



**EESI**

Environmental and  
Energy Study Institute

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# CONGRESSIONAL BRIEFING

**Climate Adaptation Programs across Agencies  
Briefing Series | Agencies in Action: Federal  
Programs That Deliver Climate Mitigation and  
Adaptation Benefits Every Day**

Friday, March 18, 2022

# About EESI...



## **NON-PROFIT**

Founded in 1984 by a bipartisan Congressional caucus as an independent (i.e., not federally-funded) non-profit organization



## **NON-PARTISAN**

Source of non-partisan information on environmental, energy, and climate policies



## **DIRECT ASSISTANCE**

In addition to a full portfolio of federal policy work, EESI provides direct assistance to utilities to develop “on-bill financing” programs



## **SUSTAINABLE SOCIETIES**

Focused on win-win solutions to make our energy, buildings, and transportation sectors sustainable, resilient, and more equitable

# Polymaker Education



## Briefings and Webcasts

Live, in-person and online public briefings, archived webcasts, and written summaries



## Climate Change Solutions

Bi-weekly newsletter with everything policymakers and concerned citizens need to know, including a legislation and hearings tracker



## Fact Sheets and Issue Briefs

Timely, objective coverage of environmental, clean energy, and climate change topics



## Social Media (@EESIONline)

Active engagement on Twitter, Facebook, LinkedIn, and YouTube



# “A Resilient Future for Coastal Communities” Report



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## A RESILIENT FUTURE FOR COASTAL COMMUNITIES

Federal Policy  
Recommendations from  
Solutions in Practice



**Six Guiding Principles**



**30 Policy  
Recommendations  
(with Examples) Across  
Six Themes**



**Eight Policy Levers**



**Organized by Category  
and Policy Lever**



**Definitions, References,  
and Program Catalog**

# “A Resilient Future for Coastal Communities” Policy Principles



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- Federal policies and programs must be designed and implemented **based on the climate of the future** rather than the climate of the present or past.
- **Climate justice and equity** must be fully embedded into new policies and programs and incorporated into ongoing efforts.
- The federal government should take a leadership role in **connecting science with practice**, and support and expand collaborations with state, local, and tribal efforts.
- The federal government should take a leadership role to ensure that **intra- and inter-agency coordination** helps states, local governments, and tribes to access available coastal resilience resources.
- Federal investments in coastal communities must be leveraged to **create local jobs and help develop a workforce** trained in adaptation and resilience.
- Climate adaptation and resilience work should complement and, when possible, contribute to a **decarbonized, clean energy economy**.



# Climate Adaptation Science and Policy in the Biden-Harris Administration

Laura Petes, Ph.D.

Chief of Staff, Climate and Environment  
Assistant Director for Climate Resilience

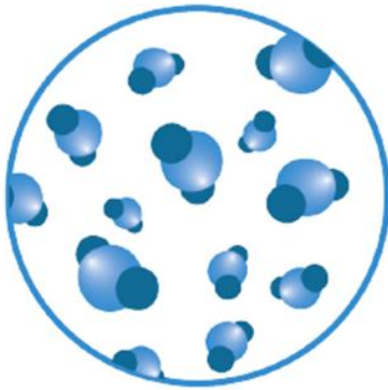
Office of Science and  
Technology Policy



