# August 2010 SDM Workshop

# Two key elements of SDM

- Problem decomposition
  - Break the problem into components (separate policy from science).
  - Analyze relevant components.
  - Recompose the parts to make a decision.
- Focus on values
  - Determine objectives (values) first, and let them drive the analysis.
  - Contrast this with intuitive decision-making, which usually jumps straight to alternatives.

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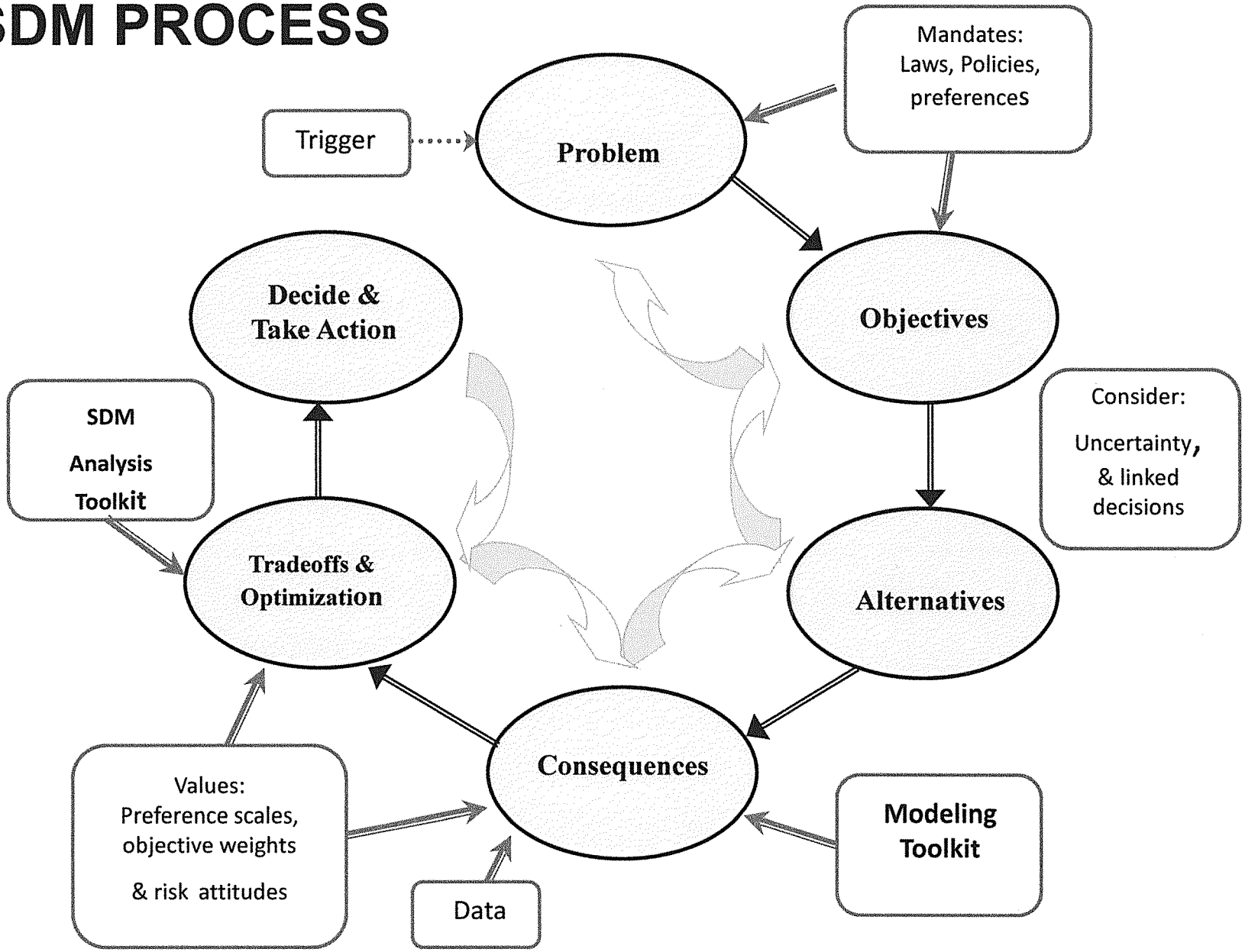
# SDM PROCESS




Credit: Jean Cochrane

# Proposed SDM process (1)

- Purpose:

  Identify a set of geographic units …

  - that spans the US (and implicitly North America).
  - within which it is necessary and appropriate to assess the status of wolves under the ESA.

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# Proposed SDM process (2)

- Articulate objectives, including:
  - Legal requirements, definitions, and policy constraints under the ESA
  - Stakeholder concerns
  - Practical limitations
- Organize objectives
  - Objectives hierarchy
  - Fundamental vs. means

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# Proposed SDM process (3)

- **Identify individual geographic units**
  - Species, subspecies, or distinct population segments
  - Driven by ESA definitions, current understanding of taxonomy, and population biology

- **Identify alternative *sets* of geographic units**
  - Each set is a portfolio of individual units.
  - Each set accounts for all of the Lower 48.
  - We can enumerate all possible combinations, but it may be more appropriate to screen alternative sets based on criteria that arise from the objectives.

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# Proposed SDM process (4)

- Analyze how each alternative set achieves the fundamental objectives
  - Multiple-objective tradeoff analysis
- Select a set of geographic units
  - Provide a recommendation to the Director of the Service.
  - This paves the way for status assessment.

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