Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

Adaptive Management

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Adaptive Management

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

- Department of Interior's definition of Adaptive Management

- Adaptive Management in the MSCP

- Spatial Analysis

- Metadata and Documentation

Department of Interior

" Adaptive Management is an iterative learning process producing improved understanding and improved management"

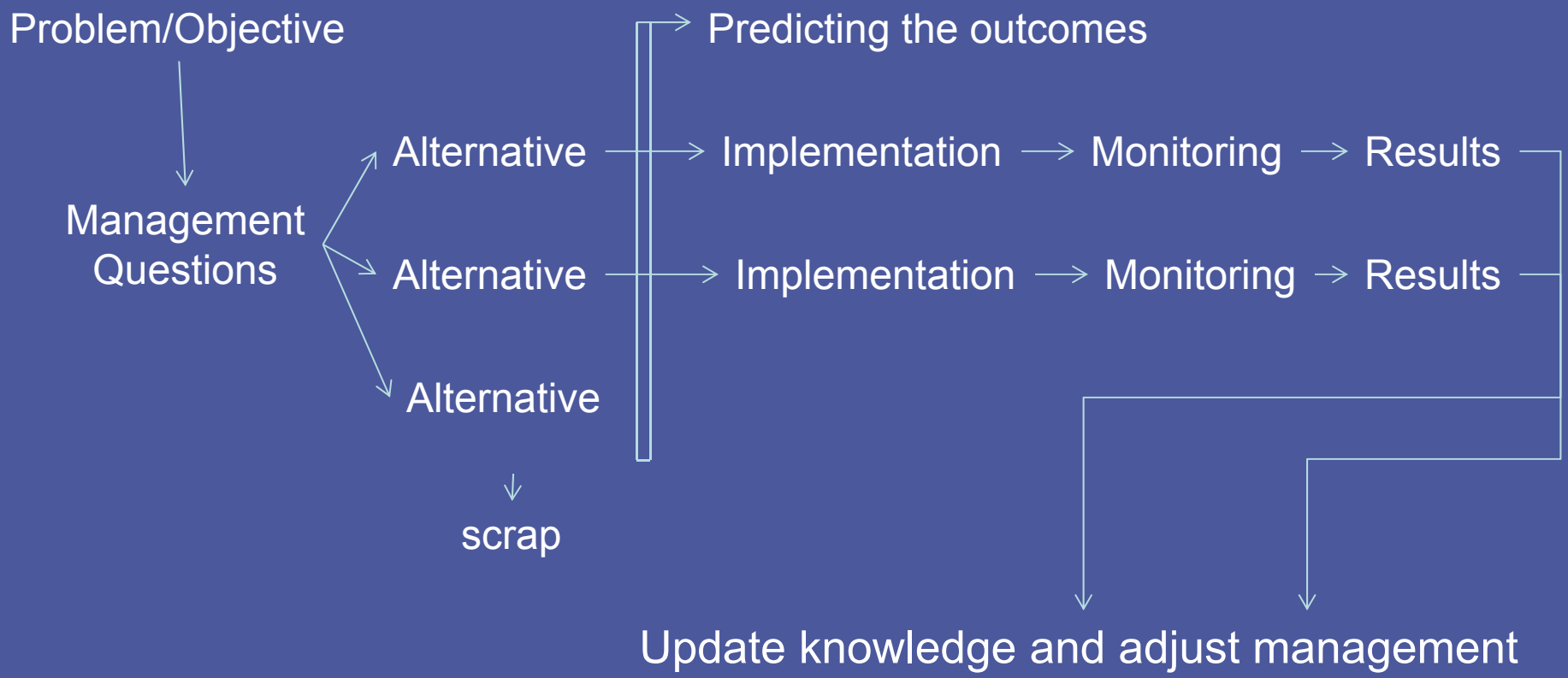
Willams et al. 2009

What AM is not:

" A trial and error process, but rather emphasizing learning while doing. AM does not represent an end in itself, but rather a means to more effective decisions and enhanced benefits"

Williams et al. 2009

Adaptive Management Approach



When should AM be used?

