

## Brush and Woody Species Management Themes from Workshops 1 and 2

### ECOLOGY OF GRASSLAND CONVERSION TO WOODY SPECIES

- Grasslands progress to shrubs without intervention
- Worldwide trend - not unique to southern Arizona
- Complex & diverse reasons - absence of fire, warm winters, land use
  - Common perception that livestock grazing primary cause -- consider Buenos Aires NWF where there have been decades without livestock grazing, numerous burns yet mesquite still re-sprouts, requiring ongoing management intervention
- Notes:

### SITE EVALUATION

- Consider site's potential and what factors limit options (thorough evaluation first!)- such as soil type, water infiltration, and precipitation
- Consider short- and long-term investment goals - habitat improvement, forage productivity, soil stability, fuels reduction for wildfire prevention
- What would success look like, and how to measure success -- monitoring tools
- Notes:

### ECONOMICS, FINANCING & LOGISTICS

- Economics of treatment strategy
- Labor force realities -- hand work, machine work, skills required, lack of labor availability
- Financing improvements with other people's money to improve ecosystems services
- Can work at different scales -- everyone can do something
- Value of different goals -- livestock forage, wildlife and habitat, fuels reduction for wildfire prevention
- Resist pigeonholing one type of treatment as the end all be all
- Notes:

### TOOLKIT (Each Treatment has Pros and Cons)

- There is no one perfect solution for any geographic area or site
- Consider a broad toolkit -- prescribed fire, mechanical treatment, chemical treatment, hand work, others?
- ALL TREATMENTS – are expensive and probably need to be used in areas that have high potential for grass growing, after the fact (higher rainfall, better soils)
- Notes:

**BRUSH MANAGEMENT IS A PROCESS -- NOT A ONE-TIME PROJECT**

- Nothing can be done once and then let go -- requires long-term commitment
- Maintenance is critical -- consider layering different tools over the course of time
  
- Notes:

**WORK ACROSS BOUNDARIES**

- Think and work across land ownership and management boundaries
- Use collaboration to help owners plan and implement projects across boundaries to coordinate resources and maximize efficiency
- Consider cohesive methods to treatments in different land ownerships
  
- Notes: