

Sea-level Rise and Law: Local Government Actions, Challenges, and Implications



Thomas Ruppert
Coastal Planning Specialist

Florida Sea Grant College Program



Overview

- Takings Law Introduction
- Infrastructure and Law
 - Roads
 - Drainage
 - Seawalls
 - Sewer/septic (just beginning)
- Policy Considerations
 - Fairness and “Notice”
 - SLR as driver to consider property law from a larger perspective

We the People

Article I

Takings in the U.S. Constitution

nor shall private property be taken for public use, without just compensation

Bert J. Harris Act (Ch. 70)

- Inordinate burden on property
 - Lots of confusion due to similar language
- Focus on two types of “existing use”
 - Current
 - Future: rsbly foreseeable, non-spec, suitable for property, *and* compatible with adjacent land uses
- Definitions of “suitable” and “compatible” but *no in pari materia* interpretation
- Safest to regulate floodplains and flooding

Liability Takes Many Forms

- Refusal to permit
- Potential liability for permitting risky dev.
- Liability if local gov't causes flooding
 - Tort (civil damages) or “taking” of property (Drake v. Walton County, 6 So. 3d 717, 720-21 (1st DCA 2009))
 - Can be due to development approval
- Maintenance for new infrastructure in at-risk areas
- Increased costs for flood insurance





Jordan et al. v. St. Johns County

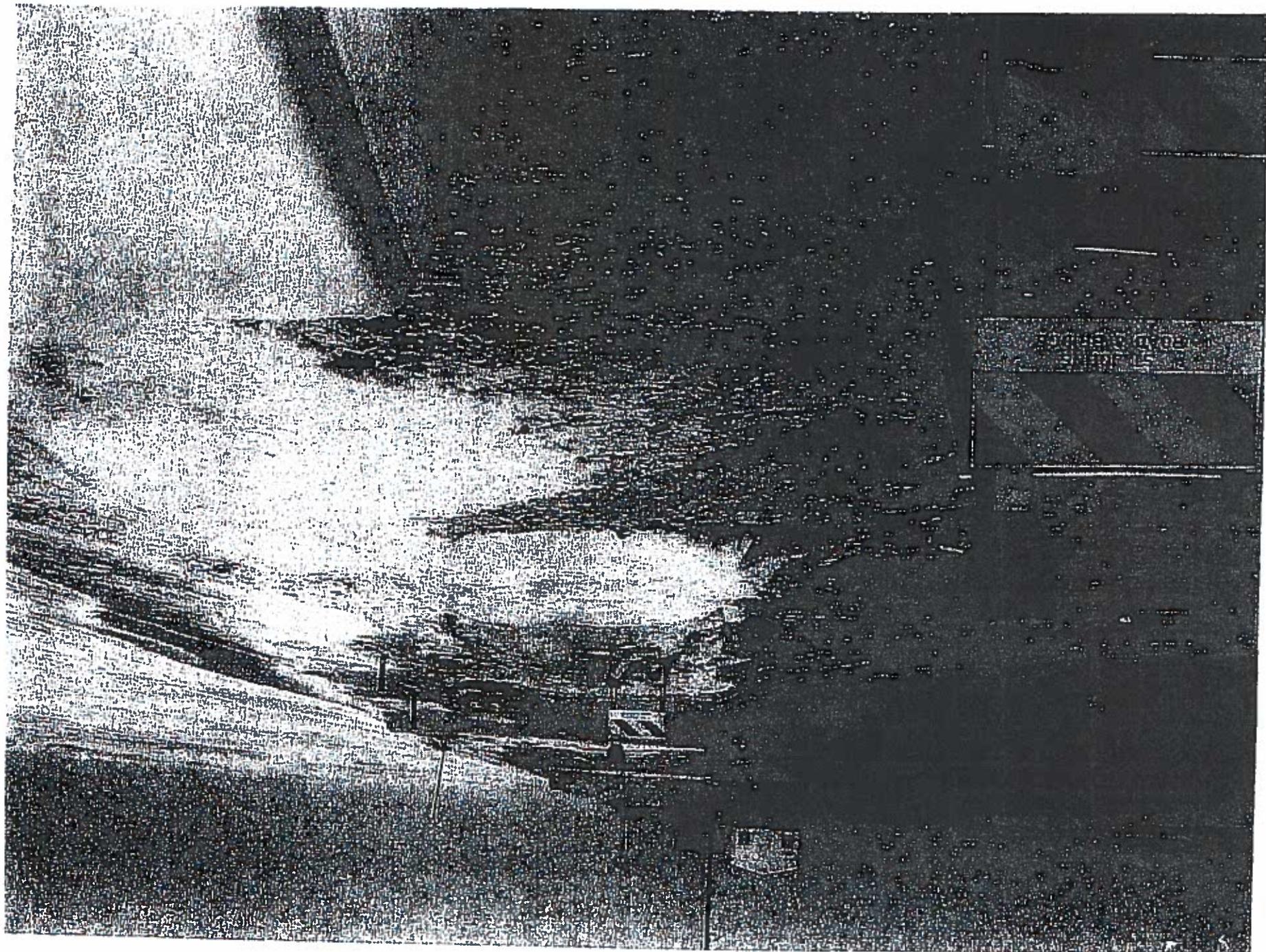
Jordan et al. v. St. Johns County

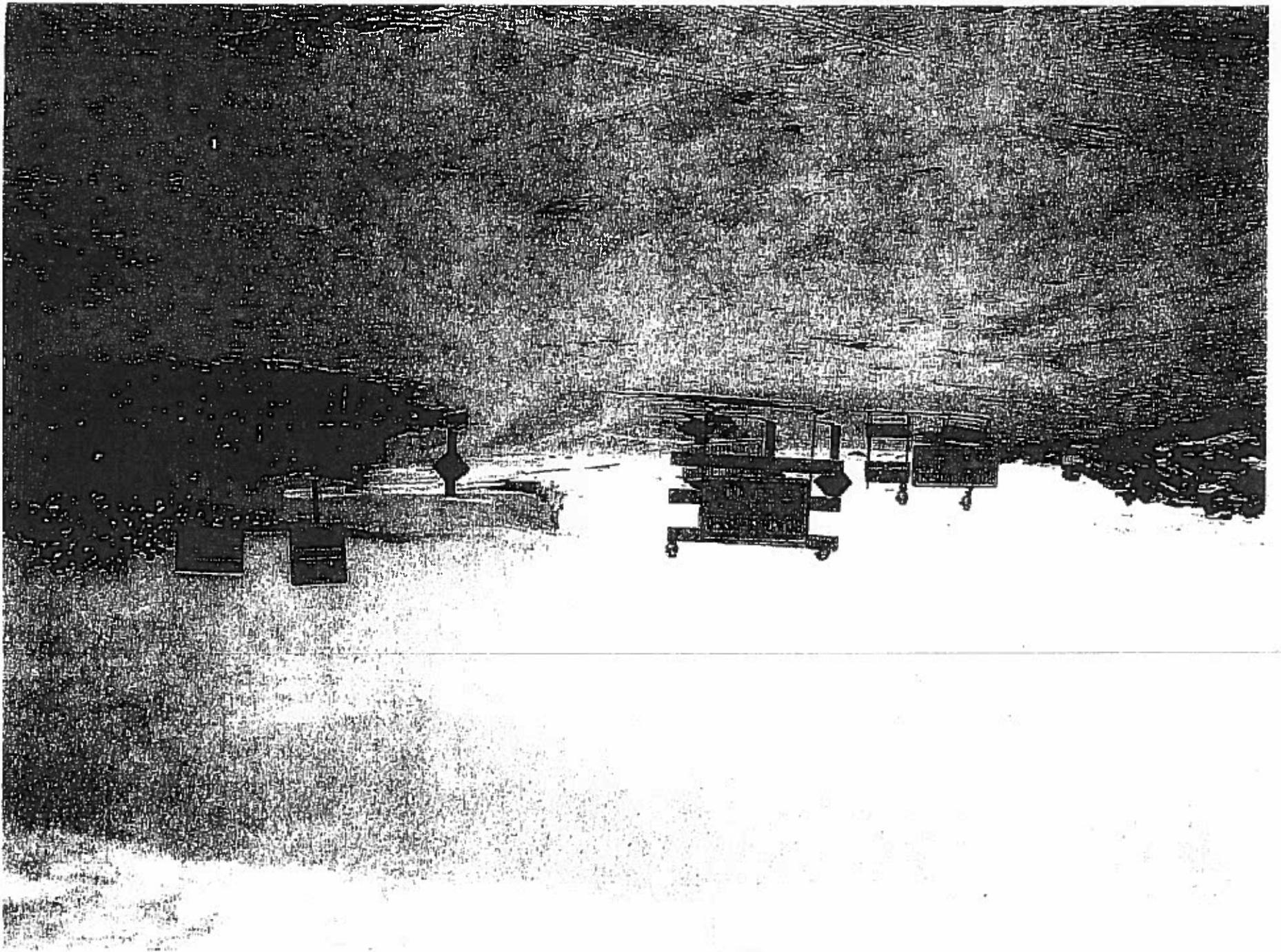
- 1950s – Old A1A built after private properties purchased
- 1960 -- State of Florida reroutes to “New A1A”
- 1979 – State deeds Old A1A to St. Johns County
- 2005 – Temporary residential building moratorium enacted
- 2005 – Complaint filed against St. Johns County
- 2008 – Moratorium repealed
- May 2009 – Summary Judgment for County granted on all Counts
- May 2011 – Fifth DCA affirms in part (3 Counts) and reverses in part (2 Counts)
- December 2011 – Florida Supreme Court declines review
- January 2013 – Settlement Agreement with most property owners
- October 2016—Hurricane Matthew devastates area

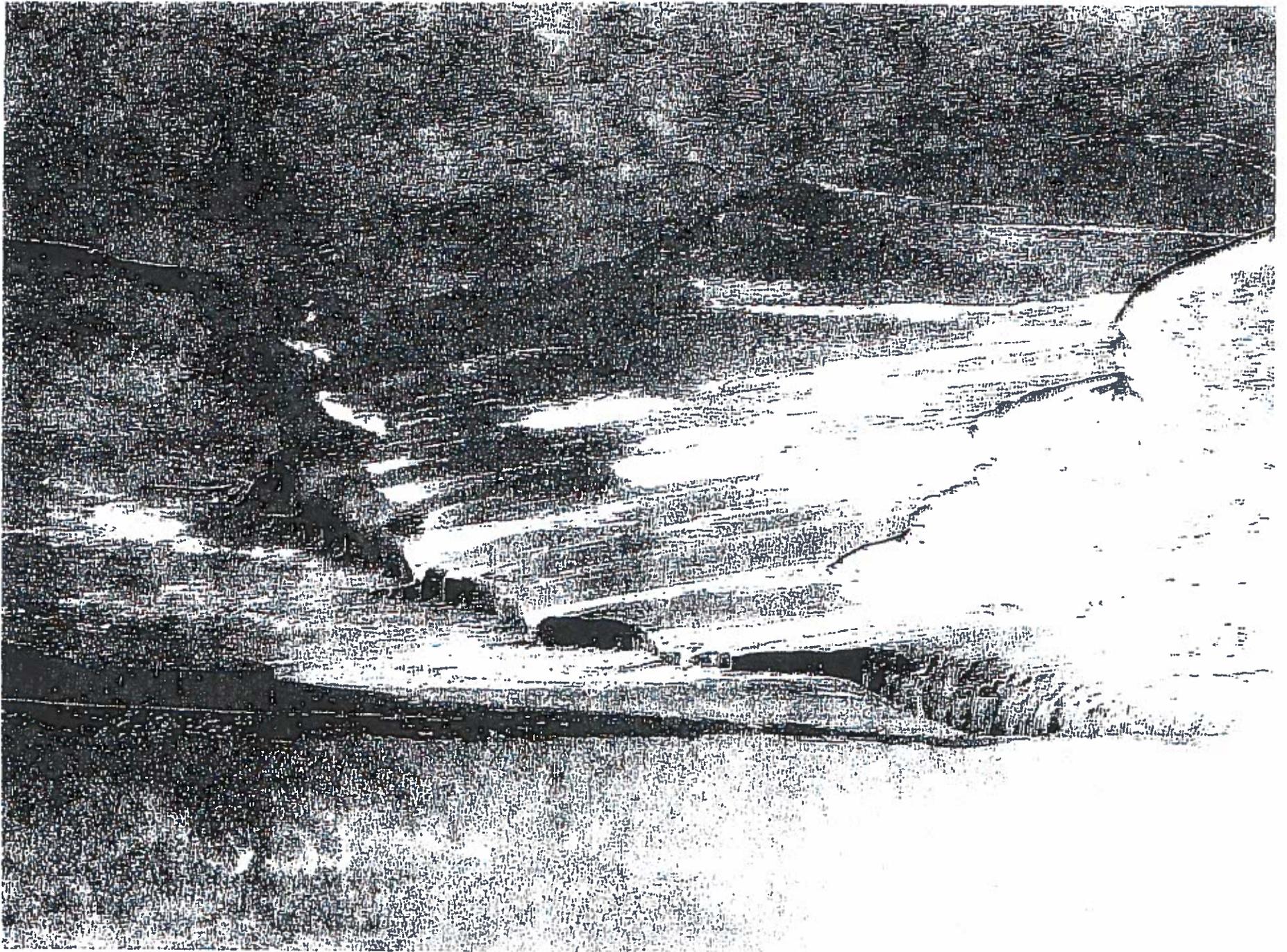
Some Key Facts

- 3 residences when County acquired in '79
- All owners that testified acquired after 1980
- Sporadic County maintenance
- County frustration expressed at meetings
 - Too expensive to maintain; study proving same
- More \$ from FEMA in 2000
- \$2.3 M from 2000-2005; avg. of \$244K/yr/mile
- 2008 study: ~\$13.1M plus \$5.7-8.5 M/3 yrs
- Responded to all emergency calls