- There are consequential decisions to be made
- There is an opportunity to apply learning
- The value of reducing uncertainty is high ($ or success)

Continued…

- Uncertainty can be expressed as a set of competing, testable models
- An experimental design and monitoring system can be put in place with reasonable expectations of reducing uncertainty

MSCP AMP

"Adaptive Management is the process whereby management is initiated, evaluated, and refined"

FWS 5-Point Policy states "AM is a method for examining alternative strategies for meeting measurable goals and objectives, and then, if necessary adjusting future conservation mgmt actions based on what is learned"

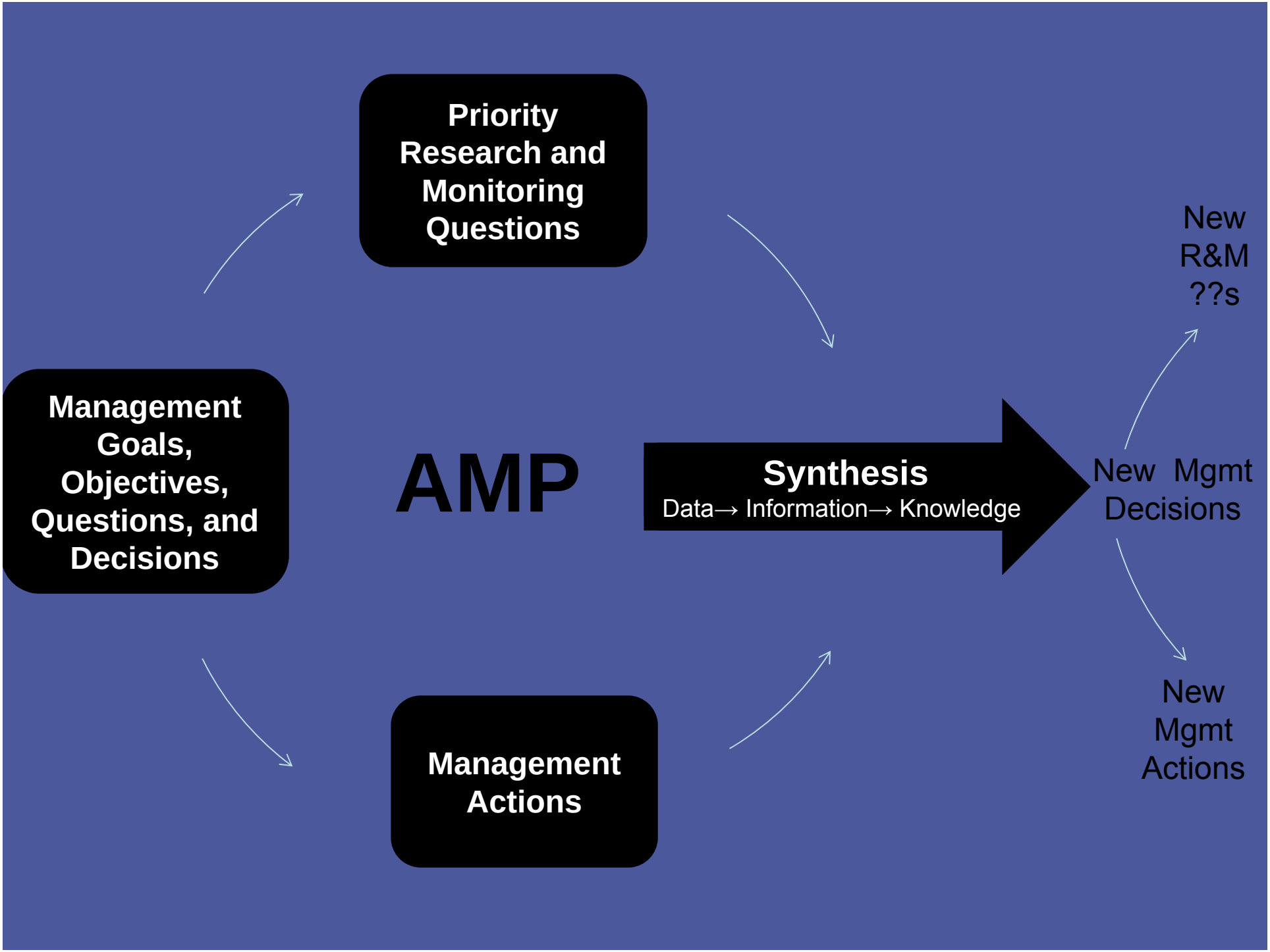
AMP

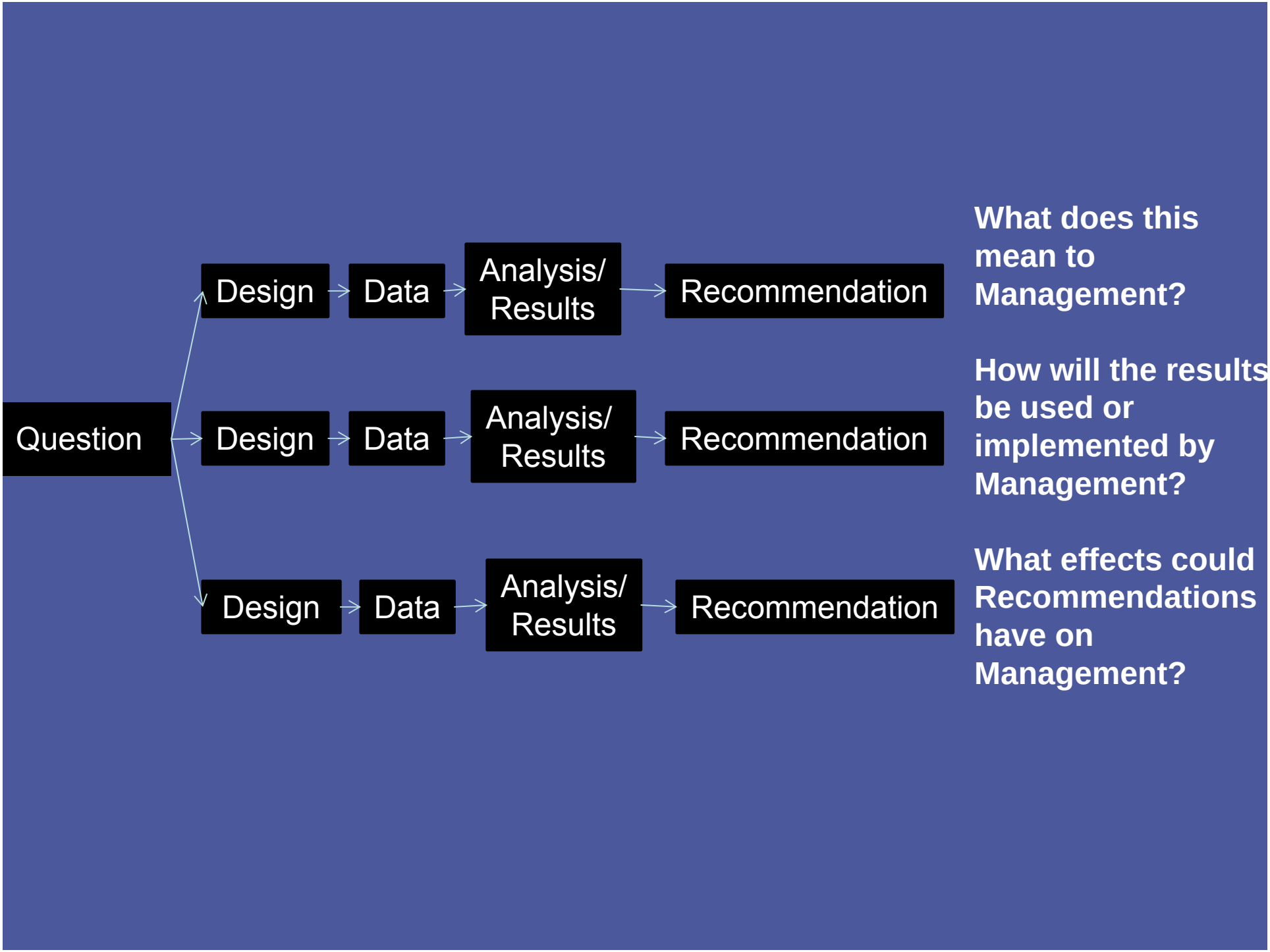
- “Provides objective scientific data and analyses on which to base management decisions…provide for professional scientific reviews to evaluate the management’s effectiveness”

Science Strategy

- Program-level and project-level AM

- "Both levels of adaptive management rely on the initial receipt of new information, the analysis of that information, and the incorporation of the new information into the design or direction of future work tasks"

