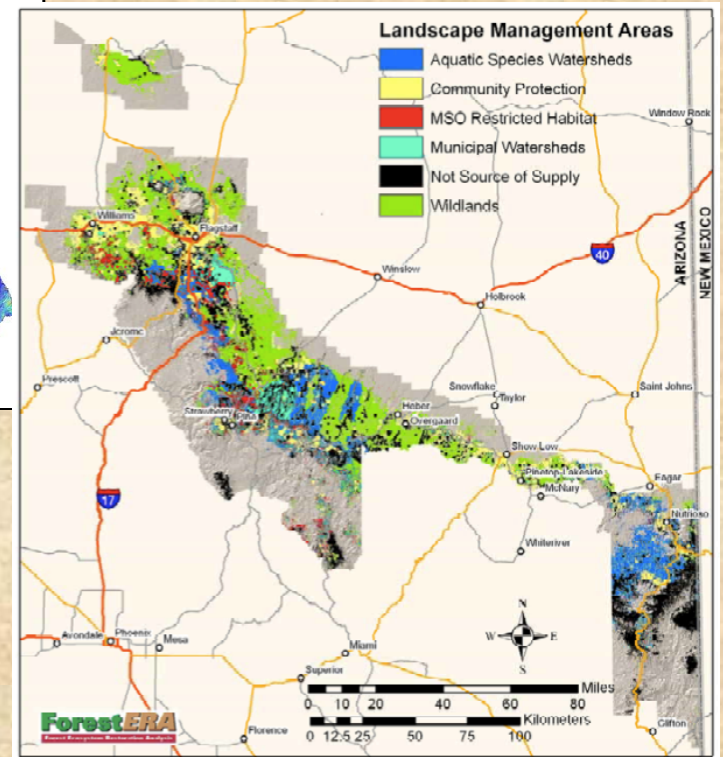
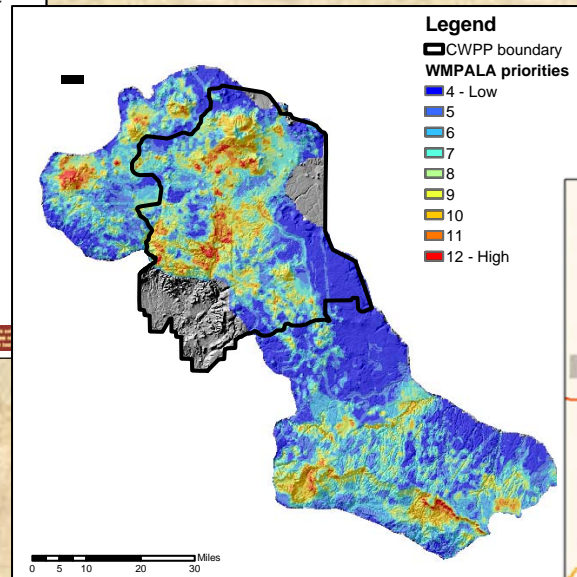
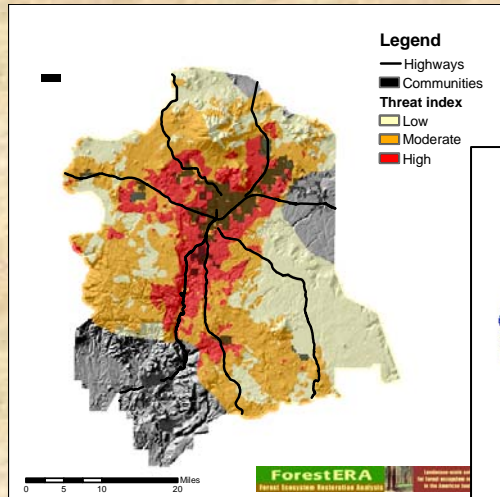


