

# Adaptive Management and the Planning and NEPA Process

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# The Reality

- Currently over 40 plans reference AM
  - No common definition
  - No consistency in approach
  - Vulnerability to challenge
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# The Assignment

**Develop policies and procedures to *INTEGRATE* adaptive management concepts into the NEPA and Planning Process.**



# What is Adaptive Management?

- Highly varied in literature and practice
  - Application of scientific method
  - Research lab to make better decisions
  - Tool to collaborative decision making
  - Excuse for not making hard decisions



# What is Different?

Traditionally:

Predict, Mitigate, Implement

New Paradigm:

Predict, Mitigate, Implement, Monitor,  
Adapt



# OEPC Guidance

Adaptive management is 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.

(OEPC ESMO3-6)

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# Why Adaptive Management?

- Complexity of ecosystems
- Changing environmental conditions
- Changing practices and treatments
- Lack of complete information
- Need to take action



# What Do We Hope To Achieve with AM?

- Enhance our ability to achieve plan outcomes
- Get the most out of the NEPA/Planning process first time through
- Plan flexibility
- Validate impact predictions, ensure mitigation is effective, adapt for unintended consequences



# The Challenge

- Efficiently and effectively employ the NEPA and planning processes to address actions and make decisions that may subsequently be modified in light of monitoring or other new information



# The Impediment

- Prescriptive decisions
  - Actions vs. outcomes



# Assumptions

- Underlying objective- Achieve outcomes by supporting changes or modifications in management actions without reinitiating process

# Assumptions

- The key to achieving that underlying objective is outcome or performance based decisions



# Assumptions

- The key to performance-based decisions is clearly defined, measurable performance standards



# Assumptions

- Measuring performance standards requires a firm commitment to long term monitoring



# When to Use AM

- The Filter
  - Decision is performance based and defined by performance standards
  - Actions to achieve outcomes can be adapted
  - Affects of the action are unknown or uncertain
  - Firm funding and workload commitment to monitoring

# Where to Use AM

- Based upon Filter
  - LUP Level
  - Activity Plan Level
  - Project Level

# AM Principles

- The underlying objective in adopting AM is to enhance the ability to achieve outcomes.
- The ability to achieve outcomes is enhanced when one can make changes or modifications in management actions without reinitiating the planning/NEPA process.

# AM Principles

- The key to making changes without reinitiating the process is outcome or performance based plan decisions
- The key to performance-based decisions is clearly defined, measurable performance standards
- Measurable performance standards require a firm commitment to monitoring

# AM Principles

- Actions to achieve outcomes are not plan decisions
- Alternative actions that have been analyzed can be employed to achieve an outcome without amending the plan so long as outcome is unchanged



# AM Principles

- A plan must contain all the essential elements to be considered an AM plan
- AM can be used on any plan, activity or project so long as the filter is employed and criteria met
- AM should not be used on any plan, activity or project unless all filter criteria are met

# Discussion



# How to Apply AM

- Scoping
  - Initiate public dialog
  - Identify potential issues, outcomes, AM applications
  - Apply the filter



# How to Apply AM

- Development of Plan/NEPA
  - Outcome or performance based decisions
  - Analyze range of actions to achieve outcome
  - Decisions defined by performance standards e.g. thresholds or indicators
  - Monitoring plan
  - Adaptive action “if this then what”
  - Process employed to change action
  - Apply filter



# How to Apply AM

- Evaluation
  - Compare monitoring to thresholds
  - Is AM triggered?
  - Is outcome achieved?
  - What is cause?
  - What is appropriate action?
  - Was action analyzed in NEPA?
  - Public participation as appropriate

# How to Apply AM

- Adapt
  - May require a new ROD based upon existing analysis
  - May require modification of monitoring plan

# Five Essential Questions

1. How do you define an action that may be changed?
2. How do you evaluate that action in NEPA?
3. How do you define indicators?
4. How do you economically monitor?
5. How do you change the action without reinitiating the process?

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