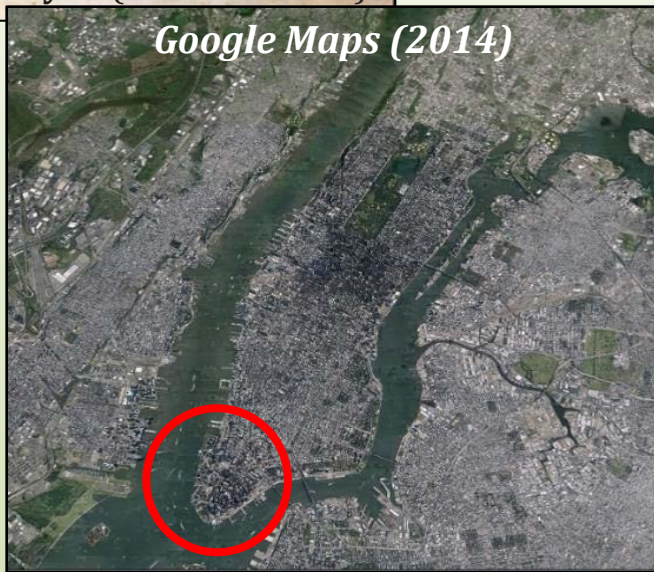
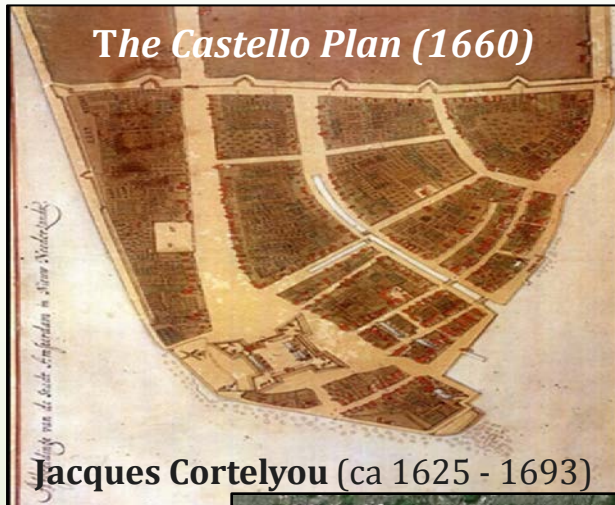




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# Landscape Conservation Design:

*An adaptation pathway for social transformability in sustainability planning*

**Rob Campellone**

USFWS, Policy Advisor

Landscape Conservation Design

From Theory to Practice Workshop

December 2016



## Presentation Overview

- How does FWS define landscape level planning?
- How does FWS think about landscape planning?
- What are some of the barriers and challenges FWS faces in implementing landscape planning?





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# Question #1: How does FWS define landscape level planning?





# Historical Perspective

## THE ISLAND DILEMMA: BIOGEOGRAPHIC NATURAL RESERVES

Physiology Department  
Los Angeles

A system of natural reserves... system of islands from the... Recent advances in island... understanding what we expect... are as follows:

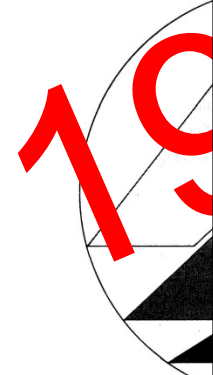
The number of species that... are... isolation... target... species... of most of the area of a habitat... reserve, the reserve will... equilibrium... the excess... higher will be... the extinction... mammal species have recently... Different species require different... survival.

Some geometric design principles... of reserves in saving species.

For terrestrial and freshwater... areas where the species can... survive poorly or not at all... barrier. Many situations that... possess the same distribution... species a mountain top is a dis...

Biol. Conserv. (7) (1975)—© Appleby  
Printed in Great Britain

## WILDLIFE CONSERVATION STRATEGIES Living for Success



Preparation  
Conservation...  
with the advice  
the United States  
and the

the Food  
and the



052 FW 1, Conservation

FWM#: 251 (new)  
Date: April 19, 1996  
Series: Planning and Management  
Part 052: Ecosystem Approach to Fish and Wildlife  
Originating Office: Office of the Director

1.1 Purpose. This chapter presents the conservation... fish and wildlife conservation. It describes... fulfill its mission and serve as a better part...

### 1.2 Ecosystem Approach: Background

A. Conservation literature over the last decade... best be achieved by taking a more holistic... including Federal agencies, the States, and... are experimenting with ecosystem... solutions.

B. "Ecosystem approach" is not a new... conservation biology and the need for a... view of nature. Early ecologists such as Coult... recognizing the role every organism plays...

C. According to current literature and the... approach generally can be characterized as:

- (1) The primary goal is conserving natural... sustainable level of human use.
- (2) Common goals are developed, and many... external stakeholders.
- (3) Management decisions consider the full...
- (4) Management decisions are made based...
- (5) Managers recognize that ecosystems are... and societal circumstances.

D. Building on decades of growing support... Performance Review called for "a proactive... environment through ecosystem management... of Environmental Policy convened an Inter... agencies can best contribute to ecosystem... Task Force's goal is to ensure the effective...

## Strategic Habitat Conservation

Final Report of the  
National Ecological  
Assessment Team

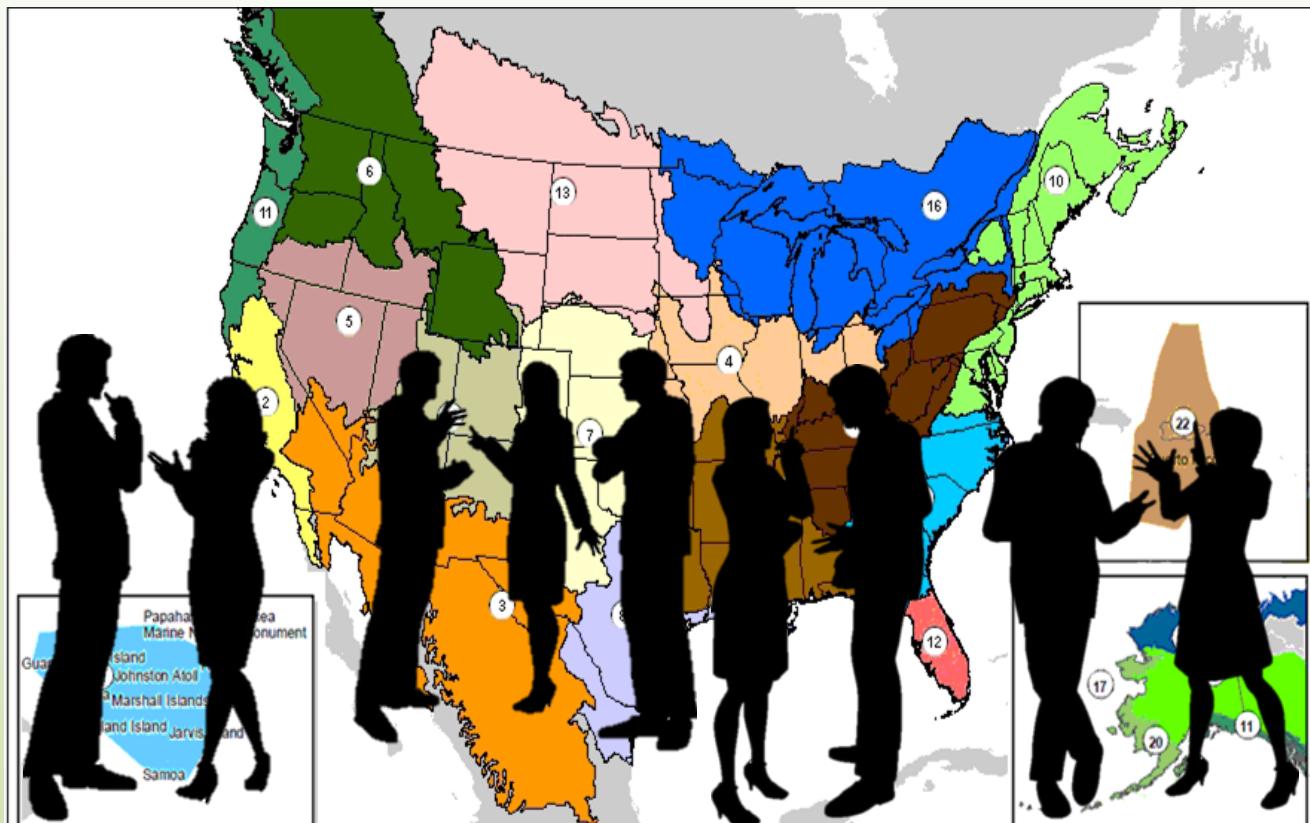


July 2006



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# DOI S.O. 3289: *“LCCs...work together...to develop strategies to respond to climate change” (2009)*

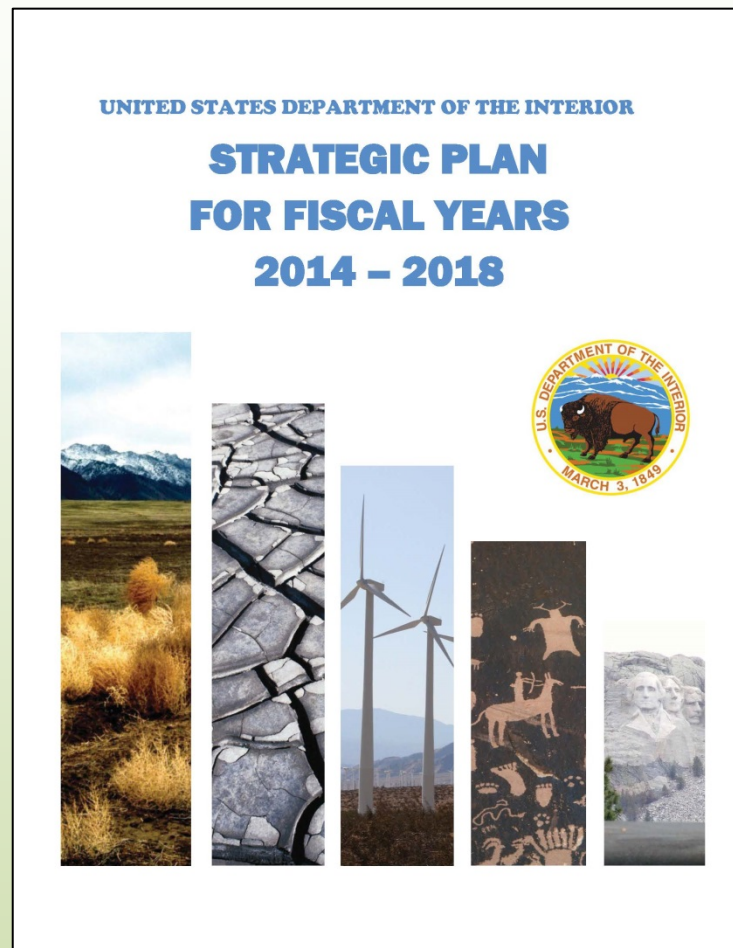
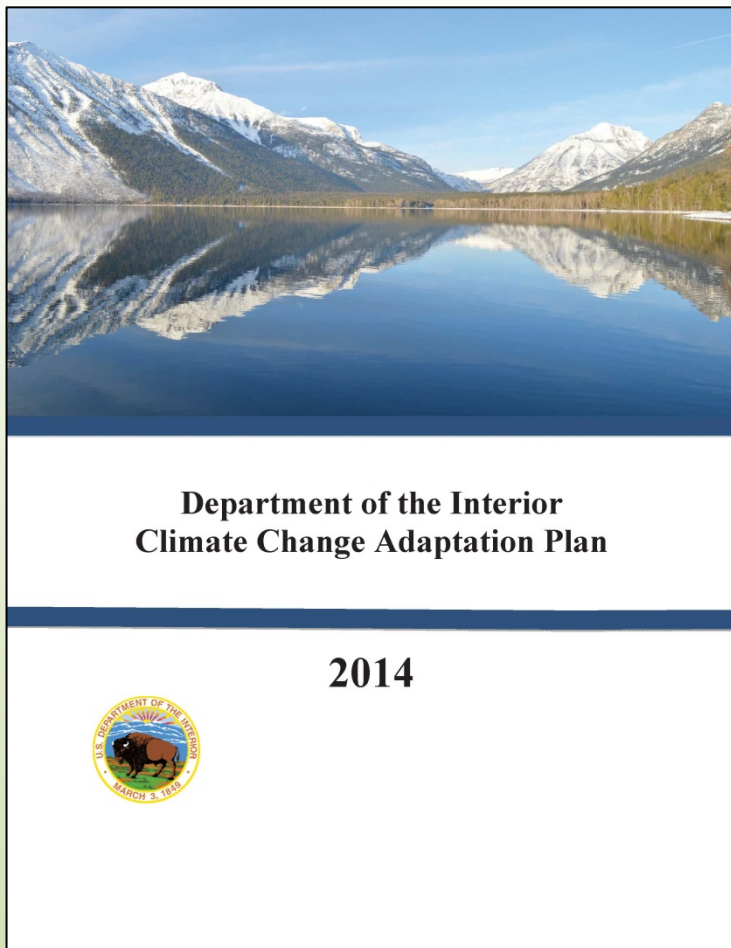




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**DOI:**

***“FWS...develop resilient landscape designs” (2014)***





## Question #2: How does FWS think about landscape planning?





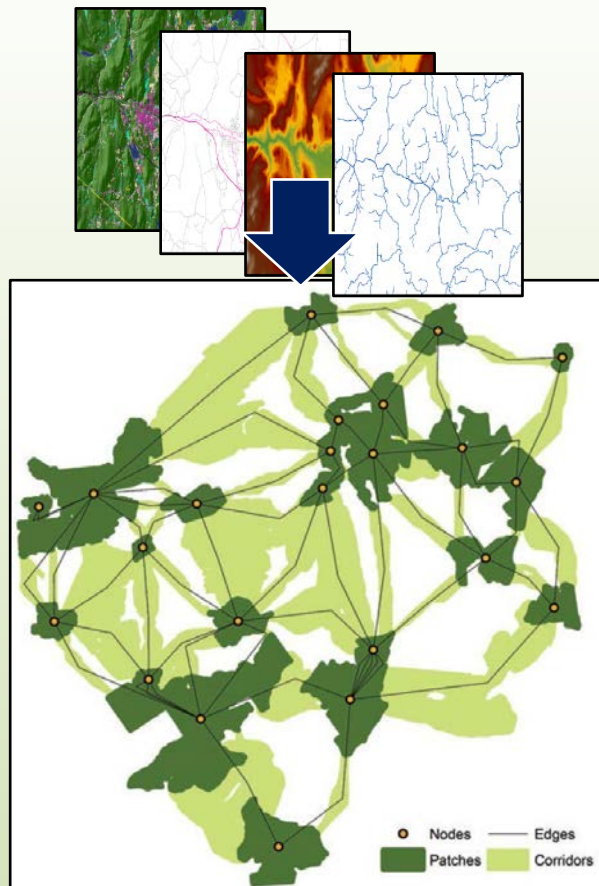
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# National Guidance

*"...plan for connectivity..." (2012)*

## Goal 1: Strategies 1-4

- Identify
- Conserve
- Protect
- Restore....
- ...an ecologically-connected network of lands and waters



Source: NALCC Designing Sustainable Landscapes

(Source: National Fish, Wildlife, and Plants  
Climate Adaptation Strategy (2012))





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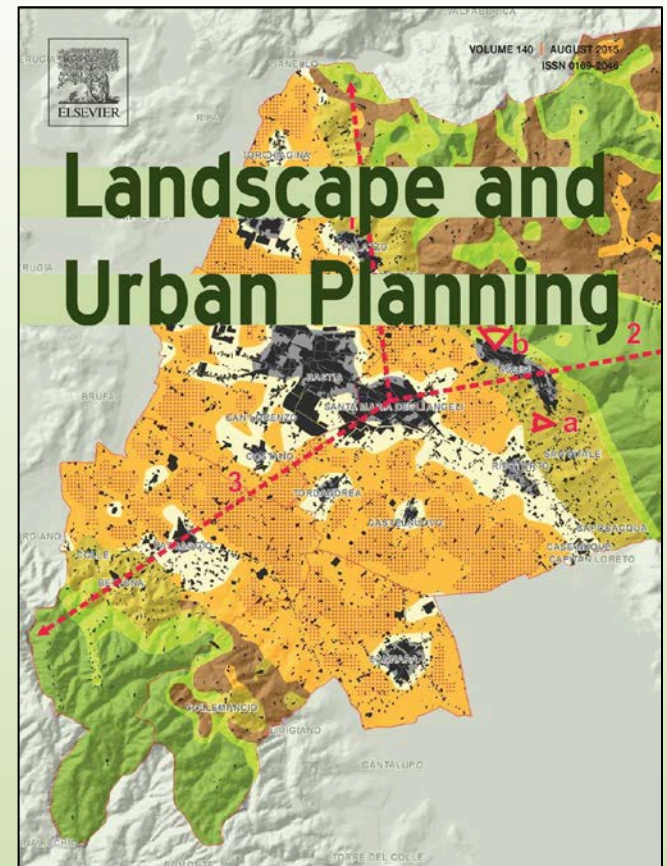
# LCD and the iCASS Platform:

## An Adaptation Pathway to Transformability in Sustainability Planning

*(in review)*

*(in preparation)*

- Rob Campellone (USFWS)
- Tina Chouinard (USFWS)
- Nick Fisichelli (NPS)
- John Gallo (Conservation Biology Institute)
- Joseph Lujan (USFWS)
- Ron McCormick (BLM)
- Tom Miewald (North Pacific LCC)
- Brent Murry (Caribbean LCC)
- D. John Pierce (WA Dept. of Fish & Wildlife)
- Dan Shively (USDA-Forest Service)





# Policy Summary

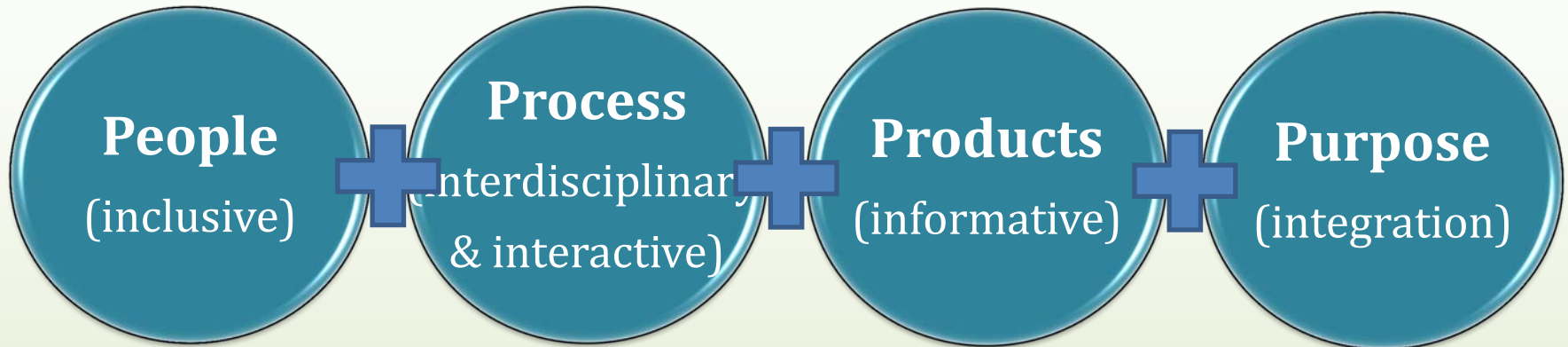
- **Purpose:** Safeguard socio-ecological systems during a time of change
- **Purpose:** Facilitate social learning and develop a coordinated response
- **People:** Convene landscape stakeholders (multi-jurisdiction/-sector)
  - **Process:** Use spatial and scenario planning techniques
- **Products:** Landscape-scale, science-based, conservation & development
- Ecologically-connected networks of lands and waters (**spatial design**)
- Adaptation strategies: coordinated response to change (**strategy design**)





# Landscape Conservation Design

(Campellone et al., in review; NWRS Chief's Guidance 2016)



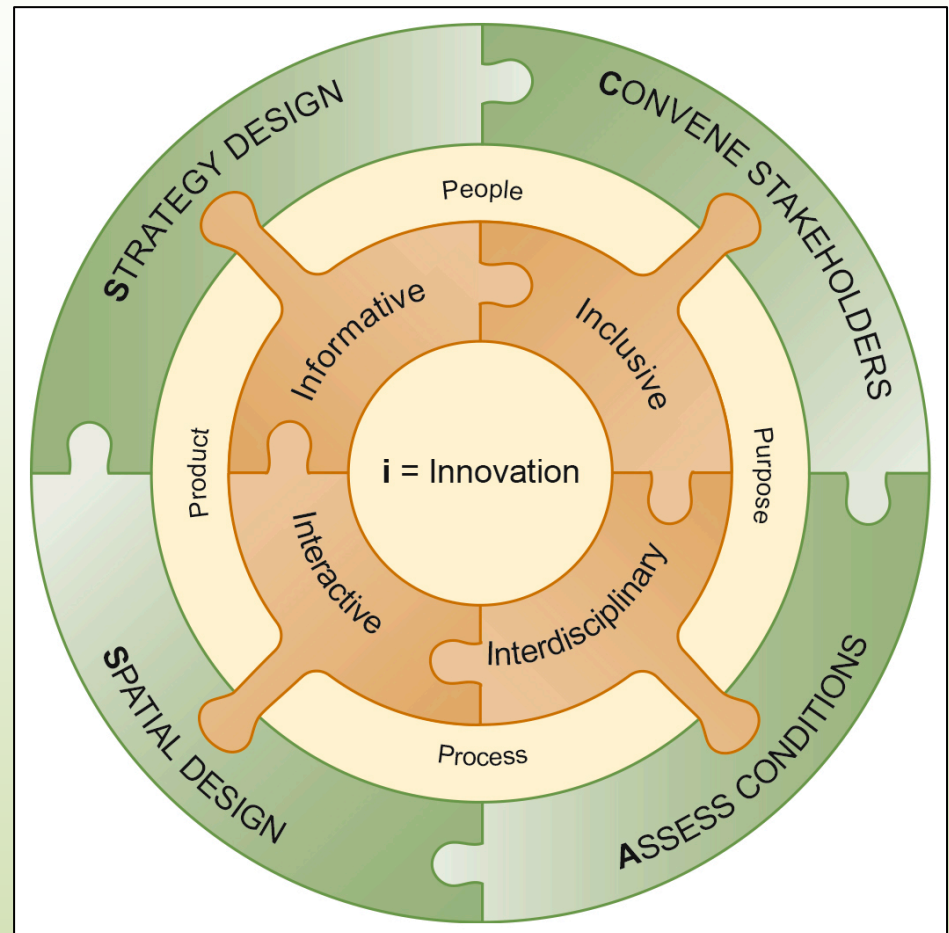
- **(People)** LCD is a stakeholder-driven participatory process that integrates societal values and multi-jurisdiction/-sector interests with...
- **(Process)** ...the best available interdisciplinary science to assess spatial and temporal patterns, vulnerabilities, and opportunities;
- **(Product)** ...to develop spatially-explicit products and multi-objective adaptation strategies that...
- **(Purpose)** ...promote the resilience and sustainability of social-ecological systems for current and future generations.



