



Climate change is the most important, incredibly complex issue affecting work across all scales of the National Park Service – NPS Director, Jon Jarvis



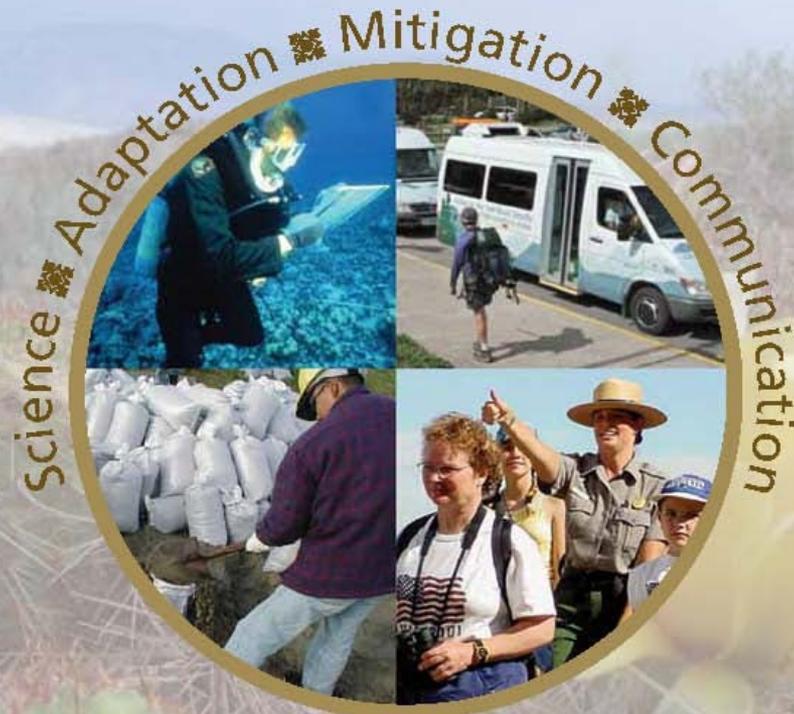


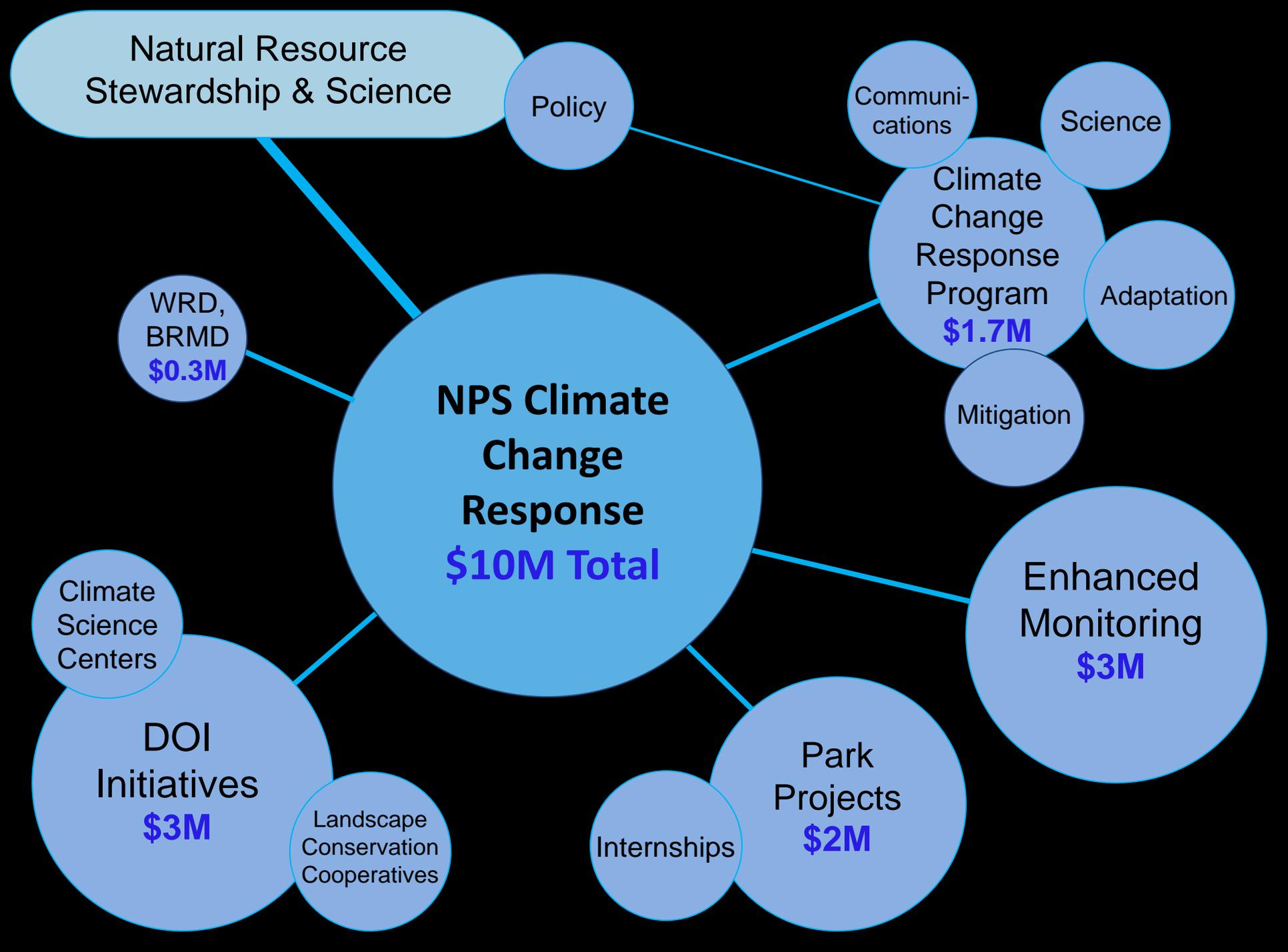
4 Key Components

- Mitigation
- Adaptation
- Communication
- Science

National Park Service Climate Change Response Strategy

DRAFT February 2010, Version 1.0







Parks Projects: \$2.7M

- Acadia - salt marshes and sea level rise
- Beach mouse and sea level rise
- Vulnerability to sea level rise - tidal reaches of Potomac & Anacostia Rivers
- Pikas in Peril: multi-regional vulnerability assessment
- Climate refugia and connectivity for desert bighorn sheep
- Effects of climate change on the Karner blue butterfly
- Multiregional evaluation of pollinator response to CC
- Shenandoah salamanders – effects of climate change
- Wolverine Assessment and Recovery
- Flow Regime, Floodplain Inundation and Species Habitats at Congaree
- Impacts of Fire Management on Carbon Stock Stability
- Climate Change Scenario Planning for National Parks in Alaska
- [Quantitative Forecasting of Climate Change Impacts at WICA](#)
- Improve Communication about Climate Change Impacts and Park Response
- Archeological and Paleoecological of Ice Patches
- Response of OLYM Glaciers to Climate Change
- Phenology Network in California Parks
- [Climate Change, River Flow, and Riparian Cottonwood Forests at THRO](#)



Inventory and Monitoring (I&M) Program: Our Role in NPS Climate Change Activities

- **All 32 I&M Networks will provide staff time, expertise, and data for various landscape-level modeling efforts, vulnerability assessments, and scenario planning. Much of NPS capacity for science, data analysis, and modeling currently resides with the I&M program.**
- **All 270+ parks that are part of the I&M program have received a DVD with landcover and other remotely-sensed data, maps, charts, graphs, and tables at multiple scales that will serve as an important data source to use in upcoming adaptation planning, scenario planning, and vulnerability assessment efforts. This data is also available for use in Landscape Conservation Cooperative (LCC) planning efforts.**