Photo credit: Lloyd Whitman

# RAPID CHANGES TO EARTH'S CLIMATE

**CO<sub>2</sub>**  
concentration



**Highest**  
in at least  
**2 million years**

**Sea level**  
rise



**Fastest rates**  
in at least  
**3000 years**

**Arctic sea ice**  
area



**Lowest level**  
in at least  
**1000 years**

**Glaciers**  
retreat



**Unprecedented**  
in at least  
**2000 years**



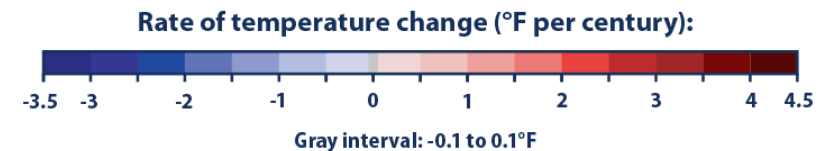
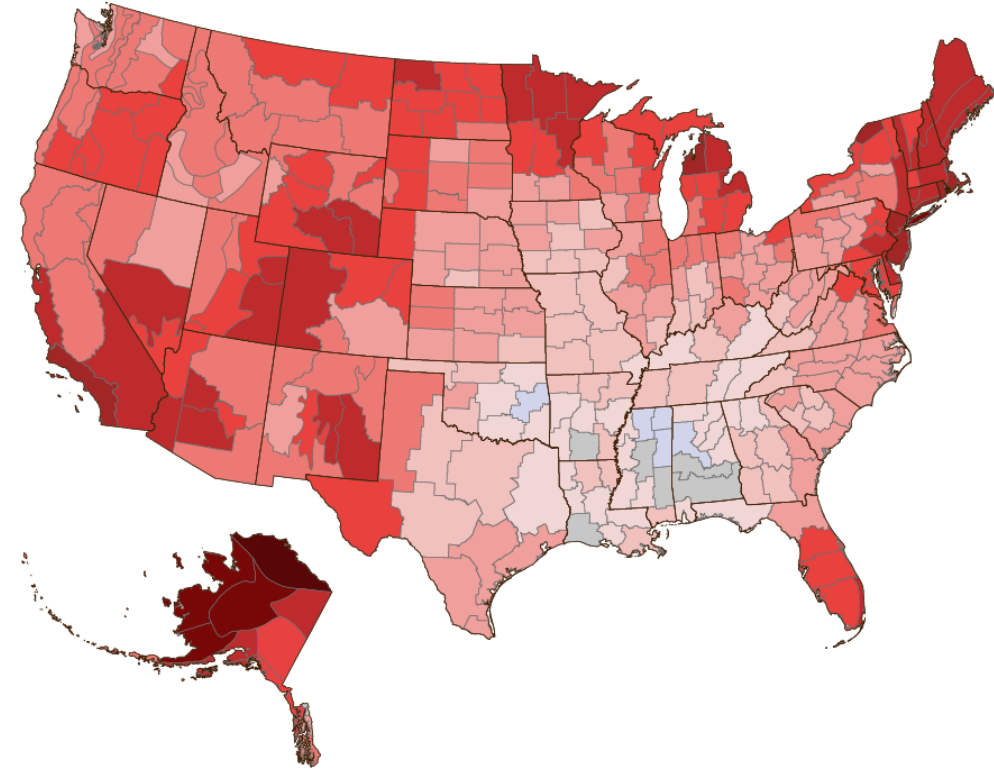
*IPCC, 2021*



# A CHANGING CLIMATE AFFECTS US ALL

- Temperatures are rising across the United States.
- Heat waves have become more frequent, and cold waves have become less frequent.
- Annual average temperatures will continue to rise.

Rate of Temperature Change in the United States, 1901–2020





# THE CHOICES WE MAKE NOW MATTER

- **Mitigation:** reducing emissions of greenhouse gases (or removing carbon dioxide from the atmosphere)
- **Adaptation:** reducing risks from today's changed climate and preparing for future impacts
- Future impacts and risks from climate change are directly tied to decisions made in the present