# iCASS Platform: Attributes

## iCASS Attributes =

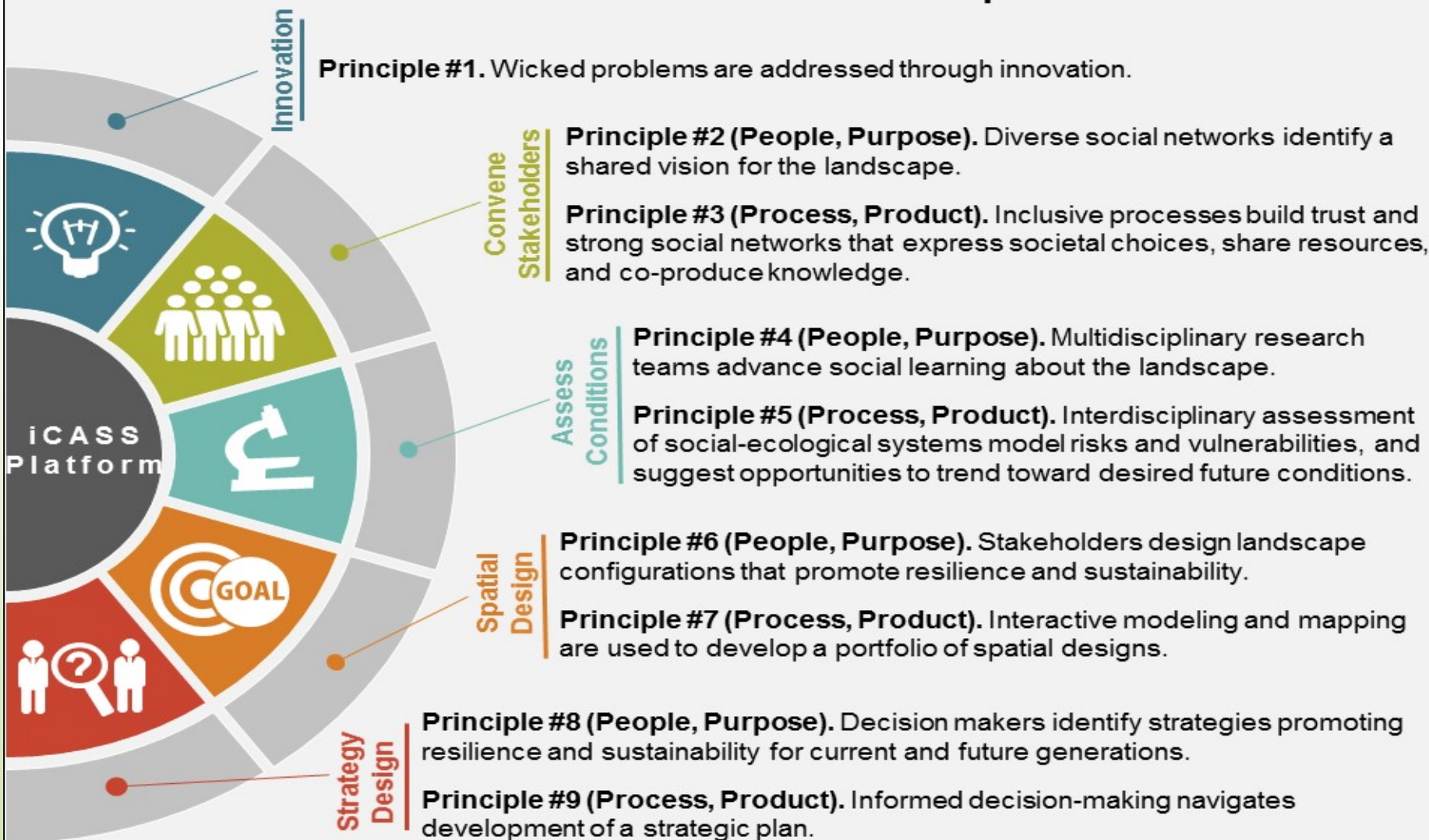
- innovation (inclusive, interdisciplinary, interactive, informative, & iterative)
- Convene Stakeholders
- Assess Conditions
- Spatial Design
- Strategy Design





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### iCASS Platform: A Declaration of Principles for LCD