- **NPS's NRInfo data and information portal has a security system in place for Identity Management. This new portal allows NPS to integrate and share our I&M data with agencies, while still protecting sensitive data. Exchange modules have already been tested and allow us to currently share data with the U.S. Fish and Wildlife Service and U.S. Department of Agriculture.**

Data Sets that I&M currently has available:



Landcover

Enhanced NLCD 1992

NLCD 1992

NLCD 2001

NLCD Change Product

NLCD Impervious Surface

NLCD Tree canopy

Historic Natural Fire Regime

LandFIRE – all products

Land cover diversity (Simpson's)

NatureServe Ecological Systems

GAP/ReGAP

Land cover characteristics

Forest fragmentation

Morphological pattern metrics

Forest cover types

Converted and natural landcover

Landform

DEM- 10, 30, and 120 meter

Slope and aspect

Depth to bedrock

Sand, silt, clay fractions

Crop capability

Geology

Climate

Precipitation

Temperature (min/max)

Growing season days

NDVI

Sea surface temperature

Transportation

Roads (Multiple data sources)

Railroads (U.S. and Canada)

National Waterways

Population

Nighttime lights (1992/3, 2000)

Populated places

U.S. cities

U.S. urban areas

1990, 2000 Census, block group

Population projections by county

SEDA census grids

Housing density (1940-2040)

Inventoried roadless area

Agriculture census by county

Conservation risk index

Wildland Urban Interface

Boundaries

Omernick Ecoregions (and CEC)

Bailey Ecoregions

Physiographic Provinces

UNEP Large Marine Ecosystems

States

Counties

NPS Units (with various buffers)

NPS Vital Signs Networks

Protected Areas Boundaries

Federal Lands

National Wilderness Pres. System

NCDC Climate Divisions

Continental Divide

NEON Domains

Hydrology

Hydrologic Units (4, 6, 8, 12-digit)

NHD (med and high resolution)

Impoundments

Aquifers

Groundwater climate resp. network

Sea ice (North America)