

Developing Performance Measures for State Wildlife Action Plans



Jonathan Mawdsley
Robin O'Malley
The Heinz Center

Challenges

- **Lack of resources** to fully implement plans
- **Lack of resources** for monitoring all species included in plans
- **Inadequate scientific knowledge** of many species included in plans
- **Time lag** between activities, outcomes
- Much implementation work is being done by partners, other **intermediaries**
- *Our old performance measures (e.g. acres protected, restored) no longer acceptable*

The Project

- What are the steps and process for developing performance measures for wildlife conservation activities?
- Funding from Doris Duke Charitable Foundation, through the Wildlife Habitat Policy Research Program of the National Council for Science and the Environment

Progress to Date

- Two meetings of project steering committee
- Two meetings with the State Wildlife Diversity Managers group
- Two workshops with Nevada Department of Wildlife, to develop actual performance measures for NWAP
- Writing final project report, synthesizing findings and making recommendations

How to Develop Performance Measures for Your SWAP

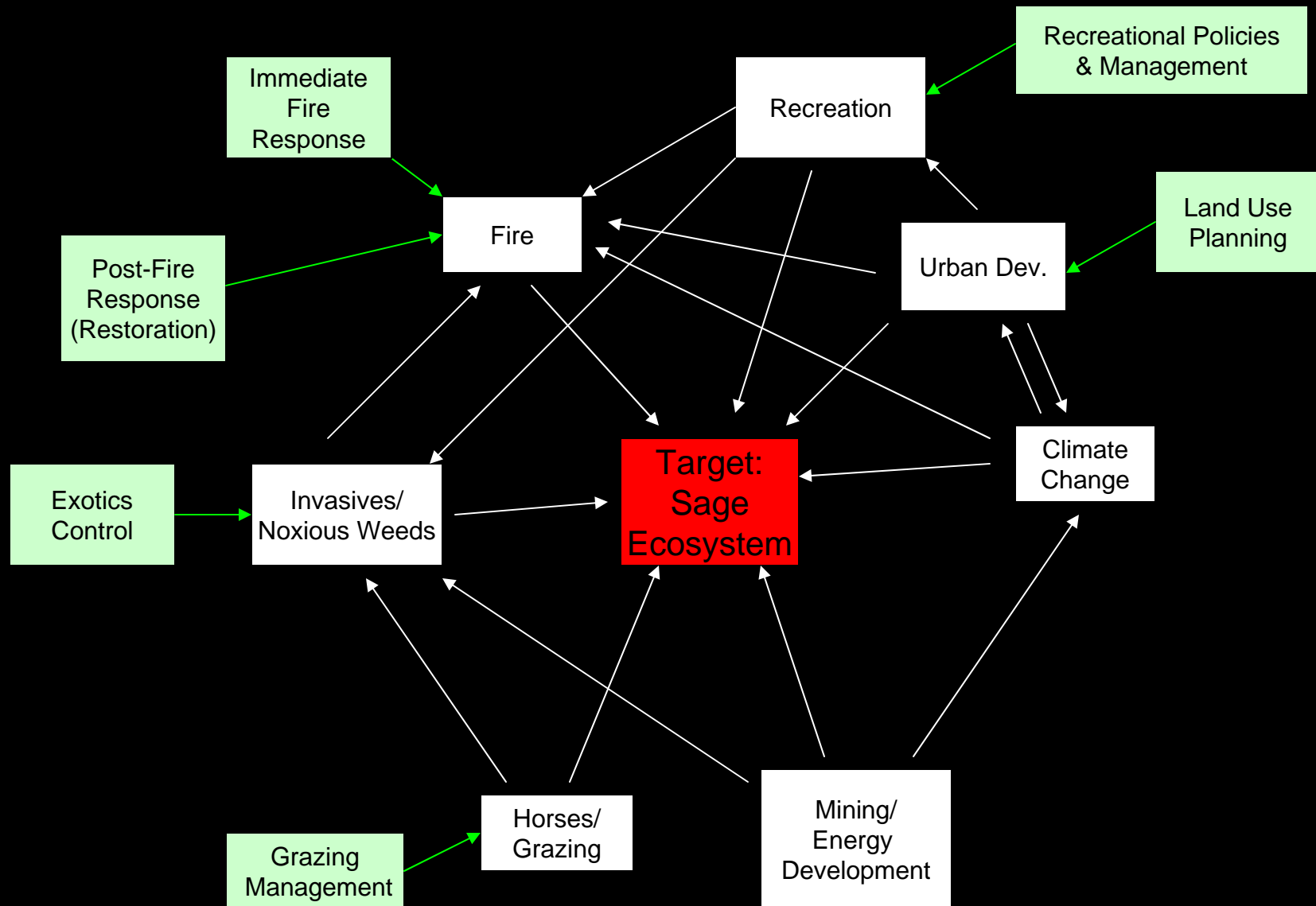
- Pick **targets** for management & monitoring
- Develop a **conceptual model** that shows the connections between your target and threats, stressors, and conservation opportunities
- Use the model to identify short-term, intermediate, and outcome **indicators**
- **Measure and track** indicators as implementation proceeds; **adjust** activities and model as needed (*Adaptive Management*)

