

Responding to Global Warming and Developing Adaptation Solutions: Federal Actions to Support Wise Land Use and Better Hazard Mitigation for America's Coasts

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History and Background

- Long history of NWF focus on management of aquatic resources and dependant wildlife
- Management of floodplains
- Agencies involved in water → U.S. Army Corps of Engineers and FEMA/National Flood Insurance
- Katrina and other disasters have brought floodplain management and ecosystem restoration to the forefront of the public debate



"Higher Ground"

- Great Mississippi Flood of 1993
- Hazard Mitigation Grants Program- focus on buyouts and relocations – Dec 1993
- "Sharing the Challenge"- July 1994
 - Major recommendations for improving floodplain programs
- Flood Insurance Reforms 1994, 2004, present
 - 'Repetitive losses': less than 2% of properties generate 40% of NFIP losses
- "Higher Ground"- released July 1998
 - 2-year study
- WRDA policy reform



Major Findings of “Higher Ground”

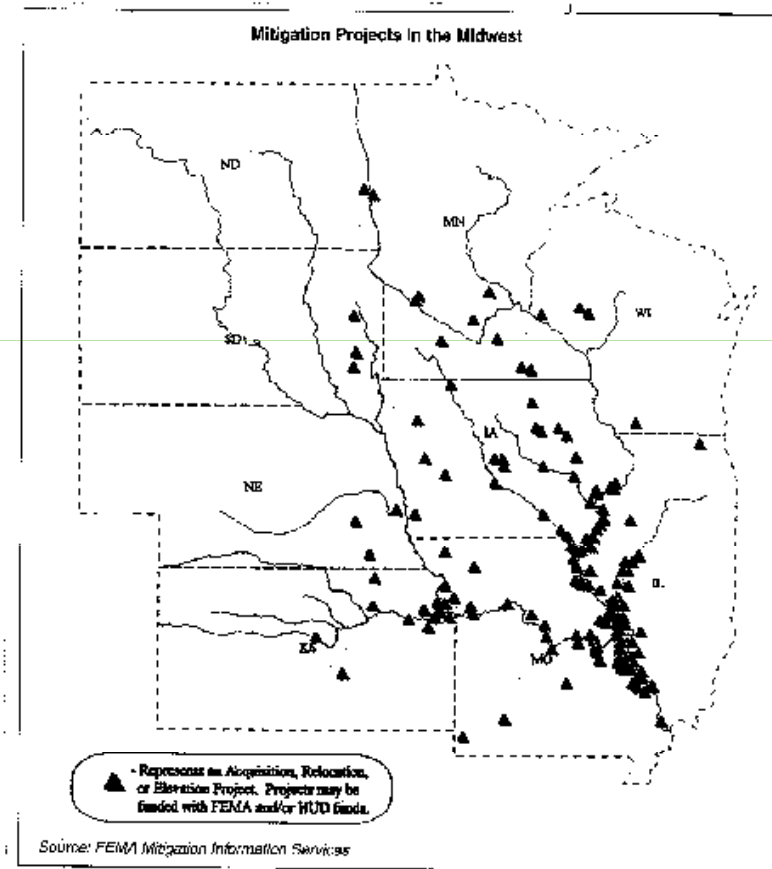
- **Less than 2% of properties were generating nearly 40% of NFIP losses.**
- **10% of Single Family Homes Had Repetitive Losses Exceeding Their Value.**
 - For 5,629 homes, or almost 10 percent of the single family homes with repetitive losses, the cumulative flood insurance payments exceed the home’s value. In all, these homes were valued at \$308 million, but received \$416 million in insurance payments
- **Substantial Damage Rules Are Poorly Enforced.**
 - 15% (10,921) were “substantially damaged”. In all, 5,578 properties received \$167 million in insurance payments after suffering a 50 percent or greater loss in one flood.
- **20% of Repetitive Losses Occur Outside the Designated 100-Year Floodplain**
 - In all, 15,275 repetitive loss properties outside the designated 100-year floodplain received \$530 million in insurance payments.
 - Called into deep question the reliability of NFIP maps.



