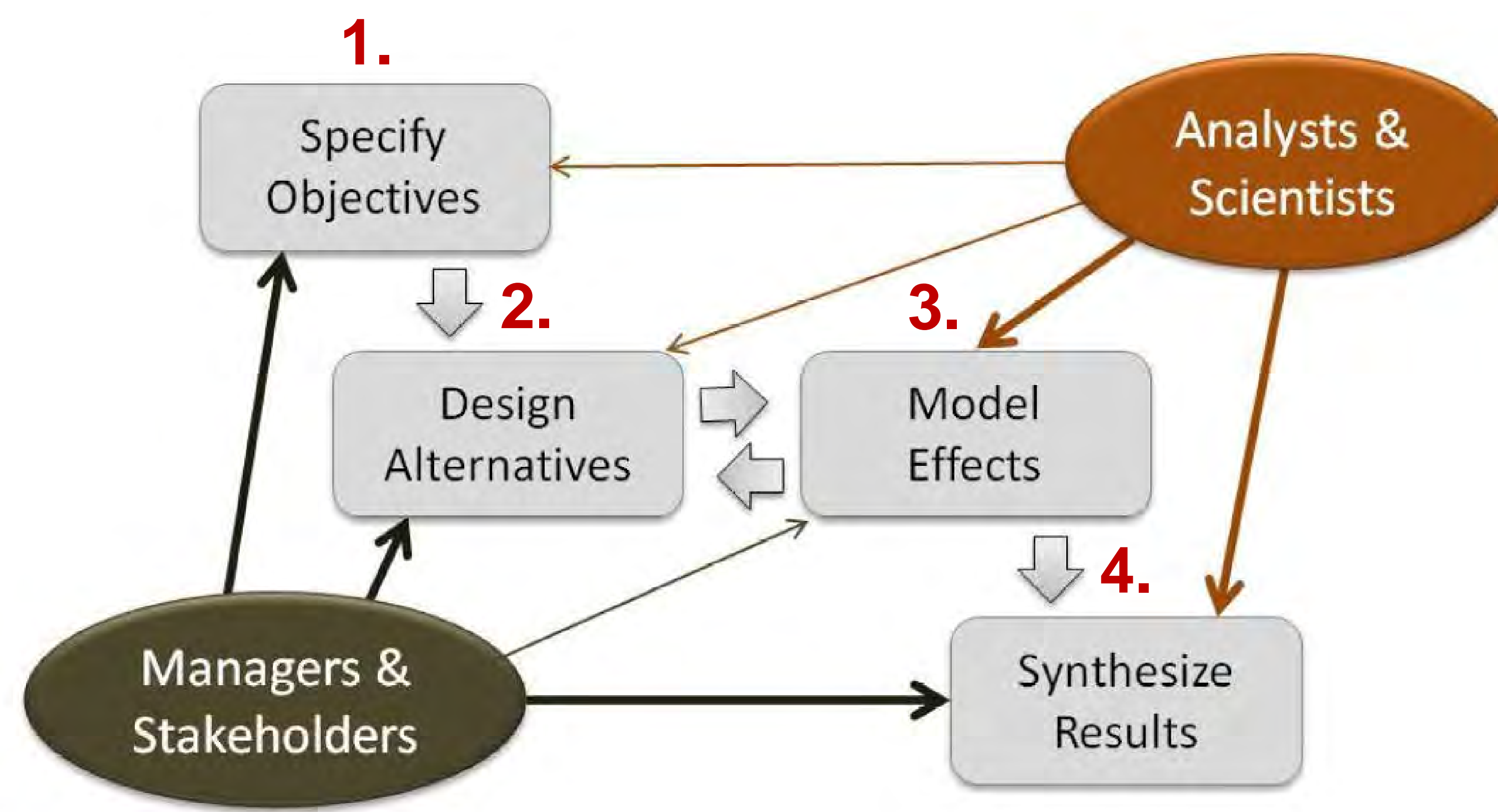


# a Comparative Risk Assessment

## framework for making complex decisions

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# CRAFT

Comparative Risk Assessment Framework and Tools  
<http://craft.forestthreats.org>

### WHAT'S THE PROBLEM?

#### 1. Specify Objectives:

Start by formally structuring goals and objectives into an "Objectives Hierarchy". Explore problems, conflicts and competing values as diverse teams to broaden perspective. Use graphical conceptual models as a transparent venue for discussing and documenting cause and effect relationships. This step clarifies values and the often-complex sources of conflict by suggesting tradeoffs that make decisions difficult or controversial.