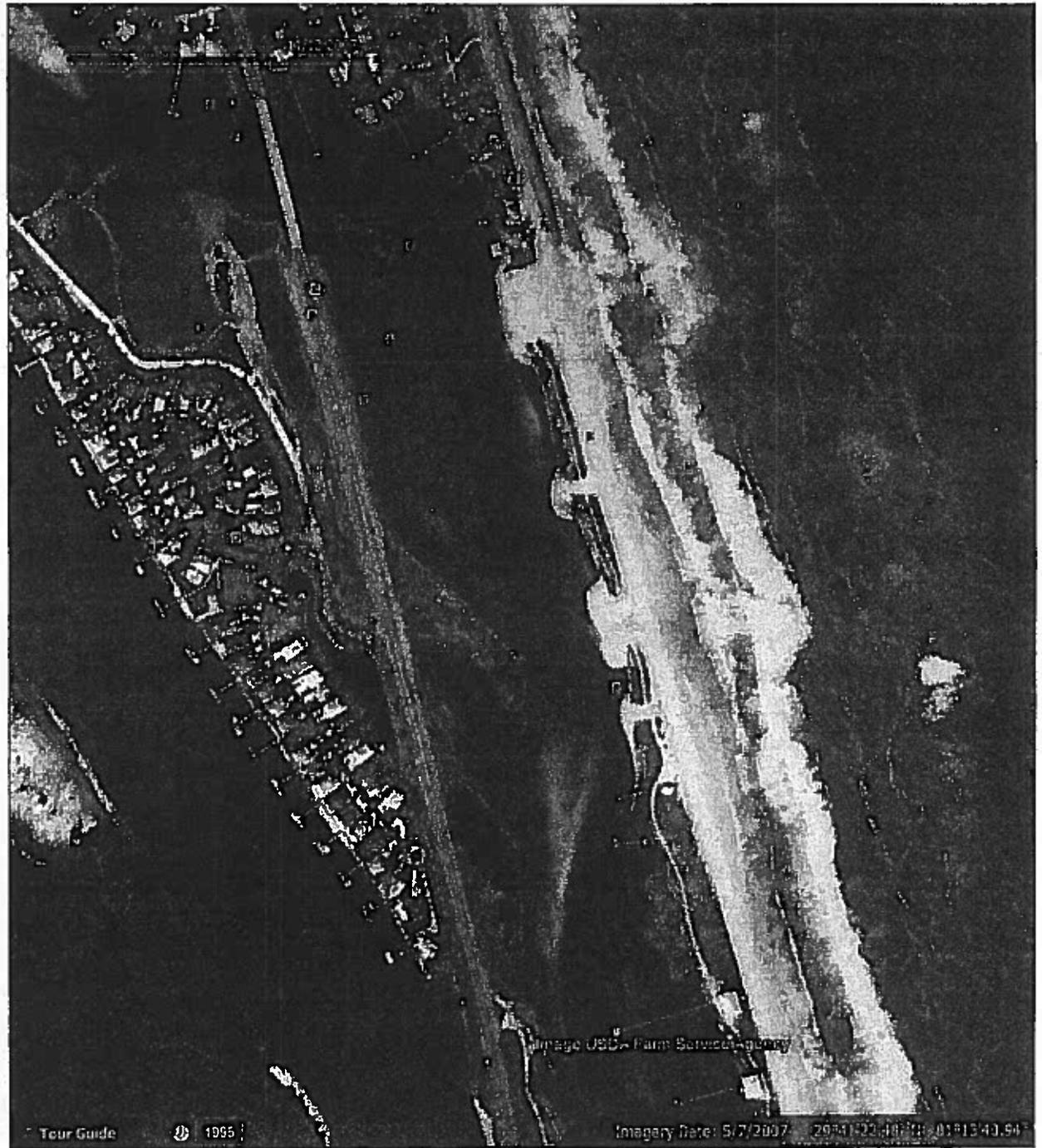








11.12.2007





12.6.2010



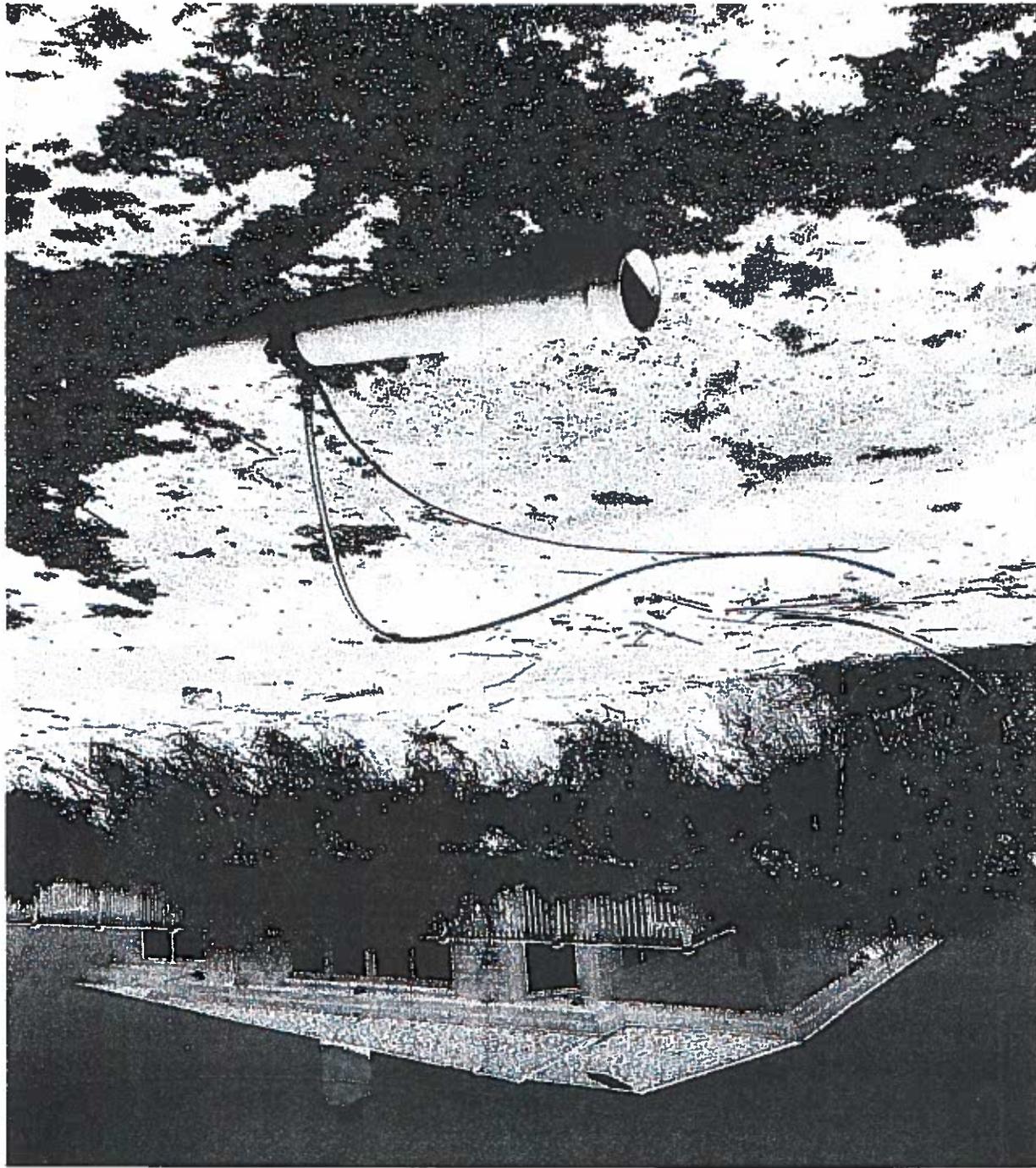




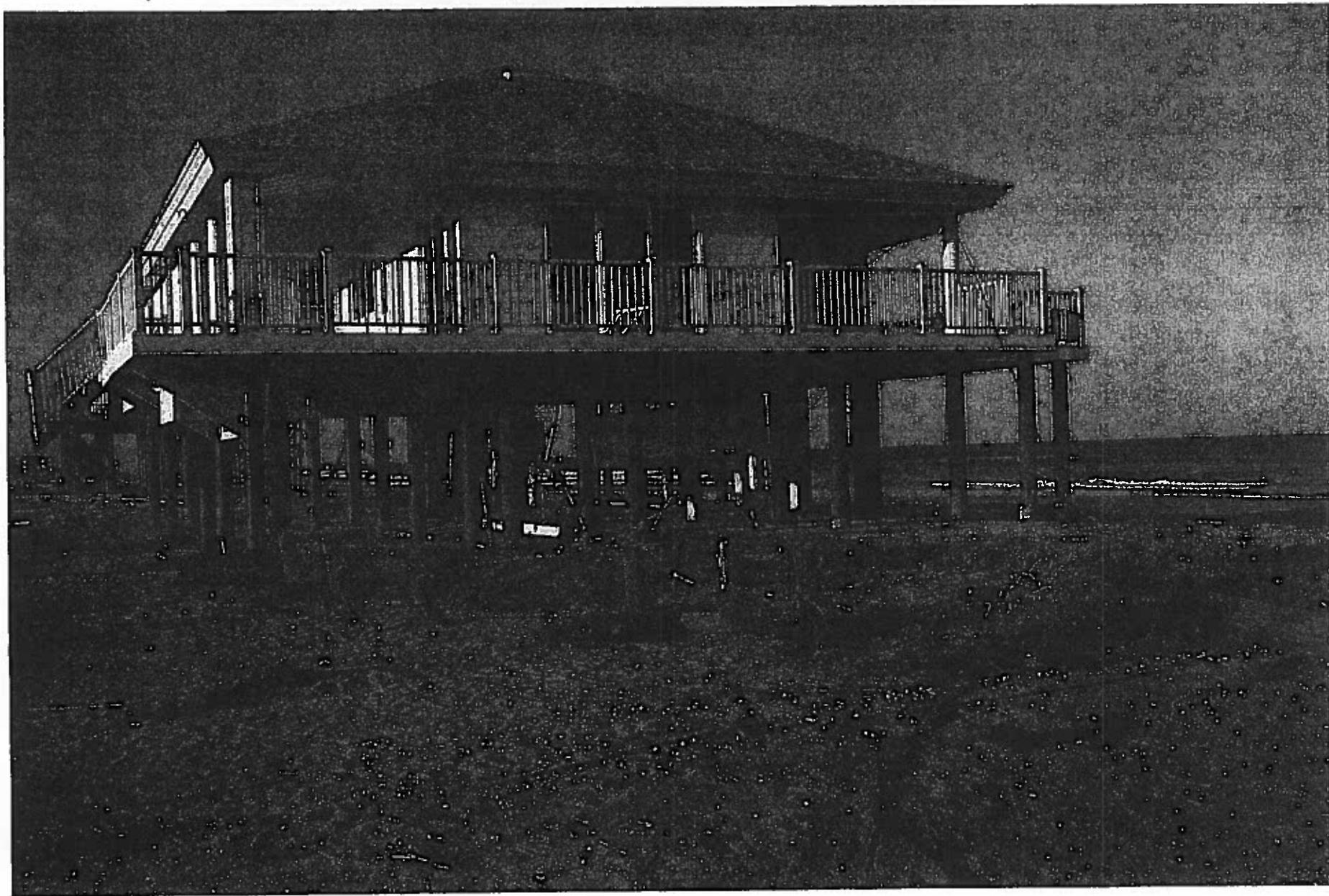
Photo: St. Augustine Record newspaper

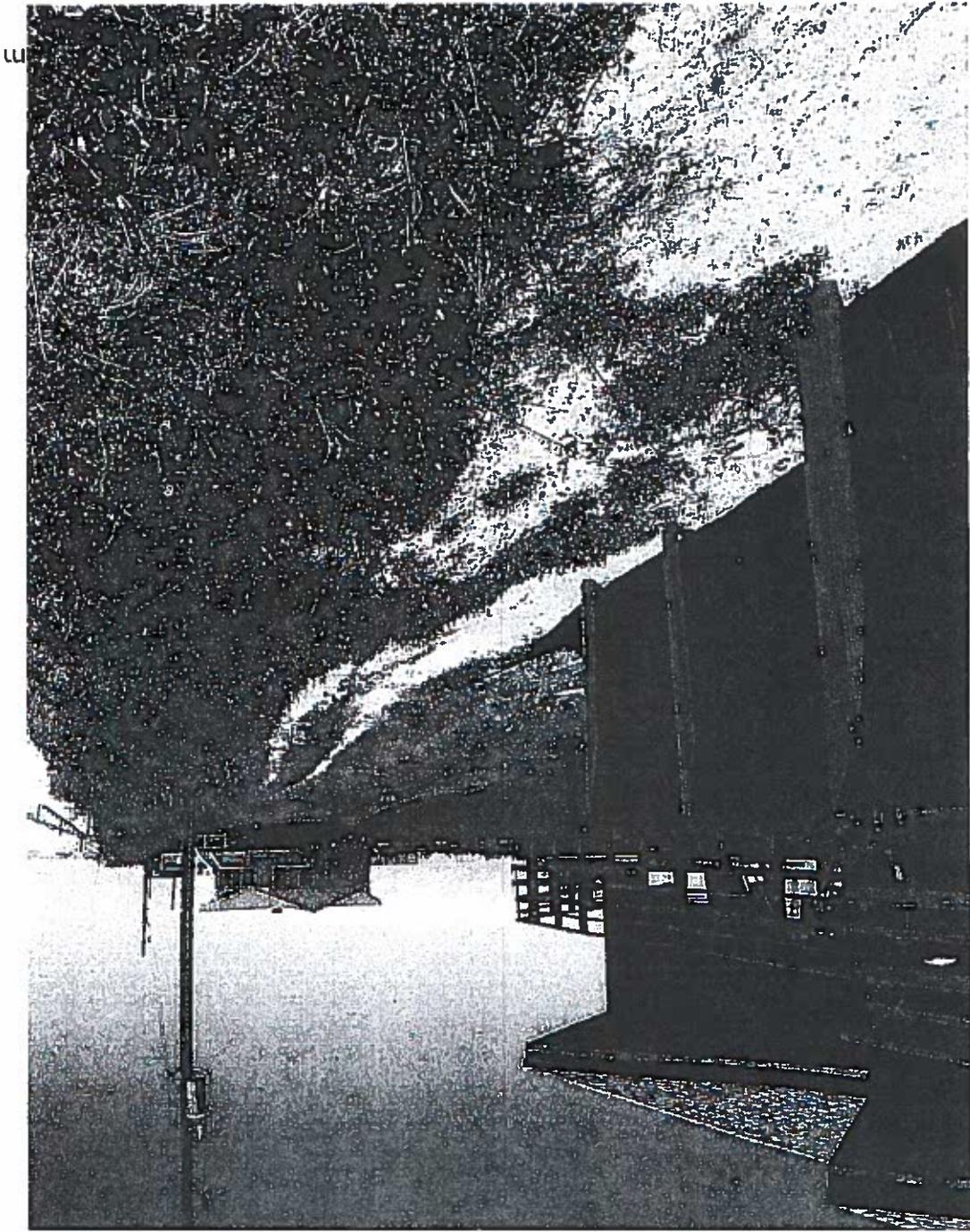
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Same house after Hurricane Matthew







Trial Court

- Non-interference of courts:
 - “An action taken by the majority board of a county commissioners on any subject within the authority given such board by statute is not reviewable by courts, in absence of fraud or abuse of discretion clearly shown.”
 - “A court cannot invade the administrative duties of a board of county commissioners, but can only determine whether their action was illegal *vel non*.”
 - “The courts cannot interfere with a government’s discretionary judgmental decisions.”

Trial Court (cont.)

- Natural forces were “action” that deprived owners, not any action of county
 - “This Court is also unaware of any Florida case holding that governmental inaction can be the basis for a loss of access inverse condemnation claim.”

“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.”

Dept. of Transp. v. Neilson, 419 So.2d 1071, 1077 (Fla. 1982)

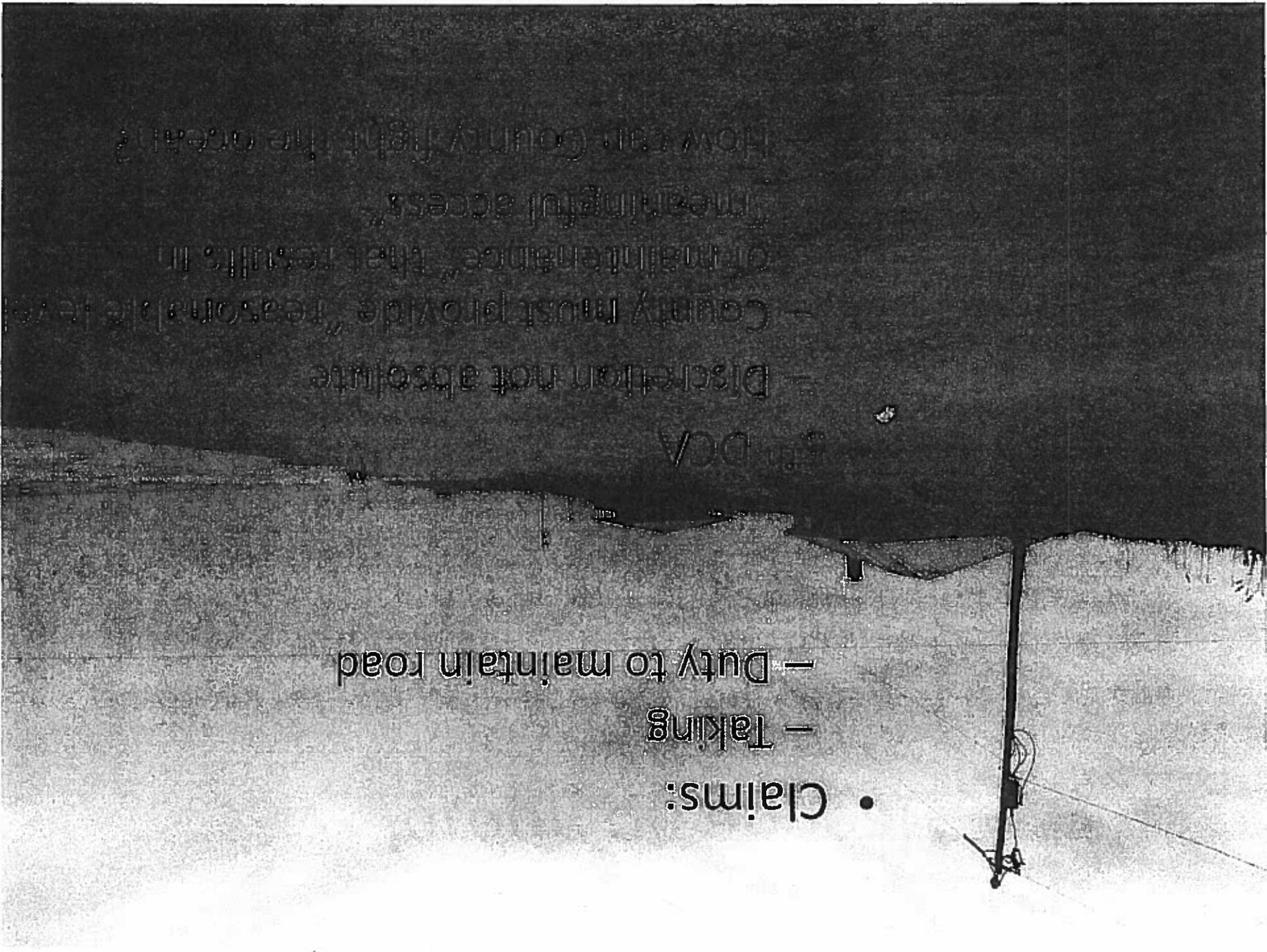
DUTY TO MAINTAIN ACCESS (St. Johns County's View)

“It is well established that decisions concerning the maintenance of and need to construct roadways, bridges, and other similar services are political questions outside the purview of the courts.”

***Gargano v. Lee County Board of County
Commissioners, 921 So.2d 661 (Fla. 2d DCA
2006)***

“A governmental entity’s decision not to build or modernize a particular improvement is a discretionary judgmental function with which we have held that the courts cannot interfere.”

Trianon Park Condo. Ass’n. v. City of Hialeah, 468 So.2d 912, 920 (Fla. 1985)



• Claims:

– Taking

– Duty to maintain road

– Discretion not absolute

– County must provide "reasonable level

of maintenance" that results in

"meaningful access"

– How can County fight the ocean?

Jordan on appeal?

State ex rel. White v. MacGibbon, 84 So. 91 (Fla. 1920)

Holding: BCC had standing to sue to force County Clerk to expend funds for road construction that BCC had authorized.

“Under our statutes, boards of county commissioners are given plenary power and authority over the location, building repairing, and keeping in order the public roads in their respective counties...

and it is made one of their continuous duties to locate, build, repair and keep roads in good order.”

