

Ecological Restoration
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Ecological Restoration
Degradation Causes

Restoration
of ecological processes by
Restoration Tools
Successful Ecological Restoration
Academic Preparation
Academic Preparation

Ecological Restoration

Restoration – process of reestablishing, to the extent possible, the structure, function and integrity of ecosystems and to sustain the habitats they provide

Reclamation – process where very degraded lands are returned to productivity and by which some of the biotic function is restored

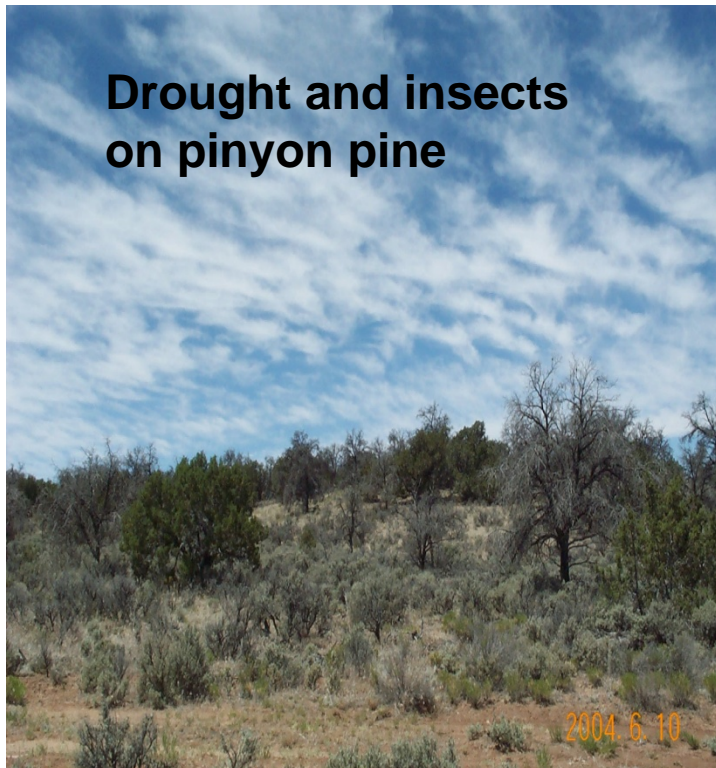
Degradation Causes

Natural: Drought, Floods, Fires, Insects

Human: Agriculture, Commerce,
Residential, Recreation

Biological Invasions: Plants, Animals,
Diseases

Disturbances to ecosystems



Restoration of ecological processes by

Introduction of primarily native species –

- Plants by seeds, plant parts, and transplants
- Animals by capture and release, or migration
- Soil micro-organisms

Restoration Tools

Fire

Grazing animals

Chemicals

Herbicides

Fertilizers

Soil additives

Mechanical

Biota

Irrigation

Erosion control devices

Successful Ecological Restoration

Depends on:

1. Goal(s)
2. Clear objectives
3. Appropriate Planning Horizons

Academic Preparation

Biology, Chemistry, Social Sciences,
Humanities, English, Communication,
Cultural Awareness

Academic Preparation

Ecology (systems, landscape), Soils, Plant Taxonomy, Plant Propagation, Environmental Policy, Resource Planning, Wildlife Ecology and Management, Riparian - Wetland Ecology, Invasive Species, Soil Classification Technology (GPS, GIS, Remote Sensing)