### WHAT TO DO?

#### 2. Design Alternatives:

Devise alternatives based on how they are likely to satisfy a range of values, not just as solutions that are directed toward a single or narrowly defined problem considered in isolation. Alternative design is an iterative process that precedes and follows analysis.

### WHAT COULD HAPPEN?

#### 3. Model Effects:

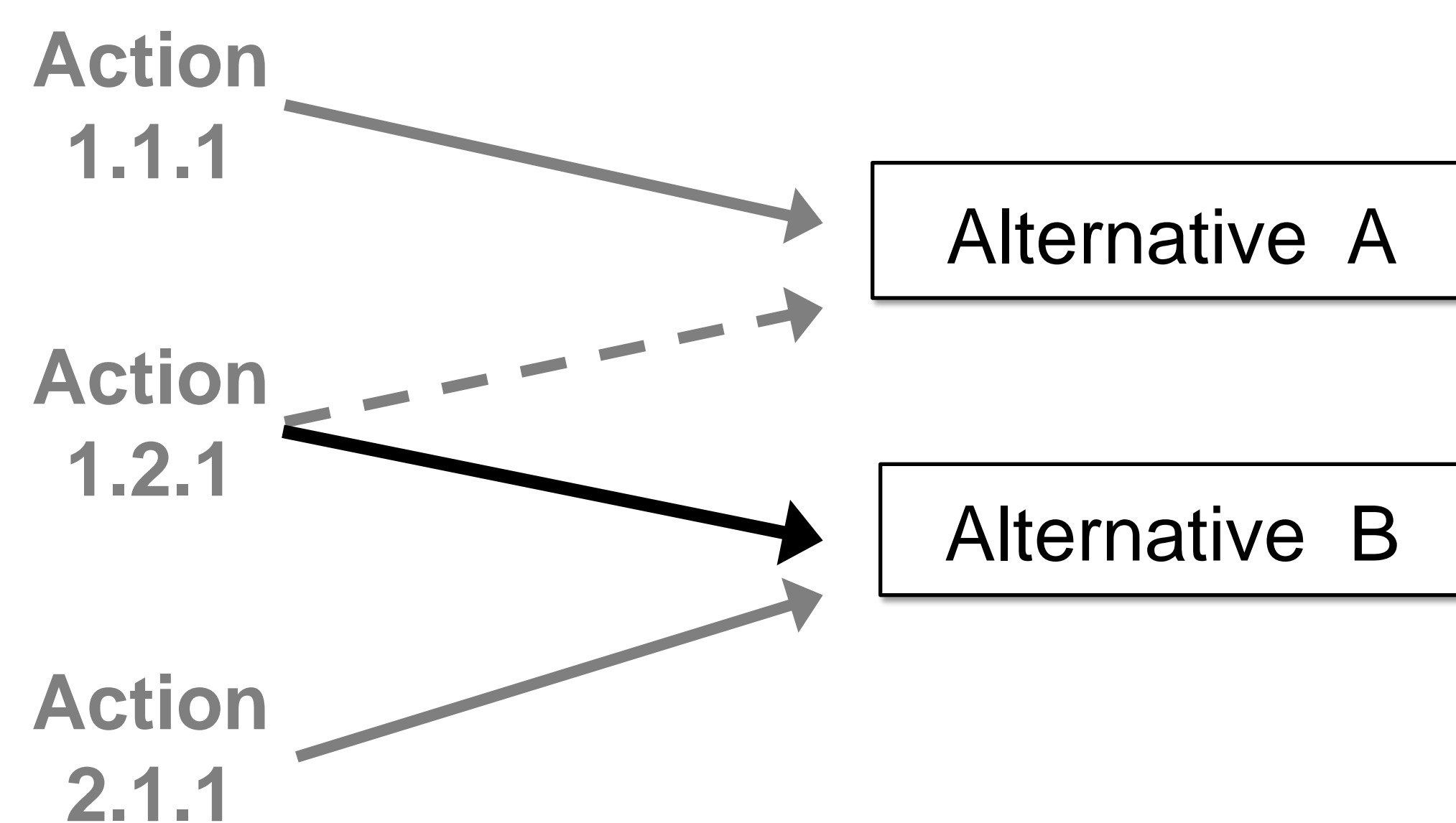
Predicting future outcomes and the effectiveness of proposed solutions includes the management alternatives to be undertaken and external drivers that can affect outcomes, but that are beyond our control. CRAFT emphasizes use of probability models (Bayesian influence diagrams) that provide a platform for integrating quantitative models and expert opinion while transparently conveying uncertainties.