***Id.* at 82**

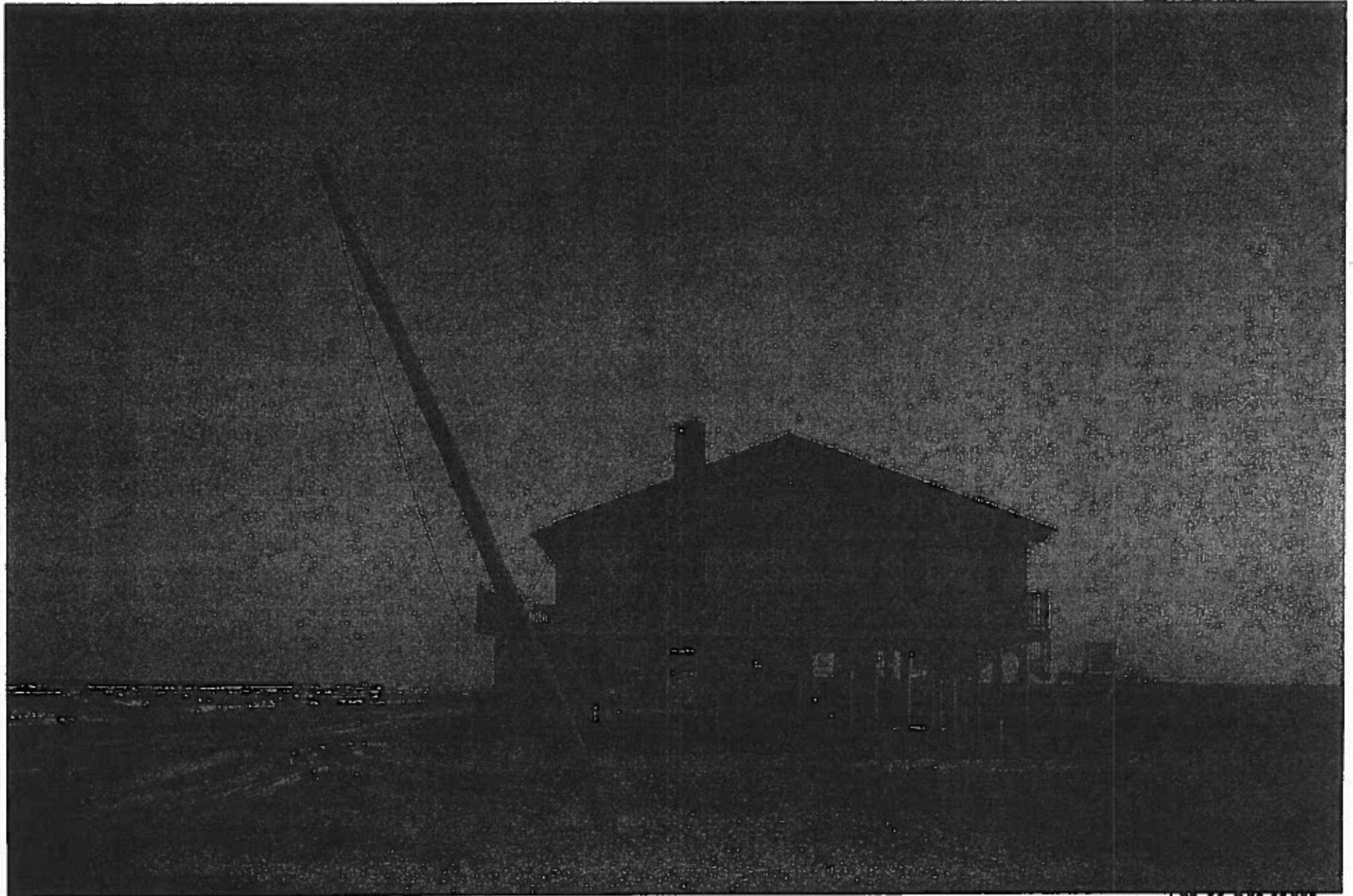
Ecological Development, Inc. v. Walton County,
558 So.2d 1069 (Fla. 1st DCA 1990)

Holding: Walton County could not place county roads in a “no maintenance” status and retain them as public thoroughfares.

(Citing *MacGibbon* for that proposition)

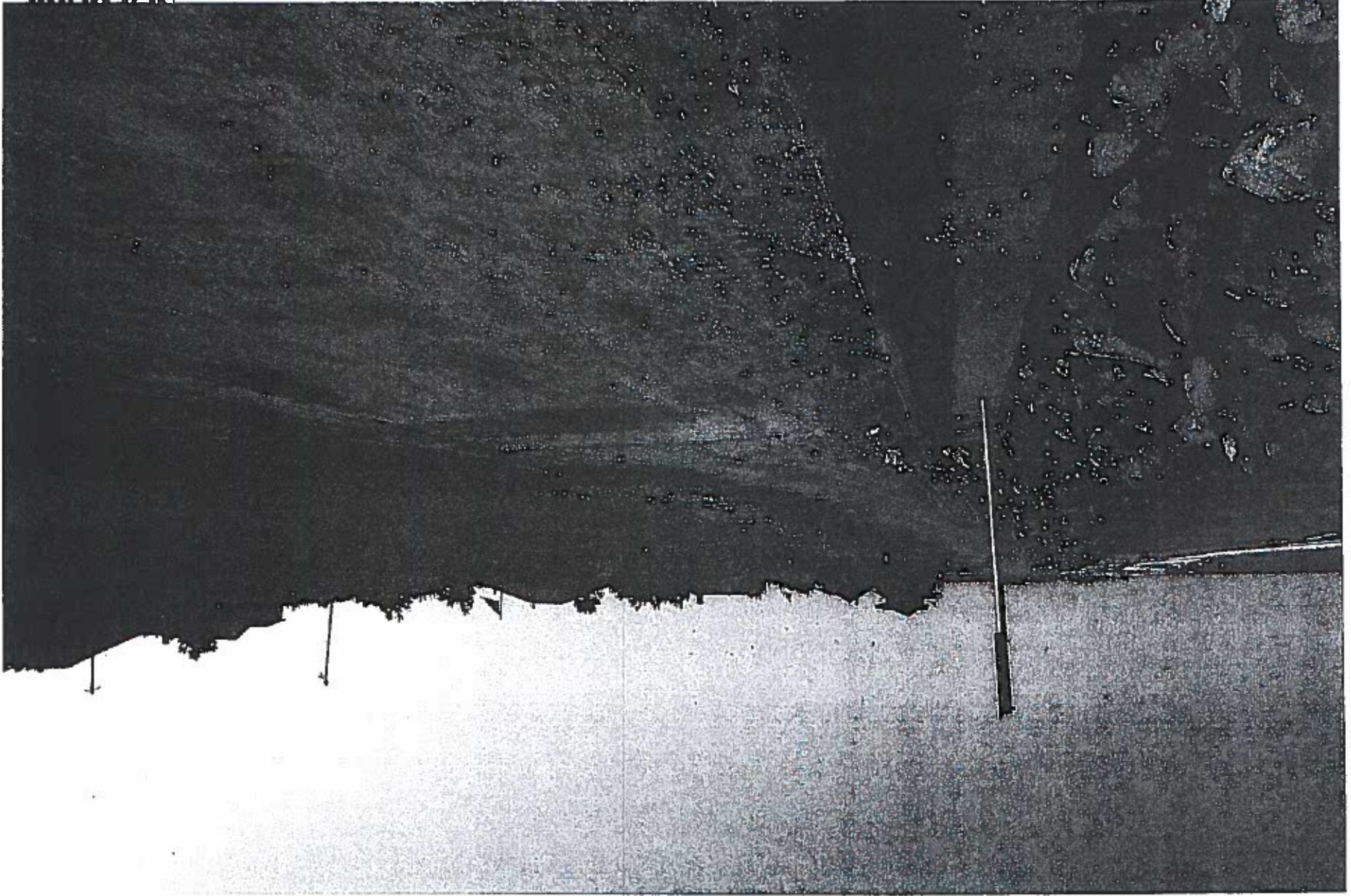
Settlement Agreement Excerpt from Summer Haven Case

If a catastrophic weather event occurs that destroys a substantial portion of any part of the paved or unpaved portion of the Old A1A right-of-way from Blocks 66 to 23, the County agrees to make timely and good faith efforts to obtain State, Federal, and/or other available funds to restore, to the greatest extent reasonably possible, the condition of Old A1A from Block 66 to Block 23 as it existed as of the date of this Settlement Agreement and Release, subject to any regulatory limitations imposed upon the County in making this effort. The County also agrees that it will, prior to obtaining any available State or Federal funds, and subject to other demands placed upon the County resources by said catastrophic weather event, make timely and good faith efforts to provide temporary vehicular access to all properties from Block 66 to Block 23,



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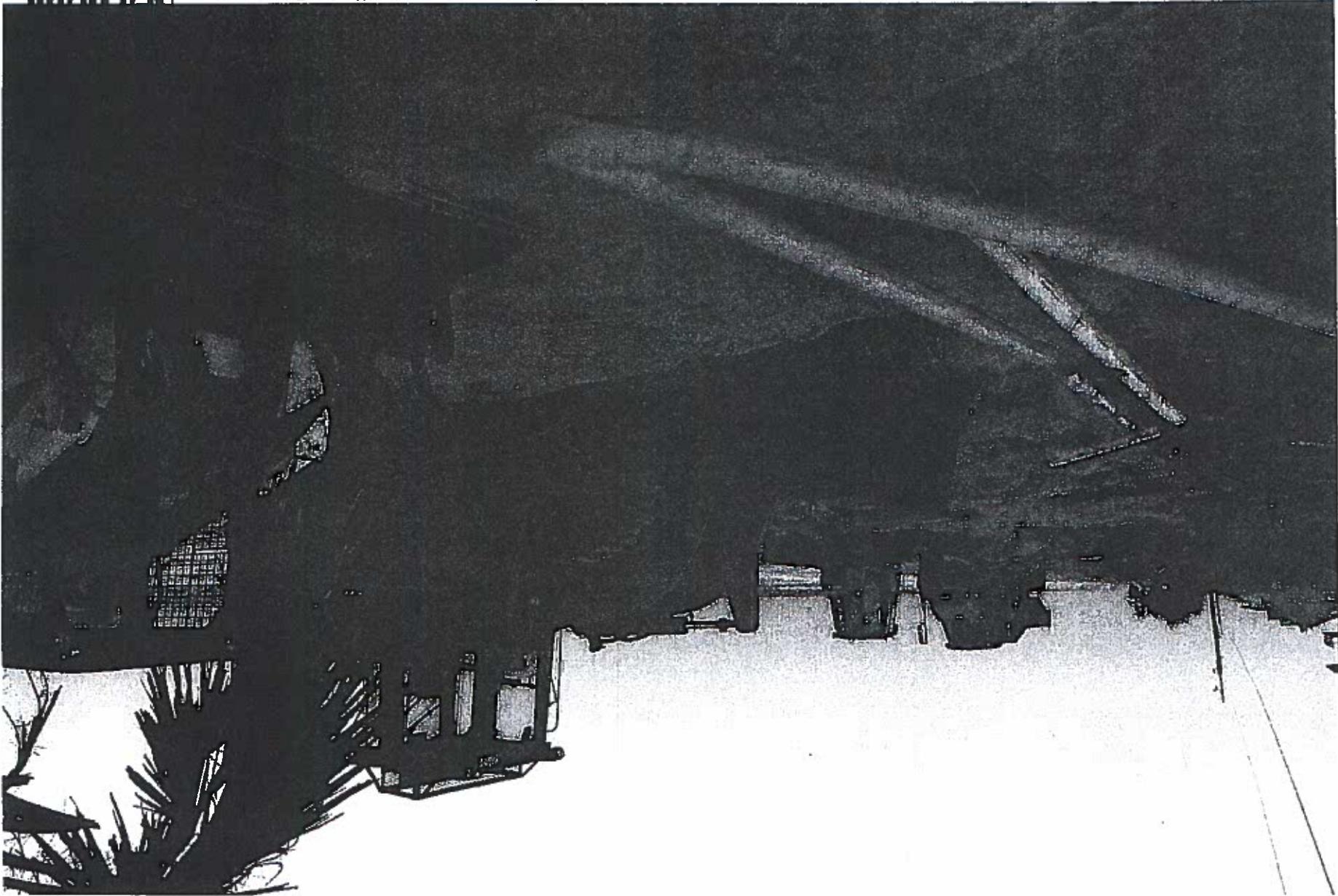
SEA GRANT
Florida



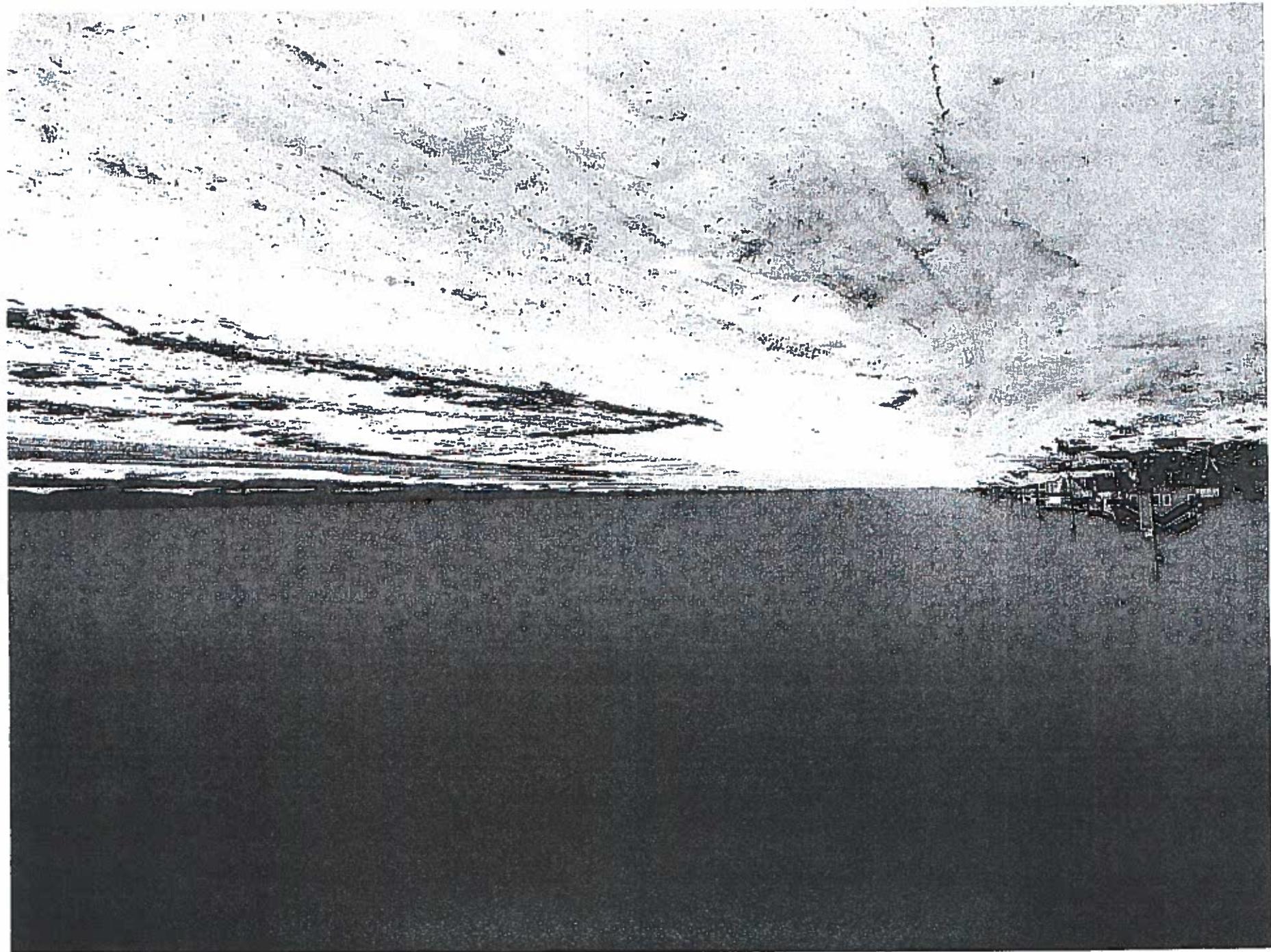


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Sea Grant
Florida

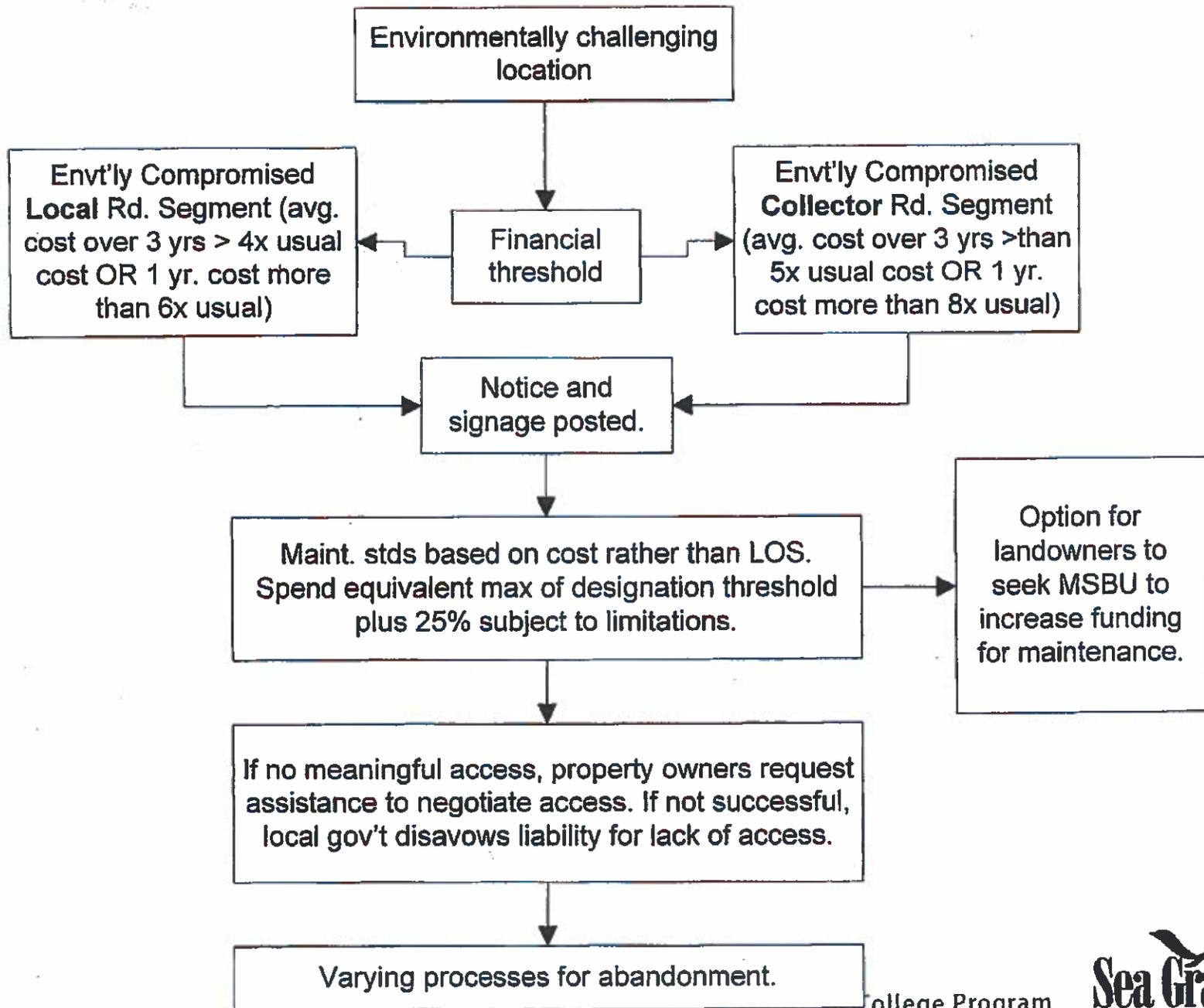






Overview of Ordinance

- Sets financial criteria thresholds
- Exceptions to LOS for “environmentally compromised road segment”
- Must add signage to designated roads
- Assistance in negotiation if a lack of “meaningful access”
- MSBU option for additional funding
- Abandonment procedures outlined



