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MICHAEL BAKER CORPORATION

The Confluence of Property Rights and Floodplain Management

March 7, 2008

Edward A. Thomas Esq.

David Mallory PE

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ChallengeUs.

Land Use Regulations Are Local Within A State and Federal Context

The Views Expressed Are Those of the Authors and Do not Necessarily Reflect Approval Of Any Organization.

- **This is Neither Legal Nor Engineering Advice-It is a Lecture on General Principles of Law and Engineering. For Legal Advice see a Lawyer Licensed in Your Jurisdiction.**

Agenda

Part I

Property Rights And Floodplain Management

- Introduction
- Where We Are
- Property Rights and Floodplain Management
- Legal Roots of Floodplain Management
- Flood Insurance, Community Rating System
- No Adverse Impact Floodplain Management

Agenda

Part II

- **The Taking Issue in Floodplain Management**

  Federal Cases

BREAK !!!

Part III

Useful Tools Based On Case Law

Agenda (Continued)

Part IV:

Property Rights And The Constitution In Exile

Part V:

Avoiding A Taking: Discussion

Part VI:

Rapanos Wetland Decision Call For Coordination Among Water Resource Managers

Agenda

Part VII:

Dam And Levee Failure

Part VIII:

How Efforts To Regulate May Be Challenged-The Playbook

Part IX:

Summary Comments

Talking Points

Questions & Comments

Introduction

- **Among of the Most Clear Lessons of The Horrific Aftermath of Hurricane Katrina:**
- **We Need Housing for Employees to Have Businesses and Industry-to Have an Economy**
- **There Is No Possibility of A Sustainable Economy Without Safe Housing and Safe Locations for Business and Industry to Occupy**

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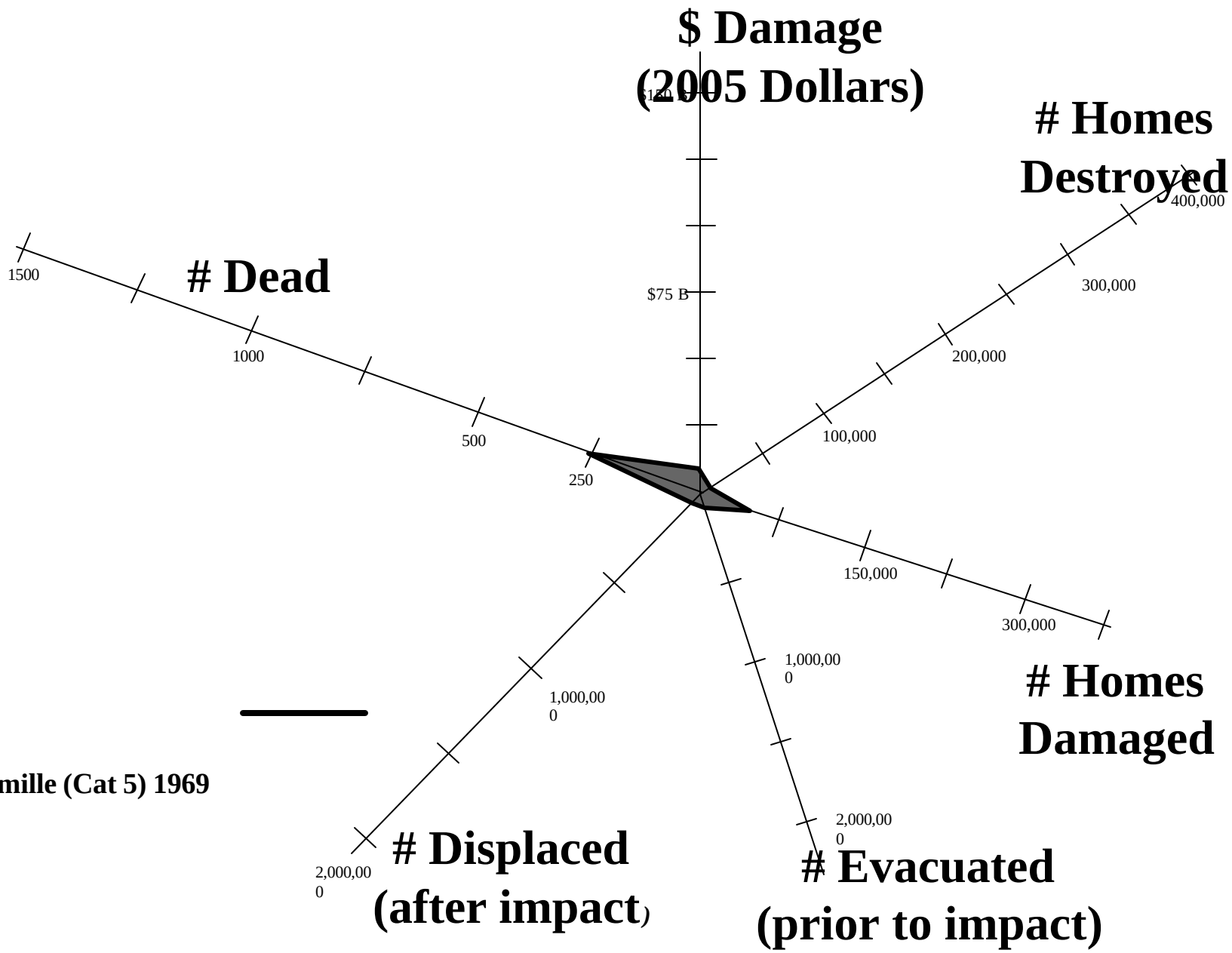
So, Must "Smart-Growth" Have A Foundation in Hazard Mitigation?

- **The Spring 2007 Edition of The Urban Lawyer Contains and Article Which Summarizes the Views of 16 of the Leading Gurus of the "Smart Growth" Movement.**
- **A Total of 135 Separate Principles**
- **None Refer to Hazards Specifically**
- **A Very Few Refer to Protecting Natural Resources**
- **Gabor Zovanyi is the Author; Article is The Role of Smart Growth Legislation in Advancing the Tenents of Smart Growth**

Hurricane Camille



Camille (Cat 5) 1969

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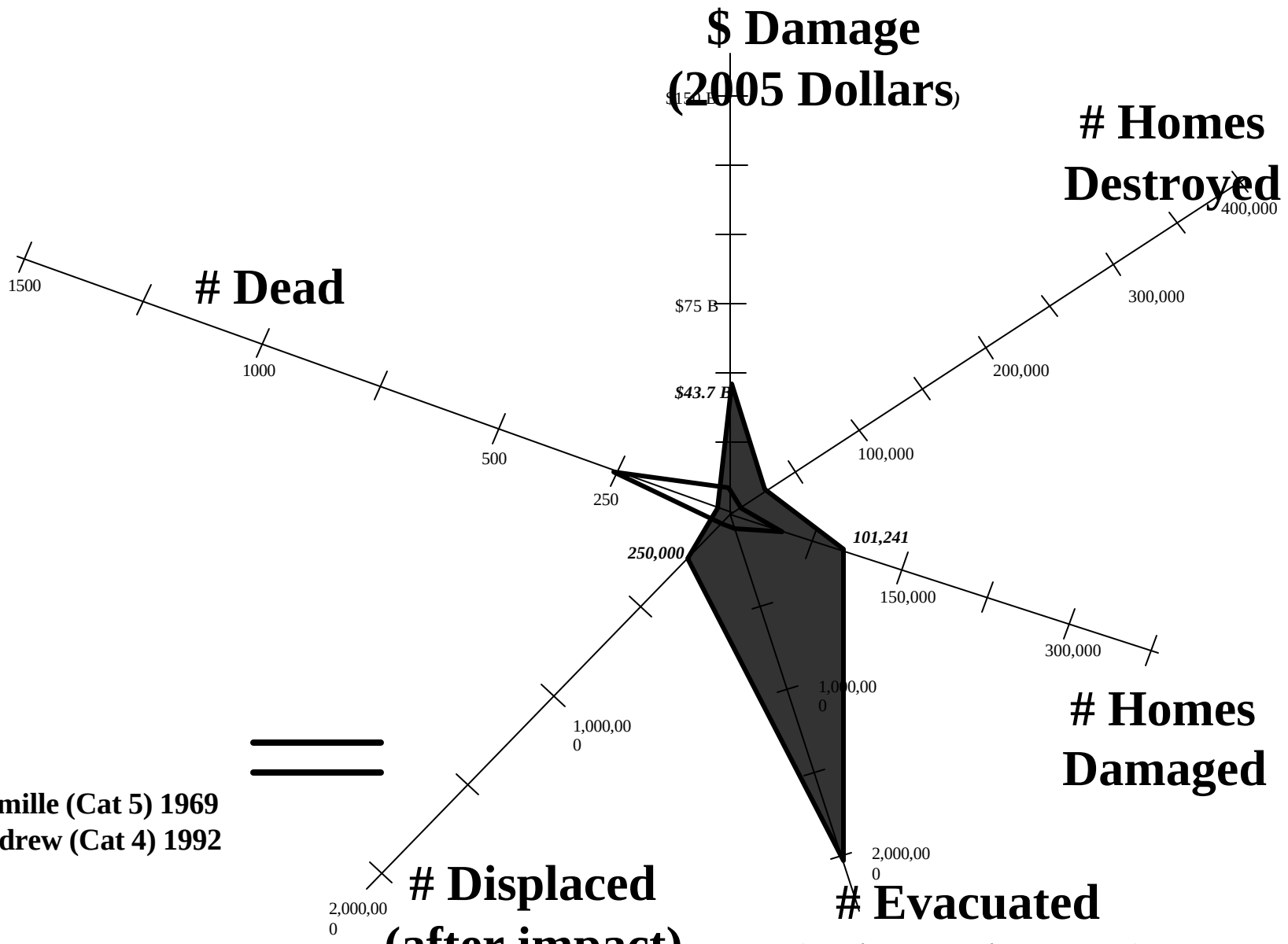
Camille & Andrew



Camille (Cat 5) 1969
Andrew (Cat 4) 1992

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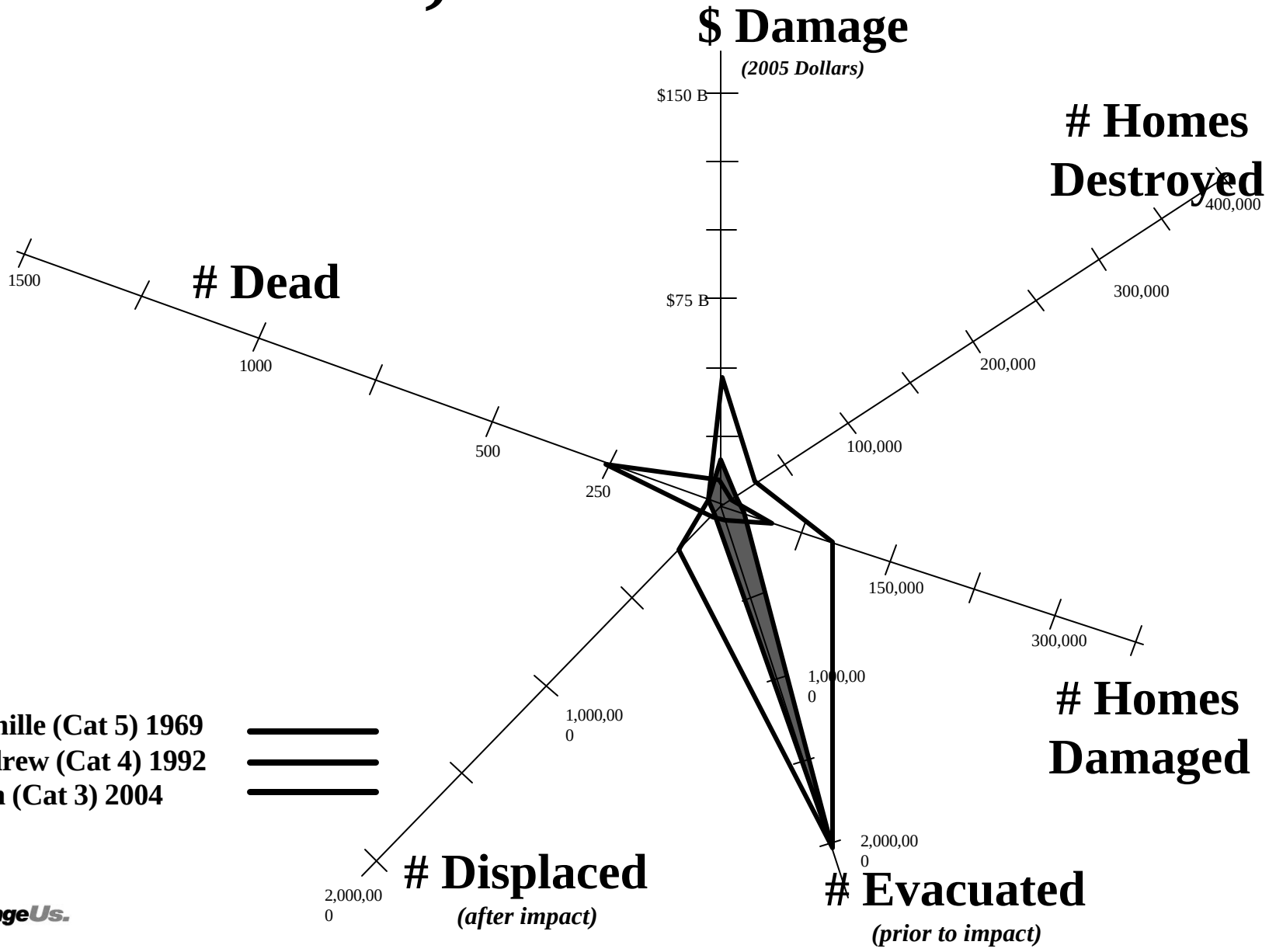
Camille, Andrew and Ivan



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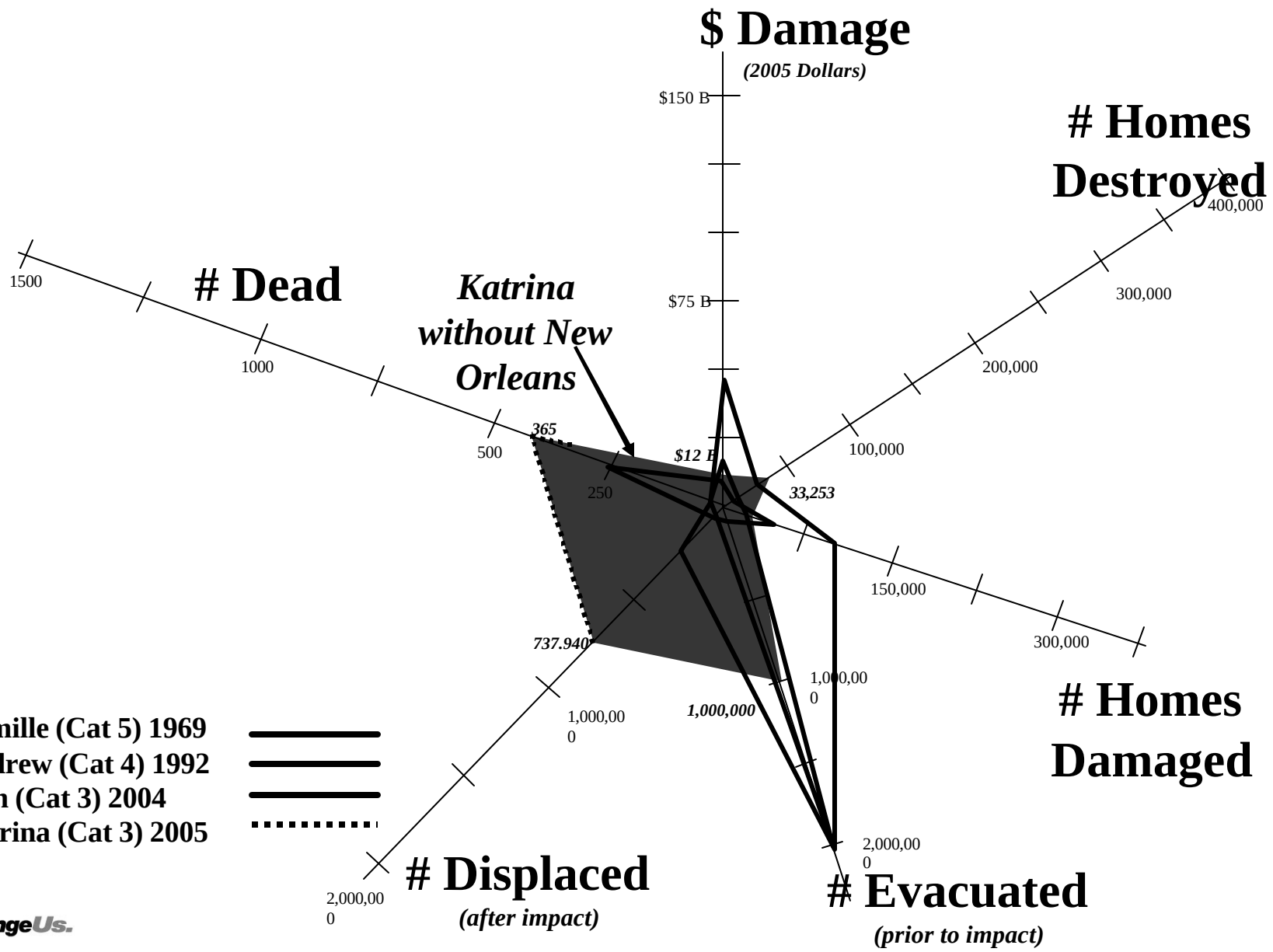
Katrina W/O New Orleans



