



Adaptive Management Overview

Cliff McCreedy

Ocean and Coastal Resources Program

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Marine Protected Areas

Federal Advisory Committee



Management Issues



- Changes in marine systems may be uncertain or potentially surprising
- Expected results of management actions also may be uncertain or not completely understood
- Decisions and management actions may take years or decades – raises uncertainty and levels of change to baseline conditions

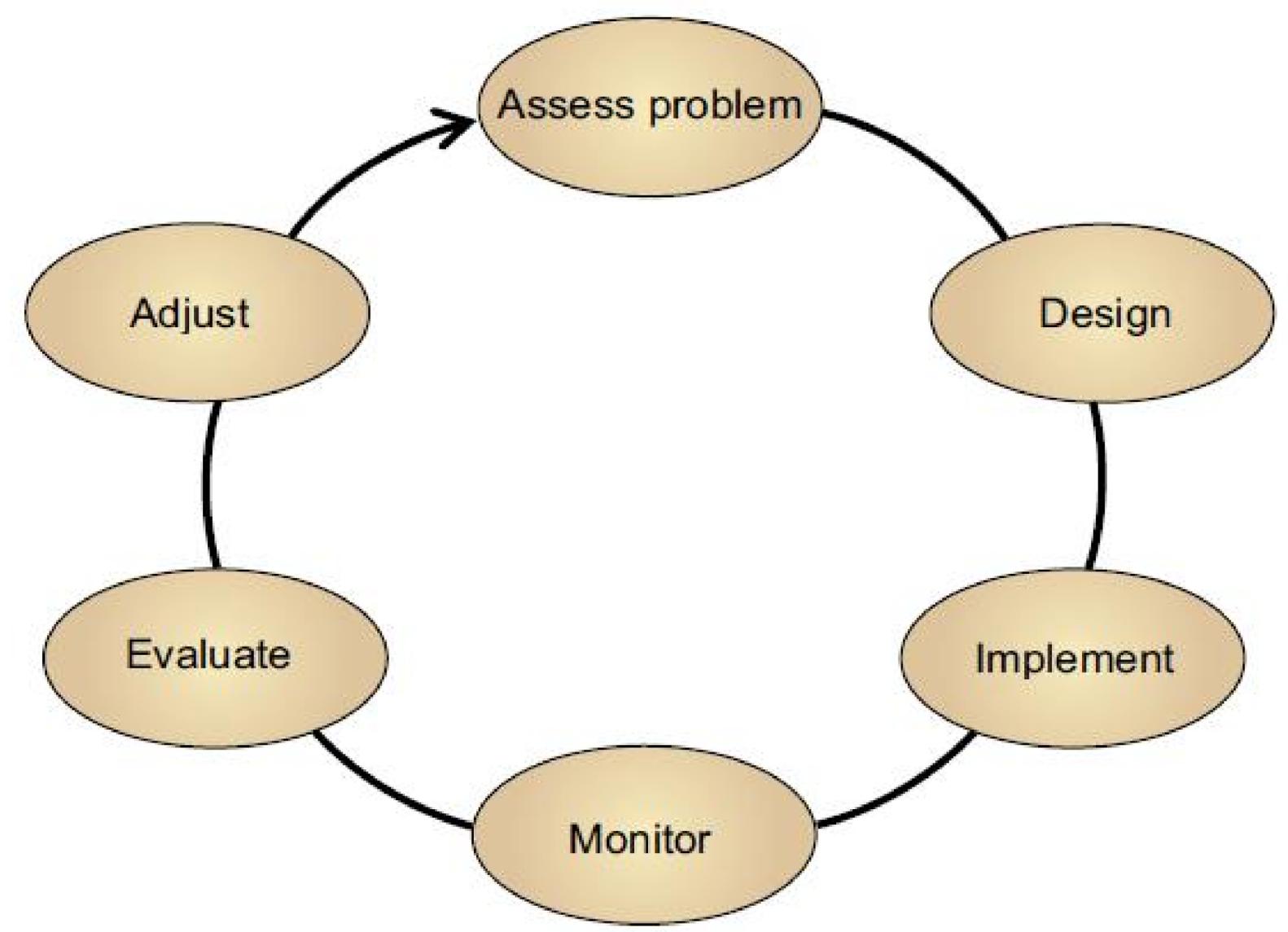


What is AM?

- A structured process for addressing uncertainty about how ecological systems function and how they respond to management actions
- Designed to improve understanding of how a system works and is expected to respond to management actions
- Desired outcomes of management actions are assessed through follow-up monitoring & compared against explicit predictions
- Results are fed back into process to measure results against management objectives
- Management is adjusted as appropriate
- Stakeholders are engaged throughout the process



AM Cycle





When should AM be used?