Definitions

- LOS: County-defined level of service for roads
- Env'tly challenging location: typical road constr., maint., or stds. infeasible to meet due to naturally occurring conditions
 - Repeatedly damage or threaten road to extent that not safe;
 - Repair, maint. requires materials, processes, or techniques not standard for other roads in county;
 - Presence, maint. or repair has detrimental impact on natural resources; or
 - Location of road requires permitting or mitigation from federal or state authorities for activities that otherwise are considered routine maintenance.

Definitions (cont.)

- “Envt’lly compromised local road segment”
 - Annual per-mile cost avg. over 3 yrs. for typical maint. is 4x or more usual cost per mile; or
 - Annual per-mile cost in 1 yr. for typical maint. is 6x or more usual cost per mile
- “Envt’lly compromised collector road segment”
 - Annual per-mile cost avg. over 3 yrs. for typical maint. is 5x or more usual cost per mile; or
 - Annual per-mile cost in 1 yr. for typical maint. is 8x or more usual cost per mile

Purposeful Design

- Focus on *PROCESS*
- fiscal backstop
- minimize risk of successful legal claims
 - Possible sovereign immunity from tort claims
 - Takings claims difficult; only court decides



Limitations

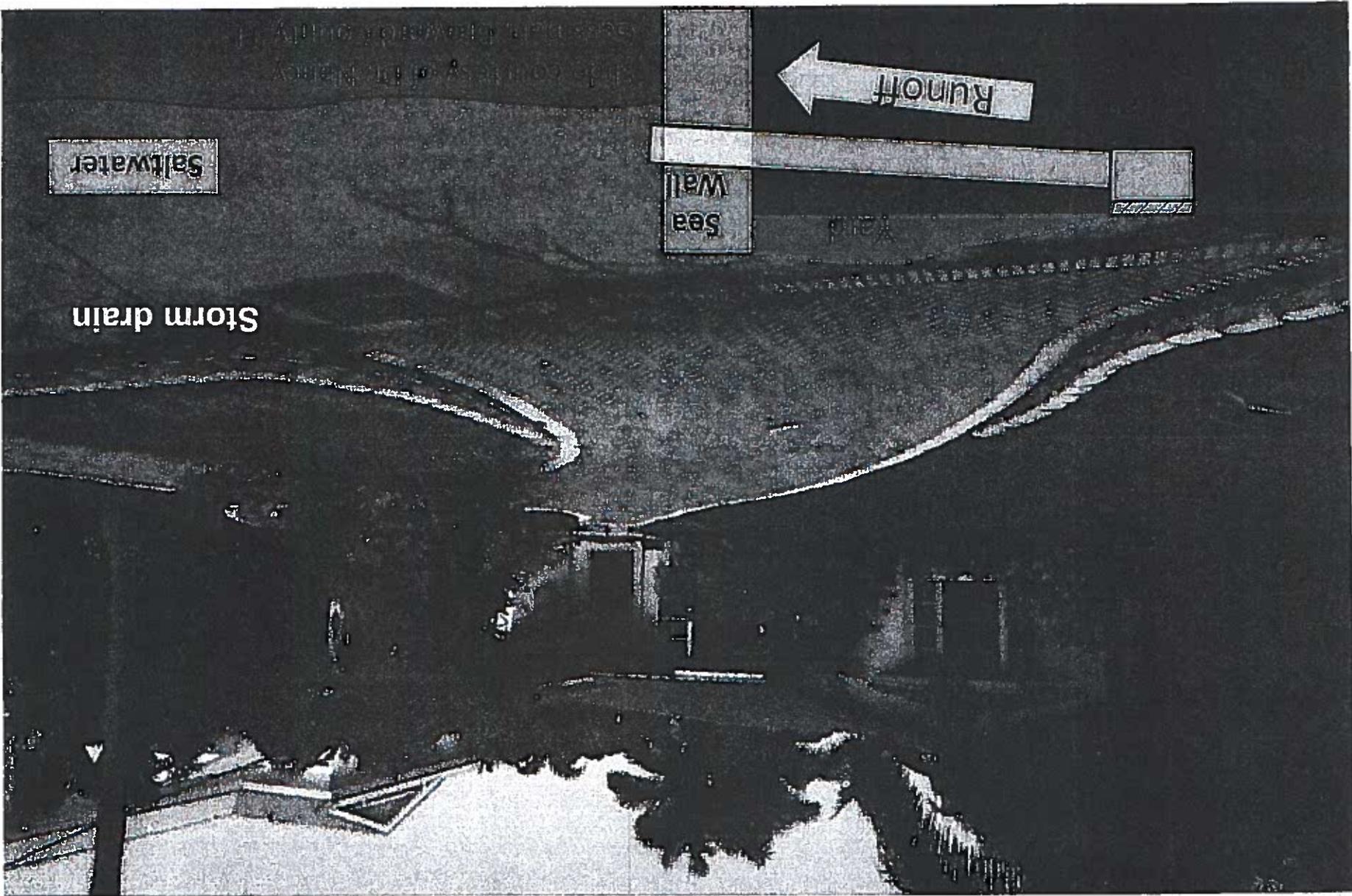
- No guarantee against lawsuits or judgments
- Varies in how appropriate it is for roads
 - Best for smaller roads and those that have some other route available
 - More difficult when only access or main thoroughfare

SLR, Drainage, and Local Governments

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Drainage Under Average Tidal Conditions



Drainage Challenge with Sea Level Rise

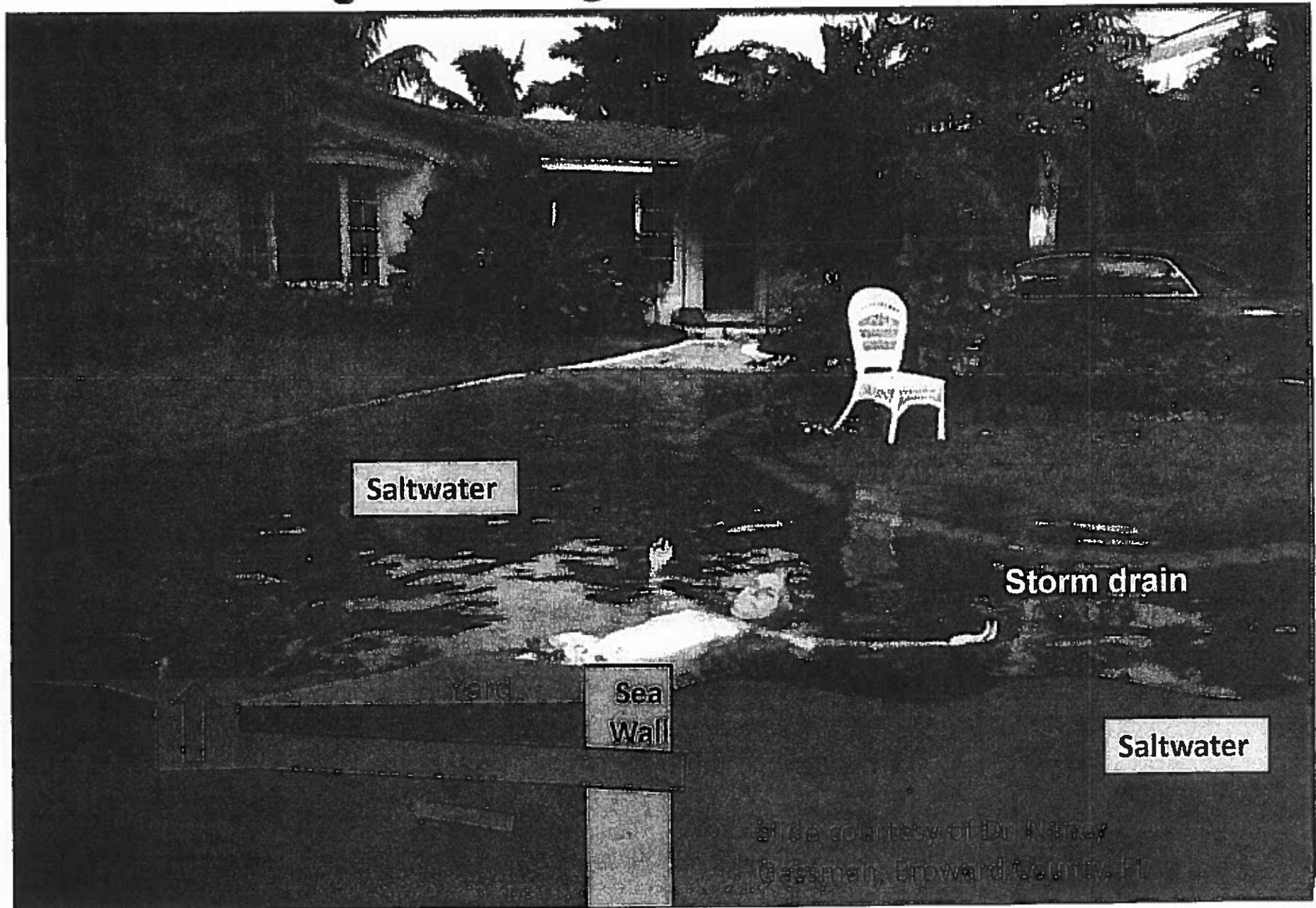
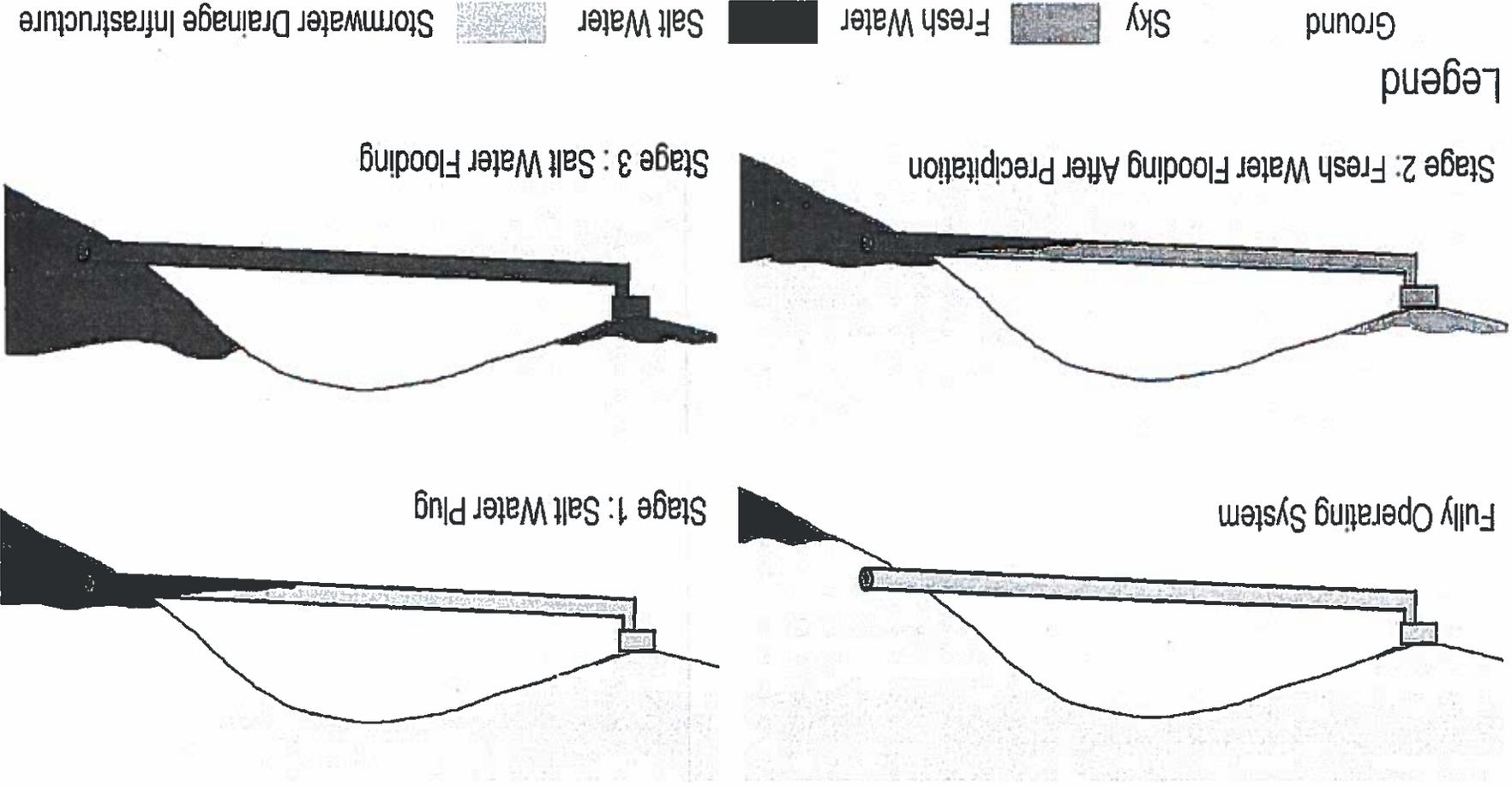


Figure 1: Stages of Stormwater Infrastructure Failure due to Sea Level Rise



The Florida Bar Journal

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November, 2013 Volume 87, No. 9

Drowning in Place: Local Government Costs and Liabilities for Flooding Due to Sea-level Rise

by Thomas Ruppert and Carly Grimm

- No duty of local gov't to provide drainage
 - As with many services, *authority* or *power* to provide, but not duty (fire, police, etc.)
- However, if provided, duty to maintain arises
 - Maintenance must be done with reasonable care
 - Liability for failure to maintain

Maintenance vs. Upgrade

- Immunity through “planning” vs. “operational” distinction
 - Immunity for planning as this is legislative
 - No immunity for “operations;” always a duty to act with reasonable care to avoid harm to others



The Miami Beach Example



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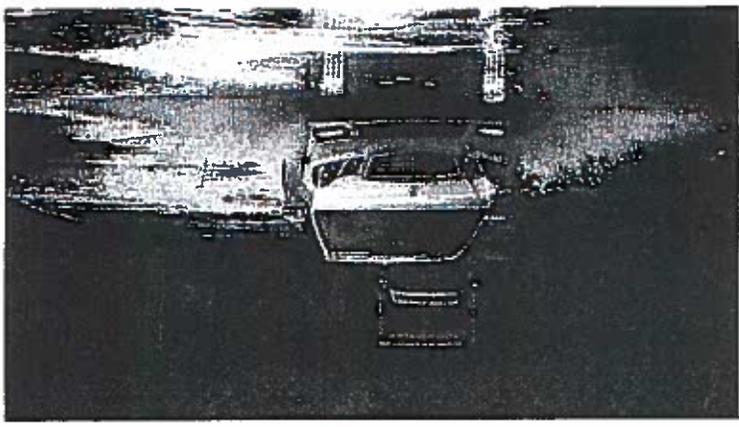
The Miami Beach Example