A Real-world Test:

Nevada Wildlife Action Plan

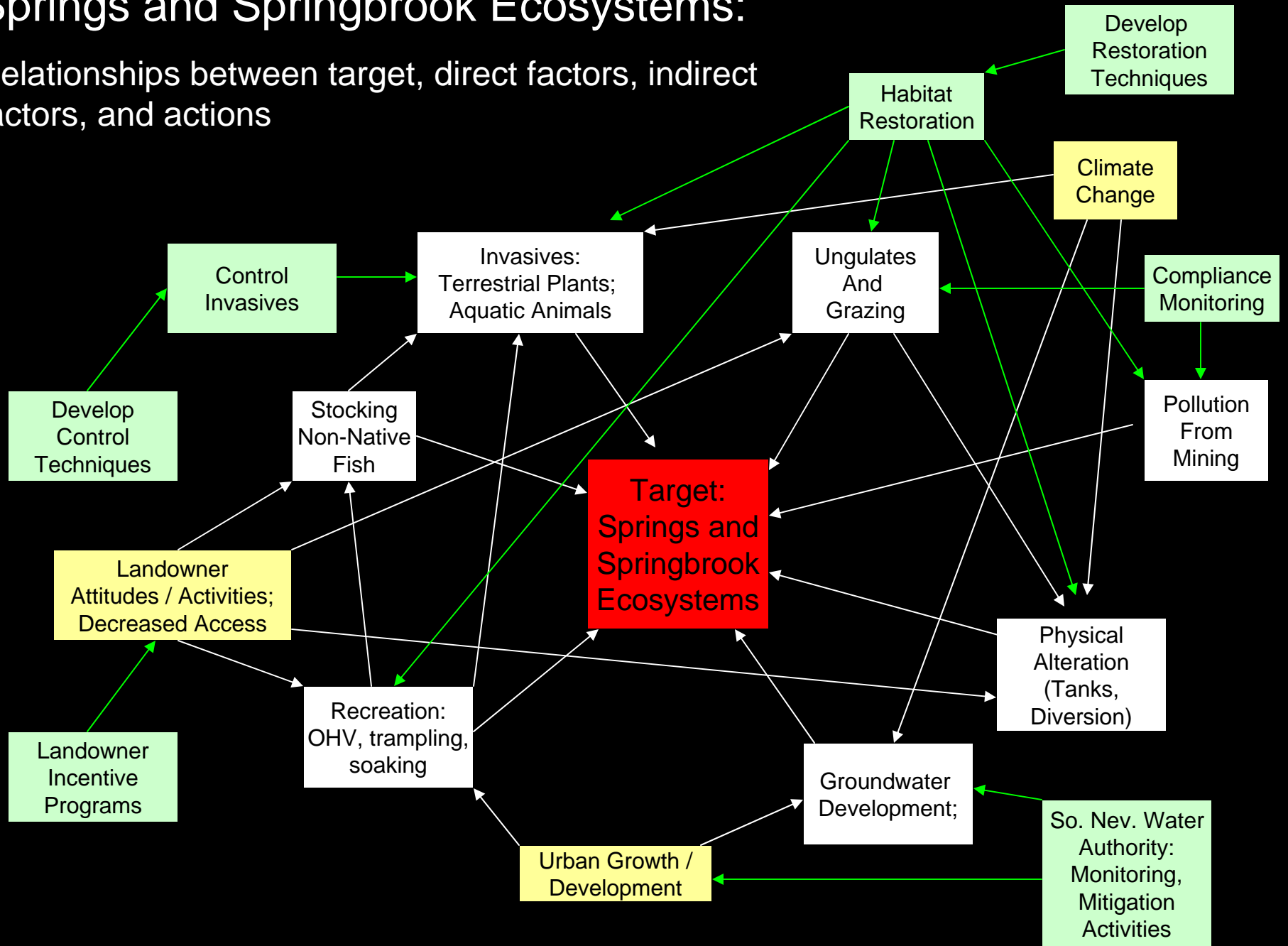
Sagebrush Ecosystems:

Relationships between targets, direct factors, and actions



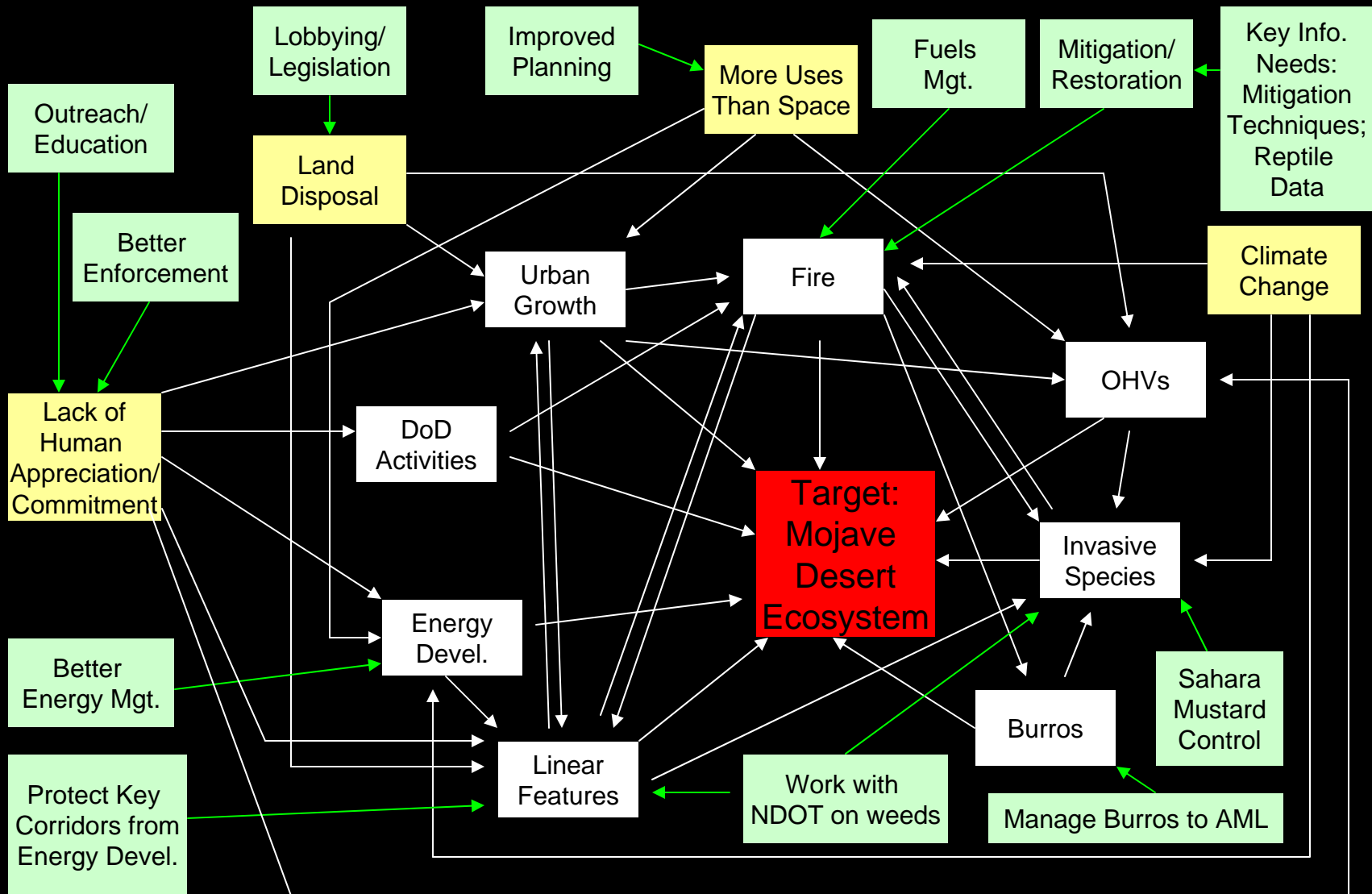
Springs and Springbrook Ecosystems:

Relationships between target, direct factors, indirect factors, and actions



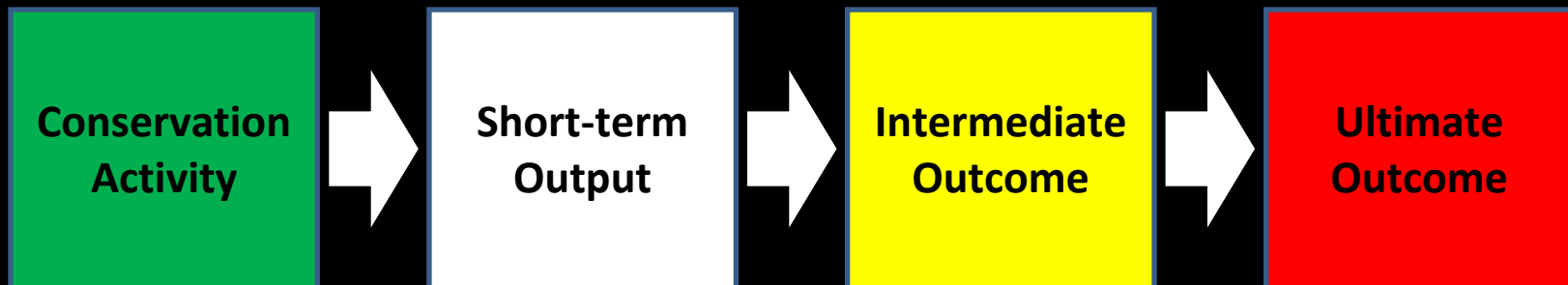
Mojave Desert Ecosystem:

Relationships between targets, direct factors, indirect factors, and actions/opportunities



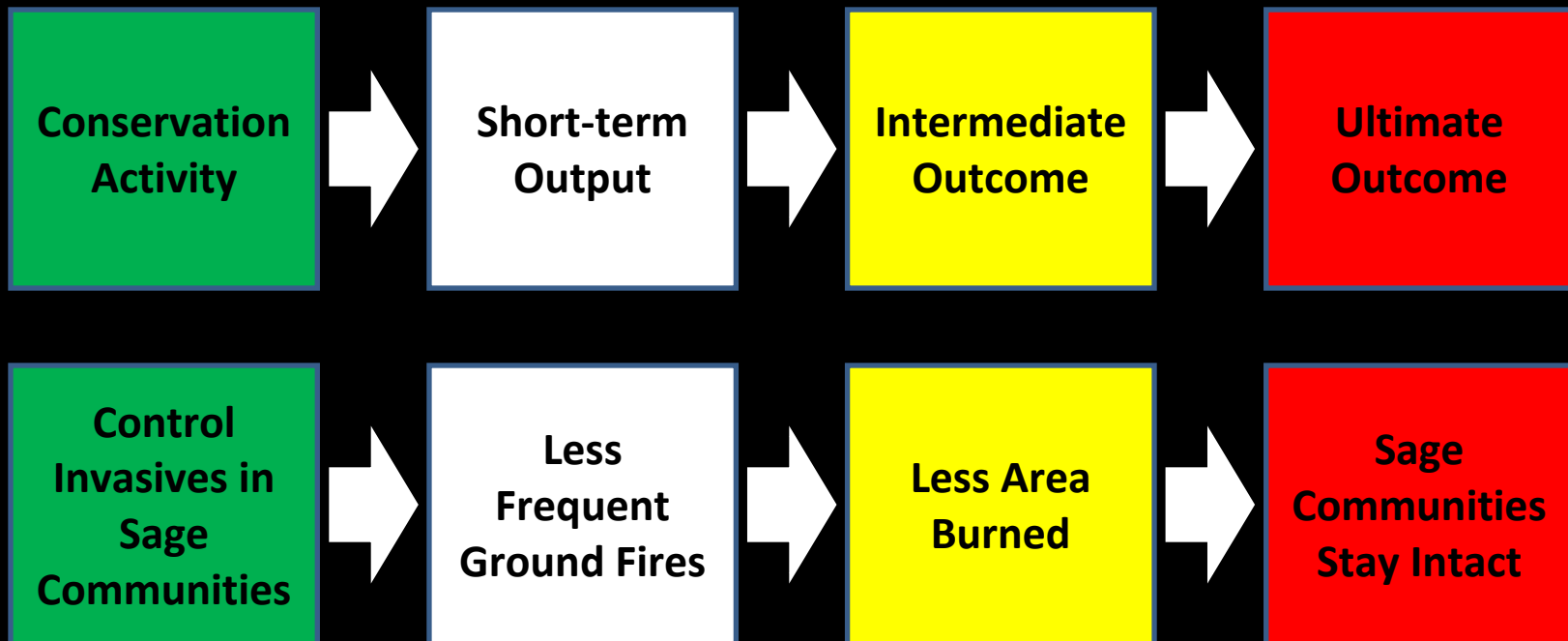
Selecting Intermediate Indicators

- **Logic Models:** Linear models that show the sequence of events from an activity through intermediate stages to an ultimate outcome:



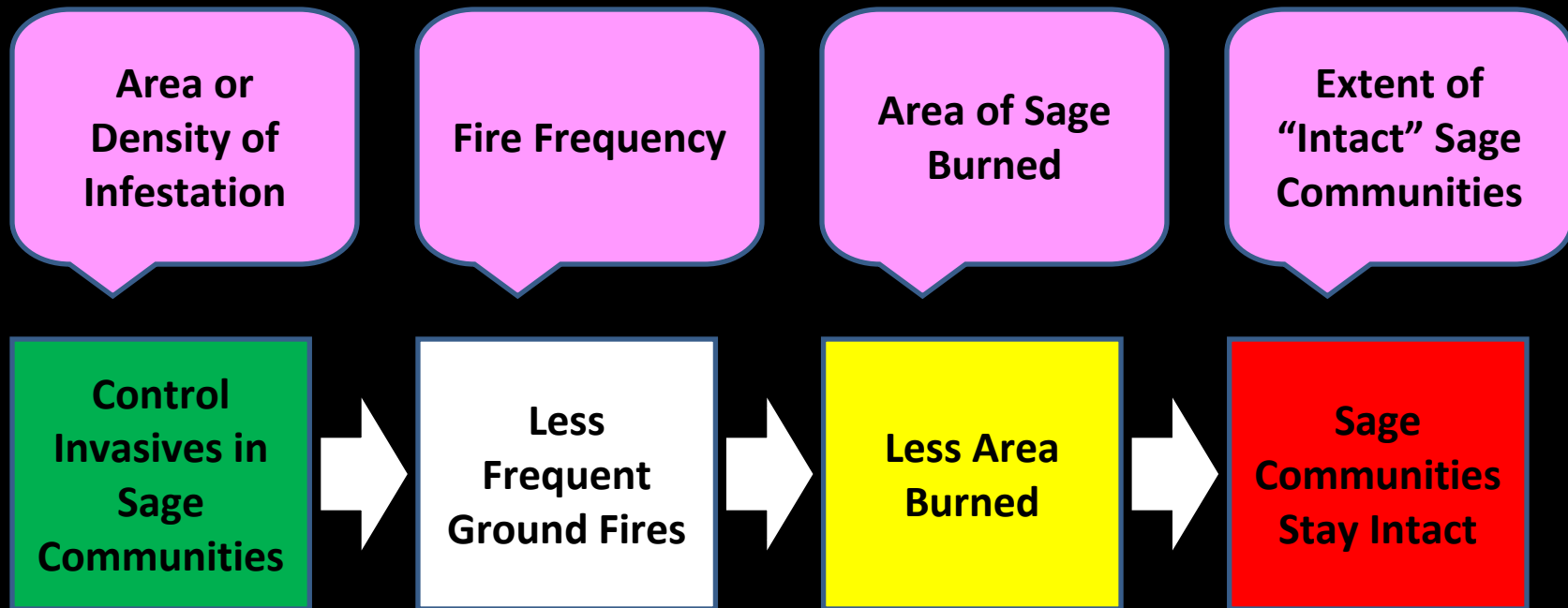
Selecting Intermediate Indicators

- **Logic Models:** Linear models that show the sequence of events from an activity through intermediate stages to an ultimate outcome:



Selecting Intermediate Indicators

- **Logic Models:** Can help you choose intermediate indicators of progress:



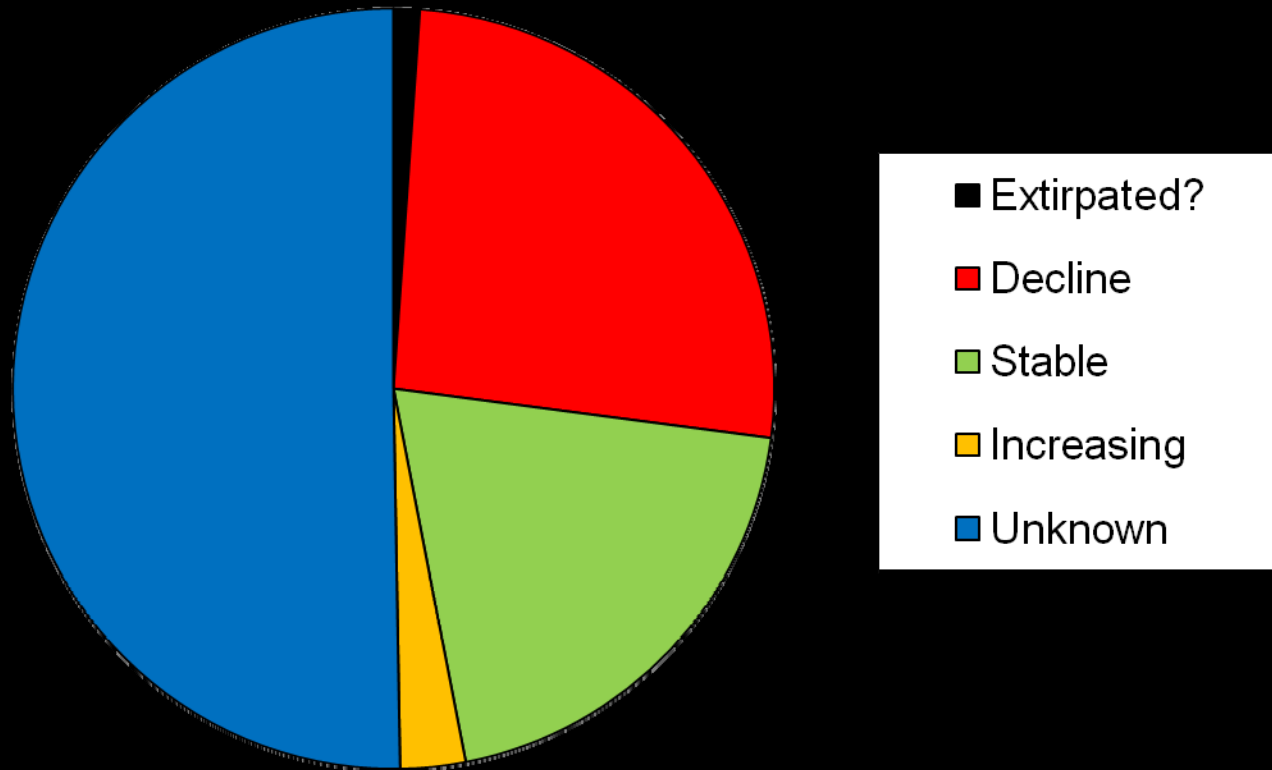
Selecting Outcome Indicators

- *Species, ecological communities, veg. types*
- Work with existing monitoring programs when possible (BBS, CBC, FWS, ESA, land cover data sets etc.)
- Choose new monitoring targets judiciously
 - **Species:** Taxonomy, life history, and ecology well understood; ability to function as “umbrella,” “keystone,” or “focal” species
 - **Ecosystems:** Well-defined; extent well understood, maps available; concept of “quality” is well defined; supports species of conservation need