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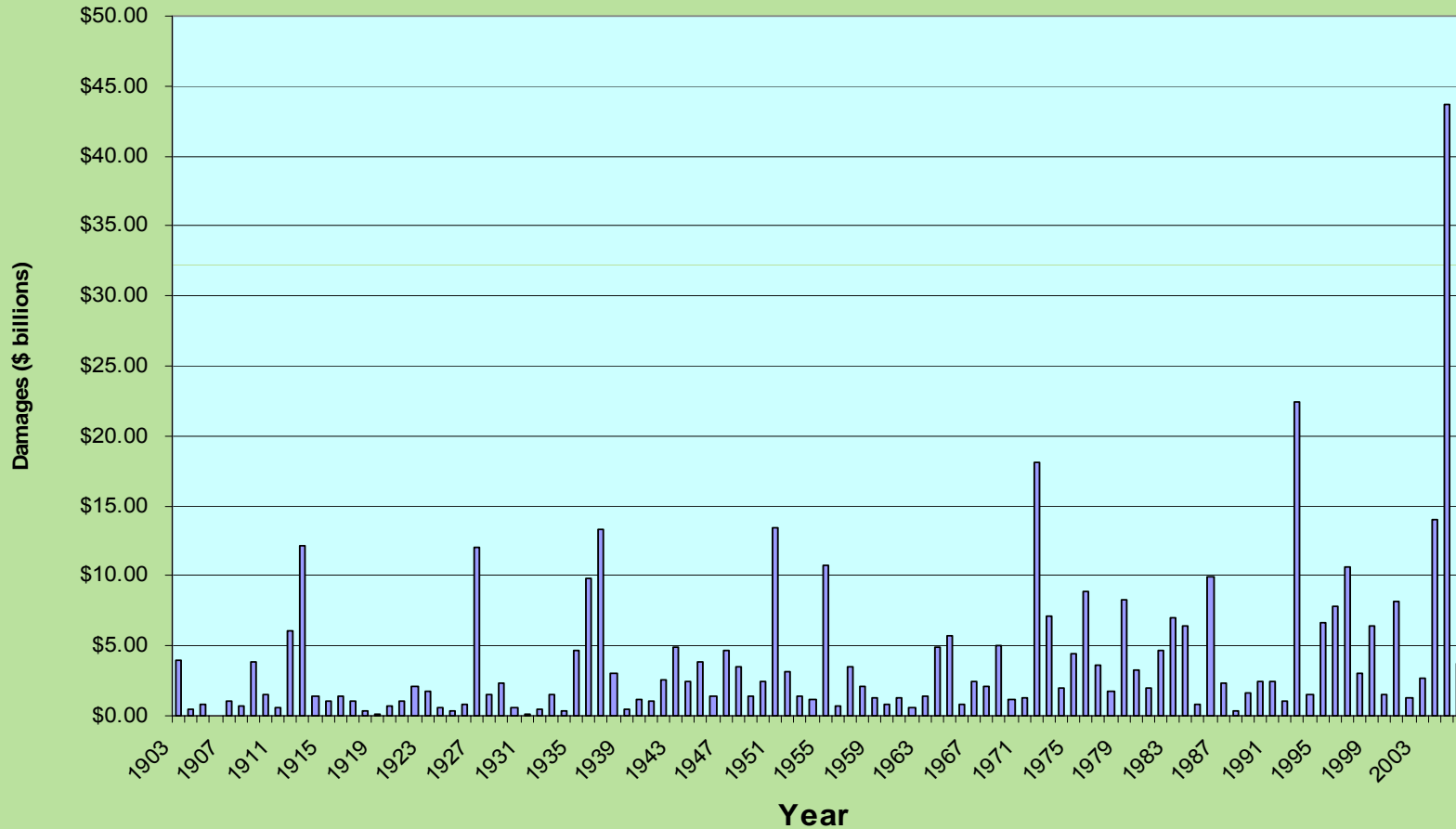