### WHAT TO COMMUNICATE?

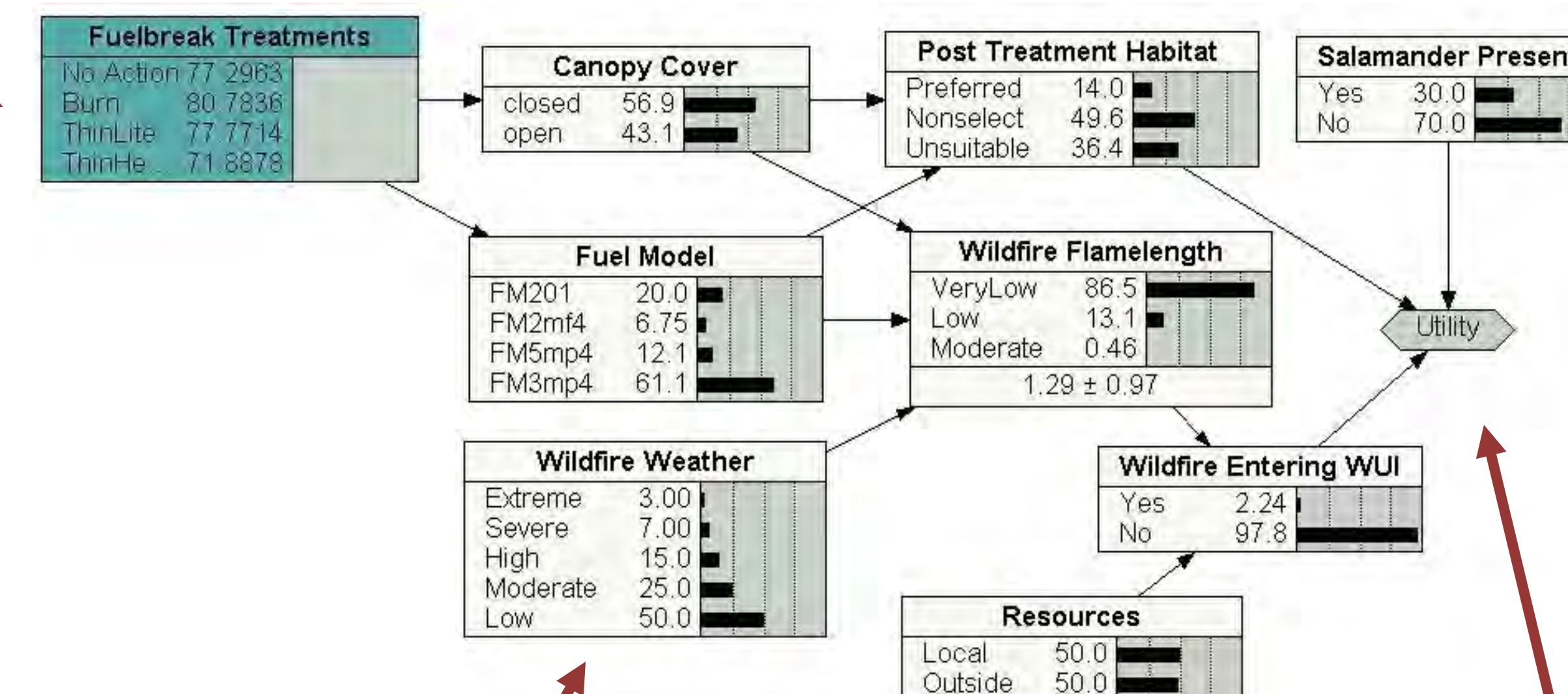
#### 4. Synthesis:

Transparently communicate values as goals and objectives. Show how solutions are likely to affect multiple values while conveying the chance that outcomes may or may not pan out due to external factors. Show that some alternatives may be conditionally effective and rank alternatives based on your risk tolerance.

- Goal 1**
  - Objective 1.1
    - Action 1.1.1
    - Action 1.1.2
  - Objective 1.2
    - Action 1.2.1
- Goal 2**
  - Objective 2.1
    - Action 2.1.1



Alternatives that we can control



Wildfire weather affects outcomes, but it is beyond our control

Relative values are assigned to end points and outcomes, and these are integrated here