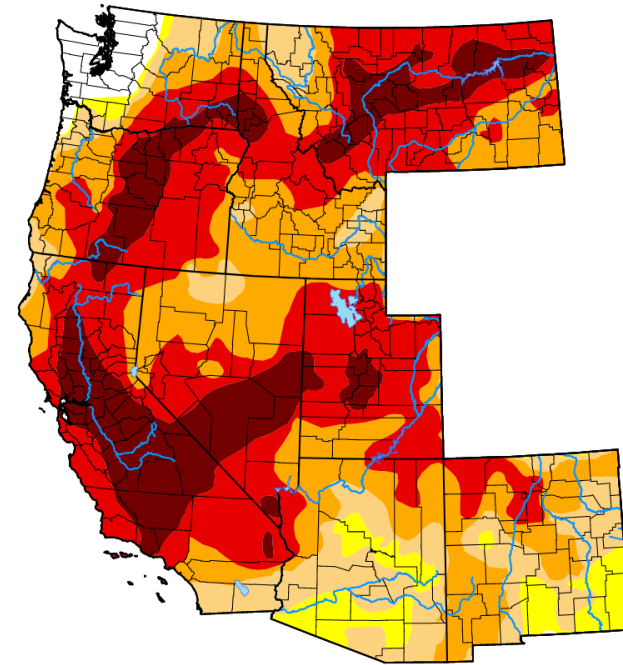
# FEDERAL ADAPTATION LANDSCAPE

- Integrating resilience into Federal agency efforts
- Providing funding/incentives
- Addressing current and emerging climate-related hazards
- Advancing usable science to inform adaptation decisions



# TACKLING THE CLIMATE CRISIS

- Executive Order 14008
  - Ambitious actions to reduce emissions and enhance resilience
  - <https://www.whitehouse.gov/climate/>



*Drought conditions Nov. 19, 2021 from U.S. Drought Monitor*

# ENHANCING ADAPTATION AND RESILIENCE

- Increasing the resilience of Federal agency facilities, procurement, and acquisitions through climate action plans (under EO 14008); agency plans released in October 2021

<https://www.sustainability.gov/adaptation/>

- Major investments in resilience through the Infrastructure Investment and Jobs Act
- Integrating resilience as a focus for the WH environmental justice; advancing Justice40





# ADDRESSING CURRENT AND EMERGING HAZARDS

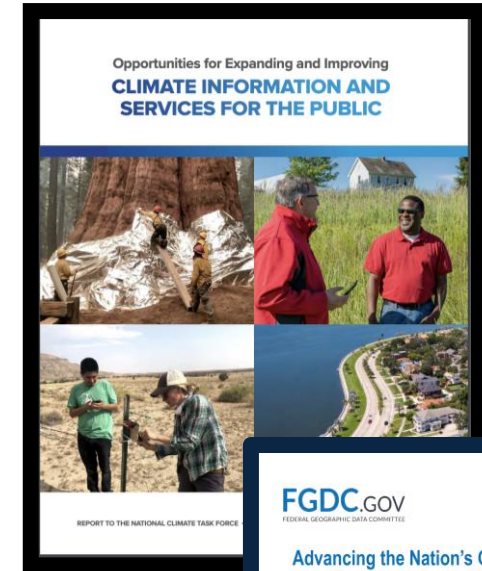
## National Climate Task Force Working Groups:

- Wildfire Resilience
- Coastal Resilience
- Extreme Heat Resilience
- Drought Resilience
- Flood Resilience



# ADVANCING ACTIONABLE CLIMATE INFORMATION

- OSTP, NOAA, and FEMA report on climate information and services
- Federal Geographic Data Committee report on geospatial data and mapping tools



# ADVANCING ACTIONABLE CLIMATE INFORMATION

- Founded by law in 1990, USGCRP is a consortium of 13 Federal agencies mandated to advance understanding, assessment, prediction, and response to global change
  - Coordinates research
  - Informs decisions
  - Oversees the National Climate Assessment
  - Supports international efforts
    - U.S. participation in international assessments (e.g. IPCC, Arctic Council)
    - International secretariats (Future Earth, START, WCRP)



# PRIORITIES FOR FIFTH NATIONAL CLIMATE ASSESSMENT (NCA5)

- Advance the Conversation
- Make it Accessible to a Broad Audience
- Be Creative in Communication
- Make it About People
- Ensure it is Useful and Usable

Importantly, ensure that the NCA is inclusive and representative in participation and engagement.





