Restoring Ecological and Economic Integrity of Arizona's Forests and Woodlands

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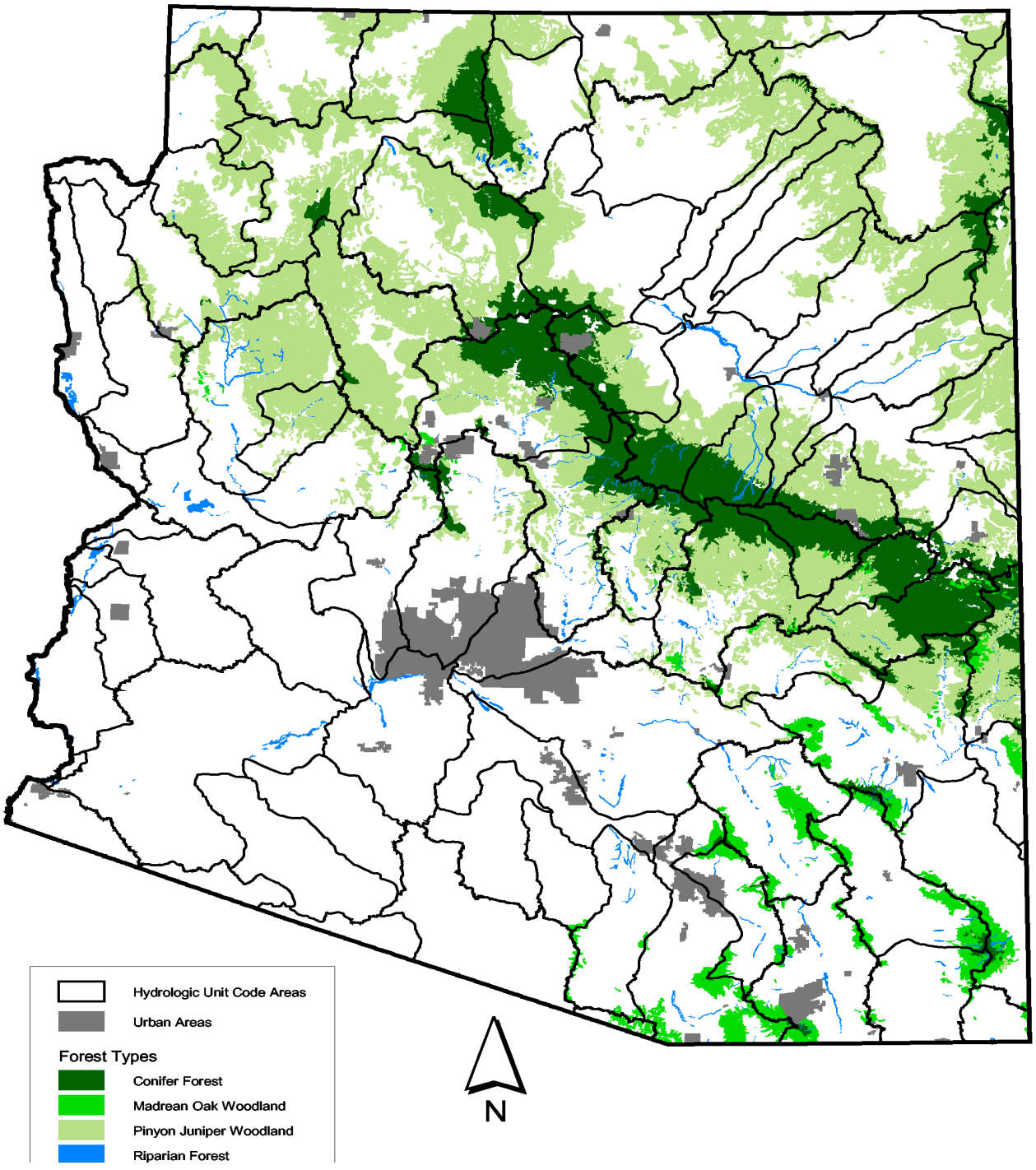
Arizona Forest Types and Watersheds