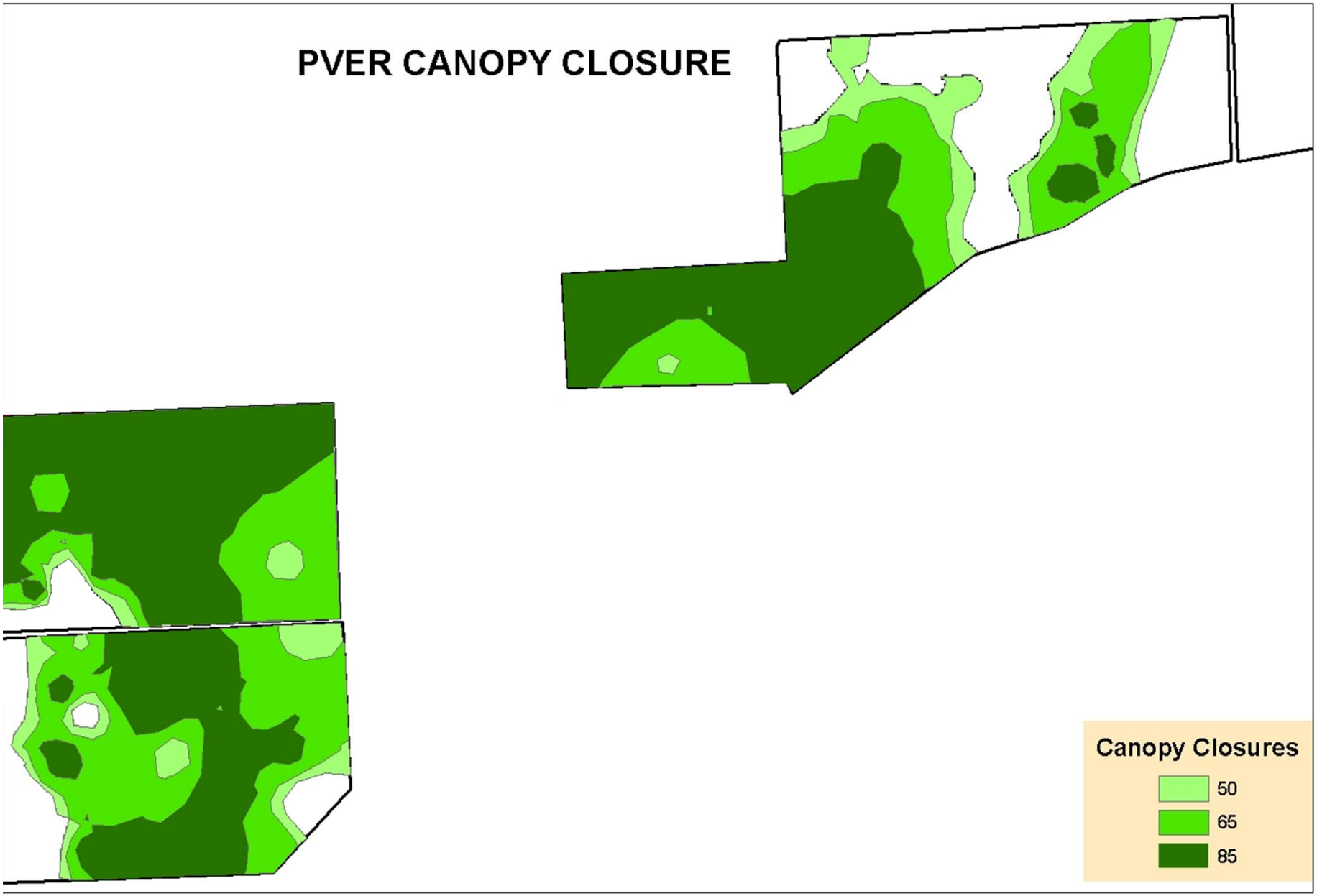

Priority Research and Monitoring Questions
Management Goals, Objectives, Questions, and Decisions
AMP
Synthesis
Data→ Information→ Knowledge
New R&M ??s
New Mgmt Decisions
New Mgmt Actions
Management Actions


Question
Design
Data
Analysis/ Results
Recommendation
Design
Data
Analysis/ Results
Recommendation
Design
Data
Analysis/ Results
Recommendation
What does this mean to Management?
How will the results be used or implemented by Management?
What effects could Recommendations have on Management?