# NCA5 UPDATE

- Public comment on the Draft Prospectus
- Call for author nominations and technical inputs
- Chapter leadership selection
- Author team selection
- Development of Zero Order Drafts
- Public engagement – just completed 34 workshops; thousands of people participated
- Ongoing call for technical inputs: <https://www.globalchange.gov/nca5>



For updates, sign up for the [USGCRP newsletter](#) and follow us on Twitter @usgcrp



# LOOKING TO A RESILIENT FUTURE

- Ensuring that Federal Government programs and investments are resilient to climate change
- Adaptive management of natural resources
- Enhancing the climate resilience of infrastructure
- Ensuring that Americans have access to usable climate science information
- Taking action to reduce emissions, to limit what we need to adapt to





# Thank you!

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[www.whitehouse.gov/ostp](http://www.whitehouse.gov/ostp)

[www.ostp.gov](http://www.ostp.gov)

@WHOSTP



Photo credit: Lloyd Whitman

# EESI Briefing: Climate Adaptation Programs Across Agencies

Cathleen B. Berthelot

Senior Policy Manager

Restore the Mississippi River Delta



# ABOUT US

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Restore the Mississippi River Delta is working to secure a just, climate-resilient coast where people and nature thrive. As our region faces the crisis of land loss and climate change, we seek to advance an equitable, safer and flourishing coast for Louisiana's communities, ecosystems and economy. We are composed of conservation, policy, science and outreach experts from Environmental Defense Fund, National Audubon Society, the National Wildlife Federation, Coalition to Restore Coastal Louisiana and Pontchartrain Conservancy.

We have been working together for almost 12 years and are at an exciting time for our work as major sediment diversions advance towards construction and the state is building restoration projects at an unprecedented pace. In 2021 the MRD underwent a strategic planning process to consider what our work together will look like in the future, with a focus on equity and climate resilience.

National partners:



Local partners:



**RESTORE**  
THE MISSISSIPPI RIVER DELTA

# Louisiana Coastal Land Loss: *Over 2,000 square miles lost since 1932*



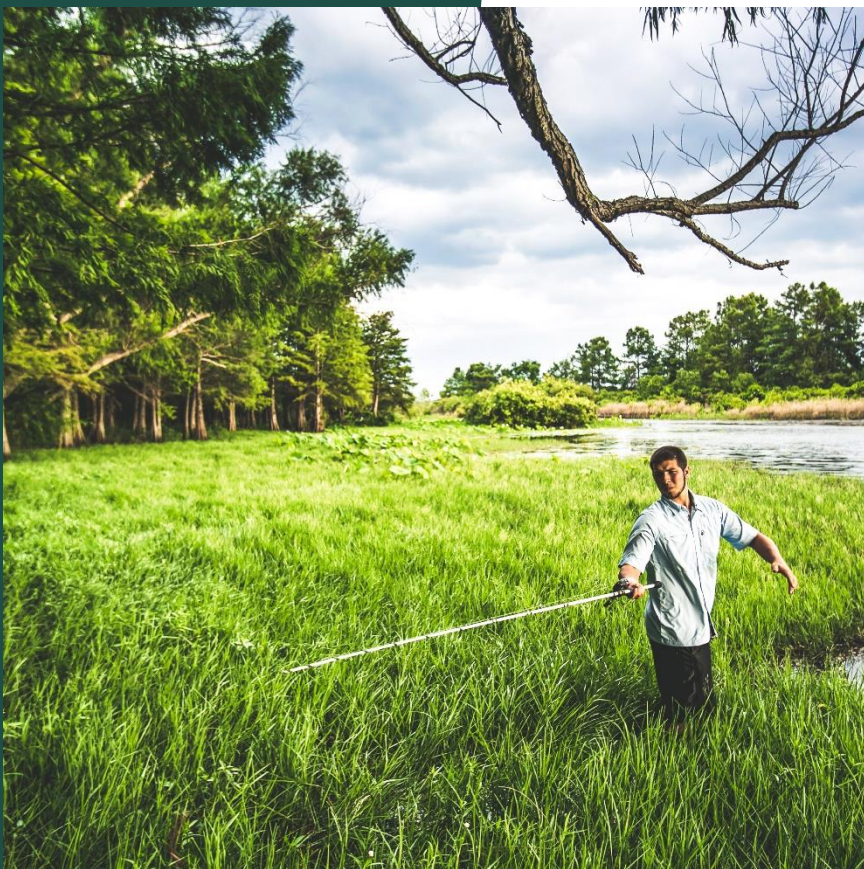


## WHAT WE KNOW

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Louisiana is in the midst of a land loss crisis that without action could claim another 2,250 sq. miles within the next 50 years





## WHAT'S AT STAKE

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### A LIVING SANCTUARY

for some of the most  
productive wildlife and  
fishery habitats in the  
country

### AN ECONOMIC ENGINE

that feeds and fuels our  
nation, and a portal  
connecting us to the rest of  
the world

### A NATURAL LINE OF DEFENSE

for our region's  
communities

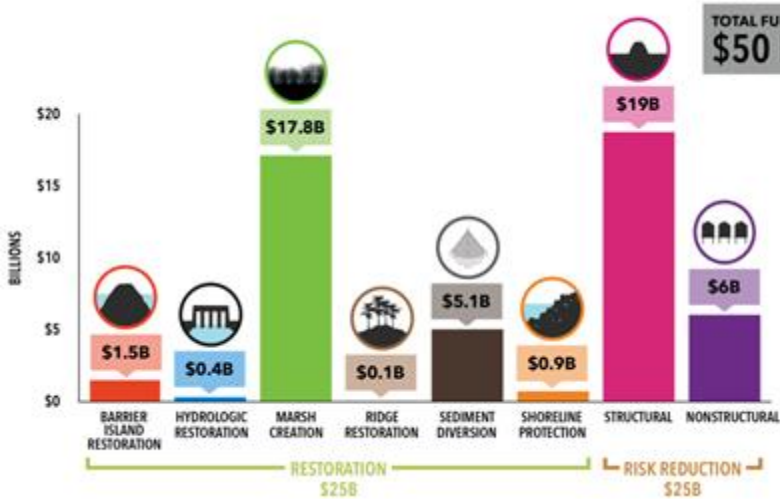
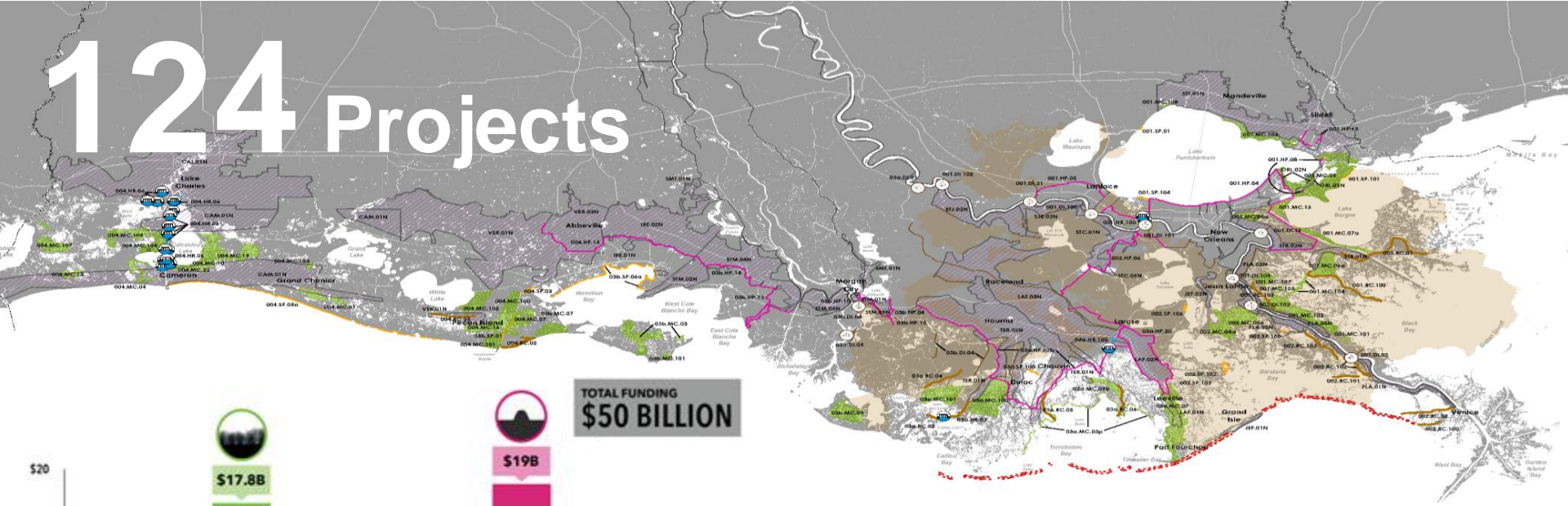
### HOME