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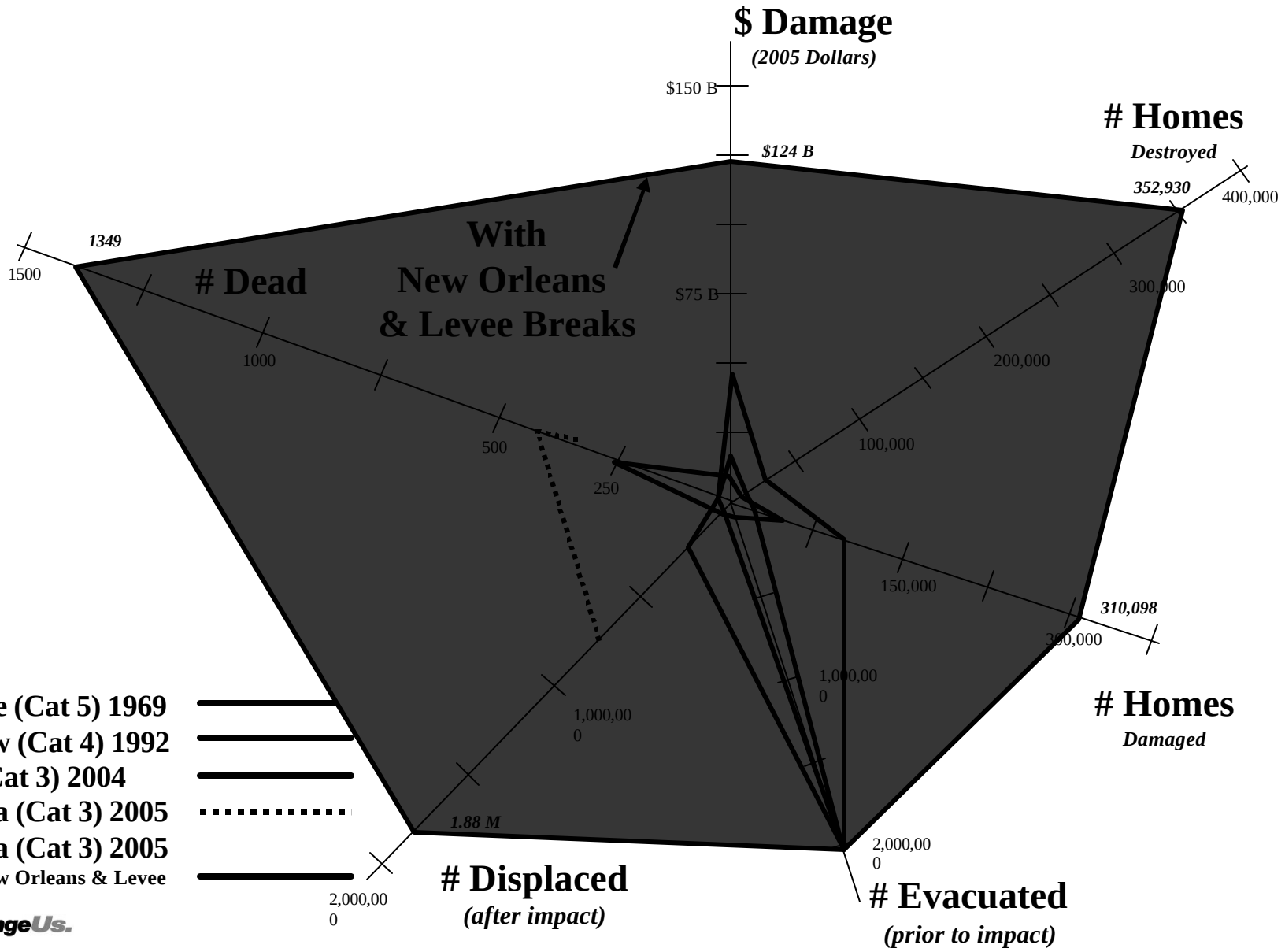
Hurricane Katrina



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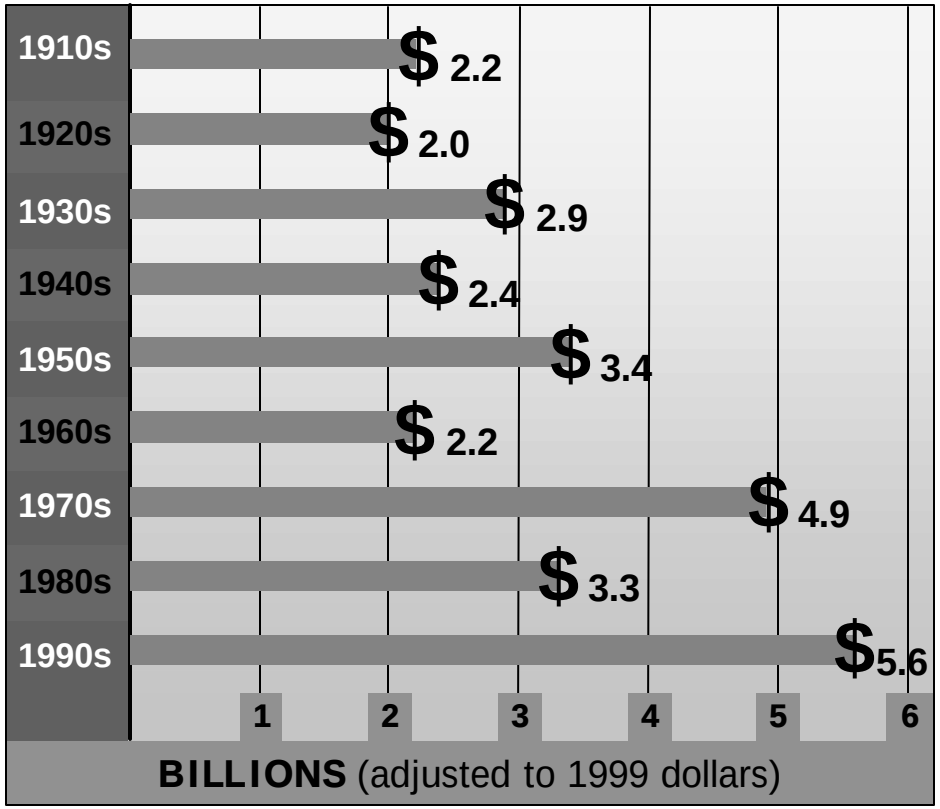
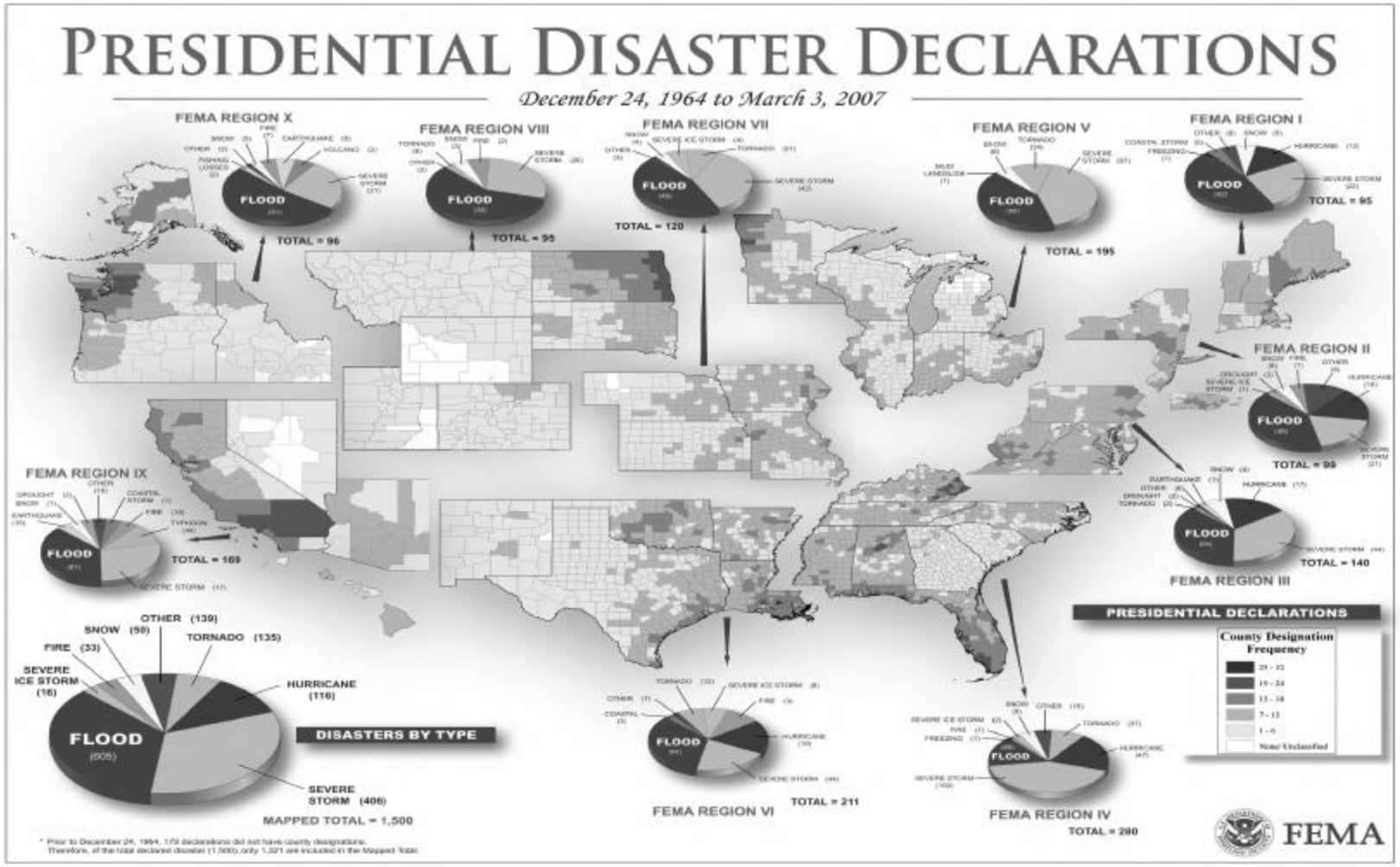
Approximate
(Hours from 1st levee break)
+2
+4
+6
+8
+10
+12
+14
+16
+18
London Ave
East Orleans
17 Street
Industrial Canal
Superdome
Convention Center
0
1
2
3
4
5
6
MILES

Trends in Flood Damages

- $6 billion annually
- Four-fold increase from early 1900s
- Per Capita Damages increased by more than a factor of 2.5 in the previous century in real dollar terms



However In The Rocky Mountain Area. Things Are Not So Bad. Yet!



Central Message

Even if we perfectly implement current standards,

damages will increase.

Remember, we have done a number of positive things, both non-structural and structural, but…
We'll discuss why that is…

Where is the Floodplain?

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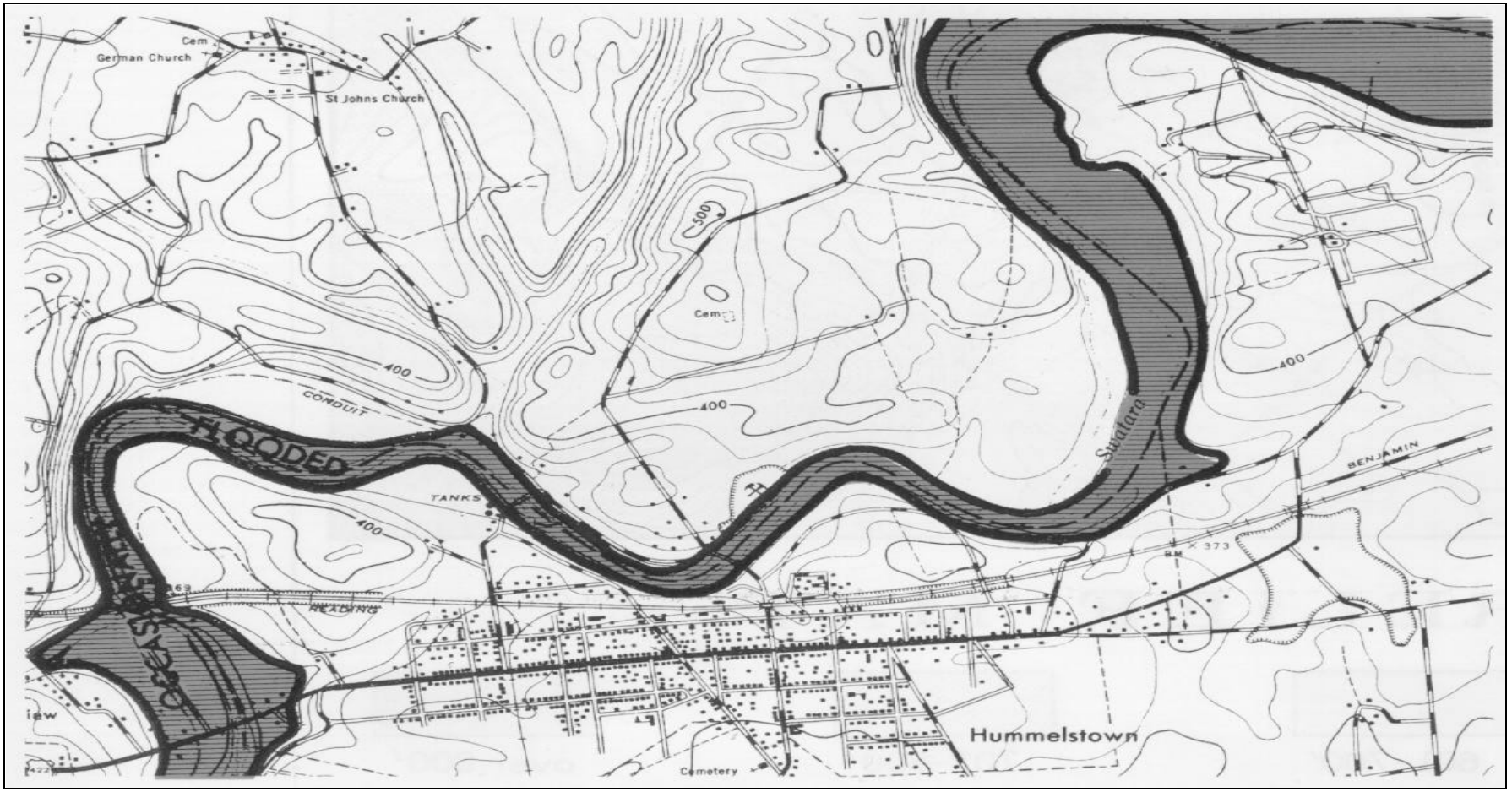
Where is the Floodplain?



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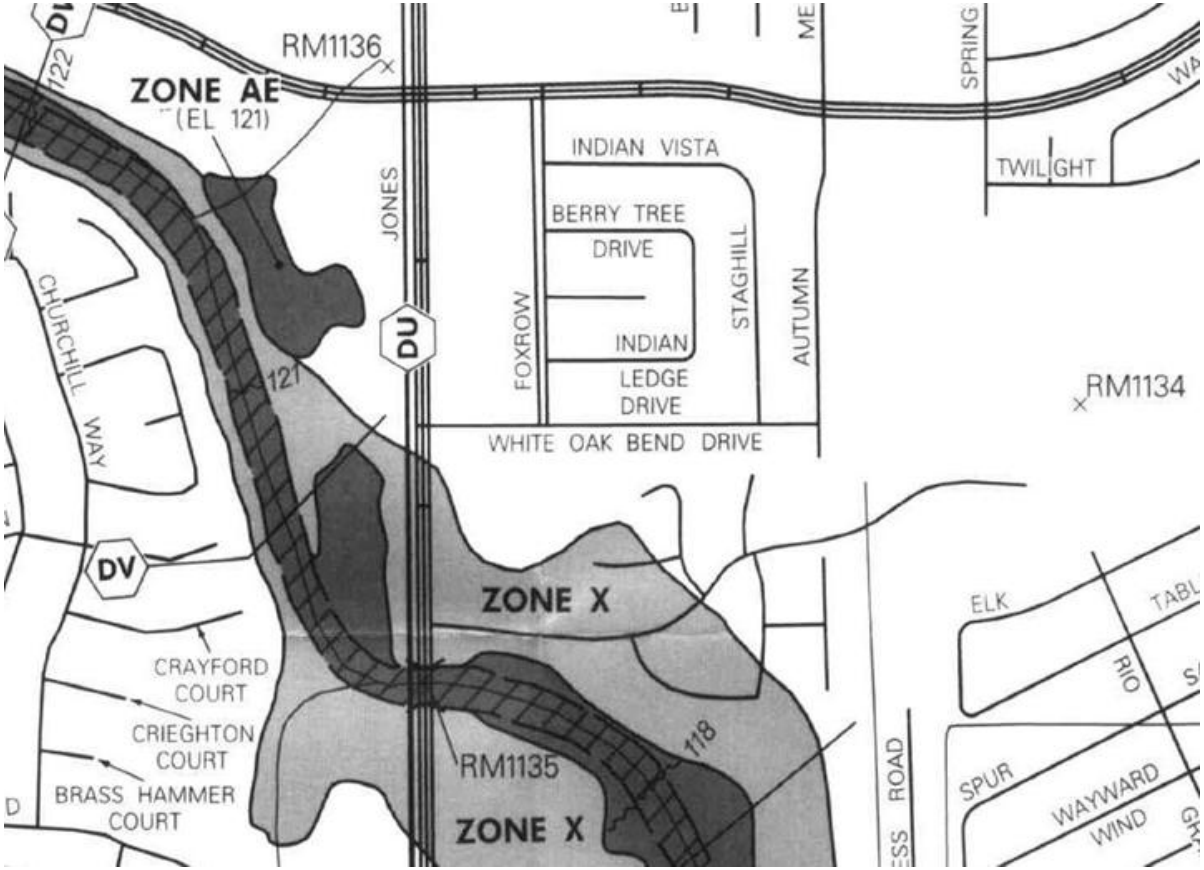
Where is the Floodplain?




Floodplain After Filling

With Full Build Out Flood Heights May Increase Dramatically

- **No Adverse Impact:**
- **A New Direction in Floodplain Management Policy**
- **Larry Larson PE, CFM and Doug Plasencia PE, CFM**
- Published in *Natural Hazards Review Nov. 2001, IAAN 1527-6988*

What is A Watershed?

A watershed is an area of land that drains into a lake or river. As rainwater and melting snow run downhill, they carry sediment and other materials into our streams, lakes, and groundwater. The image below is a watershed illustration.

Watersheds provide water for drinking, irrigation, and streams. Many people also enjoy the lakes and streams for their beauty -- and for boating, fishing, and swimming. Healthy watersheds also provide food and shelter for wildlife.

Demographic Trends: The Future

- As We Move Into the Next Generation Things Will Be **Much More Challenging For Floodplain and Stormwater Managers**
- Dr. Arthur “Chris” Nelson, FAICP
- **Leadership in a New Era**
- “More than half of the built environment of the United States we will see in 2025 did not exist in 2000”

Journal of the American Planning Association,
Vol. 72, No. 4, Autumn 2006.

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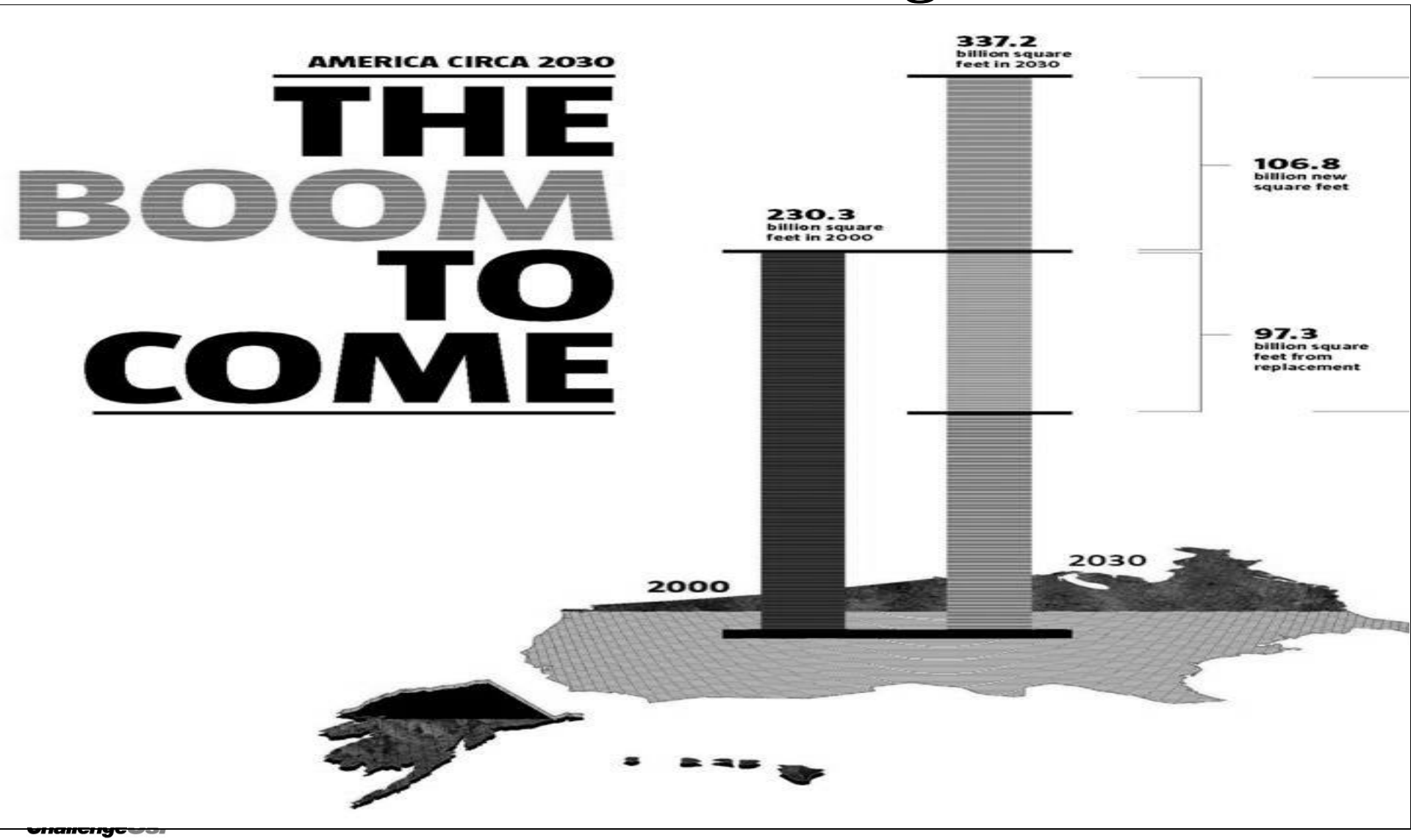
As printed in www.architectmagazine.com.



A Solution

Go Beyond NFIP Minimum Standards:

No Adverse Impact-CRS Type:

Development Decision-making

Planning

Emergency Preparedness

Question One

- **Why are Flood Heights Increasing?**
- **A) Bad Luck;**
- **B) Urbanization, Loss Of Natural Valley Storage, Increasing Impermeable Surfaces in the Watershed;**
- **C) Global Cooling**
- **D) All Of The Above**

Why Go Beyond the Current Minimum Standards?

Flood damages are rapidly increasing unnecessarily!

Current approaches deal primarily with how to build in a floodplain vs. how to minimize future damages

No Adverse Impact Floodplain Management

- **What is No "Adverse Impact Floodplain Management"?**
- **ASFPM Defines it as "…*an Approach that ensures the action of any property owner, public or private, does not adversely impact the property and rights of others*"**

No Adverse Impact Explained

NAI is a concept/policy/strategy that broadens one's focus from the built environment to include how changes to the built environment potentially impact other properties.

NAI broadens property rights by protecting the property rights of those that would be adversely impacted by the actions of others.

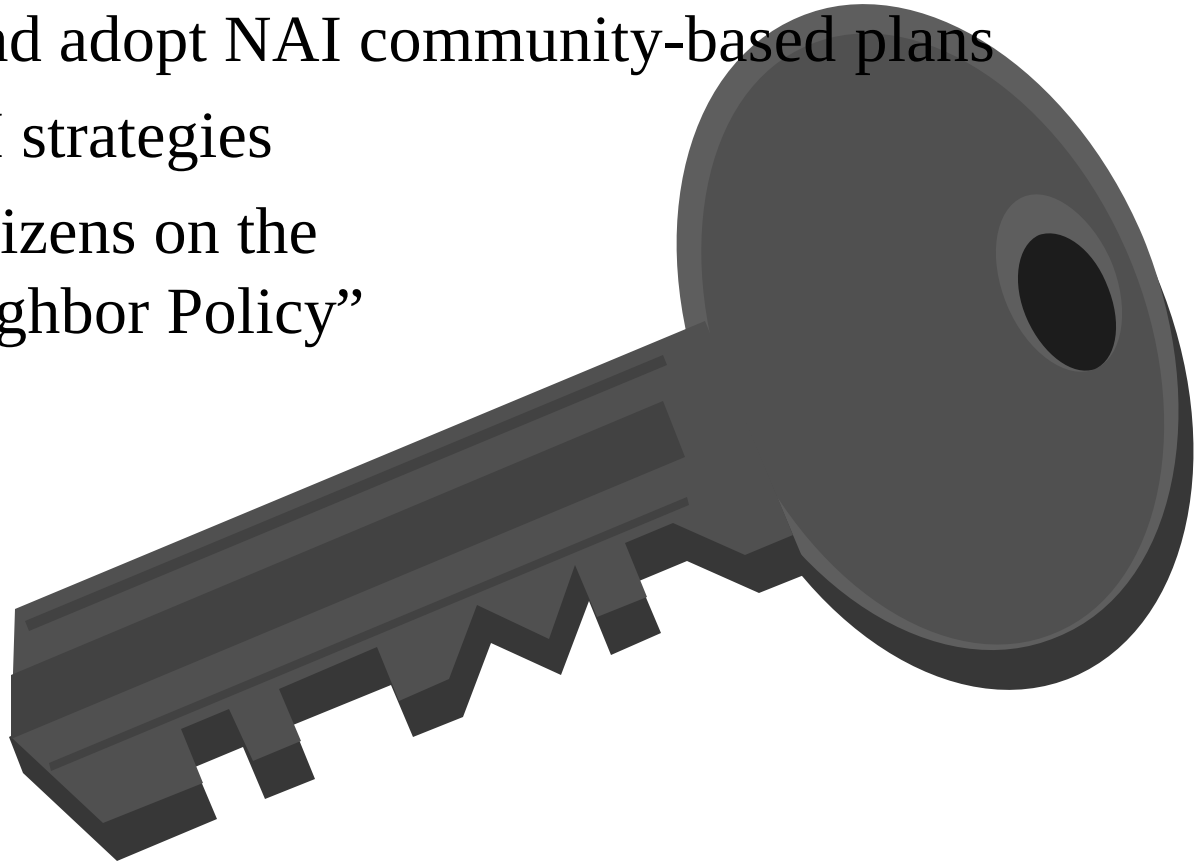
Future Concept

Activities that could adversely impact flood damage to another property or community will be allowed only to the extent that the impacts are mitigated or have been accounted for within an adopted community-based plan.

No Adverse Impact Roles

State, Regional & Local Government Working With the Private Sector Is the Key

- Develop and adopt NAI community-based plans
- Adopt NAI strategies
- Educate citizens on the "Good Neighbor Policy"



How To Follow the No Adverse Impact Principle?

- **Identify ALL the Impacts of a Proposed Development**
- **Determine ALL the Properties Which Will be Impacted**
- **Notify Potentially Affected Persons of the Impact of Any Proposed Development**

How To Follow The No Adverse Impact Principle?

- **Design or Re-Design the Project to Avoid Adverse Impacts**
- **Require Appropriate Mitigation Measures Acceptable to the Community and the Affected Members of the Community**

What Is The Result Of Following The No Adverse Impact Principle?

With NAI, the Persons Who May be Victimized By Improper Development Are Made Aware and Can Have their Concerns Voiced to Community Officials.

- **Really Turns the Usual Development Process Around!**

What Is The Result Of Following The No Adverse Impact Principle?

- **PROTECTION OF THE PROPERTY RIGHTS OF ALL**
- **Legally Speaking, Prevention of Harm is Treated Quite Differently Than Making the Community a Better Place.**
- **Prevention of Harm to the Public Is Accorded Enormous Deference by the Courts.**

No Adverse Impact Floodplain Regulation

- **Consistent with the Concept of Sustainable Development**
- **Provides a Pragmatic Standard for Regulation**
- **Complements Good Wetland and Stormwater Regulation**
- **Makes Sense on a Local and Regional Basis**
- **May be Rewarded by FEMA's Community Rating System, Especially Under the New CRS Manual.**

No Adverse Impact Floodplain Management

- **New Concept?**
- ***"Sic utere tuo ut alienum non laedas"***
- **Detailed Legal Paper by Jon Kusler and Ed Thomas available at: *www.floods.org***
- **More Information in ASFPM**

  A Toolkit on Common Sense Floodplain Management at: www.floods.org

Question For The Group

- **Anyone Ever Hear Of Mohandas K. Gandhi? He Was:**

  A) One Of The Great Moralists of The Twentieth Century.

  B) A British Trained Attorney-At-Law.

  C) A Tremendous Influence On The Philosophy Which Guided Dr. Martin Luther King.

  D) All Of The Above.

According To Gandhi's Writings

- ”***Sic Utere Tuo Ut Alienum Non Laedas***” That Is, In English: **Use Your Property So You Do Not Harm Others Is**:
- **“ A Grand Doctrine Of Life And The Basis Of (Loving Relationships) Between Neighbors”**
- **The Concept Of Using Property So It Does Not Harm Others Is Important To Discussion Of Dam And Levee Liability And Design.**
- **This Concept Will Also Help Us Understand How To Proceed In The Future, As We Shall See**

Who else Likes *Sic Utere*…?

- **Montana Supreme Court**
- **Fordham v. Northern Pacific Railway, 30 Mont.421, 76 P.1040 (1904)**
- **Ancient Rule of Common Law Imposes "no undue hardship…."**

Great Montana Case On Equitable Relief

- ***Wells v. Young*, 2000 ML 2338, 2000Mont. Dist. Lexis 2526 (2000)**
- **Irrigation Water Seeps Across Fields Into Home, Causes Damage**
- **Montana State Law Bars Recovery of Damage**
- **Equitable Relief-Stop All Irrigation Until You Show Court Problem Seepage Fixed**

Part II

- **The Taking Issue in Floodplain Management**

What is a Taking?

