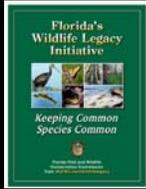
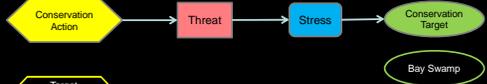




- Identifies by habitat
  - Stresses
  - Sources of stress (Threats)
  - Conservation actions

Target easements in high priority areas

Management: controlled burns

Conservation Action: Intervention undertaken to reach conservation goals

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Strategic conservation planning frameworks

Once conservation targets identified...

Threat assessment and situation analysis

→ Describe the biological environment and systems that affect a conservation target





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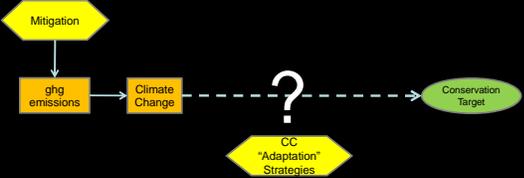
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Strategies taken to ameliorate actual or expected impacts of climate change

?? Tools/process to help identify the elements needed to develop these conceptual linkages

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### Vulnerability assessment

Key tool for understanding impacts of CC on species and habitats

Which species or systems are likely to be most affected?

What factors contribute to vulnerability?

- Exposure
- Sensitivity
- Adaptive capacity

Not all species will respond in the same way

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### Case study

- Pilot an available tool as part of a vulnerability assessment for a set of Florida species
  - NatureServe Climate Change Vulnerability Index (CCVI)
- Use this assessment to inform the design of climate change adaptation strategies as part of a planning process (SWAP)
- Understand how this approach might inform and be integrated with other approaches to vulnerability assessment

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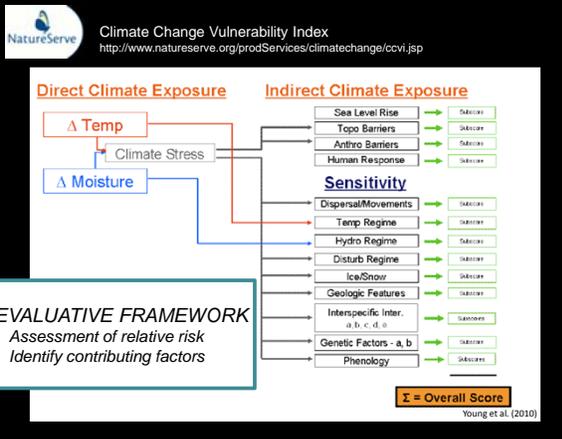
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Vulnerability Assessment	Threat Assessment
Exposure	Drivers that generate new threats or exacerbate existing threats
Sensitivity	Attributes of the target that are sensitive to climate-related stresses
Adaptive capacity	Attributes of the target that reduce the impact of climate-related stresses

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### Climate Change Adaptation

- As part of a conservation planning process adaptation involves
  - Recognizing new threats
  - Identify interactions with existing threats
  - Re-evaluating existing strategies and priorities
- Adaptation strategies** reduce threats that exist or take on additional relevance because of climate change

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> VA identifies influential factors contributing to vulnerability (threats, stresses)

**Short-tailed hawk (MV)**  
winter range

Vulnerability factor	G	I	SI	N	SD	D	Unknown
Sea level rise		+	+				
Natural barriers						+	
Anthropogenic barriers						+	
Human response to CC						+	
Dispersal							+
Physiological thermal niche						+	
Physiological hydrologic niche		+	+				
Disturbance regimes						+	
Ice and snow						+	
Physical habitat specificity							+
Ecotic habitat dependence							+
Dietary versatility				+			
Ecotic dispersal dependence							+
Other interactions: none							+
Genetic variation							+

Sea level rise

Hydrologic regime

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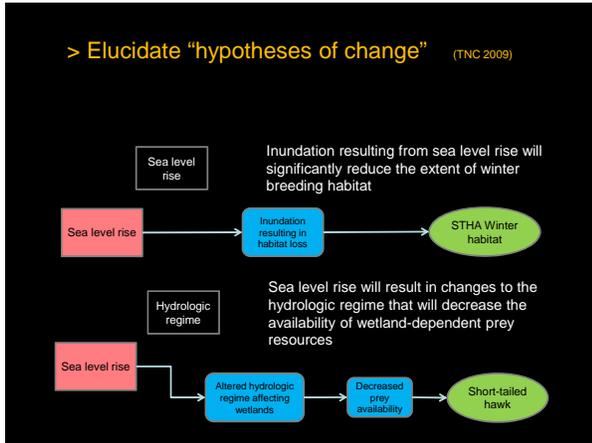
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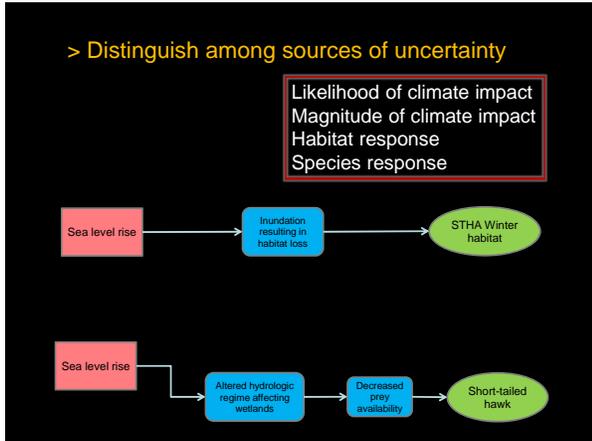
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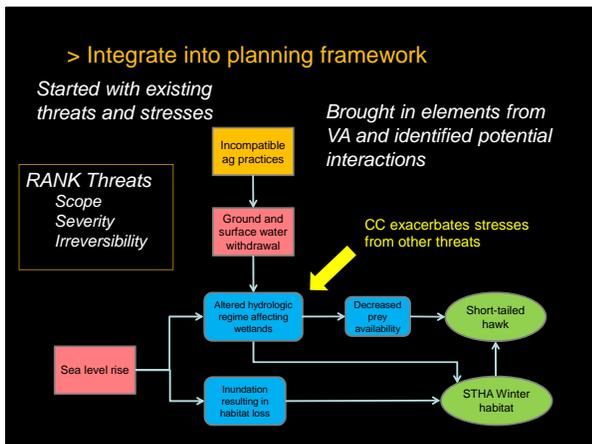
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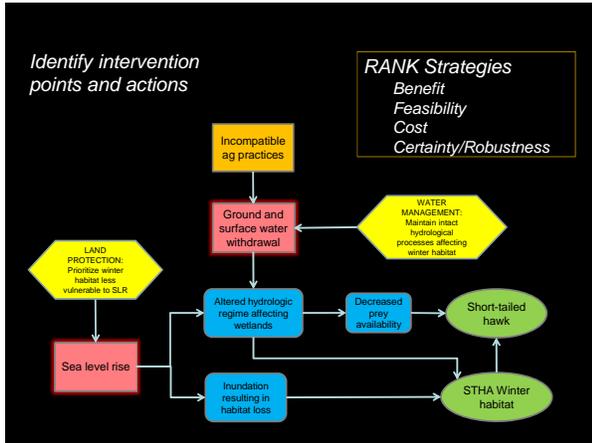
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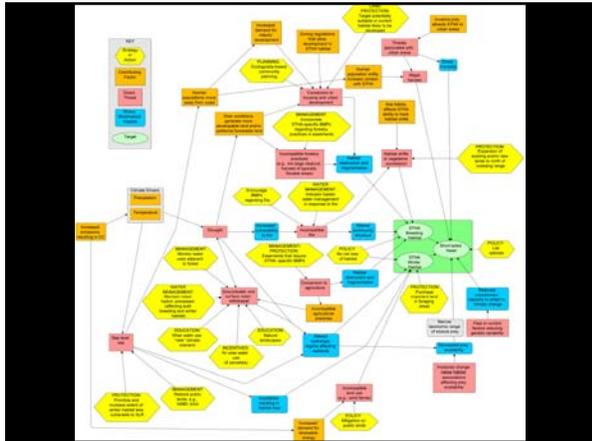
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### Informing agency decisions

- **Management:** Identify management actions that could be incorporated into species management plans
- **Acquisition:** Incorporate climate-related factors into land acquisition process
- **Policy:** Evaluate effectiveness of existing regulations under climate change
- **Research and Monitoring:** Address data gaps and key uncertainties

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### Synthesis

- 1. Developing effective adaptation strategies requires understanding the conceptual linkages connecting climate threats to the stresses affecting a conservation target

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### Synthesis

- 2. Vulnerability assessments can provide an evaluative framework to help elucidate these linkages and identify sources of uncertainty

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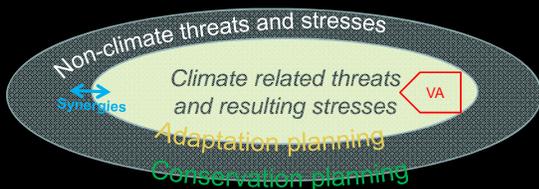
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### Synthesis

- 3. Vulnerability assessments provide a foundation for integrating adaptation planning into existing planning frameworks



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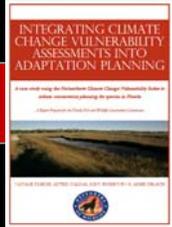


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<http://www.defenders.org>

<http://defenders.org/climatechange/flwildlife>



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