to more than 2 million  
people across coastal  
Louisiana



# A Comprehensive Plan for Louisiana's Coast

# 124 Projects



**\$150B**  
Flood Damage  
Reduction

**802m<sup>2</sup>**  
Land Created

# Coastal Restoration Toolbox

Sediment  
Diversion



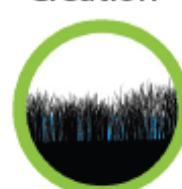
Shoreline  
Protection



Ridge  
Restoration



Marsh  
Creation



Hydrologic  
Restoration



Bank  
Stabilization



Oyster  
Barrier Reef



Barrier Island  
Restoration



# Whose Funds?



## CPR Trust Fund

- State Mineral
- State Surplus (most)
- GOMESA
- CWPPRA Reimbursement
- Interagency Transfers



## NRDA



NFWF

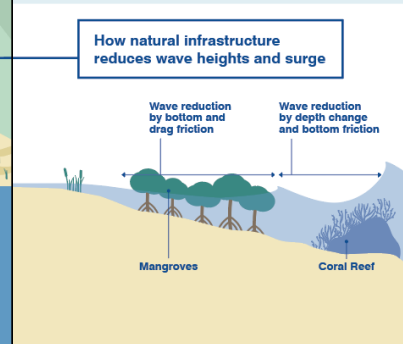
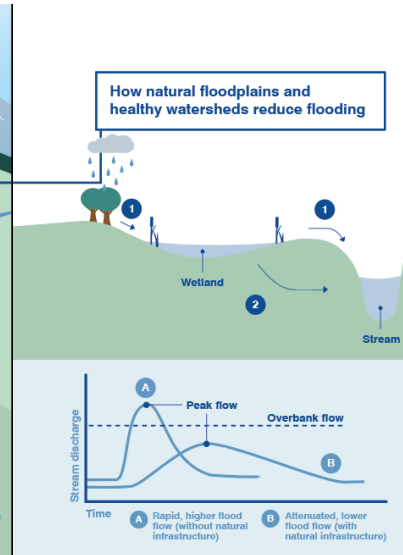
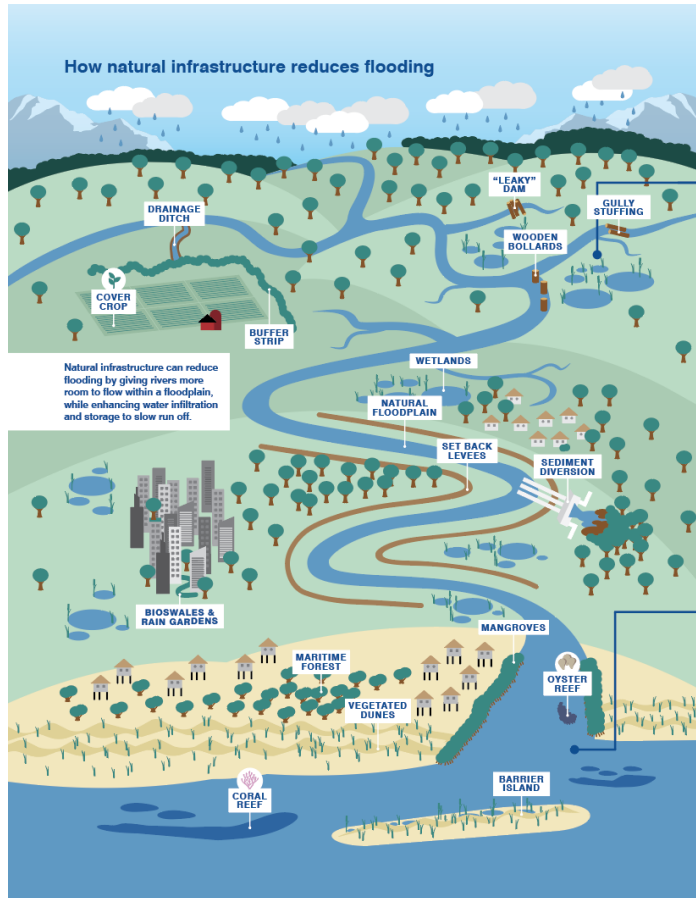