Federal Cases

The Constitution of the United States

- **Fifth Amendment to the Constitution:** ***"…nor shall private property be taken for public use without just compensation."***
- **Was this Some Theoretical Thought, or Passing Fancy?**
- **Which Part of this Directly Mentions Regulation?**
- ***Pennsylvania Coal Company vs.Mahon 260 US 293 (1922). But See, Keystone Coal 480 US 470, 1987.***

Increase in Cases Involving Land Use

- **There Has Been a Huge Increase in Taking Issue Cases, and Related Controversies Involving Development**
- **Thousands of Cases Reviewed by Jon Kusler, Me and Others.**
- **Common thread? Courts Have Modified Common Law to Require an Increased Standard of Care as the State of the Art of Hazard Management Has Improved.**

Why Should Government Do Something About This?

Fundamental Duty

Protect The Present;

Preserve A Community's Future

Why Else Should Government Do Something About This?

- **In a Word: Liability**
- **Neat Article on Current Litigation in Nebraska**

How Can You Best Avoid These Friendly Lawyer Folks?

Floods and Litigation

- **When Someone Is Damaged by the Actions of Others Who Pays?**

- **This is a Fundamental Question Of Law.**

There Are Only Three Ways For Someone To Rebuild Following Damage

A. **Self Help -**Loans-Savings-Charity Neighbors
B. **Insurance** Disaster Relief Is usually a Combination of Social Insurance and Self Help
C. **Litigation**

Insurance

Insurance – The "What When" Tool

Usually Very Positive

- It can help reduce economic misery.
- It can provide a temporary "fall-back position" while a levee is being improved.
- It is a partial solution to residual risk.

Insurance Does Have Negatives

- For the NFIP, insurance drives the 100 year standard which may be inadequate for levees.

Insurance

Insurance It doesn't work unless it is purchased.

- **Outreach/awareness/risk perception**
- **Mandatory:**
  - **Notification?**
  - **Purchase?**

- **Beyond the Federal Flood Insurance Levees Are A Concern**
  - **Benefits of Private - "Excess Insurance"**
    - **Actuary based**
    - **Promotes awareness among the "captains of industry"**
  - **Business Interruption Insurance**
  - **Public Facilities?**

Overview Of Liability

Who Can Sue A Community/Levee Owner/Operator/Public Official Involved in Developing a Building Which Later Floods?

Almost Anyone

A. Employees

B. The Public

C. Sub-dividers

D. Contractors

E. Employer

F. Any Additional Ideas From You Folks?

Grounds For Suit

- **Standard of Care for Professionals Is Increasingly High As Professionals Develop Increasingly Sophisticated Design Methods**
- **Previously Accepted Defenses Such As the Common Enemy Doctrine for Flood Fighting is Increasingly Replaced By “Rule of Reasonable Person”**
- **The “”Reasonable Person is Expected To Be An Expert When We Are Discussing Something Land Use**

Proof Of Causation Of Harm Is Easier Now Than In Past Times

- Forensic Hydrologists

- Forensic Hydraulic Engineers

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Legal Issues: Professional Liability For Construction in Hazardous Areas

- **Excellent Paper By Jon Kusler PhD, Esq. Is Now Available**
  - **Located At www.floods .org**

- **http://www.floods.org/PDF/ASFPM_Professional_Liability_Construction.pdf**

- **Prepared For The Association Of State Floodplain Managers Foundation**

Web Cast on Professional Liability

- **March 4, 2008**
- **Sponsored by American Council of Engineering Companies (ACEC)**
- **Presented by Dr. Jon Kusler Esq. and Ed Thomas**
- **Floodplain Management Associations Which Advertise this Event Get ACEC Member Rate**

Why Should Government Do Something About This?

Liability

Fundamental Duty

Protect The Present;

Preserve A Community's Future

Lincoln, Nebraska

Flooded Homes May Cost City Millions
City Held Liable-Damages Still To Be Determined

Photo-Lincoln Star Journal

From California January 2008

- **Lawsuit seeks $1 billion in Marin flood damage** The plaintiffs - 265 individuals and businesses - are each seeking $4 .25million in damages
- **Lawyers representing the victims could collect more than $66 million in fees.**

Lawsuit seeks $1 billion for Marin flood damage

Government agencies blamed for failing to prevent disaster

By Ted Whitaker
IJ reporter

Victims of last winter's devastating flood in Marin are seeking more than $1 billion in damages from a laundry list of government agencies that they say share blame for the destruction.

The plaintiffs — 286 individuals and businesses — are each seeking $4 million in damages and another $250,000 in legal fees, according to lawyer Herb Rowland, who is defending San Anselmo. Lawyers representing the victims could collect more than $66 million in fees.

The scope of the lawsuit, first filedlast fall, and the cost to fight it have rankled some officials who believe the flood — which began on Dec. 31, 2005 — was the result of unique circumstances. The storm damaged about 1,200 homes and 200 businesses.

Lawrence Mann, one of the attorneys representing the plaintiffs, said the goal is to win the maximum allowed by each entity's insurance policy so the settlement does not affect municipal budgets. Officials have estimated that total damage exceeded $110 million, although Mann puts it above $300 million. He said some of his clients have expressed interest in directing at least a portion of the proceeds toward flood solutions.

"Most people would like to see some of the money used to prevent flooding," he said.

Supervisor Hal Brown, whose district covers much of the flooded area, laughed when asked about people donating settlement money toward flood repairs.

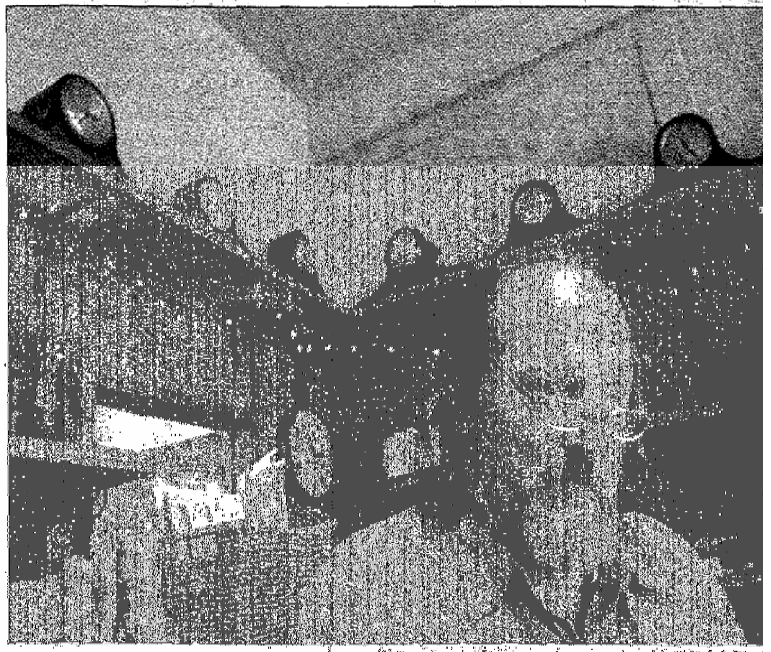
"That is me but human nature," he said. "I think there are more positive directions to go in."

See Lawsuit, page A7

LAWSUIT
The suit resulted from the Dec. 31, 2005, flood that damaged about 1,200 homes and 200 businesses in March.

PLAINTIFFS
A total of 286 residents and businesses.

DEFENDANTS
Those being sued include: San Anselmo, Mill Valley, Ross, Fairfax, Corte Madera, Larkspur, Marin County, the Marin Municipal Water District, the state of California, the Ross Valley Sanitary District, Tamalpais Union High School District and the Marin County Flood Control and Water Conservation District.



IJ photo/Frances

SUES: Drew McEachern of San Anselmo, owner of Antique Timepieces, is among those merchants joining a class-action lawsuit against numerous public agencies over the flood on Dec. 31, 2005. McEachern said "I say (agencies' that is agencies didn't do enough to prevent a recurrence of the 1982 flood that also damaged his property.

City Of Half Moon Bay, California November, 2007

City Liable for Nearly $37,000,000 Under the Federal and State Takings Clauses, as Well as the Common Law Doctrines of Nuisance and Trespass, for Constructing a Storm Water Drainage System Which Flooded Someone

Fernley, Nevada

- **“Class-action lawsuit updated in Fernley flood case”**

- **“The lawsuit names the Truckee-Carson Irrigation District,, Lyon County, the city of Fernley, and companies that built and sold homes in the area flooded when a storm-swollen irrigation canal ruptured”**
  Nevada Appeal, 1/26/08

California Law Changes

1986 Sacramento River Flood

1 levee rupture

+ 50,000 people evacuated

+ 9,000 families left homeless

+ 29 counties declared

+ $532 million in damages

+ almost 2 decades of litigation

Photographer: Geoff Fricker

= Paterno, A landmark court decision in 2003

Damages $464 Million

Taking Lawsuit Results

- **Regulations Clearly Based on Hazard Prevention and Fairly applied To All: Successfully Held to be a Taking -Almost None!**

- **Many, Many Cases where Communities and Landowners Held Liable for Harming Others**

Examples of Situations Where Governments May Be Held Liable

- Construction of a Road Blocks Drainage
- Stormwater System Increases Flows
- Structure Blocks Watercourse
- Bridge Without Adequate Opening
- Grading Land Increases Runoff
- Flood Control Structure Causes Damage
- Filling Wetland Causes Damage
- Issuing Permits for Development Which Causes Harm to a Third Party

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In These Examples Of Community Legal Liability For Permitting Or Undertaking Activity

Is There A Theme?

YOU BET!!!

What is that Theme?

The Theme

- **They did not do No Adverse Impact Planning!!!**
- **They Did Not Identify the Impacts of the Development Activity**
- **They Did Not Notify the Soon- to- Be Afflicted Members of the Community**
- **They Did Not Re-Design or Re-Consider the Project**
- **They Did Not Require Appropriate and Necessary Mitigation Measures**

Landowner Does Not Have All Rights Under The Law

- No “Right” to be a Nuisance
- No “Right to Violate the Property Rights of Others
- No Right to Trespass
- No Right to be Negligent
- No Right to Violate Laws of Reasonable Surface Water Use; or Riparian Laws
- No Right to Violate “Public Trust”

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Montana Case Mentions Water Trespass & Taking

- ***Wine v. Northern Pacific RR*, 48 Mont. 200 (1913)**
- **"The placing of an obstruction in a natural watercourse in such a way as to cause water to leave the channel and flood and injure the lands of a riparian owner is trespass…rendering the person responsible for the obstruction liable for the damage suffered…it is not necessary…to prove negligence."**
- **Obstruction of watercourse is a "*nuisance per se*"**
- **"The flooding of private lands is a taking…."**

Public Entities Do Not Have The Right To Do Just Anything Either!

- No Right to Use Public Office To Wage Vendettas
- No Right To Abuse the Public
- No Right To Use Regulation To Steal From a Landowner

Can Government Adopt Higher Standards Than FEMA Minimums?

- **FEMA Regulations Encourage Adoption of Higher Standards-"…any flood plain management regulations adopted by a State or a community which are more restrictive than (the FEMA Regulations) are encouraged and shall take precedence." 44CFR section 60.1(d). (emphasis added)**

Montana Has Higher Standards

- **Two Feet of Freeboard**
- **Floodway Calculated on a .5 Foot Rise Rather Than a 1 Foot Rise**

Might You Wish To Consider Even Higher Standards?

- **Consider:**

  A) Uncertainties in Flood Elevations

  B) Plasencia- Larson Paper On Flood Height Increases Due To Future Watershed Development

  C) Consequences If Water Control Facility Is Overtopped

  D) Height of Freeboard

  E) 50% Chance That 1% Flood Will be Exceeded Within 70 Years-Bulletin 17 B

Governmental Rights and Duties to Manage Development

- **Does Government Have a Right to Regulate to Prevent Harm?**

- **Does Government Have an Affirmative Duty to Regulate to Prevent Harm?**

Remember the Slide At The Beginning Of This Section: The Constitution of the United States

- **Fifth Amendment to the Constitution: "…*nor shall private property be taken for public use without just compensation.*"**

- **Recent Supreme Court Cases Help Us Understand This Clause**

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Recent Major Federal Court Cases

- **San Remo Hotel v. City and County of San Francisco**, ***U.S. Supreme Court No. 04-340 decided June 20, 2005.***
- **Kelo v. New London**, ***US Supreme Court, No.04-108, Decided June 23, 2005***

,

Susette Kelo

Susette Kelo's House

Extremely Important US Supreme Court Case on Takings

- **Lingle v. Chevron, *US Supreme Court No. 04-163 Decided May 23, 2005***

Here Is The Gas Station In Lingle

In Lingle, The Supreme Court States How To Determine If There Is A Taking I

Physical Intrusion *See, Loretto v. Teleprompter Manhattan 458 US 419 (1982);*

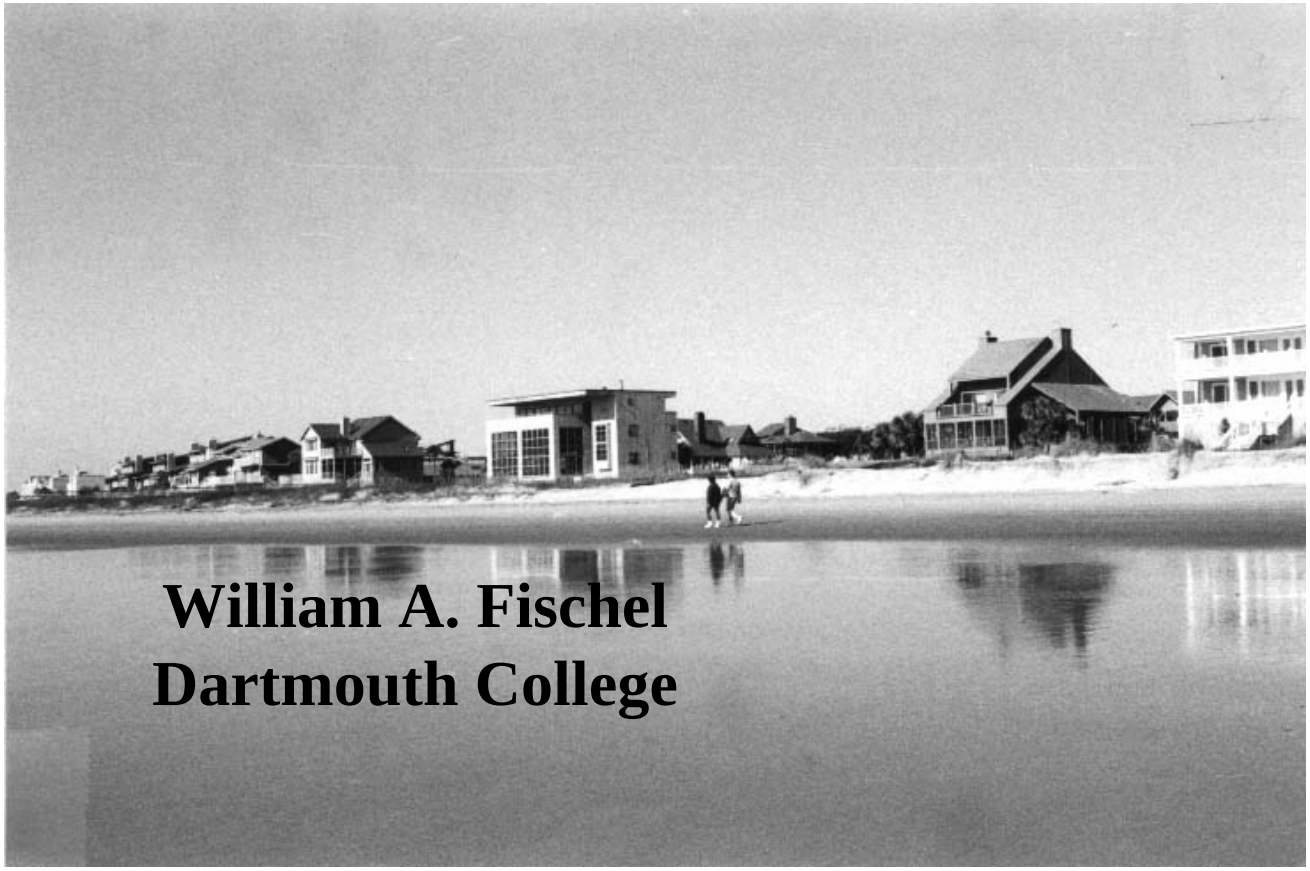
Loretto Apartment Building:

Physical Intrusion

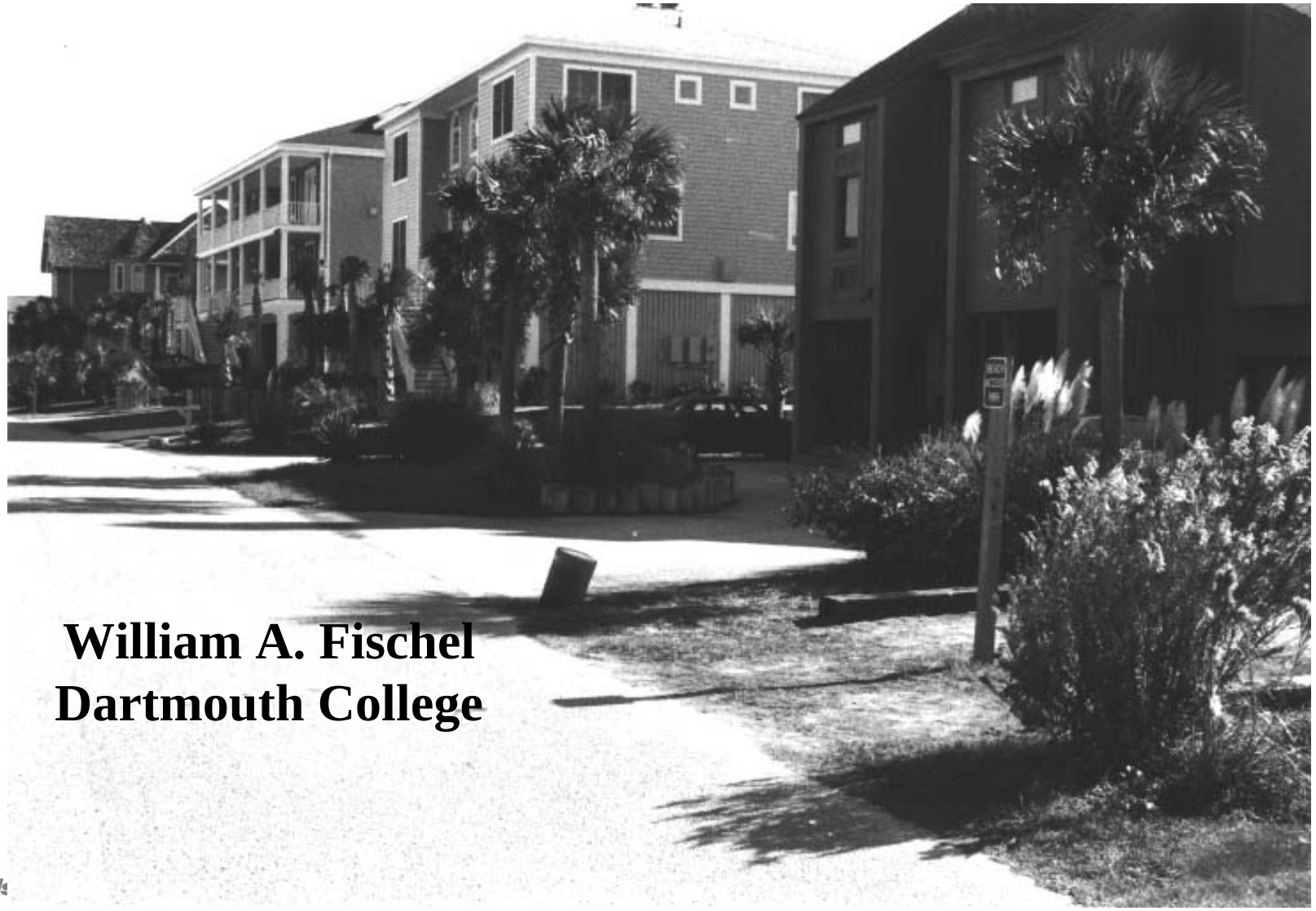
In Lingle, The Supreme Court States How To Determine If There Is A Taking II

Total, or Near Total Regulatory Taking. ***See, Lucas v. South Carolina Coastal Council 505 US 1003 (1992);***

