



Big Cypress National Preserve

ORV Advisory Committee

Adaptive Management Update

December 2011

Big Cypress ORVAC Objective for an Adaptive Management discussion

Why use adaptive management?

How did the NPS come to adopt this approach for the ORV Plan?

- Comments received during consultation
- USFWS Biological Opinion conservation recommendation
- Compliance with standards



What is “Adaptive Management”?

- NEPA Definition
- DOI Definition
- NPS Definition
- ORV Plan “Definition”

NEPA defines adaptive management as

A system of management practices based on clearly identified outcomes and monitoring to determine whether management actions are meeting desired outcomes; and, if not, facilitating management changes that will best ensure that outcomes are met or re-evaluated. Adaptive management recognizes that knowledge about resource systems is sometimes uncertain.

Title 43 CFR: Public Lands: Interior, Subtitle A, Part 46: Implementation of the National Environmental Policy Act of 1969, Subpart A, 46.30

DOI defines adaptive management as:

A decision process that promotes flexible decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps adjust policies or operations as part of an iterative learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. It is not a “trail and error” process, but rather a means to more effective decisions and enhances benefits. Its true measure is in how well it helps meet environmental, social, and economic goals; increases scientific knowledge; and reduces tensions among stakeholders.

Office of Environmental Policy and Compliance (522 DM 1, 2008)

NPS defines adaptive management as:

A system of management practices based on clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and, if not, facilitating management changes that will best ensure that outcomes are met or to re-evaluate the outcomes. Adaptive management recognizes that knowledge about natural resources systems is sometimes uncertain and is the preferred method of management in these cases.

NPS Management Policies 2006 (Source: Departmental Manual 516 DM 4.16)

ORV Plan describes* Adaptive Management as:

“...a dynamic process. As the proposed action is implemented, additional information would be obtained through monitoring, research and experience. As the knowledge base expands, the NPS would respond by adapting management actions that assure the highest protection of the preserve’s resources.” (Executive Summary, p. vi)

“Adaptive management based on increased knowledge gained through implementation of the plan would be used to optimize all of the plan components.” (Proposed Action Introduction, p. 28)

* ORV Plan predates NPS definition

ORV Plan – Adaptive Management continued

“Under the proposed action, the NPS would establish an advisory committee of concerned citizens to examine issues and make recommendations regarding the management of ORVs in the preserve..... This committee would be an element of the adaptive management approach that would be used to develop best management practices for ORV use.” (Proposed Action Introduction, p. 29)

Common to each definition, adaptive management requires:

- Monitoring
- Identifying outcomes/objectives
- Making adjustments/changes
- Recognizing uncertainties and/or need to increase knowledge

What Adaptive Management is not -

- Random trial-and-error process
- Conflict resolution among competing interests
- Flexibility due simply to uncertainty (guessing)
- Replacement for environmental compliance

In simplest terms, Adaptive Management is:

Continual review and modification to ensure effectiveness and to confirm compliance with standards, achieved through monitoring, research, and/or experience, or

Learning through experience, and adapting based on what is learned

Adaptive Management Benefits

- Provides flexibility as additional understanding is gained
- Learning-based (evaluate previous actions to inform subsequent actions)
- Produces management strategies that specify what, how, and when an action is to be done
- Can encourage collaboration among stakeholders
- Fosters the acquisition of knowledge

Adaptive Management Challenges

- Institutional reluctance to change
- Commitment to monitoring and evaluation
- Time (lags between actions and measuring results)
- Legal constraints (NEPA)
- Collecting enough information to evaluate progress

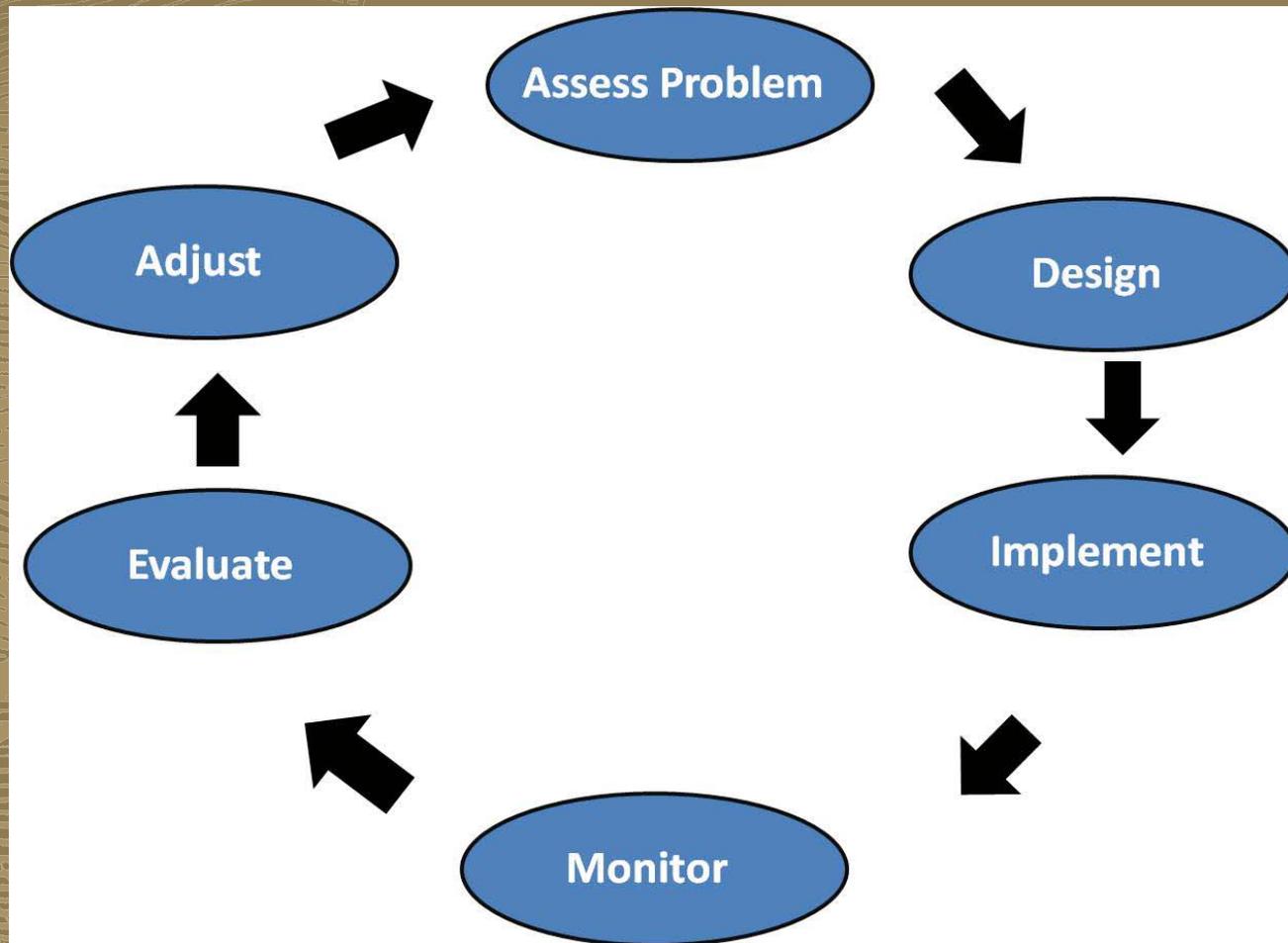
Examples of Adaptive Management use

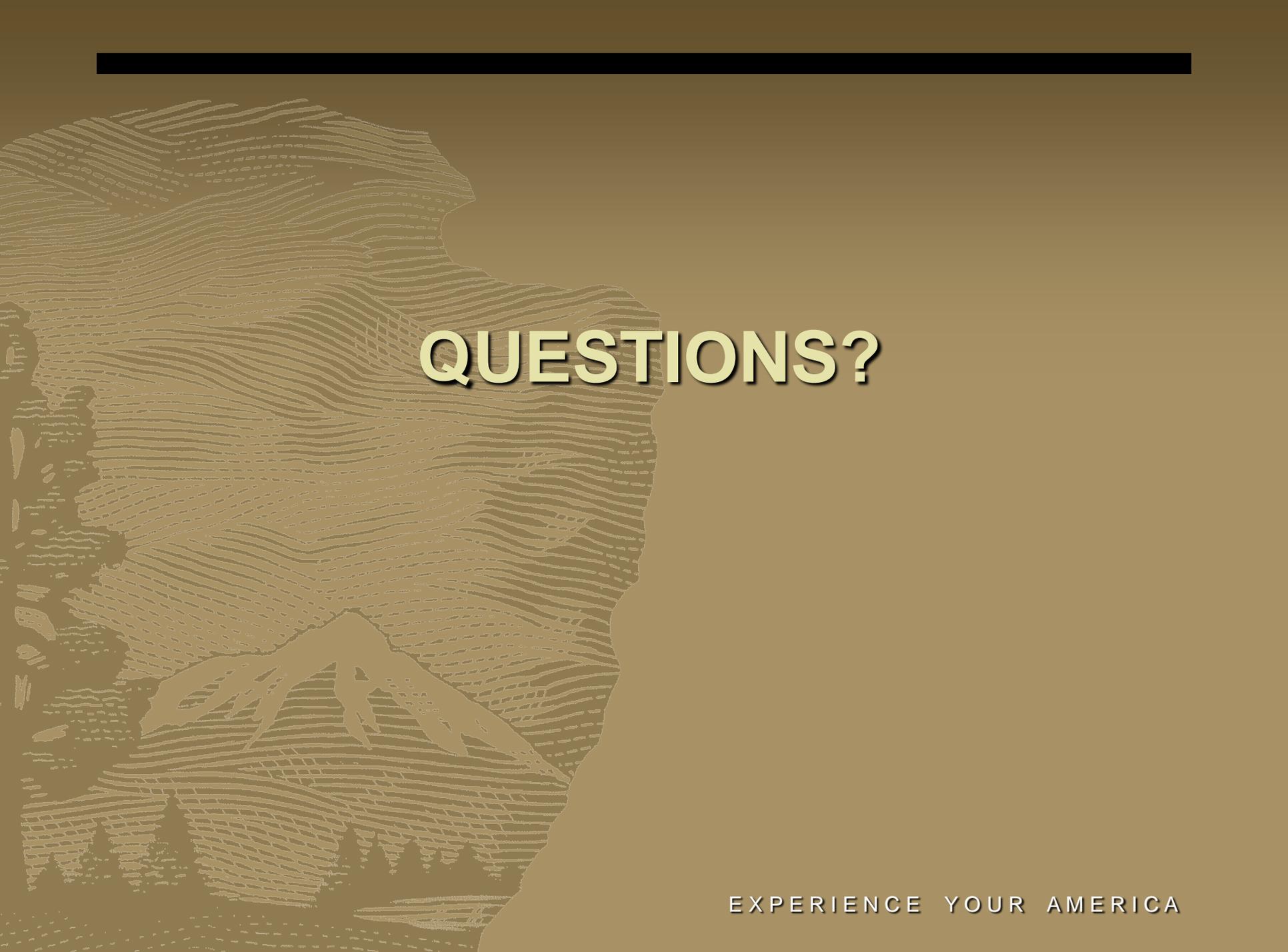
- Concho Billie, Oasis, and Monument Trails (prairies)
- Bear Island Cypress Camp Trail (opening/closure)
- Panther denning in Stairsteps (buffer zone)
- Trail #62 – Airplane Prairie

Future potential applications?

- Temporal and spatial closures
- Secondary trail alignments
- Mullet Slough
- Camping

Six-Step Cycle





QUESTIONS?

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