## RESTORE 1



## RESTORE 2 & 3

# Why natural infrastructure?



## Natural Infrastructure Examples and Benefits

**Barrier islands:** offshore sand islands that absorb wave energy to reduce erosion.

**Bioswales and rain gardens:** low-lying vegetated areas that slow and cleanse urban runoff.

**Cover crops:** planted agricultural fields to increase soil permeability and slow surface runoff.

**Curved drainage ditch:** meandering agricultural drainage ditch that mimics small streams to slow velocity of water and support growth of wetlands.

**Double U drainage ditch:** a two-tiered drainage ditch that captures sediment, removes nutrients and supports wetland growth.

**Floodplain restoration:** Restoration approach that puts the stream channel and floodplain at or near historical elevations and locations, benefitting water quality, increasing absorption and providing wildlife habitat.

**Gully stuffing:** logs and woody debris placed in ditches, gullies or channels to slow the flow of water and trap sediment.

**Leaky dams:** woody debris placed across a stream or channel that allows fish passage, provides habitat, and disperses and slows flow of water.

**Mangroves:** coastal shrubs/trees with dense roots and stems that reduce wave energy and height, trap storm debris and slow inland transfer of water.

**Maritime forests:** dense coastal vegetation that reduces wind and wave energy and captures debris to buffer inland areas from storm damages.

**Oyster, shellfish, and coral reefs:** function like submerged breakwaters to buffer coastal areas from waves and reduce erosion, while oyster and shellfish reefs improve water quality.

**Sediment Diversion:** strategically placed and managed structures that reconnect rivers to wetlands and deliver sediment, freshwater and nutrients to build and maintain coastal land.

**Set-back levees:** levees built well beyond the river to allow natural floodplain flooding and store water, slow stream velocity, and reduce downstream flood height.

**Vegetated Dunes:** vegetated mounds or ridges adjacent to beaches or on barrier islands that trap and stabilize sand and absorb storm surge and waves.

**Wetlands:** act as sponges by slowing and absorbing water to reduce flood heights and storm surge velocity and height.

**Wood bollards:** wooden structures or tree stumps placed in streams to decrease stream velocity near river banks and reduce erosion of banks.





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# “Agencies in Action: Federal Programs That Deliver Climate Mitigation and Adaptation Benefits Every Day” Briefing Series

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-  **February 08**      **Financing Inclusive Clean Energy Investments in Rural America**
-  **February 24**      **Energy Efficiency Means Business**
-  **March 18**      **Climate Adaptation Programs across Agencies**
-  **March 29**      **Building a Durable National Framework for Large Landscape Conservation**



# What did you think of the briefing?

**Please take 2 minutes to let us know at:**  
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