Lucas Sites Pre-Development

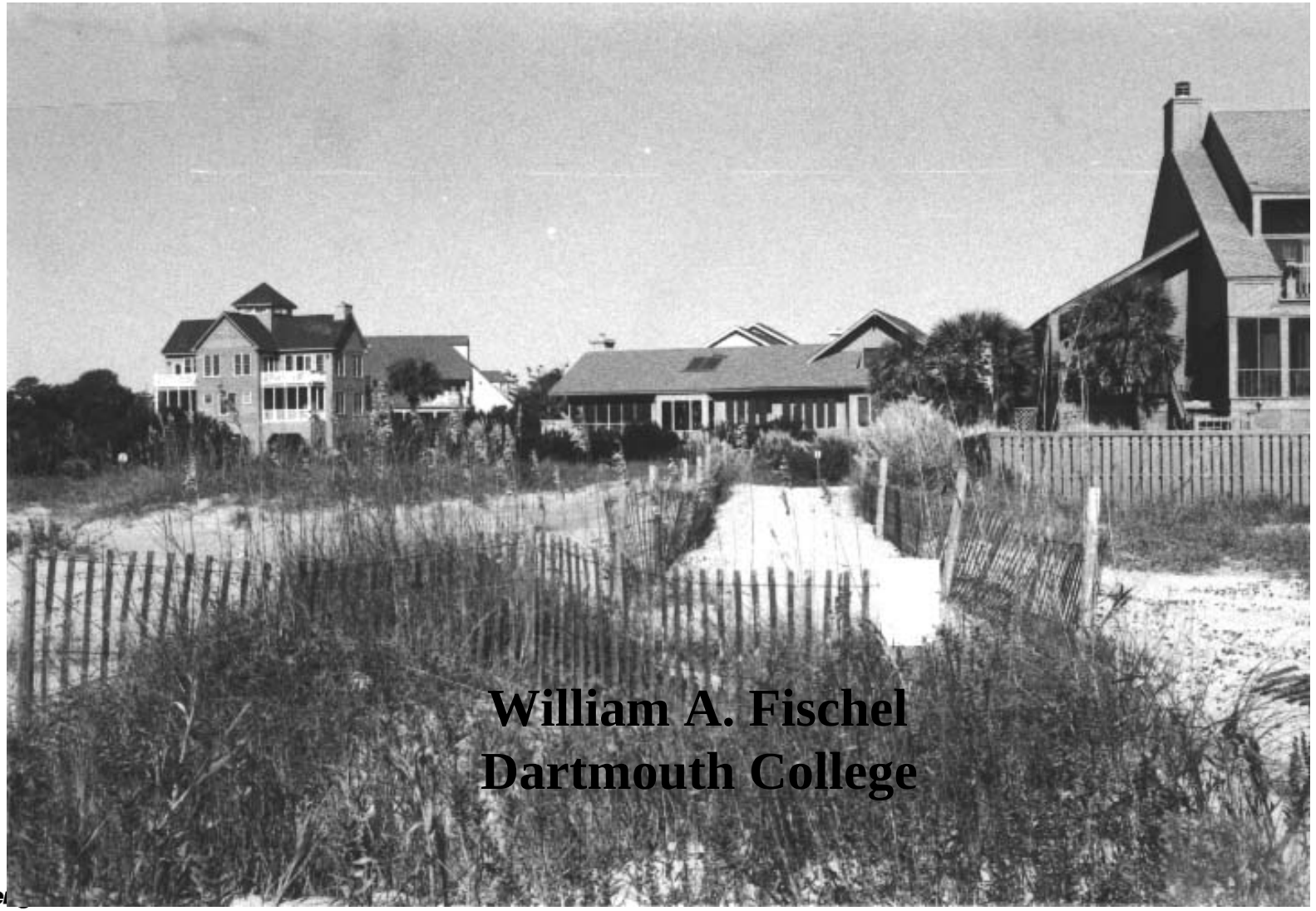


Lucas From Street

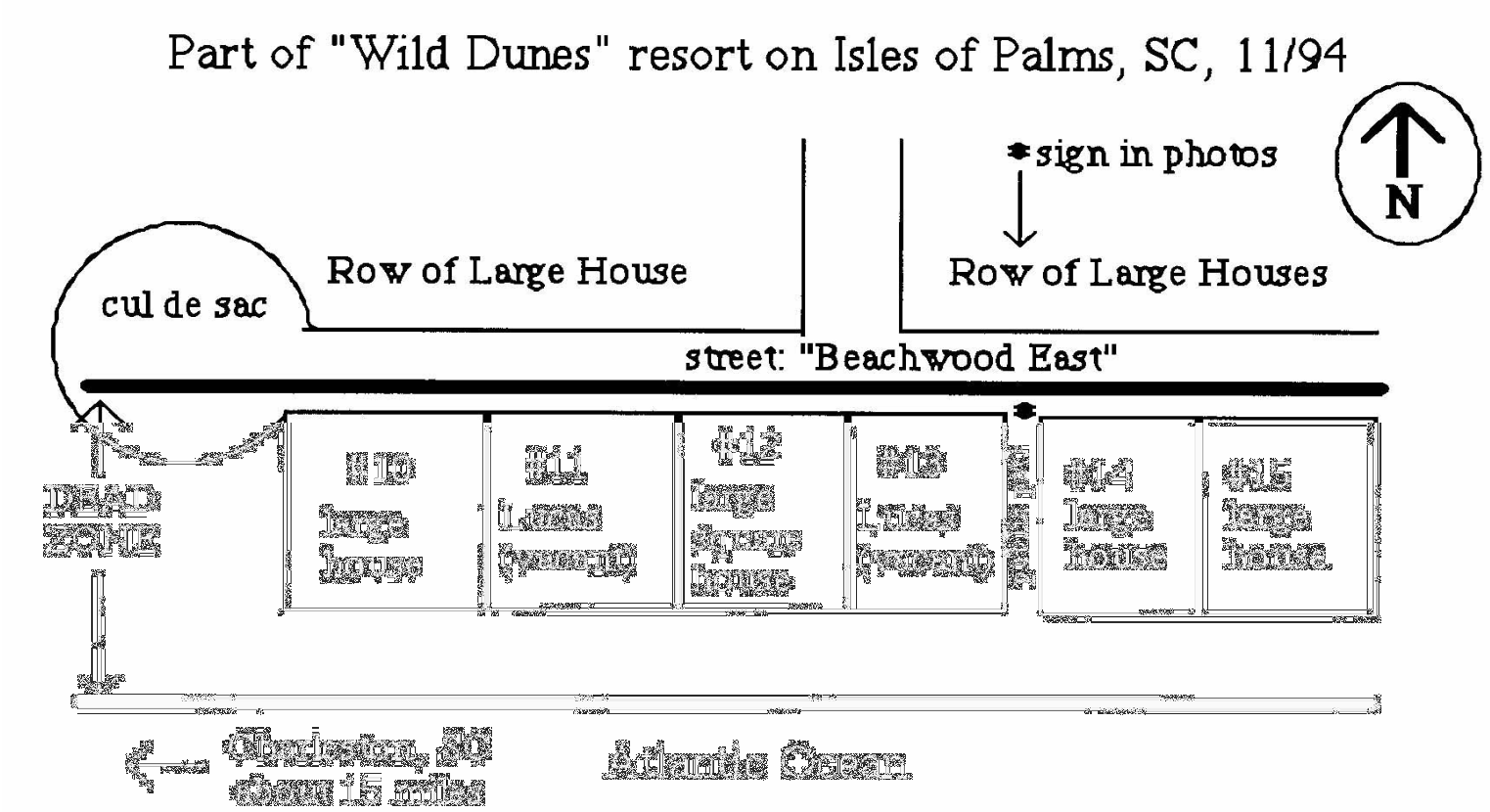


William A. Fischel
Dartmouth College

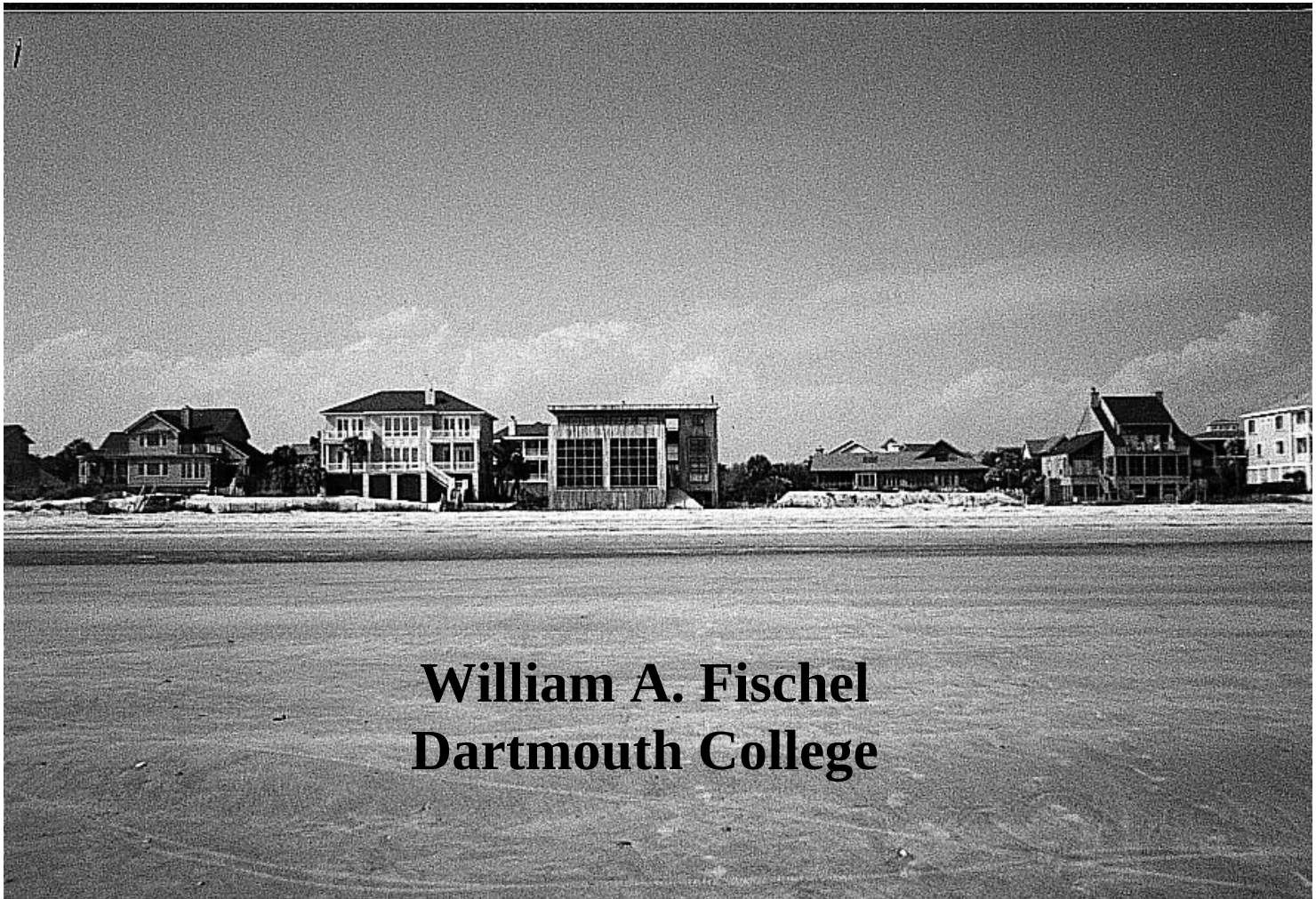
Lucas Area



Lucas Extinguishing Legitimate Investment Backed Expectations



Lucas Post Development Of One Lot; Now Both Lots



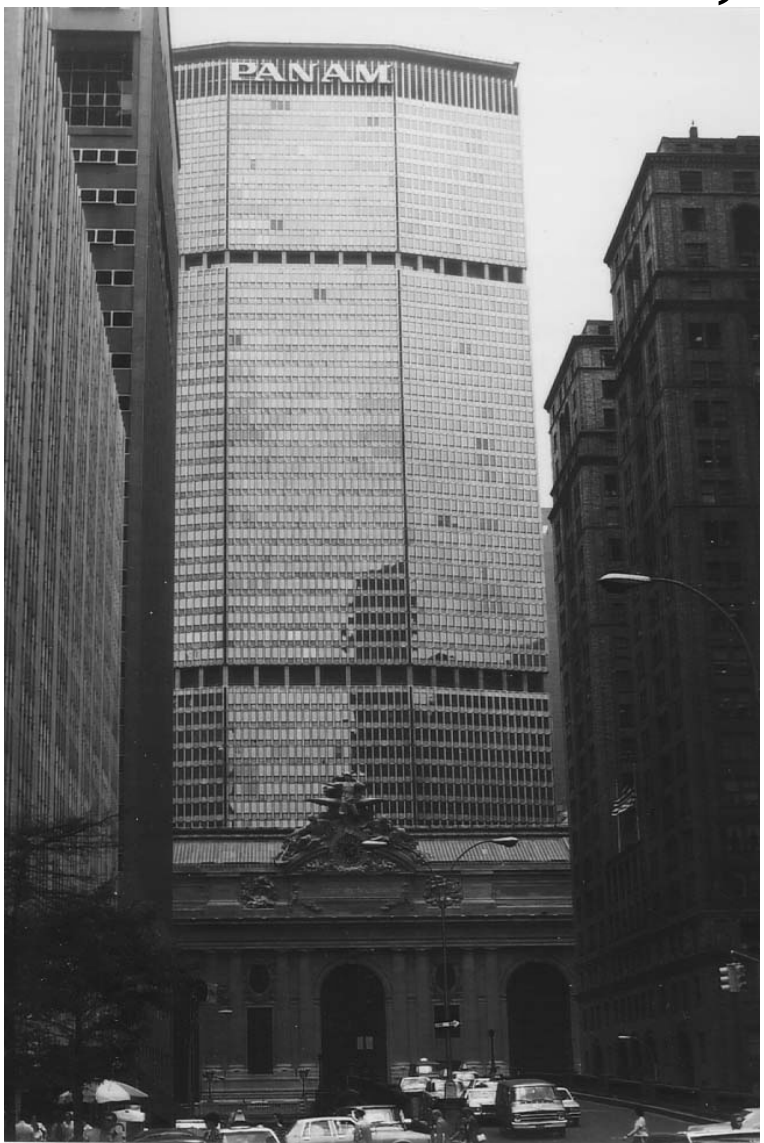
In Lingle, The Supreme Court States How To Determine If There Is A Taking III

A "Penn Central Taking".

See, Penn Central v. City of New York 438 US 104 (1978);

Grand Central Station, New York

Grand Central Station, New York



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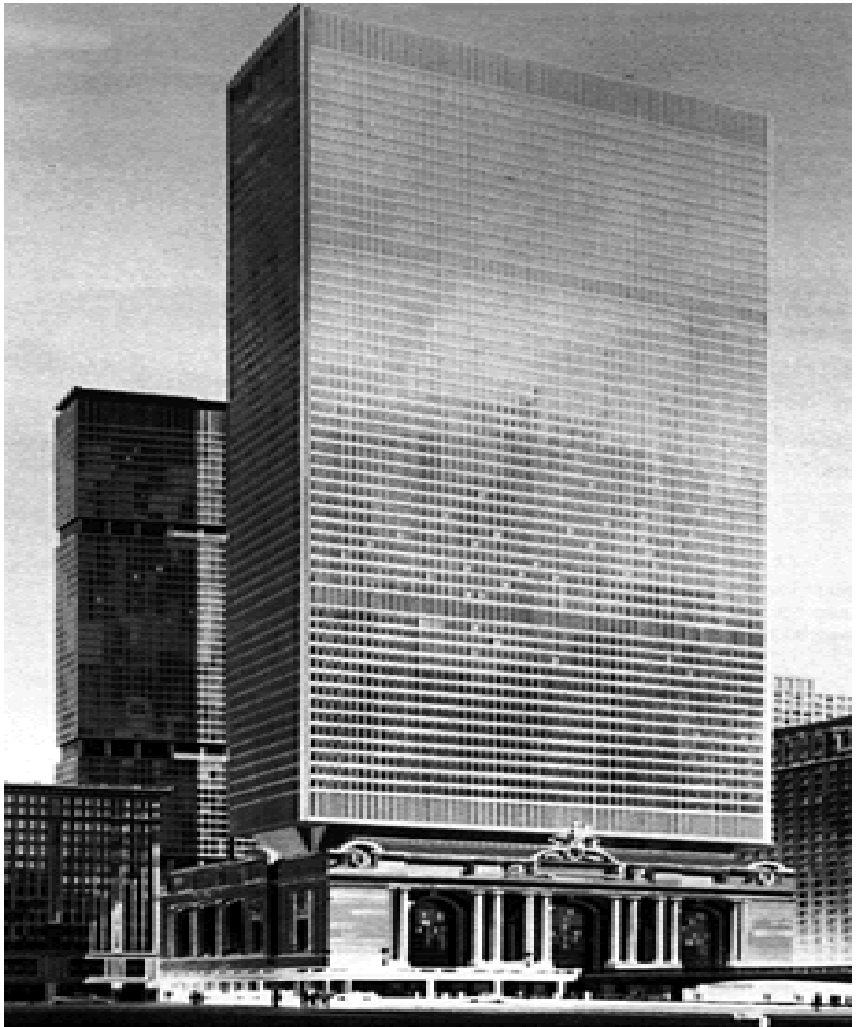
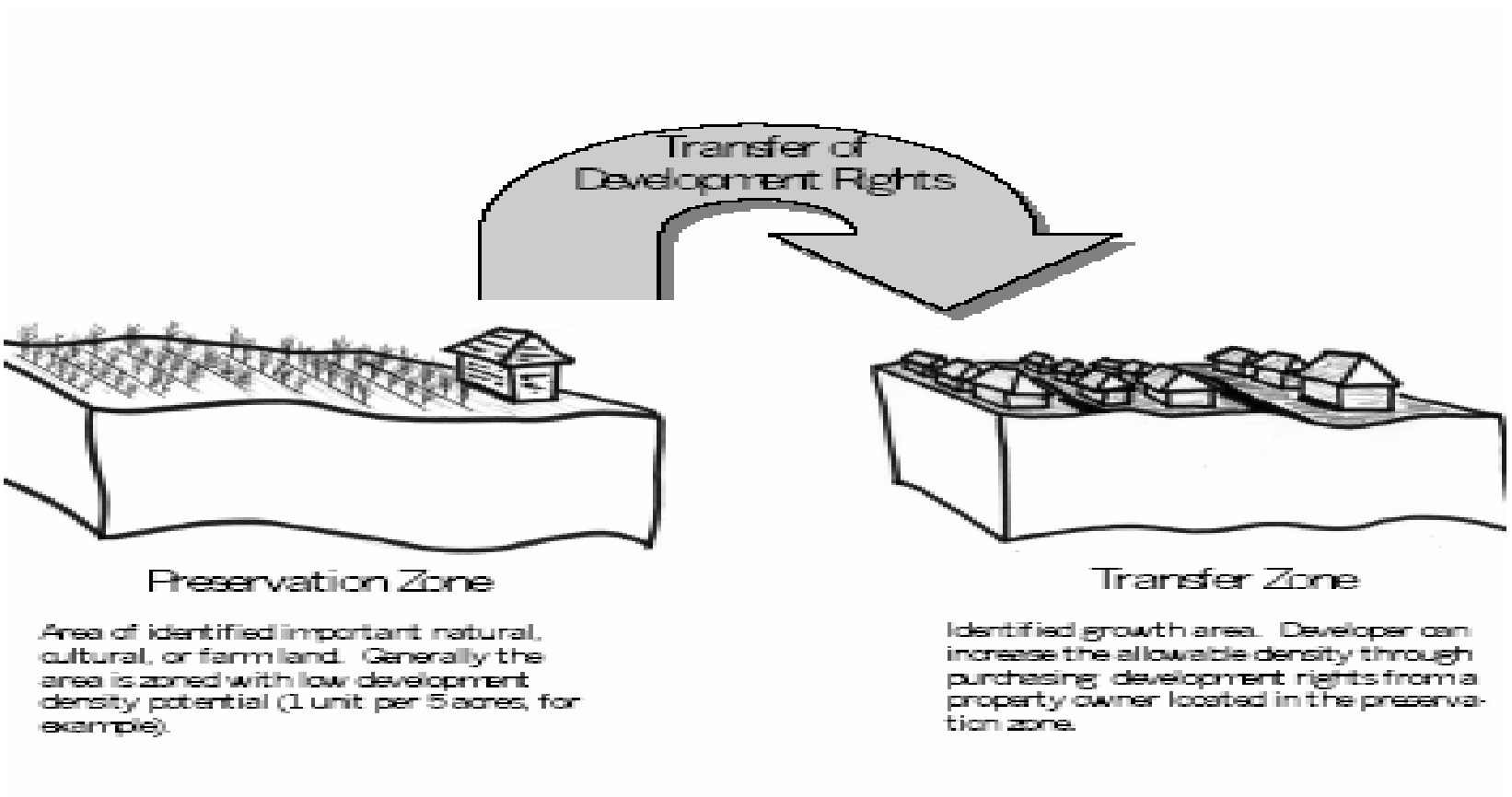
Grand Central, With New Design



Transfer Of Development Rights

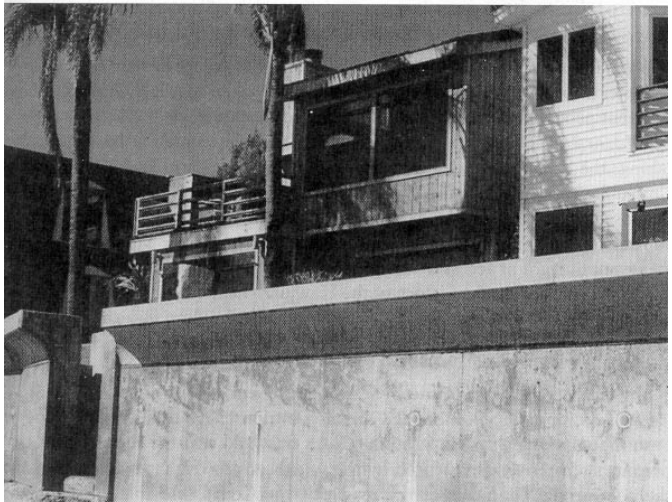


In Lingle, The Supreme Court States How to Determine If There Is a Taking IV

A land use exaction which has little or no relationship to the "property“. In Summary: little or no relationship between the exaction and the articulated government interest.

(Nollan; and Dollan).

Nollan House From Road



Nollan House From Beach

Dolan From Street

Dolan Floodplain And Bike Path

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Court Also Says What Test It Will Not Use

- **The Court States That it Will No Longer use the First Part of the Two Part Test in *Agins* v. City *of Tiburon.*** 447 US 255 (1980 **: "whether the regulation substantially advances a legitimate state interest…."**
- **This Test Had Been Used For Years By Courts To Second Guess Legislative Actions**

In Lingle, The Supreme Court States How To Determine If There Is A Taking

- The Court went on to say that the Tests articulated **all aim to identify regulatory actions that are functionally equivalent to a direct appropriation of or ouster from private property**

In Lingle, The Supreme Court States How To Determine If There Is A Taking

In Addition, in His Concurring Opinion, Justice Kennedy Indicates that the decision left open the possibility of litigating a regulation which was "so arbitrary or irrational as to violate due process."

Part III

- **Legal Issues In Our Floodplain**

Some Land Use Tools

How About A Moratorium While Regulations Are Developed?

- Can A Moratorium for a Period of Time be a “Taking”

- Technically, Yes Sort Of, Maybe Sometimes

Lutherglen

Tahoe Sierra Preservation Council vs. Tahoe Regional Planning Agency

- **Moratoria While Regulations Developed Lasted 32 Months OK**
- **US Supreme Court 2002**

Courts Reasoning in Sierra Tahoe

"… with a temporary development ban, there is less risk that individual landowners will be singled out to bear a special burden that should be shared by the public as a whole"

"…focus on "the parcel as a whole" Properties Were Still Being Bought and Sold

"It may be true that a moratorium lasting more than one year should be viewed with special skepticism, but the District Court found that the instant delay was not unreasonable."

Recent State Moratorium Case

- ***Wild Rice River Estates, Inc. v. City of Fargo*** **705 N.W.2d. 850 (2005).**
- **City had a 21 Month moratorium on development while FEMA mapped the floodplain/floodway of an area which had recently flooded.**
- **Court said OK, City had reasons to stop development while it determined what floodplain management measures were needed**
- ***But, Very Different Result in Biggers v. City of Bainbridge Island, in Washington State, 169 P.3d 14, 2007***

Courts Acceptance of Regulations Based on Local Conditions

- ***In Re Woodford Packers Inc*., 175 VT 60, 830 A. 2d 100 (2003).**
- **Court gave the State considerable latitude in selecting a methodology for the designation of floodways much broader than the FEMA minimum standard, based on fluvial erosion**

Courts Acceptance of Regulations Based on Local Conditions

- ***Gove v. Zoning Board of Appeals*, 444 Mass.754 (2005) Massachusetts Supreme Judicial Court, decided July 26, 2005**

How About Setbacks?

- **This Is An Area About Which Our Friends In The Property Rights Movement Are Quite Active**
- **Questions for Us to Ask:**

  Why Is There A Set-Back?

  Parcel As A Whole Rule-Still Reasonable

  Investment Backed Value
- ***See*, e.g., *City of Coeur d'Alene v. Simpson* Pacific Legal foundation Brief**

Great Montana Case on Setbacks

- ***McElwain v. County of Flathead*, 248 Mont. 231,(1991)**
- **Setback of 100' from Floodplain for Septic System**
- **Court Says Regulations Presumed To Be Valid**
- **Plaintiff Has Remaining Uses- Though1/3 Devaluation**
- **Very Powerful Dissent-Why 100 feet?**
- **Why not Thirty Feet or a Mile?**

Can Government Adopt Higher Standards Than FEMA Minimums?

- **FEMA Regulations Encourage Adoption of Higher Standards-"…any flood plain management regulations adopted by a State or a community which are more restrictive than (the FEMA Regulations) are encouraged and shall take precedence." 44CFR section 60.1(d). (emphasis added)**

Baker

Could One Argue That Higher Regulatory Standards Are Appropriate For The Rocky Mountain Area?

- **Consider:**

  A) Uncertainties in Flood Elevations

  B) Plasencia- Larson Paper On Flood Height Increases Due To Future Watershed Development

  C) Consequences If Levee Is Overtopped

  D) Height of Freeboard

  E) 50% Chance That 1% Flood Will be Exceeded Within 70 Years-Bulletin 17 B

NAI Next Steps

- **Comprehensive Watershed Future Conditions**
- **Water Resources Management and Mapping:**
  - **Water supply system and source water protection areas**
  - **Water quality and stormwater management system**
  - **Flooding**
- **Let's Start Now:**

Require a Demonstration that All Development Does Not Change The Hydrograph for the 1-, 10-, 50-, 100-, 500-Year BOTH Flood And Storm

David Mallory

Floodplain Management Program

NAI Workshop

March 7, 2008

David Mallory, P.E.

Senior Project Engineer

Overview

- Maintenance Eligibility Program
- FEMA Cooperating Technical Partnership
- Marketing Brochure
- Case Study

Urbanization Impacts Natural Drainageways

- Increases watershed imperviousness, which increases drainageway runoff volumes.
- Decreases naturally occurring overbank storage.
- Dramatically accelerates the natural stream degradation process.