MIAMI BEACH

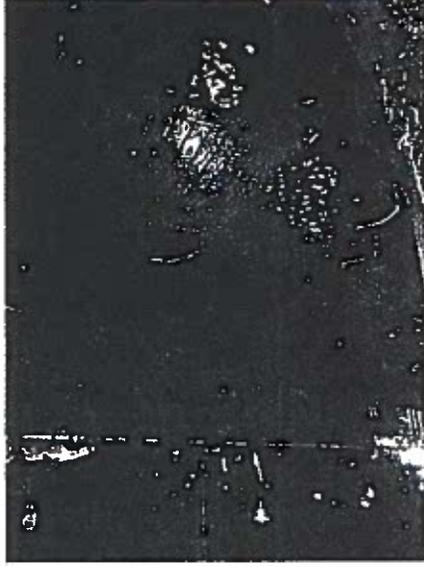
Flood claim denied for restaurant turned 'basement' after Miami Beach raised street



Miami Beach to begin new \$100 million flood prevention project in face of sea level rise



During a heavy rainstorm on the night of Oct. 3, the sidewalk outside Sardina Enoteca Ristorante in Miami Beach flooded, spilling water into the business after the city failed to turn on nearby stormwater pumps. Sardina Enoteca Ristorante





miamibeach

citywide

south beach

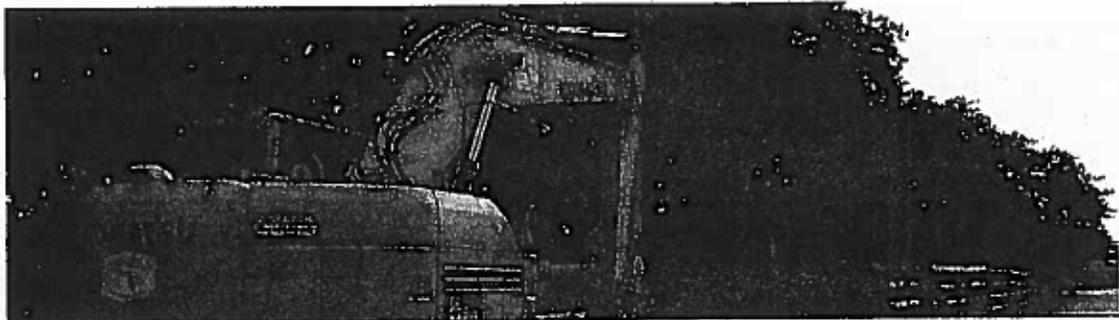
mid beach

homeowners to tie into stormwater system without charge

April 28, 2017



susan askew

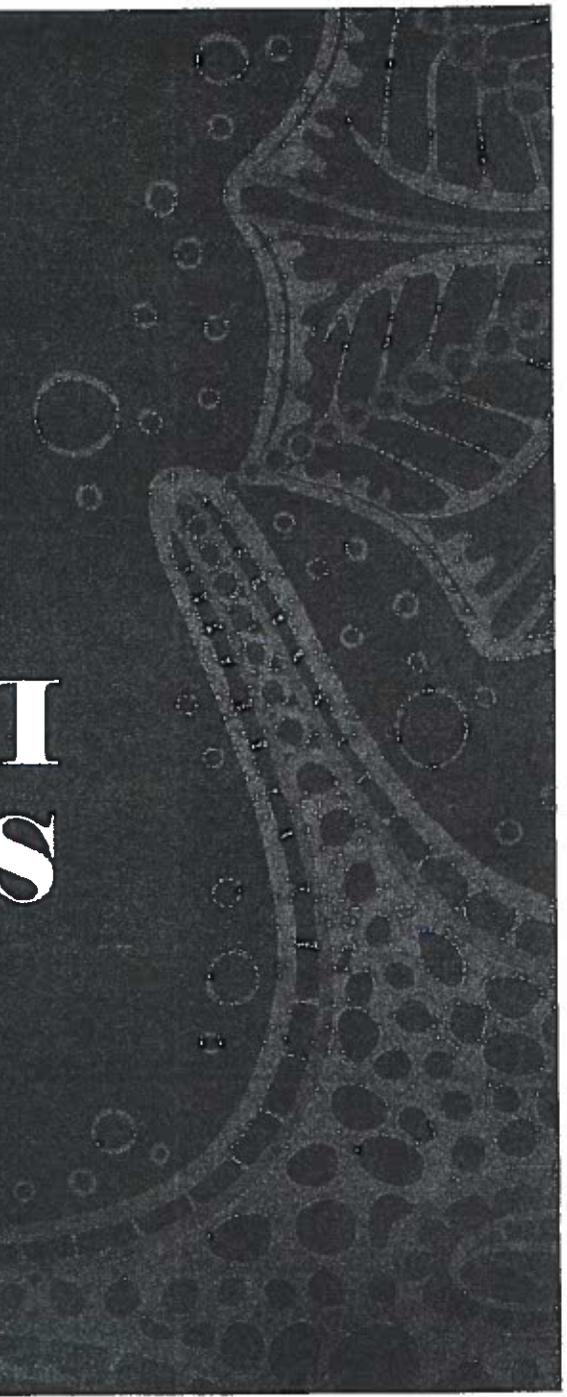


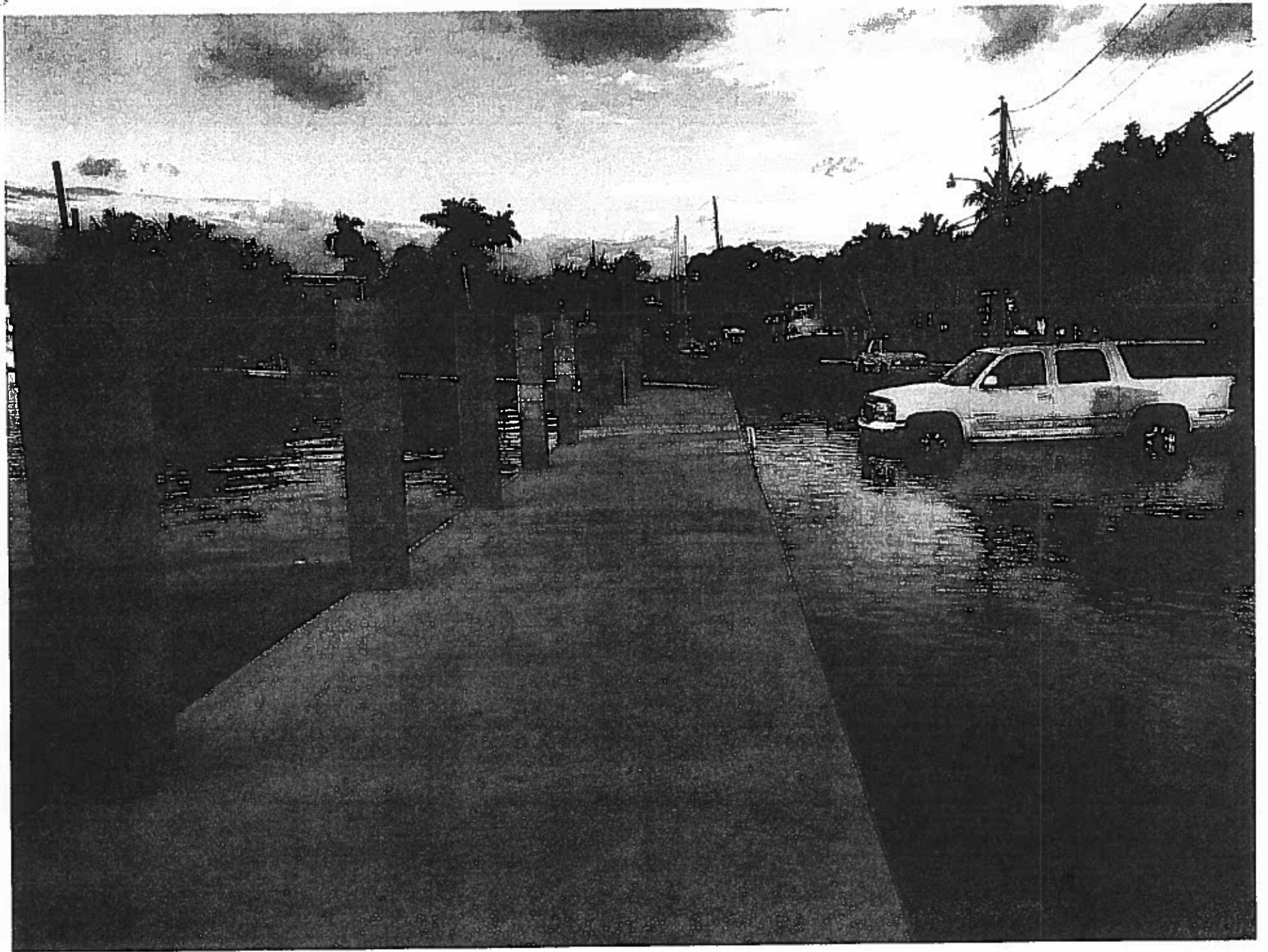
To Charge or Not to Charge?

SLR, Seawalls, and Local Governments



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Memorandum

Memorandum No: 17-016

Date: January 26, 2017

To: Honorable Mayor and Commissioners

From: Lee R. Feldman, ICMA-CM, City Manager 

Re: Enforcement of the City's Seawall Ordinance - ULDR Section 47-19.3

As you are aware, the City of Fort Lauderdale adopted amendments to ULDR Section 47-19.3 on June 21, 2016 (CAM #16-0662) to establish construction standards that ensured seawalls and similar structures contributed to coastal resilience and mitigated the effects of tidal flooding and sea level rise. The ordinance included two provisions under which a property owner may receive a code violation:

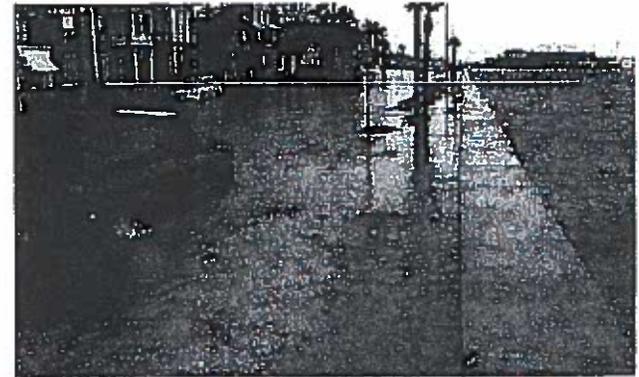
1. Failing to maintain a seawalls in good repair and setting a timeline of 365 days for completion of repairs if cited; and
2. Requiring owners to prevent tidal waters entering their property from impacting others properties or the public right of way and setting a timeline of 365 days for remedy if cited.

New Sea Wall Ordinances

- Miami Beach
- Fort Lauderdale
 - Citation for allowing salt-water to flow over your property and flood others
- And many others already done or working to establish new minimum heights
- Who should have to pay?
- How do you balance the rights at stake?

St. Augustine's Avenida Menendez Seawall becomes resilient

- Historic preservation / flood protection project
- Cat 1 storm surge (7.4' above MSL)
- Revamped drainage system, added promenade
- 1200' long; \$6.7M (FEMA & City funded)

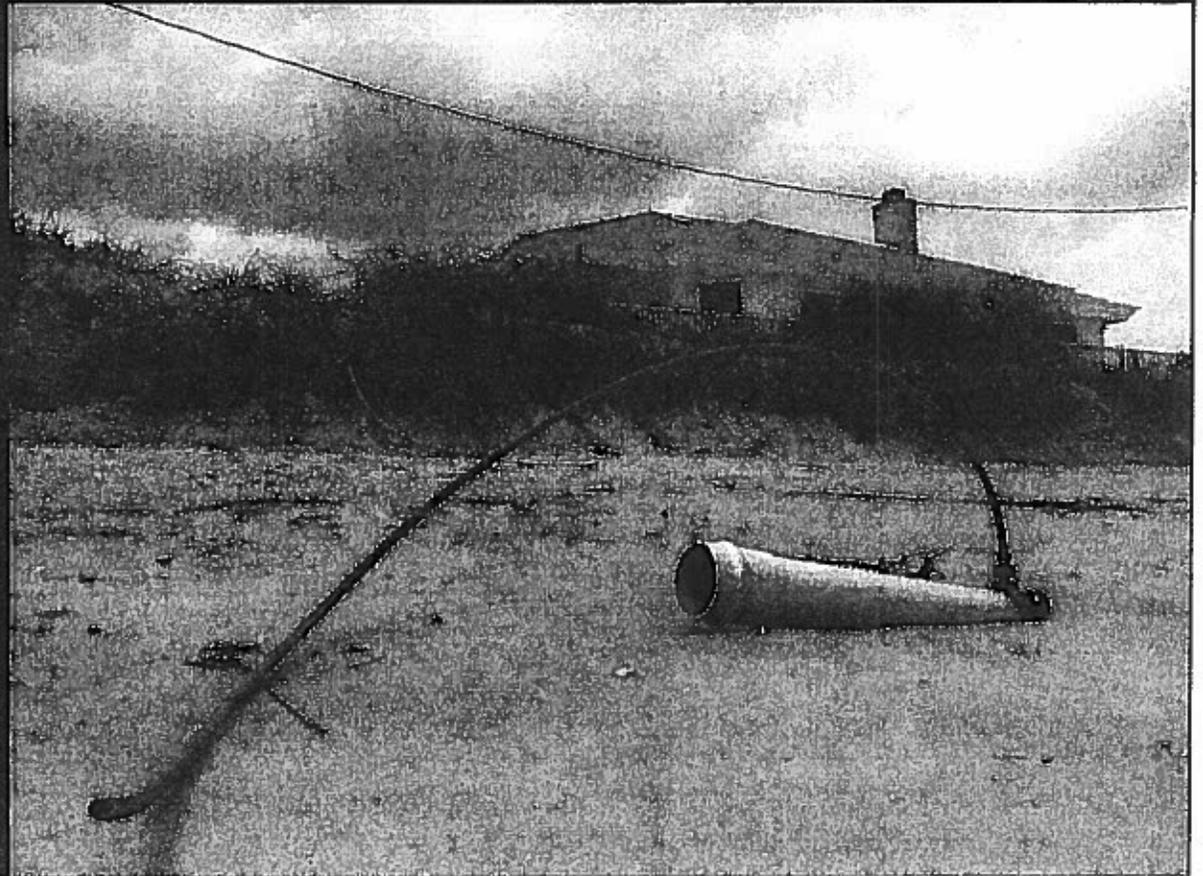


Slide courtesy of Danielle Irwin, Coastal Systems Int'l

Florida

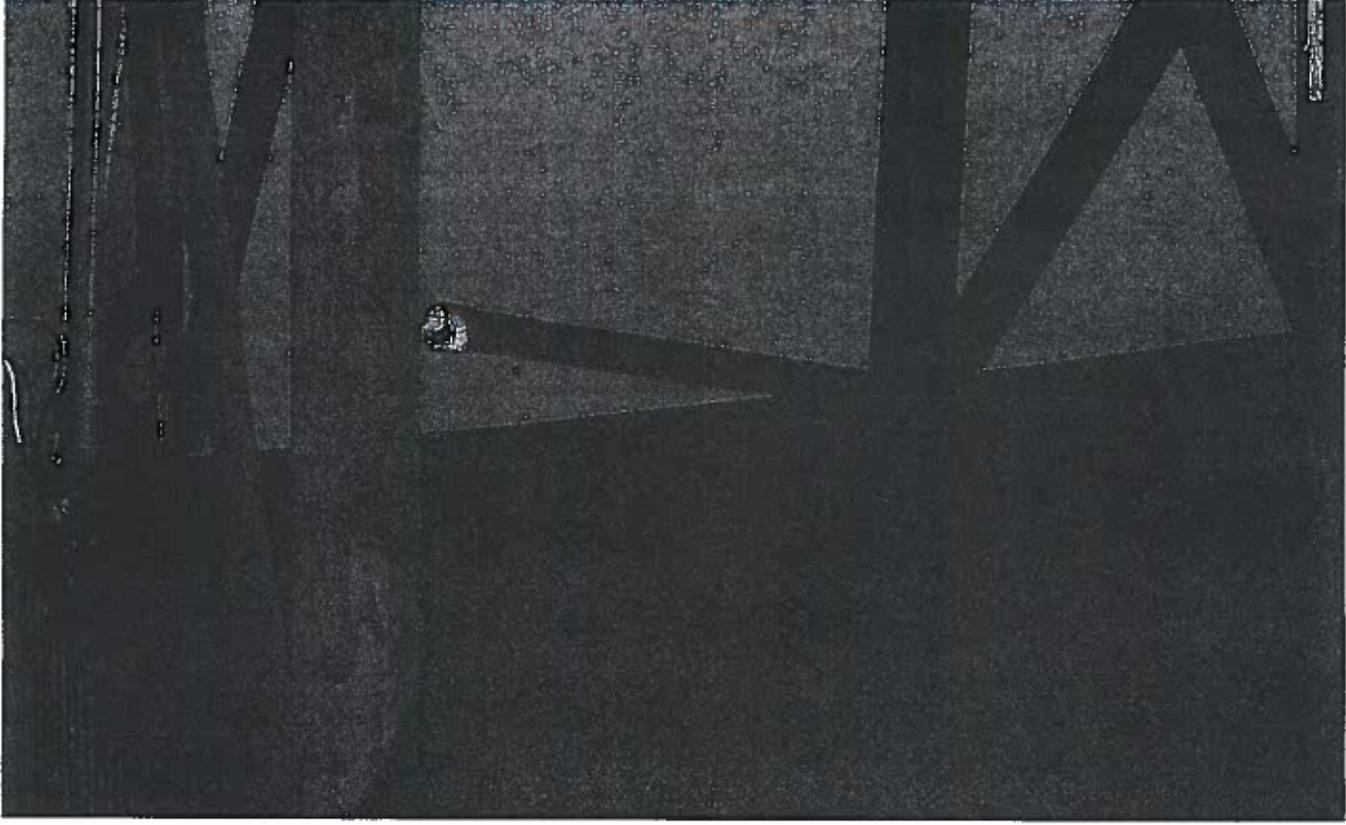
Florida

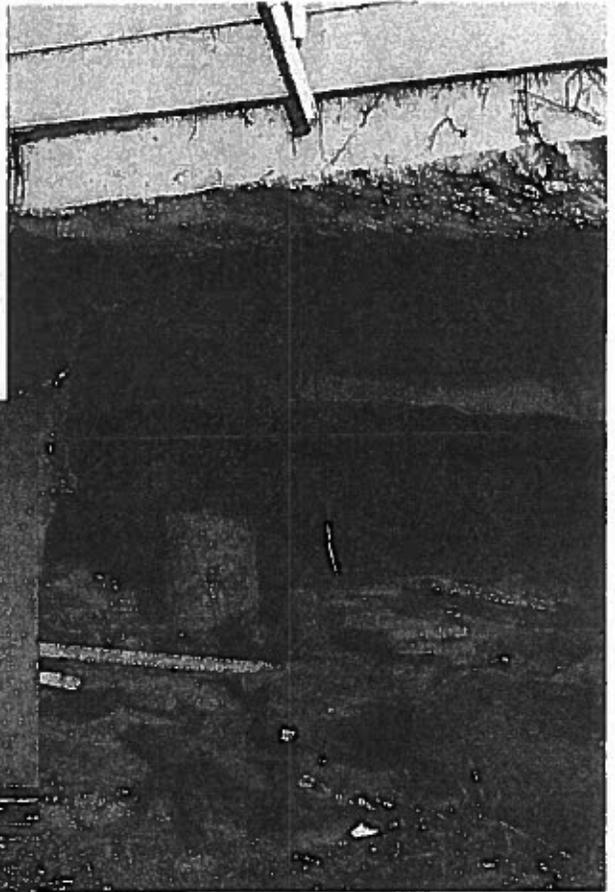
Septic, Sanitary Sewers, & Local Governments



Why care about this?