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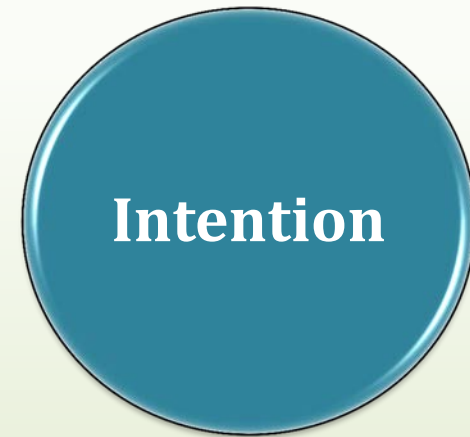
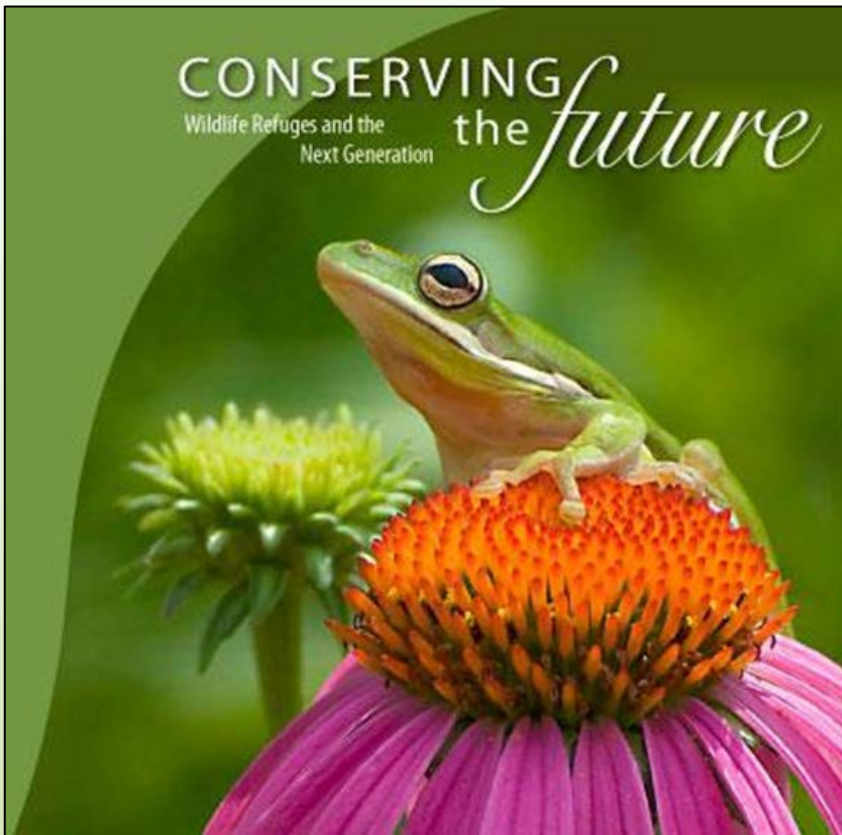
## Question #3: What are some of the barriers and challenges in implementing landscape planning?





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# Why Landscape Conservation Design?



*To embark on a nation-wide trajectory of **landscape conservation** through stakeholder-driven **design** processes undertaken at regional (i.e., landscape)-scales.*



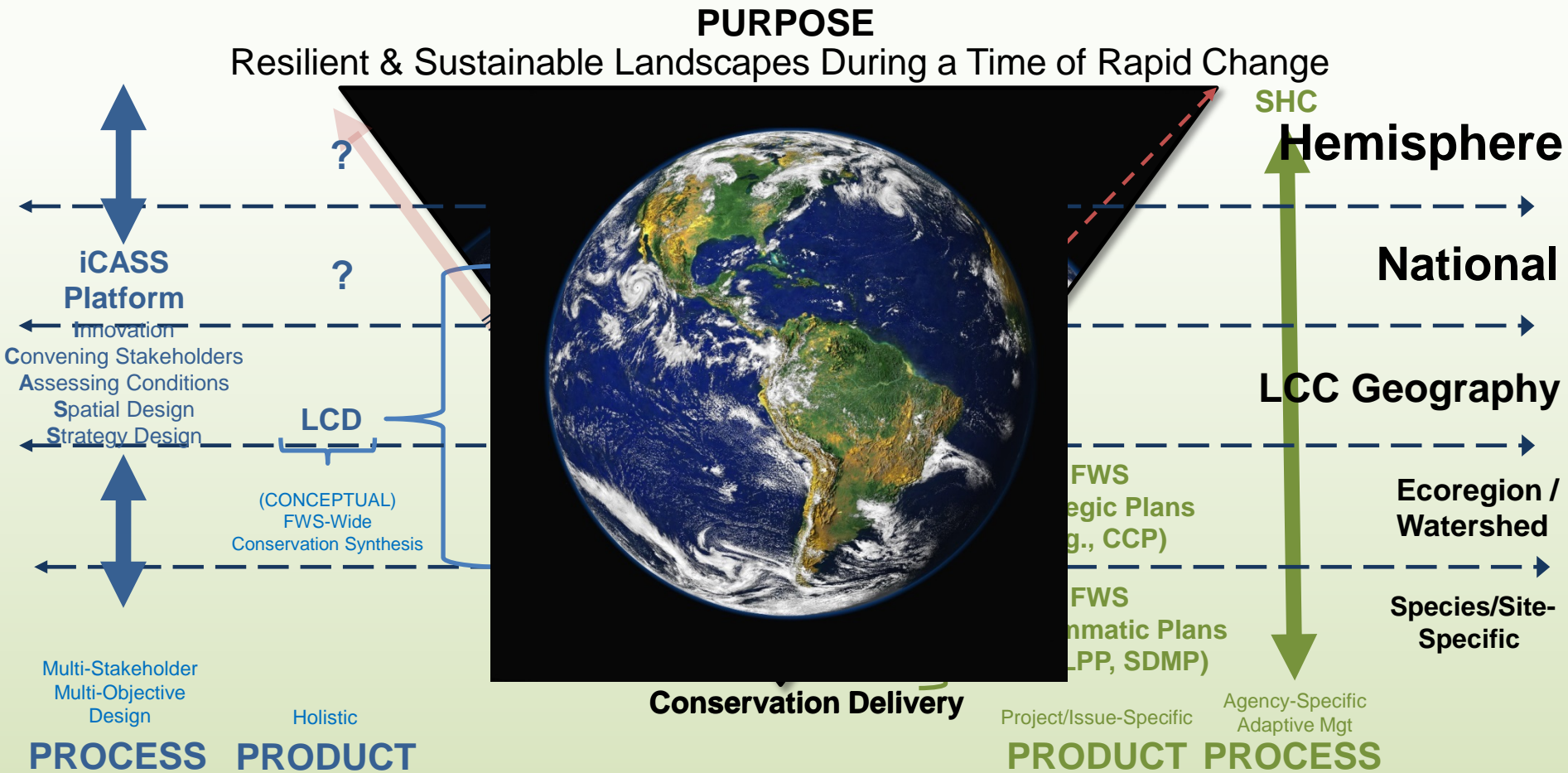
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## **FWS Performance Measure 4.8.7:** *“Number of landscape conservation designs available to inform management decisions” (2014)*