District Preference for Floodplain Preservation over Channelization

- More compatible with communities' open space and multi-use goals. Increases property values.
- Promotes flood attenuation, wildlife habitat, groundwater recharge, and water quality enhancement.
- Generally favored by federal permit programs (Section 404 CWA).

Maintenance Eligibility Program

- Originally established to offer communities assistance in maintaining major drainageways constructed after March 1, 1980.
- Projects are submitted through local government referrals and reviewed for conformance with District design criteria.
- Construction must complete the approved design, and satisfactory maintenance access provided.

Goals of the MEP

- Promote and encourage good floodplain management practices. Protect property, save lives.
- Preserve and enhance natural stream corridors to the extent possible.
- Implement District sponsored master plans.
- Mentor the design and construction phases of major drainageway infrastructure development, funded by others.

Highlands Ranch

Benefits of District Maintenance Eligibility Review

- Additional major drainageway plan review resources.
- Coordinated implementation of District sponsored master plans.
- Coordination with the FEMA review process for Letters of Map Change.
- Additional drainageway maintenance funding.

Marketing Brochure

Preserving the natural and beneficial functions of floodplains adjacent to development projects

- Purpose, to encourage early issue resolution
- Community Surveys
- Aerial Photography
- Content CD
- Draft Distribution / Comment Period

Green Valley Ranch

Stapleton

Photos courtesy of
Michelle Leach

Wildlife, Learning and Amenities

Photos courtesy of Michelle Leach


Contemplative Viewing Areas


Raccoon Tracks


Wildlife Viewing


Meadowlark


Riparian Planting


Boulder Jetties

FEMA's CTP Program

- Part of FEMA's Map Modernization Program
- District became first CTP May, 1999
- LOMC Delegation began July, 2001

NAI Principals and a Difficult CLOMR Review

Why the Concern?

- Cherry Creek 100-year discharge rate is nearly 50,000 cfs, highest in the District.
- Arapahoe Road overtops by 5 feet.
- Development benefits would accrue to one community while adverse impacts would occur in adjacent communities.
- Significant stream corridor impact with no Corps of Engineers oversight.

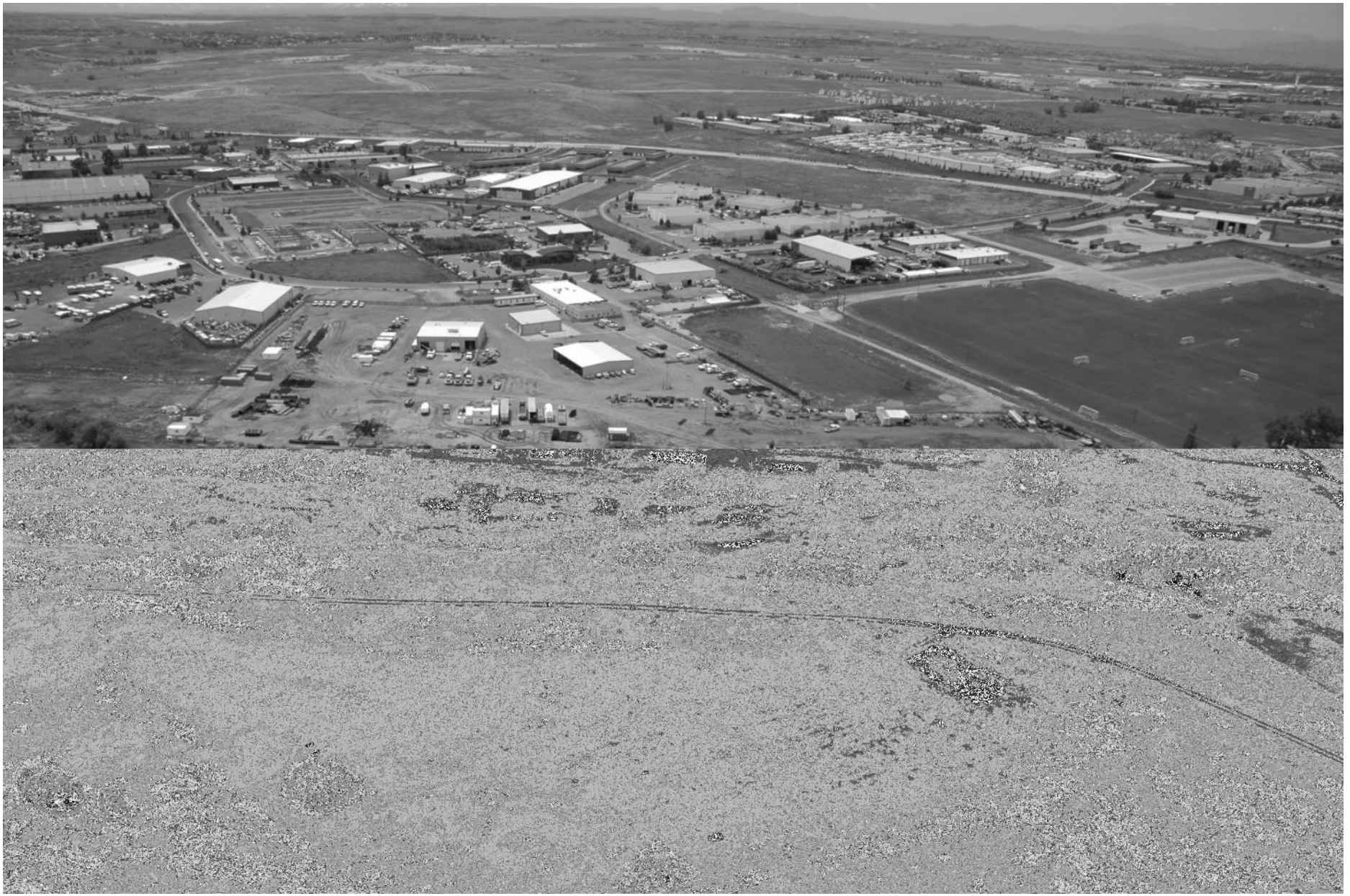

EFFECTIVE FLOODWAY
EXISTING CDOT TYPE 4 BARRIER TO BE REPLACED WITH CDOT TYPE 10R
REVISED/POST PROJECT FLOODPLAIN
PROPOSED CITY OF AURORA SANITARY LIFT STATION
REVISED/POST PROJECT FLOODPLAIN
EAST ARAPAHOE ROAD
SOUTH PRICE ROAD
EXISTING STRUCTURES TO BE REMOVED
POND 2
REVISED/POST-PROJECT FLOODWAY
LIMITS OF CONSTRUCTION
EFFECTIVE FLOODWAY
CORNERSTAR SUBDIVISION
CHERRY CREEK
POND 1
CHERRY CREEK BUSINESS PARK

Initial Review

- Enlisted Baker's assistance as a review partner and for a second opinion.
- Initially thought the CLOMR should be denied.
- Cited public safety in all correspondence.
- Recommended denial for District's Maintenance Eligibility Program.
- Cleared CLOMR denial through FEMA.

The Deal

- Reduce adverse impacts in terms of flood elevations and floodway delineation.
- Acquire the landscape parcel.
- Lower the soccer complex.
- Reduce the development encroachment.
- Conduct a geomorphology study and design for Cherry Creek.
- Landowner acceptance for each adversely affected parcel.



Time Line

- Original submittal was received May 24, 2006
- Next 12 months were spent working on the final deal.
- Processing began May 18, 2007.
- Property owner negotiations began.
- Adjacent communities signed.
- CLOMR issued August 2007.
- Community floodplain permits issued.

Bottom Line

- The project was significantly revised for less adverse impact.
- Project gained support from all affected communities.
- Stream corridor is eligible for District maintenance assistance in the future.
- Set a precedent for enhanced floodplain management using NAI principals.

Section III Summary

- **No Adverse Impact Hazards Management Is:**
  - **A) Legal**
  - **B) Proper**
  - **C) Practical**

Hazard Based Regulation And The Constitution

- **Hazard Based Regulation Generally Sustained Against Constitutional Challenges**

- **Goal of Protecting the Public Accorded ENORMOUS DEFERENCE by the Courts**

So, That Means Everything is OK?

- **Yes, But We Do Need To Talk About Two Other Major Areas Related to the Law that Impact on Floodplain Management and No Adverse Impact Hazards Planning:**
- ***"The Constitution in Exile Movement" and***
- ***"The Property Rights Movement."***

Legal Issues In Our Floodplain IV

- **Property Rights; And**

- **The Constitution In Exile**

The Constitution in Exile

- **Richard Epstein, a Professor of Law at the University of Chicago is the Intellectual Force Behind a Movement that Feels that Many US Supreme Court Cases in the Twentieth Century were Wrongfully Decided.**

- **Examples of Federal Laws Which they Feel are Unconstitutional: Social Security; Minimum Wage Laws; EPA;OSHA**

The Constitution in Exile

- **The Cato Institute Indicates that Compensation is Not Due When:**

"…the government acts to Secure Rights-when it stops someone from polluting his neighbor…it is acting under its police power…because the use prohibited…was wrong to begin with."

Class Exercise!

- **Do Reasonable, Fairly Applied Hazard Based Regulations Decrease The VALUE of A Property?**
- **Not The Price, The VALUE.**

- **Hint: The Problem Of The Purloined Purse**.

The Purloined Purse Defense

- **Fifth Amendment to the Constitution of the Unites States: "…*nor shall private property be taken for public use without just compensation.*"**

Result

- *"The taking clause was never intended to compensate property owners for property rights they never had." – Massachusetts Supreme Judicial Court*

Gove v. Zoning Board of Appeals

444 Mass.754 (2005) Massachusetts Supreme Judicial Court, decided July 26, 2005

The Problem of Externality

- When One Group Pays Maintenance or Replacement of Something Yet Different Person or Group Uses That Same Something, We Often Have Problems.
- Classic Example Is a Park Bench.
- Disaster Assistance Is Another Classic Example of Externality
- Who Pays For Disaster Assistance?
- Who Benefits?

Who Pays For Disaster Assistance?

- **Costs of flooding are usually largely borne by:**

a) The Federal and Sometimes the State Taxpayer Through IRS Casualty Losses, SBA Loans, Disaster CDBG Funds, and the Whole Panoply of Federal and Private Disaster Relief Described in Ed Thomas's Publication "Patchwork Quilt (Located at:

http://www.floods.org/PDF/Post_Disaster_Reconstruction_Patchwork_Quilt_ET.pdf)

b) By Disaster Victims Themselves.

Cui Bono? (Who Benefits?)

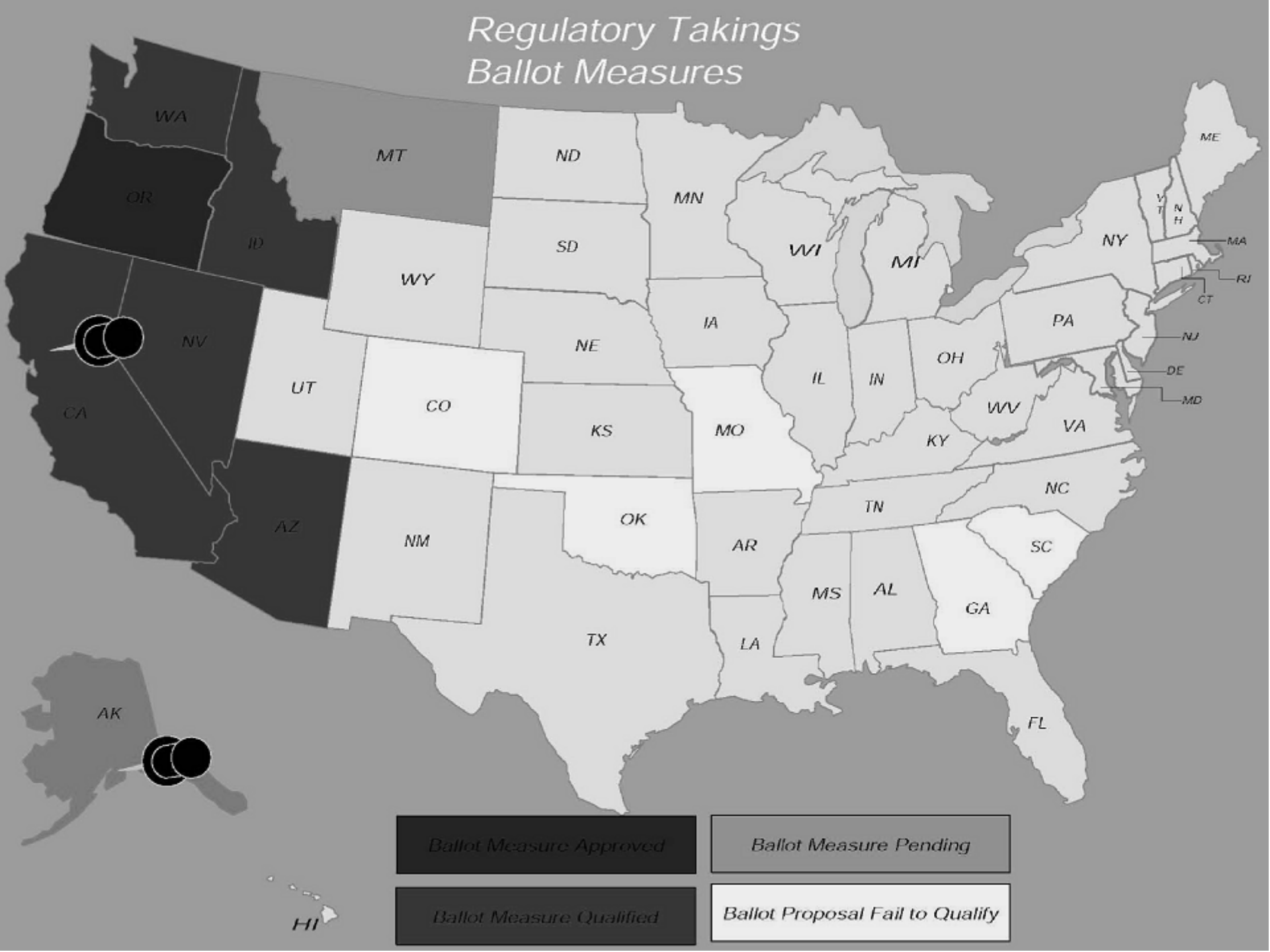
- **At Least the Short Term Benefits of Unwise or Improper Floodplain Development Flow to:**
  - **a) Developers (profit on sale and occupancy)**
  - **b) Local Governments (Real Estate and Sales Taxes-Jobs etc.)**
  - **c) State Government (Some Sales Tax-Jobs etc.)**
  - **d) Mortgage Companies (Profits On Loans etc.)**
  - **e) The Occupants of Floodplains Who May Benefit From a Lovely Place To Stay For a While, Anyway**

The Property Rights Movement

- **"The Property Rights Movement May Well be the Most Significant Land Use and Environmental Movement in the United States in Recent Decades." (Professor Harvey Jacobs-University of Wisconsin).**
- **Twenty-eight States Have Enacted Property Rights Legislation(1991-2006).**

Land Use And Property Rights In America

- **Oregon Measure 37 Adopted November 2, 2004. Requires State and Local Governments"…must pay owners, or forego enforcement, when certain land use restrictions reduce property value."**
- **Harris Act in Florida (1995). No Claims Paid to Date, Many Claims Made.**
- **We Must Acknowledge the Very Real Emotional Appeal of Land and Property Rights to the Public.**


Regulatory Takings
Ballot Measures
WA
OR
CA
ID
NV
MT
WY
UT
AZ
CO
NM
ND
SD
NE
KS
OK
TX
MN
IA
MO
AR
LA
WI
IL
MS
MI
IN
KY
TN
AL
OH
WV
GA
FL
SC
NC
VA
PA
NY
ME
VT
NH
MA
RI
CT
NJ
DE
MD
AK
HI
Ballot Measure Approved
Ballot Measure Pending
Ballot Measure Qualified
Ballot Proposal Fail to Qualify

Nevada Taking Ballot Initiative

- **Regulatory and Condemnation Taking Measure Truncated By Nevada Supreme Court To Condemnation Only**
- **People's Initiative to Stop the Taking of Our Land, or PISTOL**
- **Requires Approval in Consecutive Elections**
  Approved 63.11%–36.89%

Nevada PISTOL Constitutional Amendment

- **Passed By The Voters 63% To 37%**
- **Must Be Passed A Second Time**
- **What Does PISTOL Have To Do With Hazard Based Regulation?**
- **What Do People Think That It Means For Land Use Regulation?**

Legal Issues In Our Floodplain V

- **Avoiding a Taking: Discussion**

In Deciding Whether Regulations "Take", Courts Examine

- **Impact of regulations on private property owners**

- **The nature of the government actions**

Avoiding A Taking

- **Avoid Interfering with the Owners Right to Exclude Others. (Loretto)**
- **Avoid Denial of All Economic Use. (Lucas)**
- **In Highly Regulated Areas Consider Transferable Development Rights or Similar Residual Right so the Land Has Appropriate Value. (Penn Central)**
- **Clearly Relate Regulation to Preventing a Hazard. See, Different results in *Gove* cited previously and *Annicelli v. Town of South Kingston*, 463 A.d 133 (1983*); and Lopes v. Peabody*.**
- **Establish a Fair Variance Procedure**

No Adverse Impact Hazard Regulation Is A Winning Concept

- So How Do We Proceed?
- Planning
- Partnerships
- Planning
- Multi-Use Mapping and Engineering
- Planning
- Fair Regulation to Prevent Harm

Part VI

- **A Call To Work Together With Other Interested Parties**

Rapanos

- **Especially Important In The Arid West**
- **Articles On This In FMA Newsletter, ASFPM Newsletter, National Wetlands Newsletter, etc.**

Courts Give Floodplain Managers An Opportunity To Partner

- **Rapanos et ux., et al. v. United States, U.S. (2006) Nos. 04-1034 and 04-1384, 2006 WL 1667087 (U.S.)**
- **involving the geographic extent of the area that the federal government may regulate as "wetlands" under the Clean Water Act of 1972.**
- **Courts Want a Link Between the Wetland Regulated and Waters of the United States**
- **One Link is Through Floodplain Management**
- **Further Information-ASFPM News and Views of August 2006; National Wetlands Newsletter of September-October 2006.**

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Partnerships With Other Hazard Managers

- **DHS/FEMA is Embarking on a Five Year Flood Map Modernization Program.**
- **As Part of that Effort there is a Cooperating Technical Partners Program.**
- **Think of Other Hazard Managers With Whom to Partner on NAI, Possibly Through the FEMA CTP Program! Other Partners :EPA Wetlands, Watershed, USGS, Others?**

NAI Next Steps

- **Comprehensive Watershed Future Conditions Water Resources Mapping Looking At Water Supply-Water Quality-Stormwater Management And Flooding.**
- **Interim Measure:**

  Require A Demonstration That All Development Does Not Change The Hydrograph For The 1-10-50-100-500 Year BOTH Flood And Storm

Section VII

- **Legal Challenges When Dams And Levees Fail To Protect**

Legal Challenges When Dams And Levees Do Not Protect.

- **When Someone Is Damaged by the Actions of Others Who Pays?**

- **This is a Fundamental Question.**

Legal Challenges When Dams And Levees Do Not Protect.

- **Early English Common Law: Person Who Causes Harm Absolutely Responsible For Damage.** "…if I lift my stick in self defense...and there is a man injured.… (Justice Brian, 1466).
- **Later a Legal Standard of Negligence Was Developed.**
- **Negligence is Based on a Breach of a Duty of Care Owed to Another**

English Law Treated Dams and Levees Differently

- **Negligence Need Not Be Proved= "Strict Liability"**
- **Roman Maxim :"Sic Utere Tuo Ut Alienum Non Laedas" a/k/a No Adverse Impact**
- **Rylands v. Fletcher (1868).**
- **Dams/Levees: "Non-Natural Use of Land"**
- **Sometimes Called Ultra-Hazardous or Abnormal.**

Almost All United States Courts Have Adopted Strict Liability For Dams and Levees

- **Strict Liability For Dam/Levee Failure Adopted by Most Courts and Recently Partially Adopted in One More State.**
- **State of California Recently Held Liable for Levee Failure in Amount of About 464 Million Dollars.** ***PATERNO v. STATE***, C040553, (Cal.App.4th 2003).

Strict Liability

- **Strict Liability is Not "Absolute Liability."**
- **Four Defenses:**

  a) Vis Major or Act of God;

  b) Plaintiff's Own Fault ; or

  c) Unforeseeable Act of Third Party

  d) Statutory or Sovereign Immunity

No Need For Plaintiff to Show Negligence.

- **That a Levee Was Designed Perfectly-Or Maintained Impeccably Not Good Defense**

Why Are Levees Treated Differently By The Law?

- **“ There are only two kinds of levees, those which have failed and those which will fail in the future.”** Quote Attributed to William H. Hall, the State of California’s Pioneering State Engineer as well as Mark Twain and Many Others.

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Paper On This Topic From ASFPM

LIABILITY FOR WATER CONTROL STRUCTURE FAILURE DUE TO FLOODING

- Special Edition for the Floodplain Managers Annual Meeting
- September 7, 2006
- Edward A. Thomas, Esq.
- Michael Baker, Inc.
- “Challenge Us”
- www.floods.org

ChallengeUs.

American Council of Engineering Companies (ACEC) Web- Cast On Dam & Levee Liability

- Latest Just Held October 31, 2007
- Next One May 27, 2008
- Floodplain Management Associations Which Promote the Class Get The Same Rate As ACEC Members
- Hint, Hint

Why Are Both Dams And Levees Treated Differently By The Law?

- **Possibility of Serious Loss of Life and Property.** Duty of Care When Life and Limb are At Stake is the Highest Possible: Dean Thayer of Harvard 1916
- **Roman Maxim of Law: Use Your Property So as You Do not Harm Others.**
- **Somewhat Back to the Beginnings of Common Law**

Special Sovereign Immunity For The United States

- **"No liability of any kind shall attach to or rest upon the United States for any damage from or by floods or flood waters at any place…."** **United States Code**
  TITLE 33 — NAVIGATION AND NAVIGABLE WATERS
  CHAPTER 15 — FLOOD CONTROL
  ***33 U.S.C. § 702c*.**
- **Courts Have Found That This Phrase Applies to Flood Control But Not to Other Efforts Such as Navigation.** (See, e.g. ***GRACI v. UNITED STATES***, *456 F.2d 20* (5th Cir. 1971)).
- **Litigation Pending to Test Constitutional Limits of this Immunity**

Lawsuits Are Being Filed Following Hurricane Katrina

- **Defendants:**

A) Corps of Engineers;

B) Local Levee Boards;

C) Oil and Gas Companies;

D) State Government, Public Officials (As Individuals); Construction Companies, Architects or Design Firms and Maintenance Entities.

- **Total Claims Are Over 278 Billion Dollars; 250,000 Plaintiffs**

A) loss of life;

B) injury;

C) insurable risks: commercial losses, property damage, business interruption, jobs lost, repair costs, disability claims; and

D) virtually every type action allowed by our legal system.

How Can The Federal Government Be Liable?

Numerous Legal Arguments Including:

A) Violation of Constitutional Protections:

1) Fifth Amendment "Taking",

2) Violation of Due Process,

3) Violation of Equal Protection of Law;

B) 42 USC Section 1983 Claims against Individuals (and Corporations);

C) "malfeasance, misfeasance and nonfeasance" in ensuring the competent design, construction, inspection, maintenance and operation of an entire navigable waterway system." From Insurance Journal, June 6, 2005.

D) 33 USC 702 (c) does not apply to Navigation and other non-flood Control Projects.

Public Safety First Legally-Morally-Ethically

- **The first Fundamental Canon of the American Society of Civil Engineer's (ASCE) Code of Ethics states that:**

"Engineers shall hold paramount the safety, health, and welfare of the public…."

"This canon must be the guiding principle for rebuilding the hurricane protection system in New Orleans.

And it must be applied with equal rigor to every aspect of an engineer's work – in New Orleans, in America, and throughout the world."

Question

Question: When You Are Uncertain How To Design A Facility Whose Failure Could Result In Catastrophic Loss, Do You?

- **A) Hope For The Best; Plan for the Worst?**
- **B) Use A 50% Confidence Interval To Calculate Flood Elevations Used To Design A Levee?**
- **C) Assume That Changing Watershed Conditions Will Not Increase Downstream Flood Heights?**
- **D) Meet FEMA Minimum Standards Only?**

First Part Of The Solution Do It Right

- Conservative Calculations And Design
- Consider Upstream Conditions
- Consider Consequences Of Failure

Additional Part Of The Solution

Encourage Communities To Go Beyond NFIP Minimum Standards To A No Adverse Impact Approach:

Flood Insurance Community Rating Credits=Lower Flood Insurance Rates:

NAI Based Development Decision-making

NAI Based Planning

NAI Based Emergency Preparedness

When All Upstream Communities Are Not Following NAI Principles:

- **Does A Design Professional Need To Conduct A Future Conditions Hydrological Analysis To Determine Proper Freeboard?**
- **Need A Design Professional Calculate In Possible Effects Of Sea Level Rise and Land Subsidence?**
- **Update Outdated Hydrology And Hydraulics?**
- **What Will A Court Say Later?**

Professional Liability Considerations

- **Excellent Paper By Jon Kusler PhD, Esq. Available at www.floods.org.**
- **Prepared For The Association Of State Floodplain Managers Foundation.**
- **It Is Available at: www.floods.org**

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Floodplains
Where Are We Headed As A Nation?

FEMA Initiatives-Policy and Guidance

California Bond Issues and White Papers

Louisiana Initiatives Such As Levee School

Legislation Both Federal and State

Mega Pending Litigation

Part VIII

- **How Efforts To Regulate Are Attacked**

- **The Playbook**

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The Playbook
How Can Government Efforts to Regulate Be Attacked? I

Bluster and Threats;
and

ChallengeUs.

How Can Government Efforts To Regulate Be Attacked? II

- **Allegation that the Regulator has Deprived a Developer of a Constitutional Right "Under the Color of Law". *(42 USC Section 1983/1988); and***

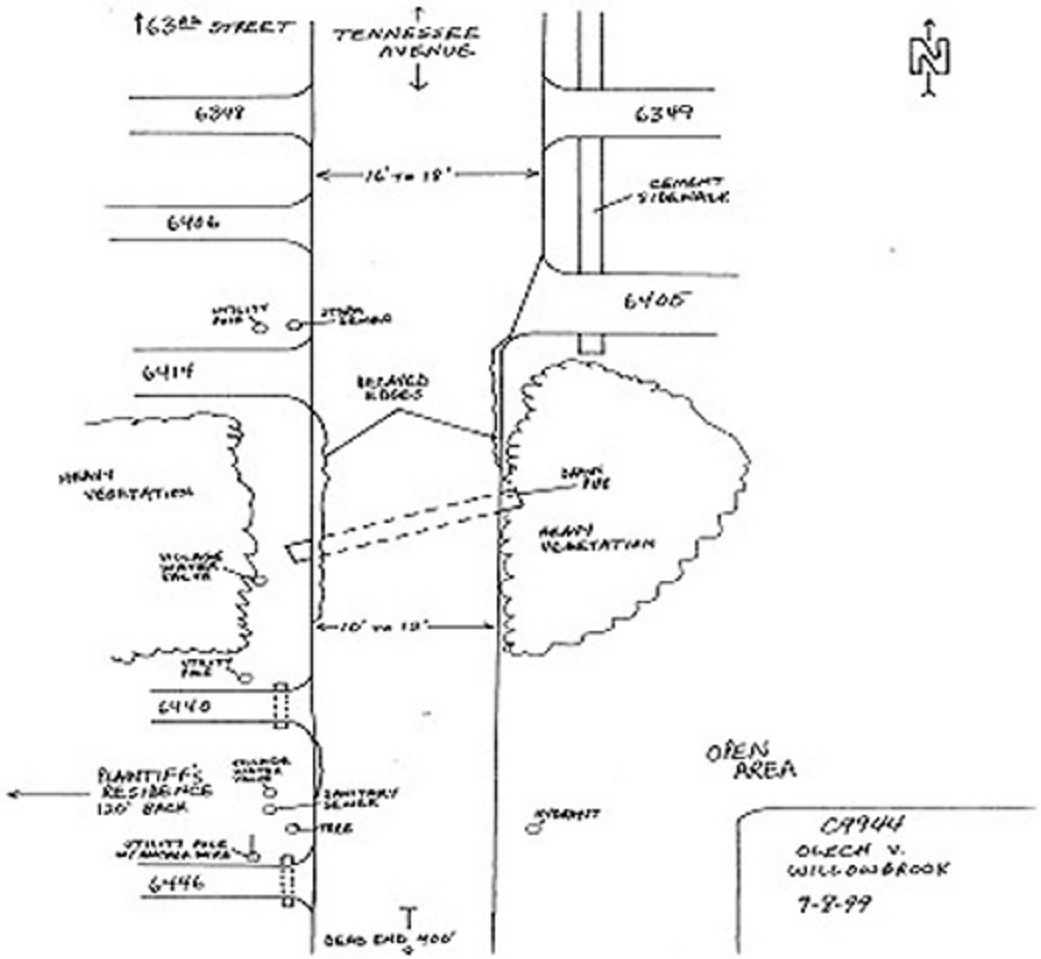
How Can Government Efforts To Regulate Be Attacked? III

"Class of One" Allegations of Discriminatory Treatment Based on Personal Animus, or Other Inappropriate Factors; and

Mrs. Olech

Washington University in St. Louis
School of Law

The Olech's Property



Public Entities Do Not Have The Right To Do Just Anything Either!

- No Right to Use Public Office To Wage Vendettas
- No Right To Abuse the Public
- No Right To Use Regulation To Steal From a Landowner

How Can Government Efforts To Regulate Be Attacked? IV-VI

- **Procedural Due Process-No Hearing; and**
- **Substantive Due Process-Shocks the Conscience; and**
- **State Law Violations-Open Meetings-Statutory Compliance.**
- ***Other?***

IX Closing Comments

- **Summary Comments**
- **Talking Points**
- **Your Questions And Comments**

Harm Prevention And The Law

- **Is NAI a Silver Bullet?**
- **Use of NAI Will Significantly Reduce the Probability of a Loss in Court!**
- **Even Better Odds if there is A Good, Fair Variance Procedure + Flexibility in the Regulation + Community Applies the Principle to their Own Activities.**

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Floodplain and Wetland Regulators!

- **Should Be Both Fair and Confident!**
- **Should Be Assertive Protecting Both the Public and the Landowner!**
- **Should Consider Partnering With Other Regulators**
- **Should Be There To Help Make Community Development and Housing Decisions**
- **Should Develop Messages Specialized To Various Interest Groups**

Fair Regulators Have The Law On Their Side!

- **They Do Not Need to be a Punching Bag!**
- **They Should Be Ready With NAI Tools, Fairly Applied!**
- **Everyone Should Remember There are Serious Sanctions Available for Frivolous Lawsuits!**

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Take Away Messages For Today Prevention

- We Throw Money At Problems After They Occur
- You Can Pay A Little Now Or Lots Later
- The Legal System Is Ready To Help You Pay Later

Take Away Message

Responsible For Community Development?

A. **Many Areas Can Flood**
B. **Uninsured Victims Will Likely Sue-If They Can Find Someone to Blame**
C. **Fair Harm Prevention Regulation Helps Everyone**

Message For All Involved In Community Development

The Fundamental Rules of Development Articulated, By Federal Law, Envision Housing and Development Which Is:

- Decent
- Safe
- Sanitary
- Affordable

Flooded Development Fails That Vision!

Housing And Development Which Flood Are:

- **Indecent**
- **Unsafe**
- **Unsanitary**
- **Unaffordable- by the Flood Victims, By Their Community, By The State, and By Our Nation.**

MICHAEL BAKER CORPORATION

The Confluence of Property Rights and Floodplain Management

Rocky Mountain Land Use Institute

March 7, 2008

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