- Cost and efficacy of systems
- Water quality impacts

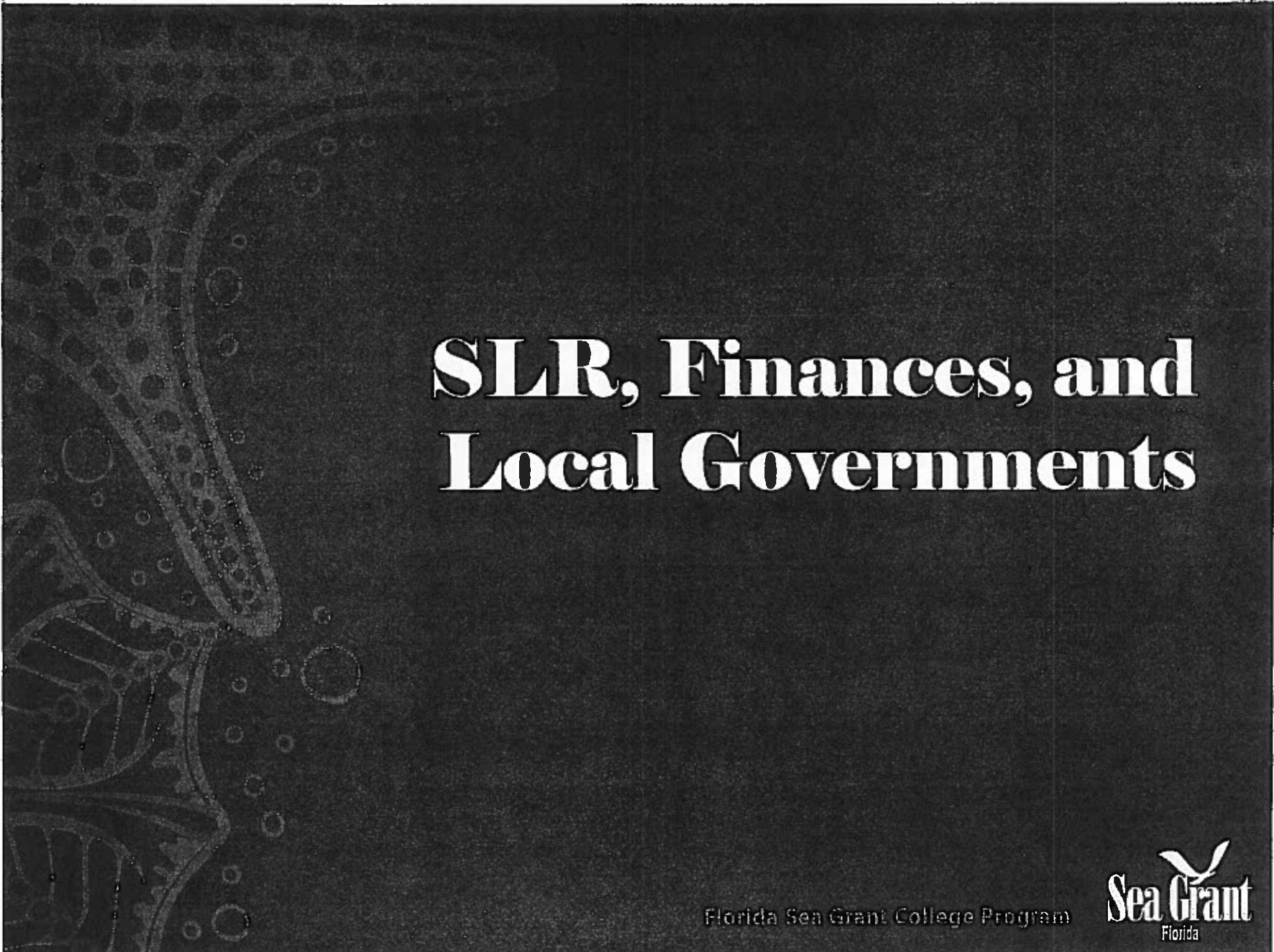




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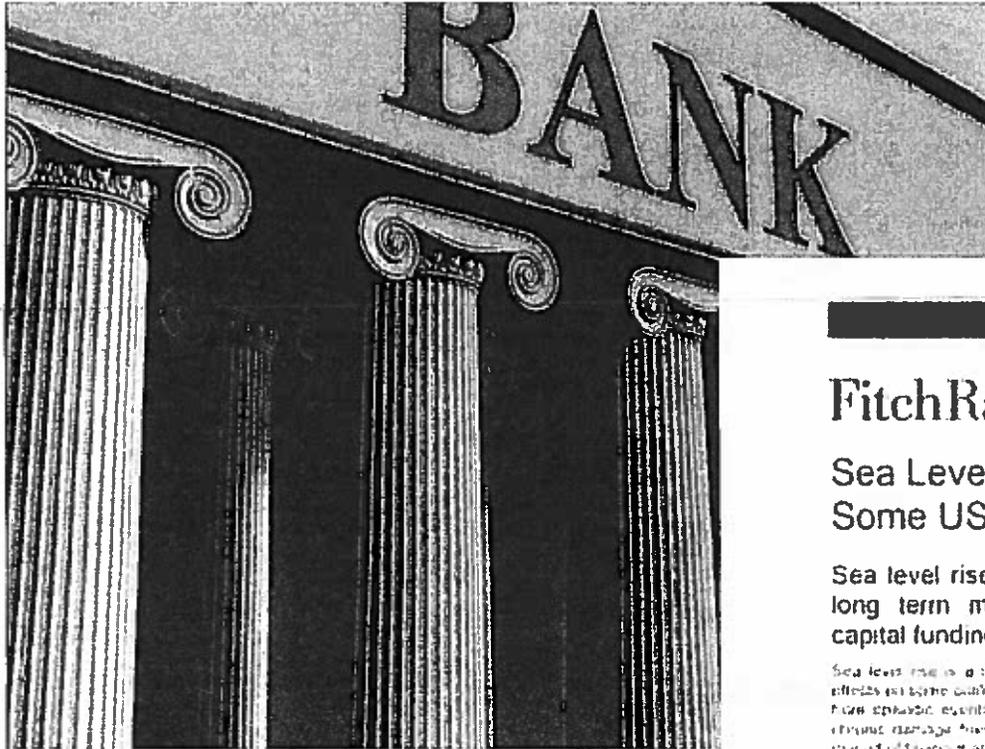
SLR, Finances, and Local Governments

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Where's the Money?

- Increasing infrastructure costs
- Tax revenues decreasing?
- How to limit local gov't expenditures?
 - Model ordinance for environmentally compromised roads?
 - Increased use of MSBUs?
 - More bonds? Ratings linked to resilience?
 - Buyout programs? Additional issues. . . .



Florida real estate prices will collapse 30 years BEFORE rising seas begin flooding it

The Day the Banks Abandon Florida

<http://m.dailykos.com/story/2015/12/20/1462300/-The-Day-the-Banks-Abandon-Florida>

FitchRatings

Sea Level Rise May Pose Challenges For Some US Local Governments

Sea level rise already affects some communities and in the long term may pressure some communities' operations, capital funding requirements, and indebtedness

Sea level rise is a manifestation of global climate change that is already having deleterious effects on some communities located along the US coast. Risks include heightened damage from extreme events such as hurricanes and storm surges, coastal risk in addition to more chronic damage from pervasive flooding and permanent loss of land. These risks present a myriad of financial and regulatory challenges to local governments.

To date, sea level rise has not played a material role in Fitch's assessment of the local government credit characteristics of any of its rated states. Fitch's special report, Event Risk and Overall Credit Resiliency, provides more detail. However, there are real threats faced by governments in coastal areas. As the effects of sea level rise upon coastal credit fundamentals become known and measurable, we think these considerations may increasingly factor into our credit ratings and Fitch's rating decisions.

Sea Level Rise Increasingly Important in Government Planning

Municipal utility operations at coastal sites are increasingly being impacted from sea level rise by flooding and saltwater intrusion that affect water quality as well as the ability of sites to collect, generate, store, and dispose of solid waste. Long-term municipal planning efforts are increasingly focused on protecting public facilities and private property, near coastlines and inland places. Local counties in south Florida — one of the most vulnerable and highly populated regions in the US to rising sea level rise — Miami Dade, Broward, Palm Beach, and Monroe counties have joined together to form the Southeast Florida Regional Climate Change Compact Coalition to create an action plan to address the effects of climate change. Sea level rise was one factor in Miami Dade Water and Sewer Department's decision to spend an additional \$500 million to build a new wastewater treatment plant and expand an existing plant in order to discharge effluent to treatment ponds located along the coast. The following table depicts related sea level rise estimates in the US from 2010 to 2100:

Responding to Change: Coastal Areas

**OFFICIAL FILE COPY
CLERK OF THE BOARD
OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA**

MEMORANDUM

Agenda Item No. 11(A)(17)

TO: Honorable Chairwoman Rebeca Sosa
and Members, Board of County Commissioners

DATE: May 6, 2014

FROM: R. A. Cuevas, Jr.
County Attorney

SUBJECT: Resolution setting policy for
Miami-Dade County; directing
the Mayor to require all County
infrastructure projects to consider
potential impacts of sea level rise
during all project phases

Resolution No. R-451-14

Satellite Beach

Objective 1.4A The City shall strive to reduce the exposure of human life and public and private property to natural hazards while reducing the cost of flood insurance.

Policy 1.4A.1 - The City shall initiate a public process to identify Adaptation Action Areas (AAAs) in accordance with Sections 163.3164(1) and 163.3177(6)(g)10 Florida Statutes. The purpose of the AAAs is to increase grant and other funding opportunities and identify creative solutions to achieve the following goals:

- Protect the health, safety and welfare of residents,
- Prevent damage to public and private property, and
- Reduce National Flood Insurance Program premiums to property owners.

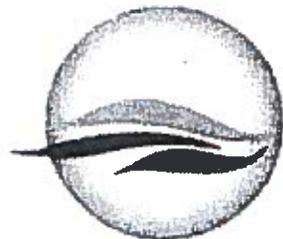
Summary and Commentary on Sea-Level Rise Adaptation Language in Florida Local Government Comprehensive Plans and Ordinances¹

By: Thomas Ruppert, Esq.² & Alexander Stewart³

July, 2015

https://www.flseagrant.org/wp-content/uploads/Ruppert-Updated-Sea-Level-Language_7.2.15.pdf

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Florida Climate Institute

Florida Sea Grant College Program



Summary and
Regional Action Plan

A Report of the
Emergency Preparedness Committee on Sea Level Rise



Regional Community Institute of Northeast Florida, Inc.
September 2012
Northeast Florida Regional Council
November 2012

P2R2

Public/Private Regional Resiliency:
Good for Business

RECOMMENDATION FOR A UNIFIED PROJECTION OF SEA-LEVEL RISE IN THE TAMPA BAY REGION

*Tampa Bay Climate
Science Advisory Panel*

UF | IFAS Extension
UNIVERSITY OF FLORIDA

Libby Carnahan
Sea Grant Agent



**A Region Responds to a
Changing Climate**

Southeast Florida Regional Climate
Change Compact Counties

Regional Climate Action Plan

October 2012

Living Together and with Rising Waters



Florida Sea Grant College Program



Millions projected to be at risk from sea-level rise in the continental United States

Mathew E. Hauer^{1*}, Jason M. Evans² and Deepak R. Mishra³

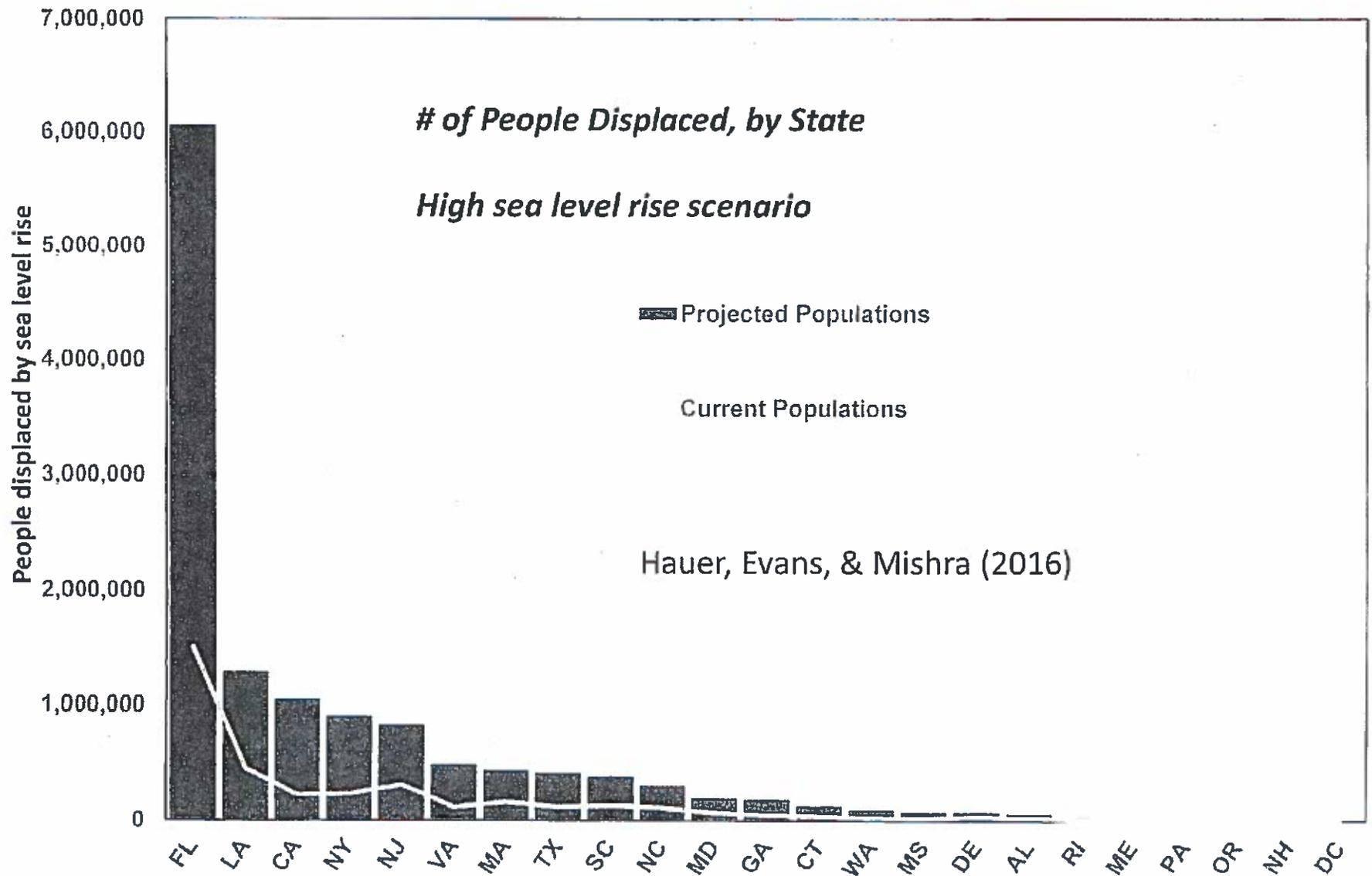
Sea-level rise (SLR) is one of the most apparent climate change stressors facing human society¹. Although it is known that many people at present inhabit areas vulnerable to SLR^{2,3}, few studies have accounted for ongoing population growth when assessing the potential magnitude of future impacts⁴. Here we address this issue by coupling a small-area population projection with a SLR vulnerability assessment across all United States coastal counties. We find that a 2100 SLR of 0.9 m places a land area projected to house 4.2 million people at risk of inundation, whereas 1.8 m affects 13.1 million people—approximately three times larger than indicated by current populations. These results suggest that the absence of protective measures could lead to US population movements of a magnitude similar to the twentieth century Great Migration of southern African-Americans⁵. Furthermore, our population projection approach can be readily adapted to assess other hazards or to model future per capita economic impacts.

data (that is, elevation and associated flood risk) with small-area population projections developed with a modified version of the Hammer method^{17,18} in a dynamic flood hazard model. By spatially and temporally aligning small-area population projections from coastal states in the continental United States (US) to 2100, we are able to assess who could be at risk from future SLR.