Simple Reporting Statistics

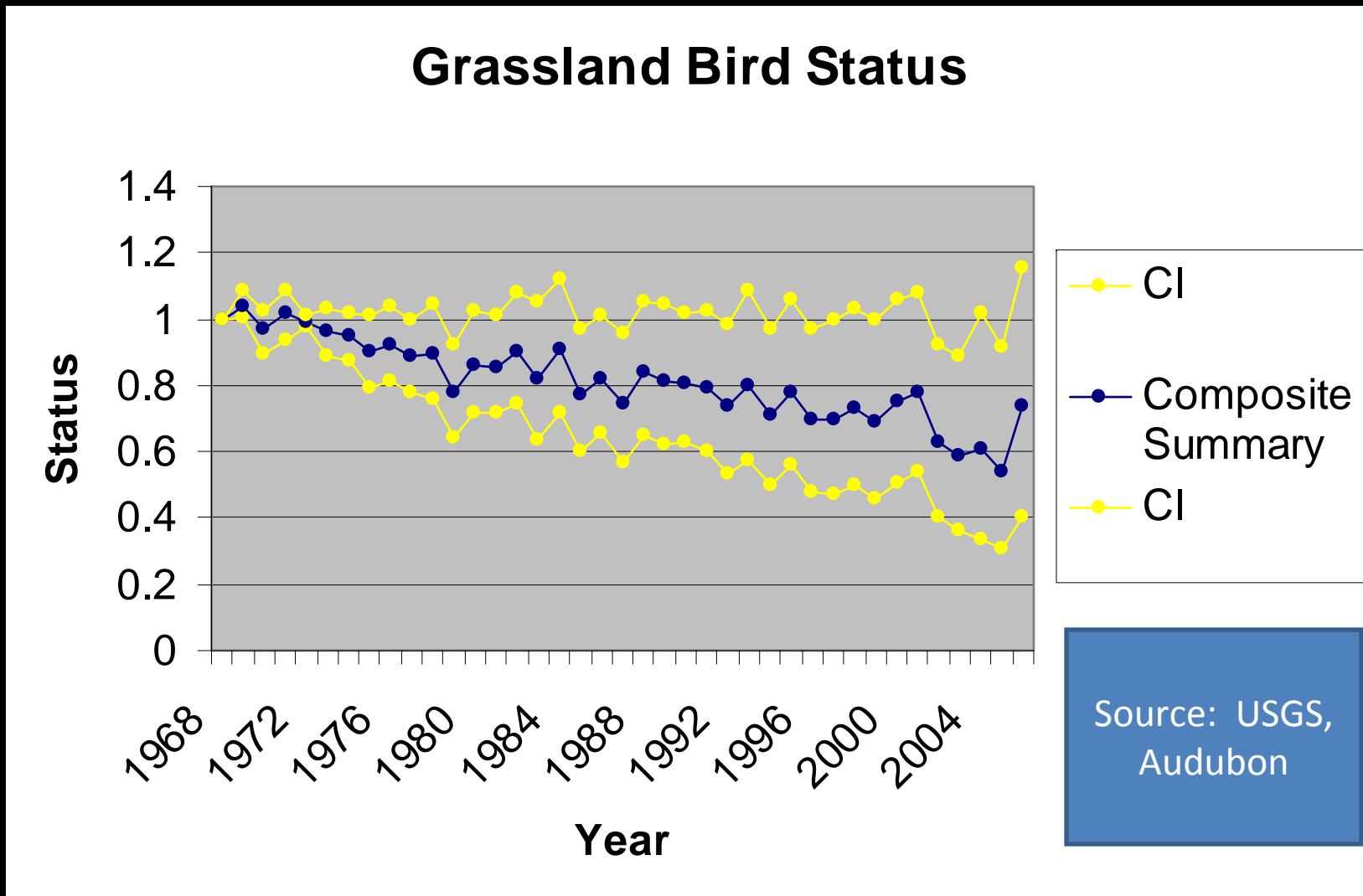
- Species Population Trend

Nevada Species of Greatest Conservation Need



More Complex Statistics

- Bird Trend Index (data from BBS, CBC)



Where Next?

Looking for New Opportunities and
New Partners!

<http://www.heinzcenter/wildlife>