

The U.S. Department of the Interior: Toward Land-Based Carbon Management

Presentation for COP-15

David Hayes, Deputy Secretary
U.S. Department of the Interior

U.S. Department of the Interior



The Department of the Interior (DOI) is responding to climate change impacts in all 50 states, through:



- **Secretarial Order 3289 “Addressing the impacts of climate change on America’s water, land, and other natural and cultural resources.”**

- **Adaptive management of our land, water, fish and wildlife, cultural heritage and tribal resources**

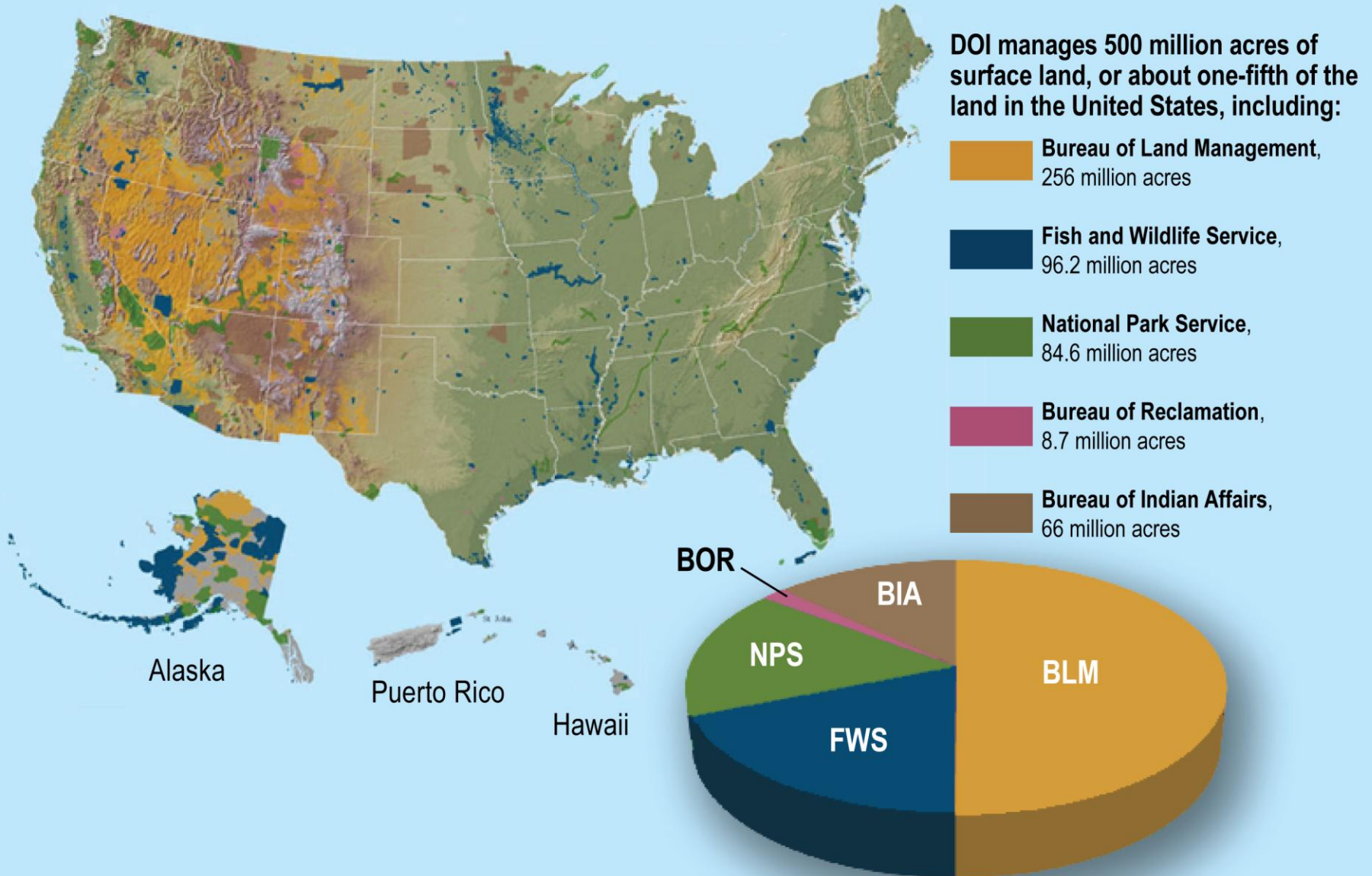
- **Synthesize climate impact data**
- **Develop adaptation tools**
- **Coordinate actions on a landscape level**