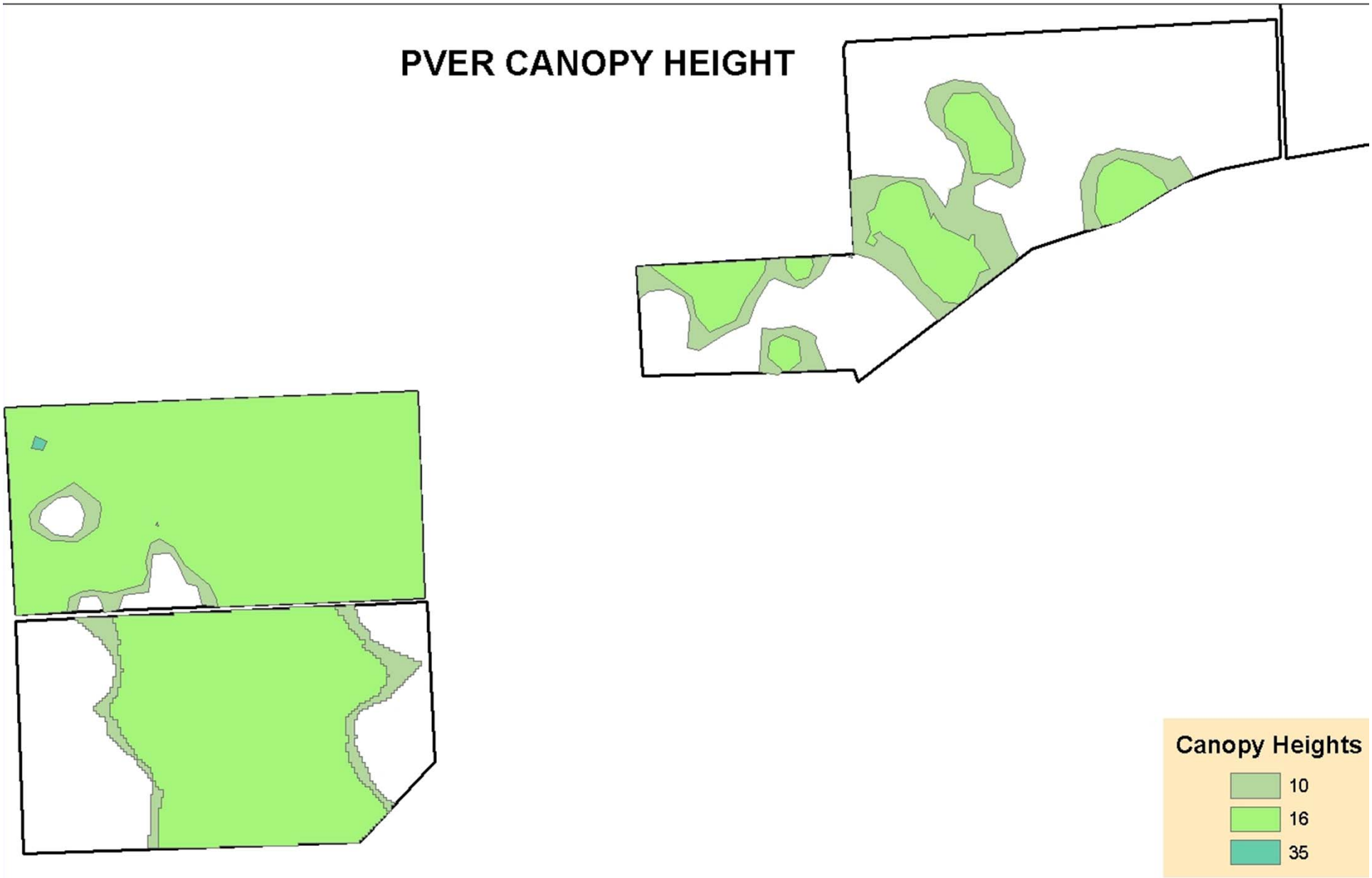
Management Guidelines

- Management Guidelines = Minimum habitat parameters

- Site Management Guidelines


PVER CANOPY CLOSURE
Canopy Closures
50
65
85

PVER CANOPY HEIGHT



Research and Monitoring

- BOR System-wide Monitoring
- BOR internal and contracted research and monitoring projects
- Projects on the LCR funded by other entities
- Projects performed outside of the LCR
- Previous/historic research and monitoring projects

Metadata and Documentation

- *Purpose* – What is it that mgmt wants monitored or studied and why?
- *Design* – How were the sites selected, size/shape of plots, reference to previous projects that used the same design?
- *Data collection* – Detailed methods, ensuring repeatability, raw data, photo-points, QA/QC
- *Analysis* – How was the data analyzed, and what tests were used, or were there any codes developed?

Questions?