. "Resiliency assessment district"?
Bonding	General Obligation (full faith and credit of an issuer with taxing power) and Revenue (payable with specific sources of revenue ie; utilities).
Impact Fees or TIF	Fees for the impact of new development (link between additional facilities and growth. "Tax increment": the difference between the assessed value of the property before and after the redevelopment project.
User Fees	Payments for voluntarily purchased services which benefit the specific individual to the exclusion of non-feepayers such as stormwater utility.
Grants	New trends include: disaster recovery funds for resiliency and infrastructure; traditional uses to address stormwater, septic and water quality; moving from planning to implementation.

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THANK YOU

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