- **Action to mitigate climate change**

- **Development of renewable energy**
- **DOI Carbon Storage Project (biological and geological)**
- **DOI Carbon Footprint Project**

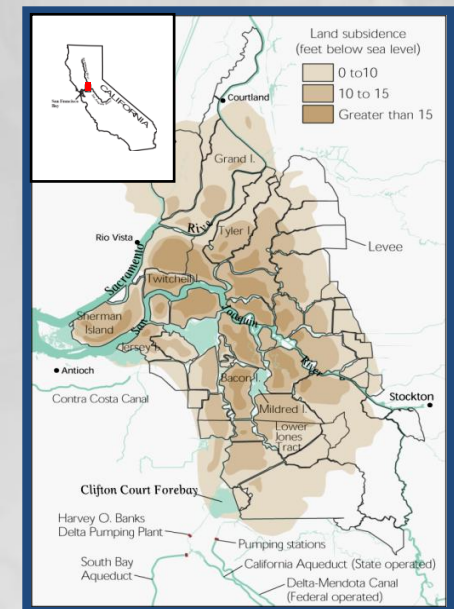


U.S. Department of Interior Land Ownership



Carbon Benefits of Natural Landscapes

- Plants and soils store carbon naturally in many ecosystems – e.g. forests, grasslands, wetlands -- and can help:
 - mitigate climate change
 - restore and improve the health of ecosystems
 - facilitate adaptation to climate change
 - create economic growth engines and green jobs.
- Projects designed to sequester carbon should be science-based and provide net positive benefits:
 - Carbon storage, clean water, clean air, habitat, biodiversity, open space, recreation and green jobs.
- Sequestering carbon on public lands may be more durable than other types of land ownership.



Carbon Sequestration & Sustainable Landscapes – Domestic and International

**DOI scientists and resource managers
have expertise and credibility for:**

- **DOI carbon sequestration projects on public lands**
- **Remote sensing (e.g., Landsat and Landfire) to detect global changes in forest cover**
- **Environmental credibility**
 - **Science-based measurement and verification**
 - **Management for permanence of carbon storage**
 - **Management for multiple ecosystem co-benefits in addition to carbon sequestration**

Rapid Assessment of Biological Carbon Sequestration Potential

Products as of December 2009:

- Estimates of current biological carbon storage in soils and plants
 - across the nation
 - specifically on DOI lands
- Estimates of how much more biological carbon could be stored under a range of idealized disturbance conditions
 - across the nation
 - specifically on DOI lands

Products as of Spring 2010:

- Final report of current and potential biological carbon storage in soils and plants



Possible Future Carbon Sequestration Across the Conterminous U.S.

Existing land cover (millions hectares)	Existing Soil Carbon (PgC)	Existing Plant Carbon (PgC)	Range of Possible Additional Carbon Storage in Plants (PgC)
Total (811)	73.42	15.28	4.38 – 12.84
Forests (266)	25.13	14.46	-1.57 – 3.07
Agriculture/developed (221)	27.42	0.42	5.12 – 7.45
Shrublands (159)	9.67	0.26	0.32 – 1.15
Other (165)	11.20	0.14	0.46 – 1.17
Total DOI lands (91.6)	3.48	0.66	0 – 0.49

Biological Carbon Sequestration can:

Enhance adaptation and mitigation of climate change impacts

Improve/Preserve ecosystem services and sustainable development objectives

Foster international collaboration and partnerships

- new DOI technology can help measure and mitigate carbon emissions nationally and globally

DOI stands ready to offer technical assistance in these areas and to learn from other nations.