This approach addresses two fundamental questions concerning the vulnerability of future coastal populations in the United States: How many people are potentially at risk of impact from SLR? and What areas in the US are likely to experience the greatest population exposure to SLR? Accordingly, our results can be used to inform local adaptation infrastructure and growth management strategies, alerting officials to the areas where interventions and policies are most needed.

We assess the populations at risk of SLR by using the National Oceanic and Atmospheric Administration's (NOAA) 0 m through 1.8 m (6 feet) SLR data sets for twenty-two coastal states and the

Population growth = Underestimation of problem



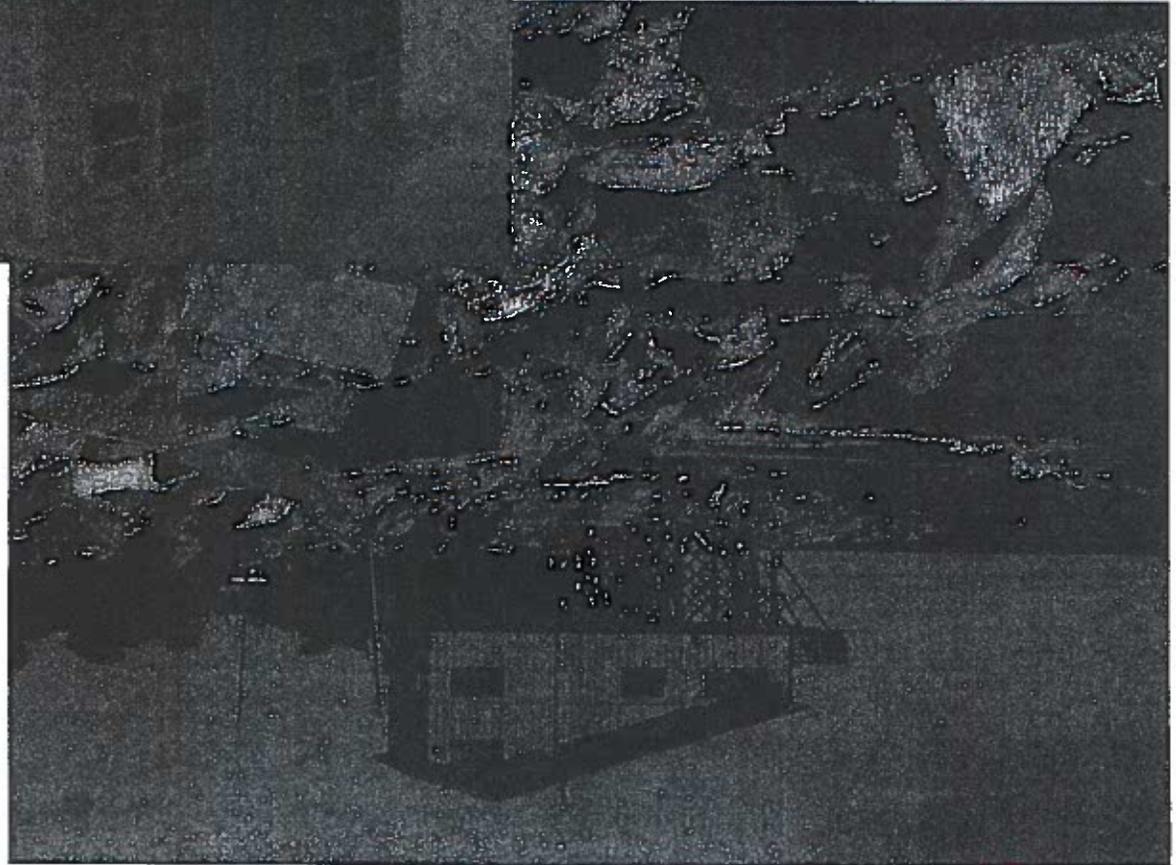
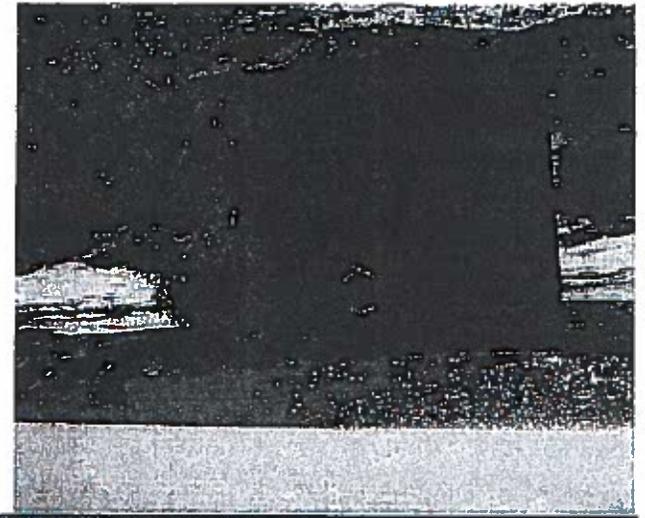
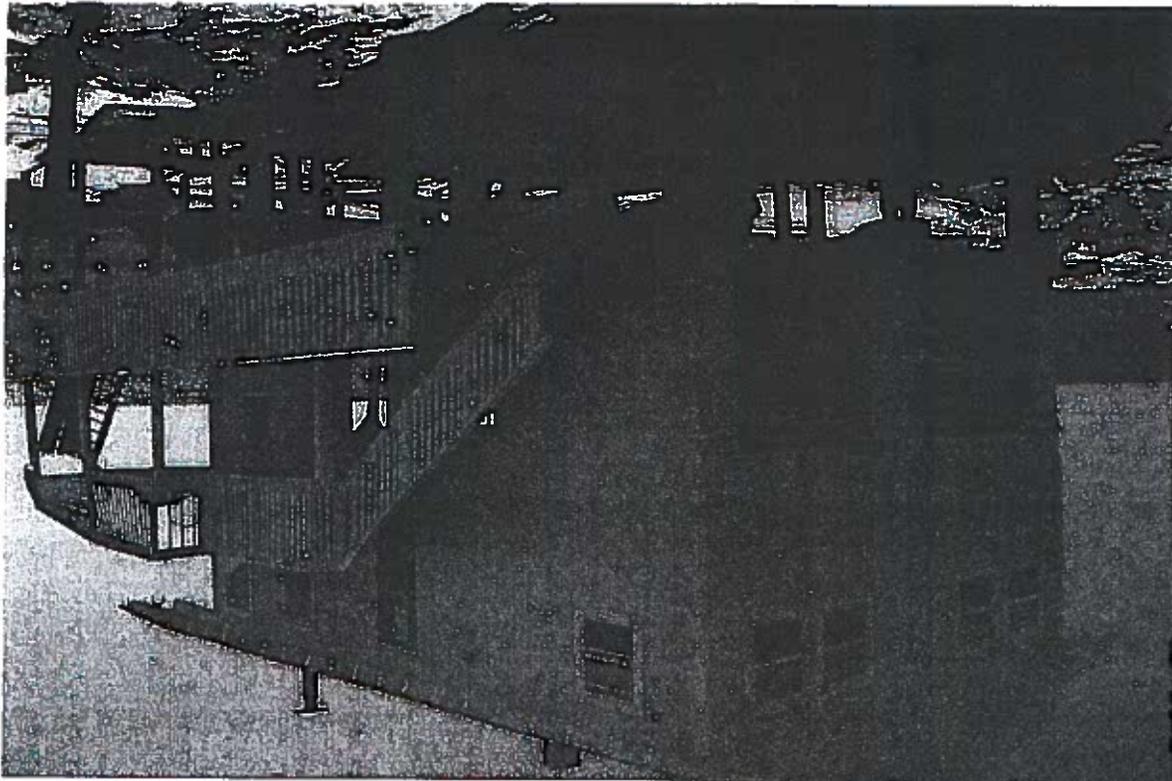


Is It Fair?

Hurricane Katrina
high water mark

ant College Program



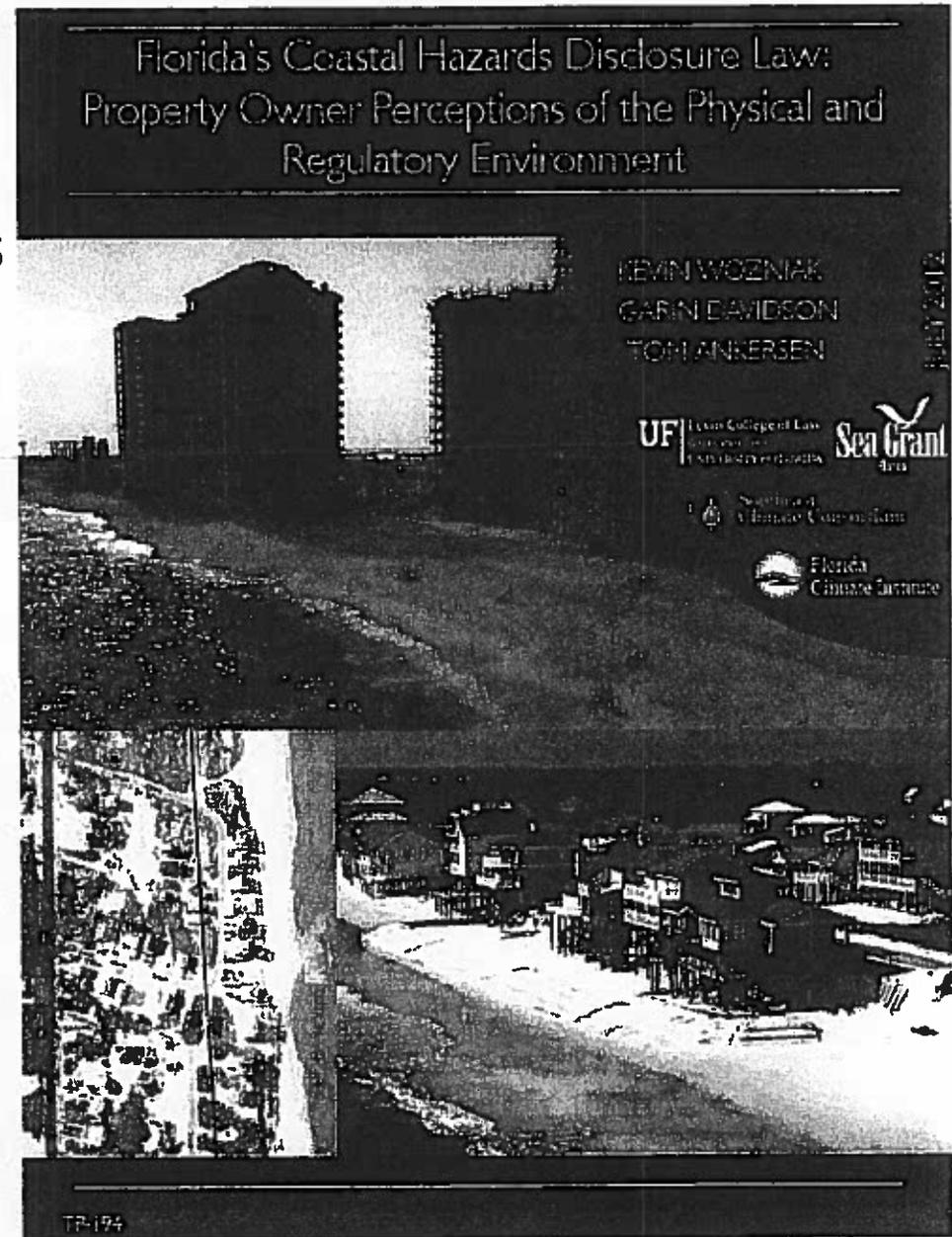


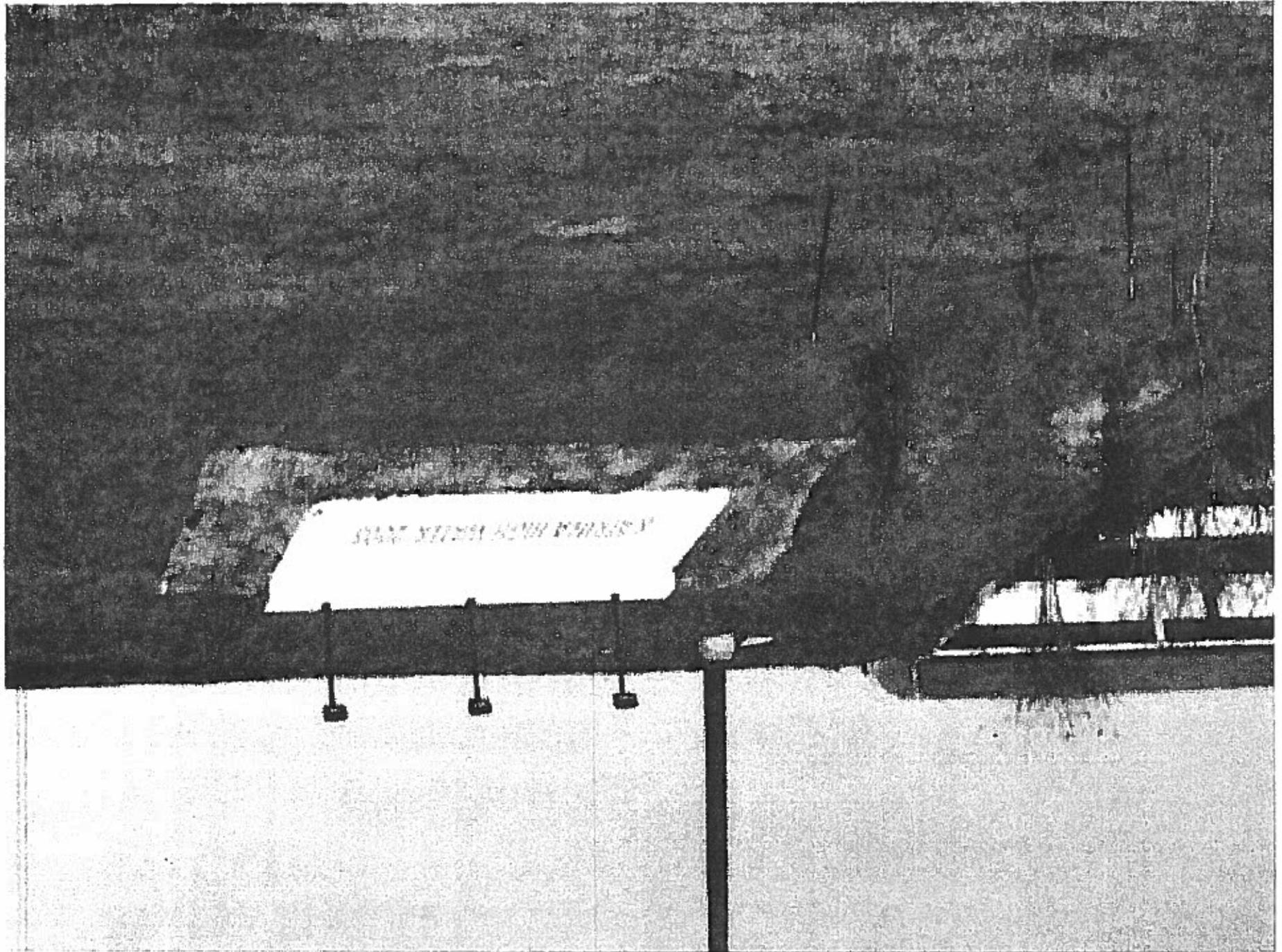




- **Florida Statute §161.57**

“The Legislature finds that it is necessary to ensure that the purchasers of interests in real property located in coastal areas partially or totally seaward of the coastal construction control line as defined in s. 161.053 are fully apprised of the character of the regulation of the real property in such coastal areas and, in particular, that **such lands are subject to frequent and severe fluctuations.**”