Increased Vegetation Density Has Come at Costs to Other Resources

1. decreased stream flow
2. decreased groundwater recharge
3. decreased herbaceous production of desirable species
4. decreased wildlife habitat for many species
5. decreased biological diversity
6. increased susceptibility to unnatural insect and disease outbreaks
7. increased fuel loading and severe fire risk
8. loss of lives and property

The Schultz Fire Full Cost Accounting

Total Impact	
Loss in Property Value	$ 59,353,523
Government Agencies	$ 59,104,394 ($9.4 USFS Suppression)
Loss of Life	$ 6,000,000
Structural damage	$ 3,097,978
Cleanup	$ 1,825,127
Unpaid Labor	$ 1,516,103
Armoring	$ 823,100
Home Contents	$ 548,235
Fire Evacuation Costs	$ 223,572
Flood Insurance Premiums	$ 198,034
Habitat	$ 400,000 - $14,200,000
Total	$ 133,090,066 - $146,890,066

USDA

United States Department of Agriculture

Total Acres Burned by Wildland Fires

Years

Source: [illegible]
Note: The National Interagency Coordination Center at NIFC compiles annual wildland fire statistics for federal and state agencies.

The catastrophic fires of the past two decades were predicted, and the trend will continue,
but there are solutions

Pinyon Juniper Restoration Treatment

- Thin post-settlement trees- 2:1 ratio for each evidence
- Lop and scatter slash to reduce erosion and improve site for understory establishment
- Prune residual trees
- Seed in early spring and during monsoons with 5 native grasses, 1 N-fixing forb, 4 shrubs

Strong Science is Central to Maximizing Restoration Benefits From Forest Treatments

- start with the best scientific evidence available followed by practical experience and stakeholder values to design restoration actions
- operate in a “learning by doing” framework
- use objective, scientific approaches to discover needed information where existing knowledge is inadequate
- deliver the information in a range of formats designed for each audience

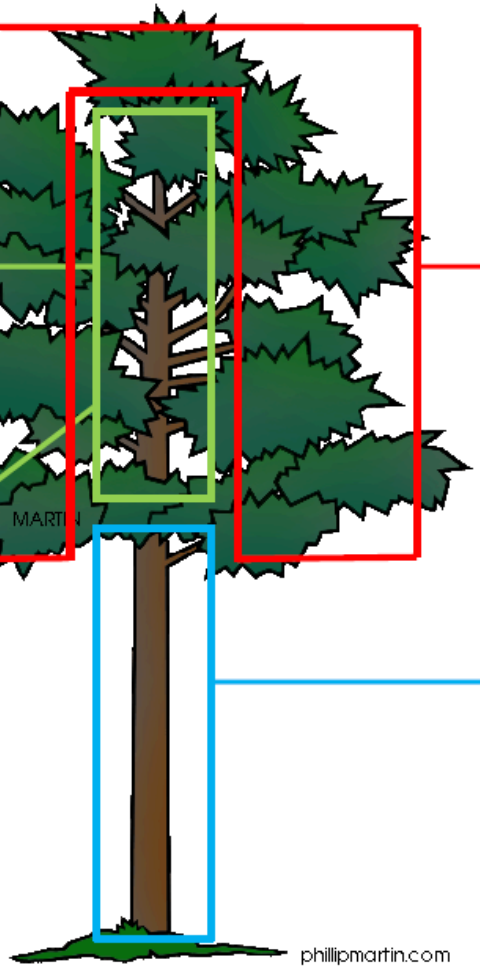
What Does the Future Hold?

1. An acceleration of historical changes in Arizona's dry forests and woodlands including:
   increased fuel accumulations,
   lengthened fire seasons, and
   intensified burning conditions
3. Resource damage will be of increasing concern, led by impacts on biological diversity, wildlife, recreation and watersheds.
4. There will be an increasing demand for action at the state level to reverse the ongoing degradation.
5. Removing and utilizing biomass and small trees is a major opportunity for restoring watersheds and creating jobs. Arizona should lead the way.

Tree Economics

Pellets, mulch, bedding

Posts, poles, pallets



Biomass for
power and fuel

Lumber and
engineered wood