

## Climate Change

### Observations about Today's Climate?

- Hotter Drier Summer
- Longer Frost-Free period
- Intensified spring precipitation
- Shift from Snow to Rain
  - Decreasing Snowpack
  - Snowpack occurring at higher elevation
- More streamflow in spring - less streamflow in summer

### Future?

- Continued increase in temperature.

### How will Sagebrush Change? (Next 50 – 60 years)

- Will be more productive in some places and less productive in other areas.
- Likely to decrease in southern part of Great Basin

### What about indirect effects?

- Cheatgrass-Fire interactions
- Fire reduces sagebrush cover
- Increased cheatgrass leads to erosion and desertification

### Implications and Adaptations:

- More productivity at higher elevations
- Lower productivity and loss of sagebrush at low elevations
- Management may make a big difference at mid-elevation
  - Improve restoration of sagebrush, forbs, and perennial grass
  - Seed source is important.
  - Need to match climate of origin to where seed is being planted.
- Lessons from Soda Fire
  - Seeds from warmer ecosystems were more successful.
  - Indicates the need to keep better records of where seeds came from.