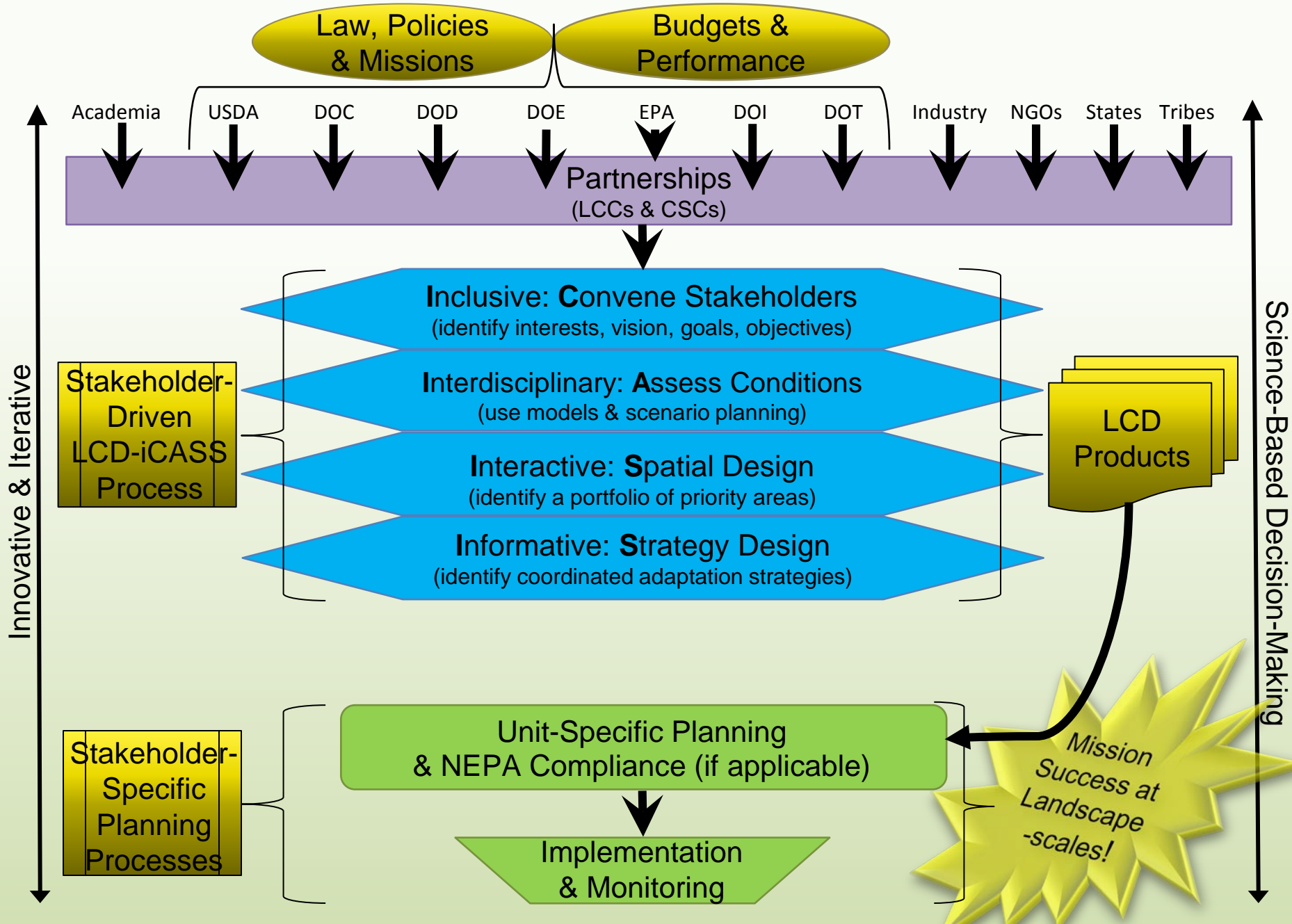




# Four Cornerstones of Innovation Applied to Landscape Conservation Design & FWS Planning



# LCD: A Conceptual Model





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# Discussion

