

Adaptive Management

CanWEA Conference 2018



My perspective - based on U.S. Dept. of Interior training:

- U.S. Fish & Wildlife Service Decision Science Mentorship Program:
 - Adaptive Management
 - Structured Decision Making
 - Structured Decision Making Workshop – Rapid Prototyping
 - Decision Analysis for Climate Change
 - Advanced Structured Decision Making Practicum
- Apprentice Coach, Rapid Prototyping, U.S. National Park Service
- Lead Coach, Forest Health Decision Process, NGO

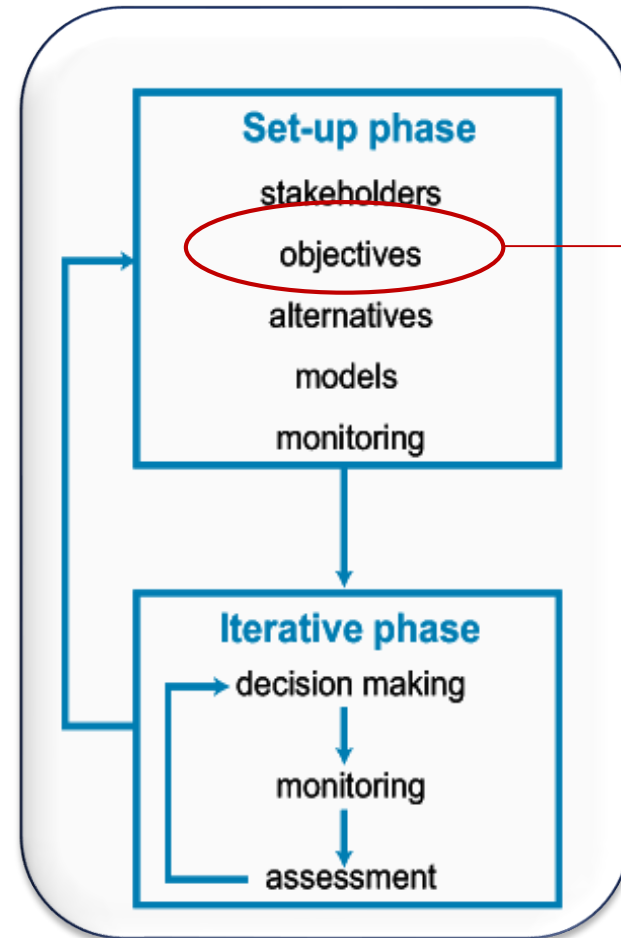
What is Adaptive Management?

"Adaptive management [is 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"

- Not a trial and error process
- Does not represent an end in itself
- Its true measure is in how well it:
 - helps meet environmental, social, and economic goals
 - increases scientific knowledge
 - reduces tensions among stakeholders

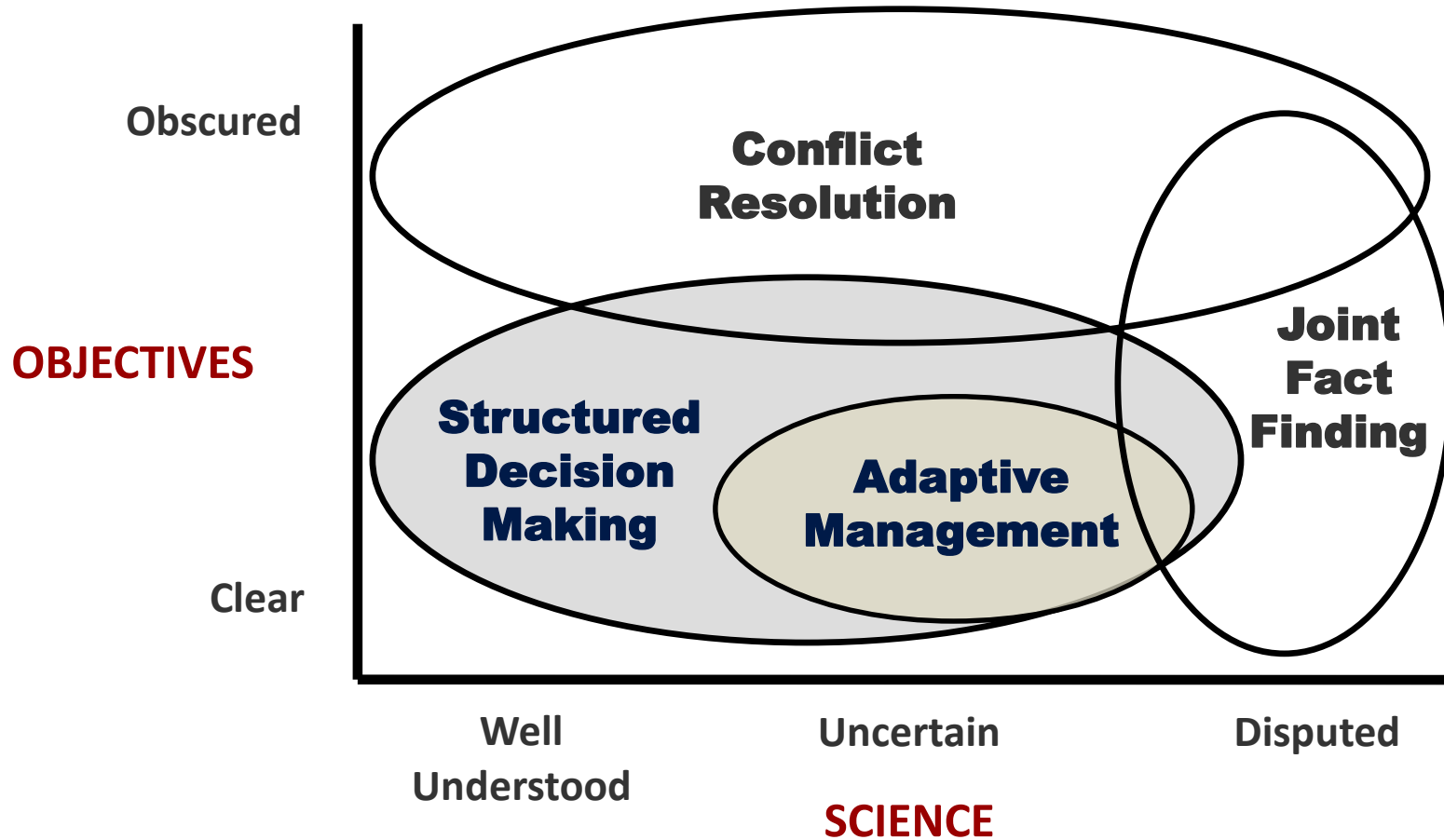
Adaptive management process

The double loop process of learning and adaptation in Adaptive Management.



*Having **clear objectives** is the most important part of the process*

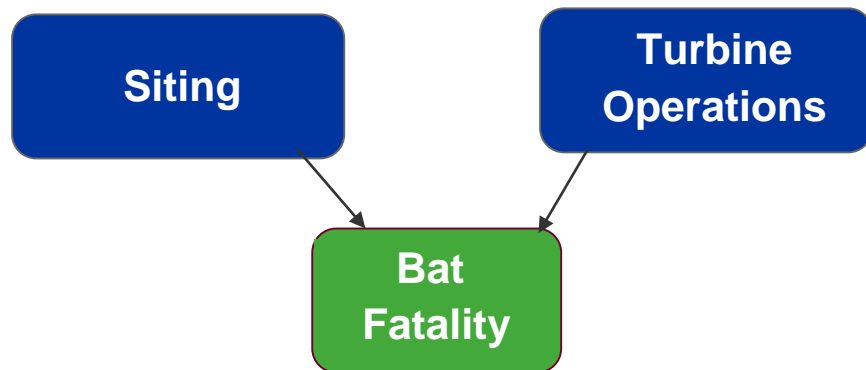
Clear management objectives



Graphic by Mike Runge, USGS

Objectives are dependent on SCALE

Project scale



Objective - minimize bat fatalities from wind energy

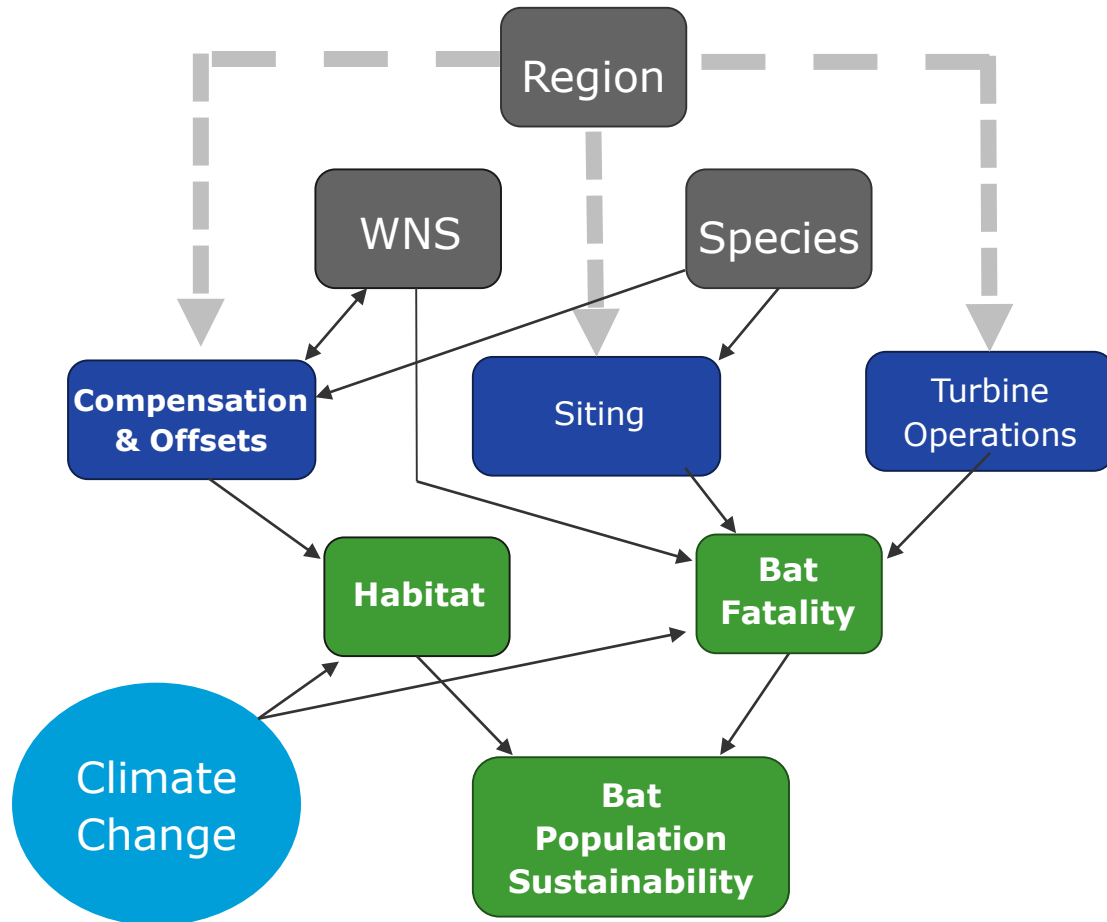
Alternatives – focus on operational minimization

Monitoring – fatalities during operations

*** But what is the FUNDAMENTAL OBJECTIVE?**

Objectives are dependent on SCALE

Broadened Scale



Core Objective – sustainability of Canada’s bat populations

Alternatives (examples):

- Habitat conservation
- WNS research
- Mitigate climate impacts

Monitoring –

effectiveness of offsite conservation efforts, WNS tracking, reduction in carbon emissions, etc.

Questions around Adaptive Management for Wind Energy

- Have we defined our objective at the correct scale?
- Do current practices and guidelines allow for appropriate flexibility?
- In other words, is there an ability to change management strategy in response to what is learned? (can we adapt?)
- Are we learning in the most effective way?
- At a broadened, more fundamental scale, what role can the wind energy industry play?

Overview

- Adaptive Management Panel