- Mandate to act under uncertainty, i.e., limited by incomplete understanding of the system to be managed
- When clear and understandable objectives can be identified
- When decision-making is iterative through time
- When decision-making allows flexibility – preferred management actions can change
- When monitoring is in place or can be put in place
- When senior managers support the above

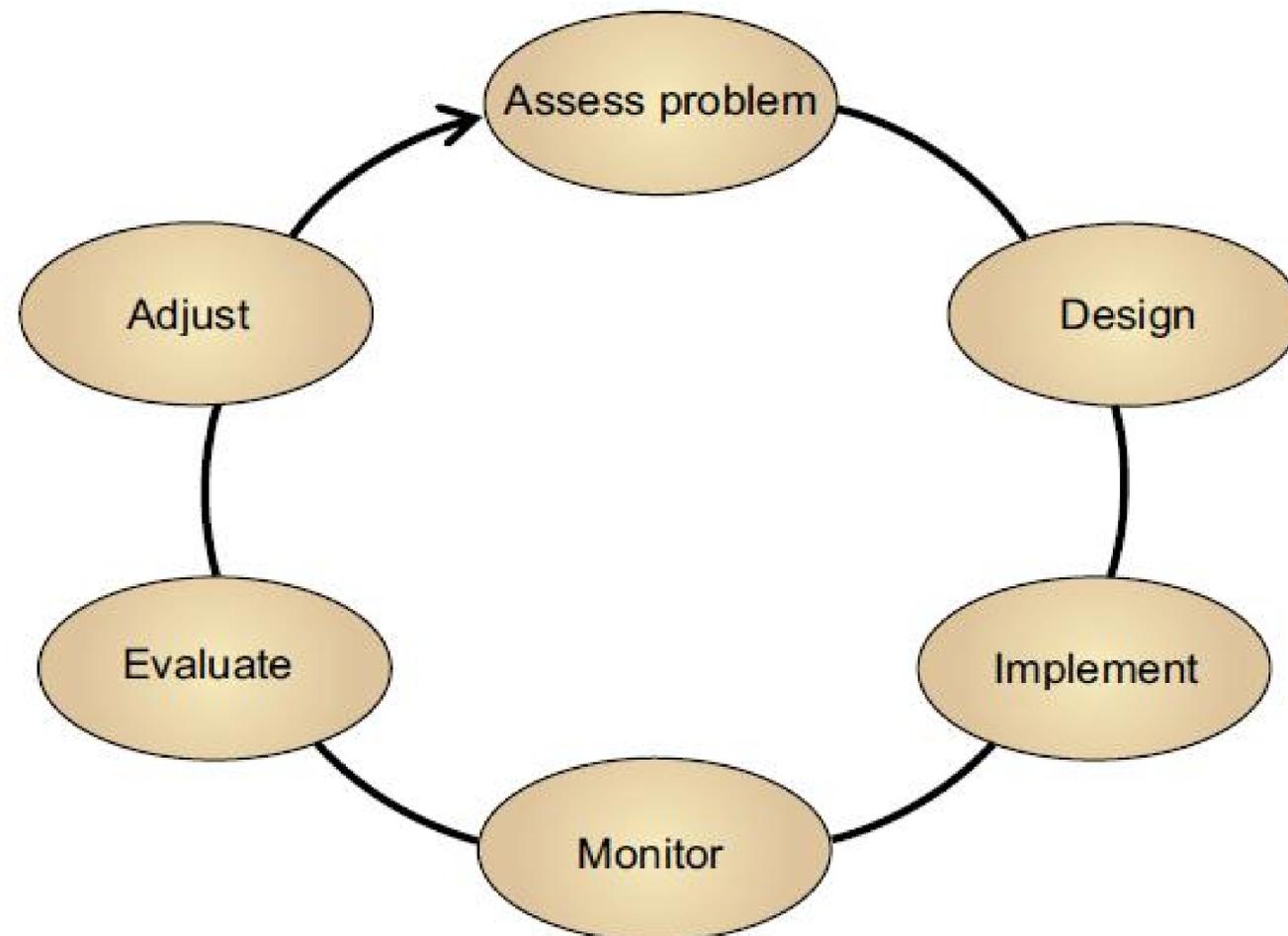


Review of AM

- Science-based and objective-driven (with fidelity to law and public interest)
- Open, collaborative process involving stakeholders
- Addresses uncertainty in how ecological systems function or respond to management actions
- Structured to foster learning that improves resource management over time
- Demands rigorous monitoring program
- Is not a one-size-fits-all panacea
- Patience, funding and public/agency/stakeholder support are required!



Charting a Course



Williams, B. K., R. C. Szaro, and C. D. Shapiro. 2009. Adaptive Management: The U.S. Department of the Interior *Technical Guide*.

Williams, B. K., and E. D. Brown. 2012. Adaptive Management: The U.S. Department of the Interior *Applications Guide*.

NPS Director's Order 100: Resource Stewardship for the 21st Century, Sections 5&6. www.nps.gov/policy