

Identifying Adaptation Strategies and Actions: SPECIES GROUPS AND SPECIES

Adaptation refers to efforts to reduce the negative effects of, or respond to, climate change. Adaptation strategies and actions explicitly incorporate climate considerations, and aim to alleviate the impacts of climate change by increasing adaptive capacity of and/or decreasing the effect of stressors on priority resources.

SPECIES GROUP/SPECIES: _____

1. Identifying Adaptation Strategies

Adaptation strategies are broad adaptation responses that consider ecological conditions and overarching management goals. They are general statements of how to reduce climate vulnerabilities (or stressors) or increase adaptive capacity. Example adaptation strategies include:

- Remove non-native fish populations that exacerbate climate impacts on native amphibians
- Maintain and enhance landscape habitat function and connectivity to support wide-ranging mammals
- Increase the resilience of aspen by improving regeneration and reducing herbivory
- Improve and restore nesting and wintering habitats of sage-grouse

Instructions

Step 1: Review the species group or species vulnerability assessment for your selected species group or species.

Step 2: Using the box below, brainstorm adaptation strategies to reduce species group/species vulnerabilities and/or increase adaptive capacity.

Adaptation Strategies

2. Identifying and Evaluating Adaptation Actions

Adaptation actions are more specific activities to implement; they are prescriptive actions designed for specific site conditions. For example, if your adaptation strategy is to restore floodplain function, specific adaptation actions might be a) decommissioning abandoned roadbeds and trails, b) using fencing to reduce herbivory, or c) maintaining aspen in areas with high soil moisture holding capacity. Other example adaptation actions include:

- Use prescribed burning to remove non-native grasses from the understory of oak woodlands to reduce competition for declining water resources between seedlings and invasive species
- Electroshock and/or gill net aquatic invasive species to reduce overall stress on amphibians
- Favor existing genotypes that are better adapted to future conditions for restoration and plantings

Instructions

Step 1: For each adaptation strategy identified above under #1, identify specific actions to implement.

Step 2: For each adaptation action, evaluate:

- Implementation feasibility (High, Moderate, Low): High feasibility = high likelihood of implementation; Low feasibility = low likelihood
- Effectiveness in reducing stressors (High, Moderate, Low): High effectiveness = action is highly likely to reduce stressors and may benefit additional resources; Low effectiveness = action is unlikely to reduce stressors, or may reduce stressors but to a minimal degree. **List the specific stressors reduced by a given action.**
- When to implement: Near (<5 years); Mid (5-10 years); Long (>10 years)
- Where to implement: Identify the management, site, or ecological conditions where the action could most appropriately be applied. For example: areas with high soil moisture, areas with fish passage or crossing, areas projected to lose most water supply, post-fire areas, high roaded areas, inaccessible areas due to topography, etc.
- How to implement: Given vulnerabilities, identify how you would implement the action, including considering specific constraints or conditions. For example, in restoration projects will you be planting native species, species adapted to a range of current and future conditions, or species adapted to future conditions only?
- Who could implement: List the agencies and organizations that could put the action into practice.

SPECIES GROUP/SPECIES: _____

Adaptation Strategy #1:

	Specific Action (1)	Specific Action (2)	Specific Action (3)
Adaptation Actions			
Implementation Feasibility (H, M, L)			
Effectiveness in Reducing Stressors (H, M, L)			
When to Implement (Near, Mid, Long)			
Where to Implement			
How to Implement			
Who Could Implement			

SPECIES GROUP/SPECIES: _____

Adaptation Strategy #2:

	Specific Action (1)	Specific Action (2)	Specific Action (3)
Adaptation Actions			
Implementation Feasibility (H, M, L)			
Effectiveness in Reducing Stressors (H, M, L)			
When to Implement (Near, Mid, Long)			
Where to Implement			
How to Implement			
Who Could Implement			