Bay St. Louis officials oppose Hurricane Katrina high-water markers on highway

Published: Saturday, July 23, 2011, 9:00 PM



By The Associated Press

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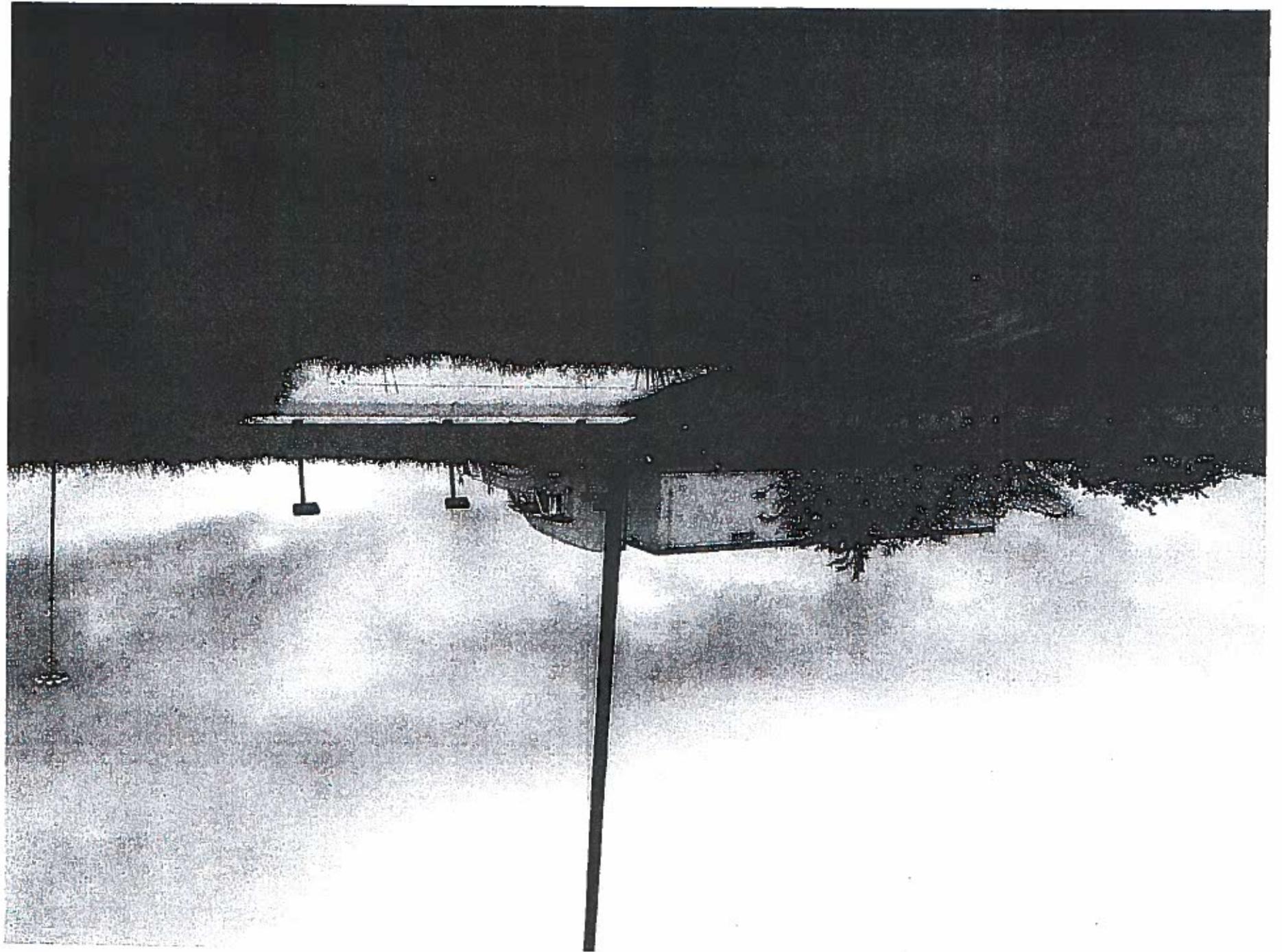
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Print

Bay St. Louis, Miss., officials want **high-water markers** placed by the state at Mississippi Highway 603 and Interstate 10 camouflaged so they no longer commemorate the tragedies of **Hurricane Katrina** in 2005.



The **Sea Coast Echo** reports there are two high-water markers at the intersection, one facing north and the other facing south on Mississippi 603. They were placed there following Katrina to commemorate the area's comeback from the killer storm. In Katrina, water ran up the roadway so



Potential Legal Import of Notice

- ~~*Penn Central's* 3-part analysis~~
- “Reasonable investment-backed expectations”
- How might notice affect expectations????
- “Acknowledgement” not a problem
- Questionable: waiver/release, assumption of the risk, hold harmless

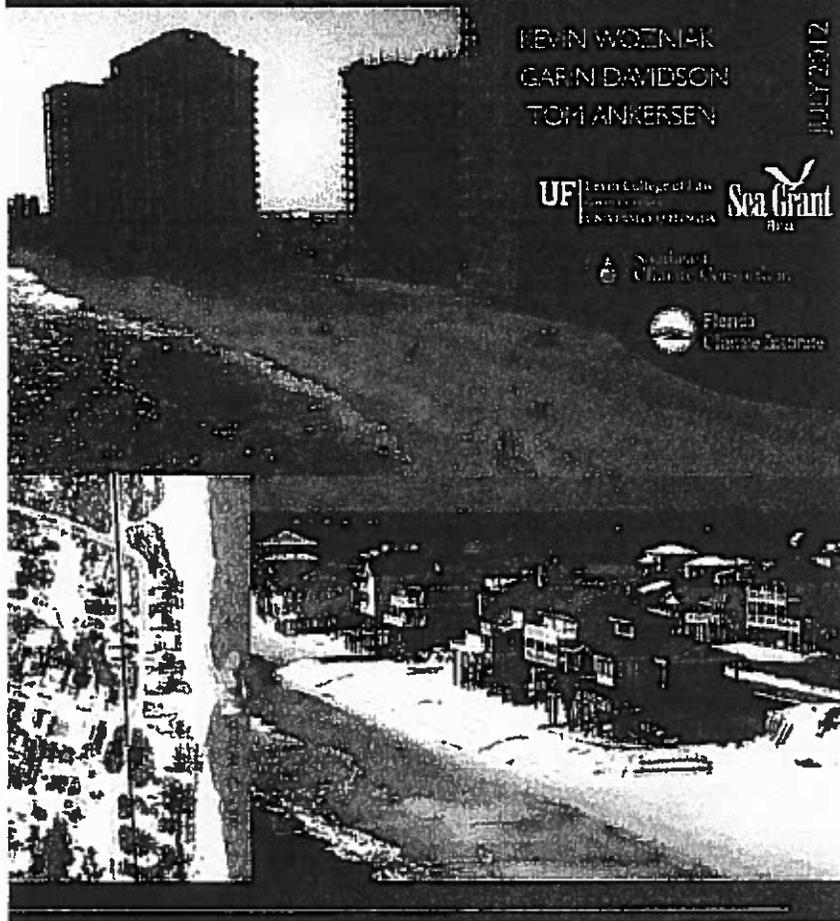
California Coastal Com'n Permits

SPECIAL CONDITIONS

Assumption of Risk, Waiver of Liability and Indemnity

By acceptance of this permit, the applicant acknowledges and agrees (j) that the site may be subject to hazards from bluff and slope instability, erosion, landslides, waves, and sea level rise; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claim, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

Florida's Coastal Hazards Disclosure Law:
Property Owner Perceptions of the Physical and
Regulatory Environment



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JULY 2012

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Sea Grant
Florida

Southeast Coastal Consortium

Florida Coastal Institute

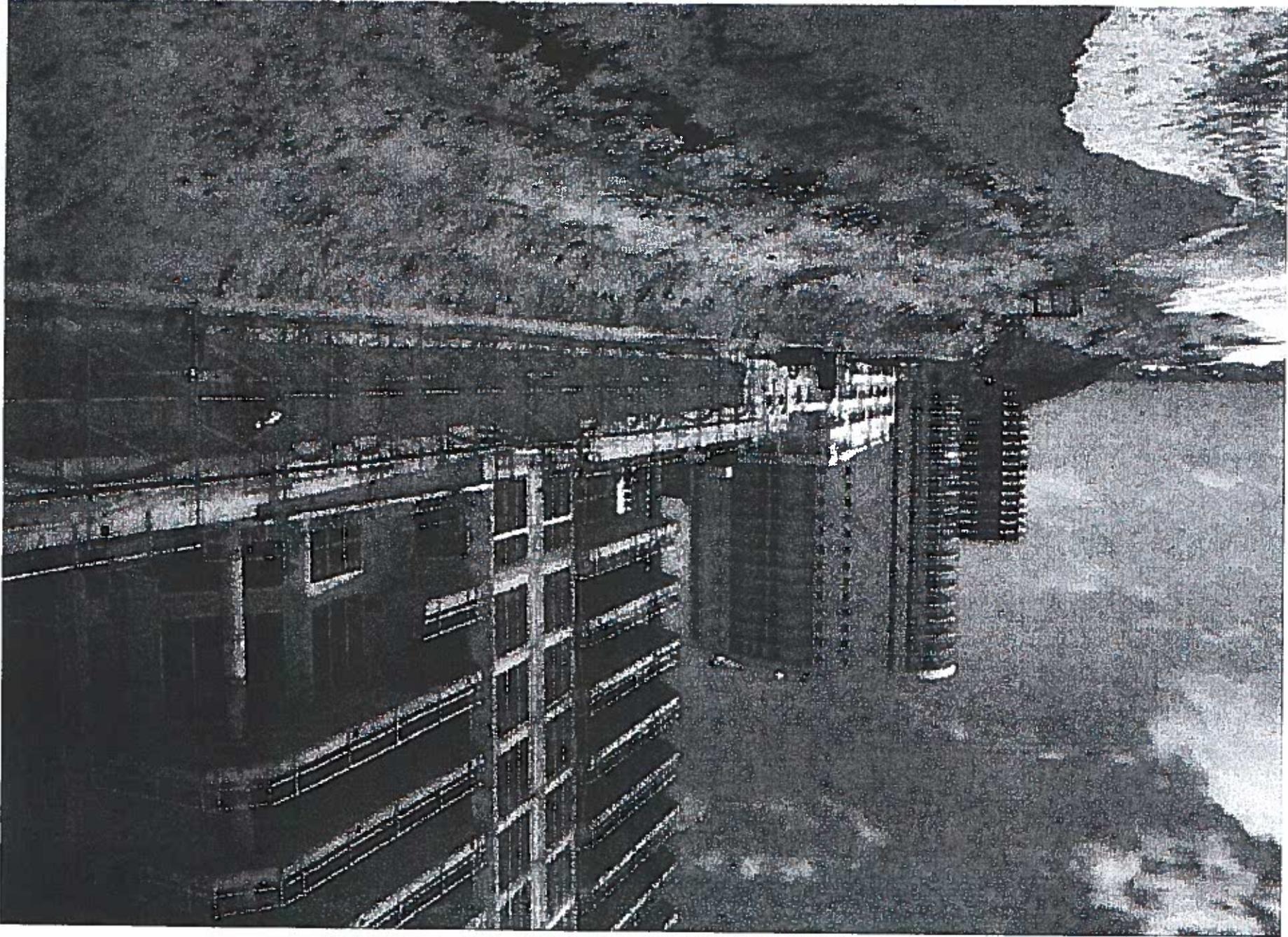
**REASONABLE INVESTMENT-BACKED EXPECTATIONS:
SHOULD NOTICE OF RISING SEAS LEAD TO FALLING
EXPECTATIONS FOR COASTAL PROPERTY PURCHASERS?**

THOMAS RUPPERT*

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Passive Takings: The State's Affirmative Duty to Protect Property

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Inaction as Taking

- Action vs. inaction
 - Negative vs. positive rights
- “Passive takings should arise when property is subject to such regulatory control that the government is understood to be responsible for the resulting harm, whether it acts or not. Or, to put it in affirmative terms, the government should have a constitutional duty to act when it is complicit in creating the conditions that are responsible for harm to property.”

But, the U.S. Supreme Court says. . .

- No legal duty to protect private property other than maybe maintenance of existing infrastructure

 - “Like its counterpart in the Fifth Amendment, the Due Process Clause of the Fourteenth Amendment was intended to prevent government ‘from abusing [its] power, or employing it as an instrument of oppression.’”
 - “[Constitutional protections] generally confer no affirmative right to governmental aid, even where such aid may be necessary to secure life, liberty, or property interests of which the government itself may not deprive the individual.”

DeShaney vs. Winnebago Dept. of Social Services, 489 U.S. 189 (1989)

Is it Fair? -- Reprise

- When there's loss, who should pay?
 - Why?
- What if it requires changing the law?
 - Is it a taking?
- Should the law evolve?
 - When? Why? By what method?

“...when [our current idea of property] emerged in the nineteenth century, it was greeted with considerable dissent and resistance. Far from being timeless, our image of ownership reflects the dominant values and aspirations of the industrial, frontier era. Lawmakers of that era revised ownership norms to help them achieve the development goals that then prevailed.”

-Eric Freyfogle, On Private Property: Finding Common Ground on the Ownership of Land

“At the center of today’s debate [about property] . . . Lies a collective failure on our part to think clearly and intently about the institution [of property], how it works, why it exists, and the many shapes it can take, in terms of landowner rights and responsibilities. . . . In operation, [the right to property] is less an individual right than a tool society uses to promote overall social good. Important truths about this arrangement have largely passed from our collective memory. We need to regain these truths.”

-Eric Freyfogle, *On Private Property: Finding Common Ground on the Ownership of Land*

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**SLR Resources for
Local Governments:
Florida Sea Grant's
Coastal Planning
Website**

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- Financing Options for SLR Adaptation
- SLR Language in Comp Plans
- Bert J. Harris, Jr., Property Rights Protection
- Many other resources.

www.flseagrant.org
[/climatechange/
 coastalplanning/](http://www.flseagrant.org/climatechange/coastalplanning/)



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Example Sea-Level Rise
Language & Case Studies

Insurance Issues

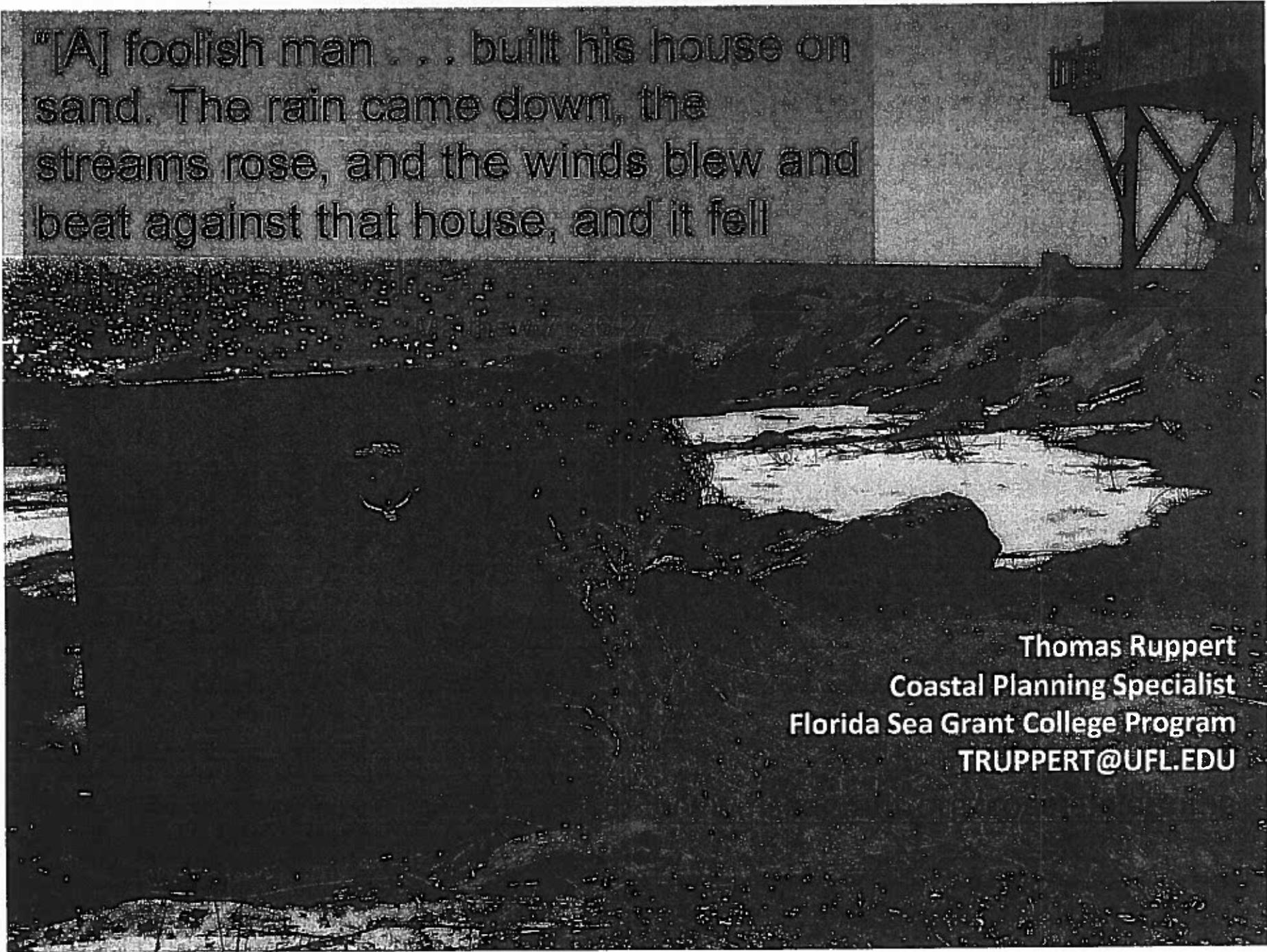
News

Policy Tools

No one-size-fits-all prescription for adapting to sea-level rise is possible for Florida's coastal communities. For example, while a community may have a responsibility to inform people about coastal hazards such as storm surge and sea-level rise, the community will also want to encourage economic development and investment that makes the community resilient and adaptable to the future. Each community needs to

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"[A] foolish man . . . built his house on sand. The rain came down, the streams rose, and the winds blew and beat against that house, and it fell

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