Hazard Mitigation Grants Program



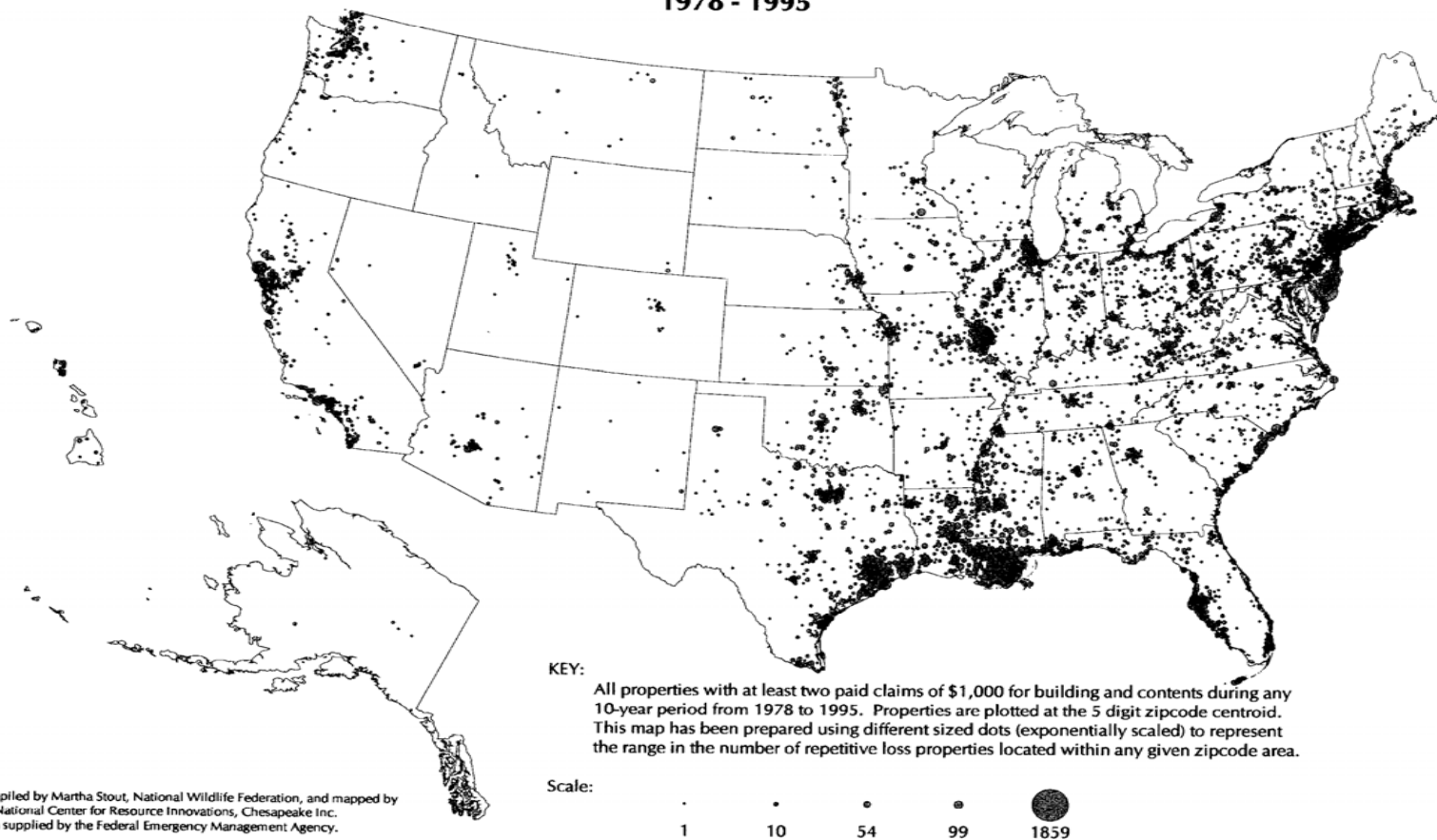
Major Findings

National Flood Damages (constant dollars)



Major Findings

U.S. Properties with Repetitive Loss Claims Paid by the National Flood Insurance Program 1978 - 1995



Compiled by Martha Stout, National Wildlife Federation, and mapped by the National Center for Resource Innovations, Chesapeake Inc. Data supplied by the Federal Emergency Management Agency.



Freq Distrib Rep Losses Per Properties

<u>Repetitive Loss Payments</u>	<u>Properties</u>	<u>Losses</u>
\$17,305,128	27	16-34
\$8,120,317	34	14-15
\$12,400,392	60	12-13
\$27,008,567	170	10-11
\$58,330,698	534	8-9
\$163,466,160	1,983	6-7
\$505,093,263	8,898	4-5
\$576,609,898	15,711	3
\$1,212,925,826	47,078	2
<u>Totals (as of August 1995)</u>		
\$2,581,260,251	74,501	200,182
<u>Totals (as of 7/31/2008) -- Current)</u>		
\$9,284,536,456	142,450	409,783
(non-mitigated) \$8,170,220,515	126,386	359,779
(7-31-08)		



Corps Reform Network

- Origins
- Halting or Reformulating Bad Projects
- Promoting New Directions in Water Resources Development
- Restoration
- Budgets and Policy



Key Water Policy Reforms

- Revision and Modernization of Project Planning (P&G)
- Independent Review of Projects
- Strengthening Mitigation Requirements
- Prioritization



Water Resources Development Act 7 yr

- Corps of Engineers – Water Resources Development Act (H.R. 1495, passed House 4/07; \$13.4 billion, 700+ projects, mostly pre-Katrina; H.R. 1495 Sen. ver., passed Senate 5/07, \$13.9 billion, 600+ projects, post-Katrina), Enacted Nov 2007, 900+ projects and studies, \$23 billion, 400 new projects, 160 project modifications, 138 continuing authorities projects, significant policy provisions. Major issues:
 - Major Policy issues and cost issues
 - Upper Mississippi River Navigation Expansion, others
 - Large cost – drew Bush Administration veto
- S. 664, Water Resources Planning and Modernization Act of 2006 (Feingold –McCain) – Corps Reform legislation
 - **Key issues:**
 - Incorporate Katrina lessons – minimize vulnerabilities when using floodplains
 - Prioritization of Corps of Engineers projects by revived Water Resources Council (WR “Coordinating Council”)
 - Revise “Principles and Guidelines” for Planning Projects
 - Establish Independent Peer Review program
 - Mitigation to at least levels required by Corps Regulatory Program



Water Resources Development Act Principles and Guidelines revision

- Revise Within 2 years
- P&G sets rules to plan and evaluate federal water resource projects of water development agencies
- Not substantially revised since 1983 WRC
- Current rules driven by “maximize net “NED” consistent with environmental policies, laws
- ‘Consult’ with six Departments, EPA, CEQ, NAS, public and experts
- Applies to new feasibility studies and reevaluations and modifications of Corps projects
- WR Priorities Report – Presidential report on flood vulnerabilities – review all federal flood programs (2032)



National Water Resources Planning Policy

- It is the policy of the United States that all water resources projects should reflect national priorities, encourage economic development and protect the environment by—
 - (1) seeking to maximize sustainable economic development;
 - (2) seeking to avoid the unwise use of floodplains and flood-prone areas and minimizing adverse impacts and vulnerabilities in any case in which a floodplain or flood-prone area must be used; and
 - (3) protecting and restoring the functions of natural systems and mitigating any unavoidable damage to natural systems. (Sec. 2031(a) WRDA 2007).



Additional Considerations in Revising Principles and Guidelines -- address

- (1) the use of best available economic principles and analytical techniques, including techniques in risk and uncertainty analysis;
- (2) assessment and incorporation of public safety in the formulation of alternatives and recommended plans;
- (3) assessment methods that reflect the value of projects for low income communities;
- (4) assessment methods that reflect the value of projects that use nonstructural approaches;
- (5) assessment and evaluation of the relationship of a project to other water resources projects and programs within a region or watershed;
- (6) use of contemporary water resources paradigms, including integrated water resources management and adaptive management; and
- (7) evaluation methods that ensure that projects are justified by public benefits.



Mitigation of Fish and Wildlife and Wetlands Losses, cont. (Sec 2036)

- Annual Monitoring of “Mitigation Success”
 - Consult with appropriate Federal and state F&W agencies
 - Likelihood and timeline for mitigation success
 - Monitoring must continue until MS achieved
- Annual Status report with submission of Presidents budget
 - For all projects under construction or with incomplete mitigation
 - Internet
- Mitigation banks given incentives



Mitigation of Fish and Wildlife and Wetlands Losses (Sec 2036)

- Corps projects must at least meet standards of Regulatory programs
- Not less than In-Kind Ecosystem Functions and Values
- Detailed Mitigation Plans
 - Monitoring Plans required
 - Ecological success criteria based on replacement of functions and values
 - Lands and Interests for Acquisition described
 - Habitat restoration detailed
 - Contingency plan for corrective actions - failing



Independent Peer Review

(Sec 2034)

- Mandatory reviews
 - \$45,000,000+ cost projects
 - Governor of affected State requests
 - Controversial project, determined by Chief of Engineers
- Discretionary
 - If Federal or State agency head requests based on significant adverse impact on resources after mitigation
- **All these potentially subject to Exemption**
- Sunsets in 7-years
- Review costs 100% federal, \$500,000 cap, but Chief can waive



Independent Peer Review, cont.

(Sec 2034) Other issues and concerns

- Chief contracts for panels (NAS or other)
- Full scope of review, direct public input not assured
- Timing should be substantial, but could easily be gamed
- Chief can ignore recommendations
- Sunsets in 7-years
- Review costs 100% federal, \$500,000 cap, but Chief can waive
- Separate Safety Assurance Review



Independent Peer Review, cont.

(Sec 2034)

- Conference Report remains highly controversial
- Weakening of Senate provision likely to be revisited in next WRDA
- Uniform implementation will be difficult among 38 Corps Districts



Reform Issues on Short Horizon

- Major implementation of WRDA reforms (studies, regulations, policy changes, procedures)
 - What has happened? All preliminaries.
- WRDA 2009
- National Levee Safety Program
- National Flood Insurance Reforms and interface with Corps Flood Damage Reduction policies
 - Hazard Mapping; Rates; Land Use Standards and Building Codes
- Global Warming and Climate Change Response
 - Kerry Climate Change Amendment
- Revise Bulletin 17B
- National Water Commission
- Reinstate a Federal Water Coordination body such as updated U.S. Water Resources Council



Reform Issues on Short Horizon, cont.

- Funding for Aquatic Ecosystem strengthening and climate change adaptation (e.g. Lieberman – Warner climate bill/ Dingell bill)



Science Interaction with Policymaking

- Policy changes often responding to events
- “Haphazard” How science arrives
- Science conservative in prediction
- Policy change hard without predictive “certainty”
- Scientists must be involved



Questions???



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Independent Peer Review, cont.

(Sec 2034)

- Exemptions, subject to Chief finding
 - No EIS, not controversial, no substantial impacts on F&W and no more than negligible impacts on ESA species and cultural, historic or tribal resources, before mitigation
 - Rehab or replacement of turbines, lock structures or flood gates in same loc.
 - Or, No EIS and a Continuing Auth. Project



New Policy Statement (cont.)

By seeking to:

- “maximize sustainable economic development”
- Avoid unwise use of floodplains and flood-prone areas and minimizing adverse impacts and vulnerabilities in any case in which a floodplain or flood-prone area is used
- Protecting and restoring functions of natural systems and mitigating any unavoidable damage to natural systems



Major Mississippi Valley Project Concerns 2008

- Yazoo Backwater Pumping Plant, MS
- St. Johns New Madrid Flood Control, MO
- Upper Mississippi-Illinois River Navigation Expansion / Ecosystem Restoration / EMP
- Grand Prairie Irrigation “Demonstration” Project, White River, AR
- Industrial Canal, New Orleans, LA
- Louisiana Coastal Restoration



Water Resources P&G revision (Sec 2031)

- Within 2 years
- P&G sets rules to plan and evaluate federal water resource projects of water development agencies
- Rules not substantially revised since 1983 Water Resources Council promulgation
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Independent Peer Review (Sec 2034)

Key concerns:

- Independence of the process
- Unrestricted scope of review
- Reliable review of costly and controversial projects
- Open process and direct public access to reviewers
- Accountability



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P & G Policy Statement (2031 (a))

- Reflect national priorities
- Encourage economic development
- Protect the environment