Integrating CWPPs with landscape restoration efforts in northern Arizona



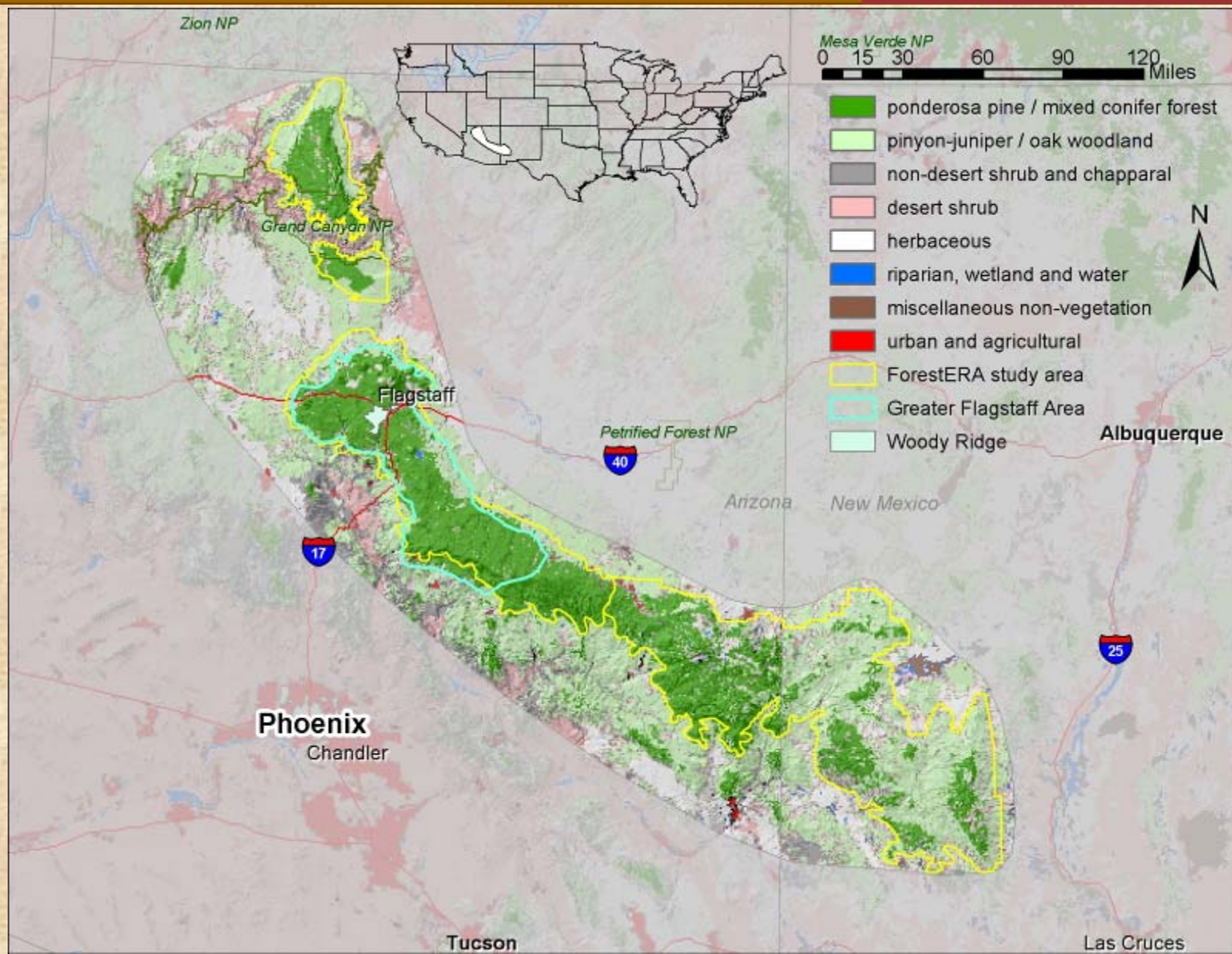
Landscape

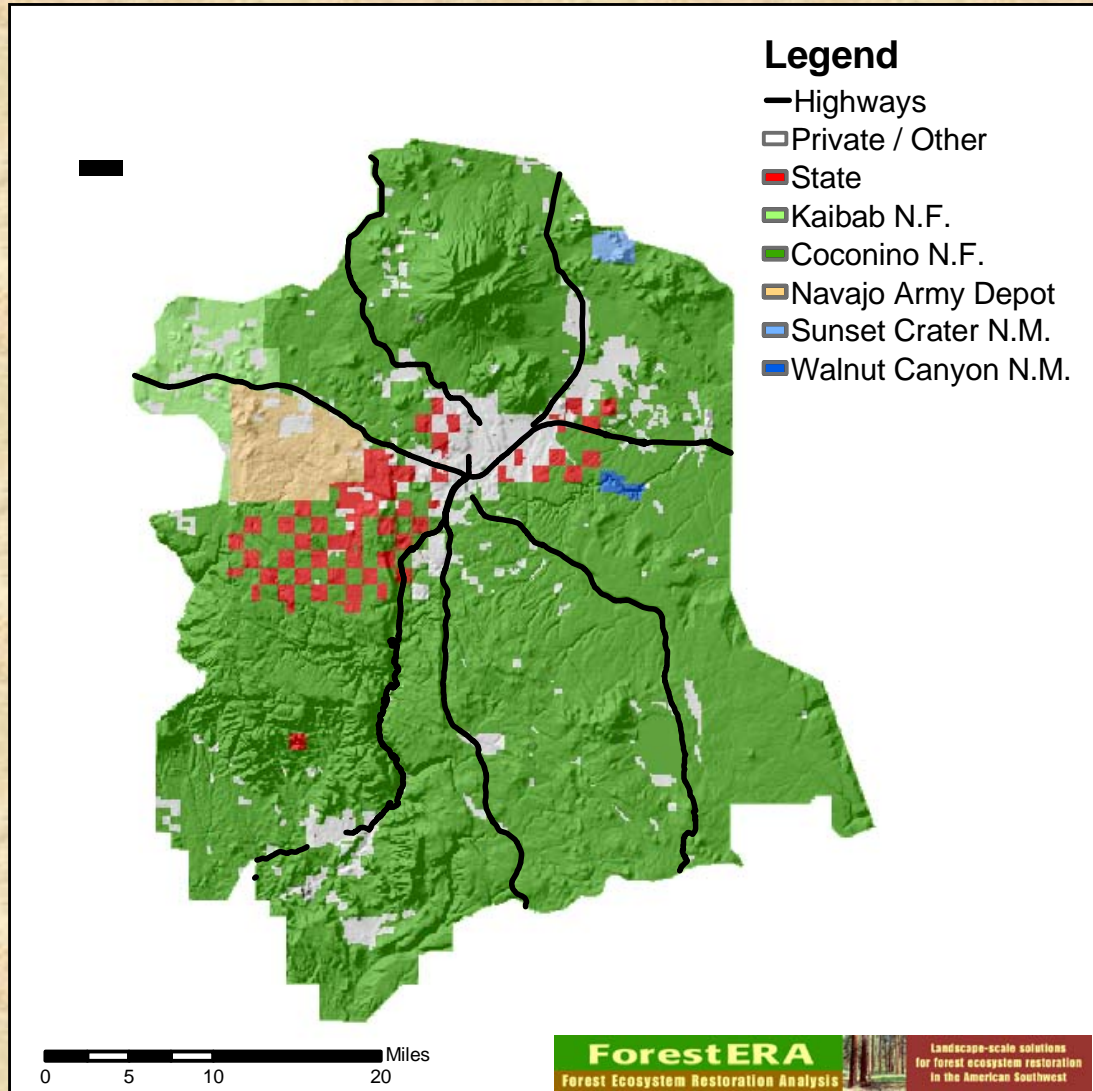
Regional

ForestERA

Providing a landscape-scale perspective on ecosystem restoration in Southwest forests

Forest Ecosystem Restoration Analysis





Flagstaff CWPP

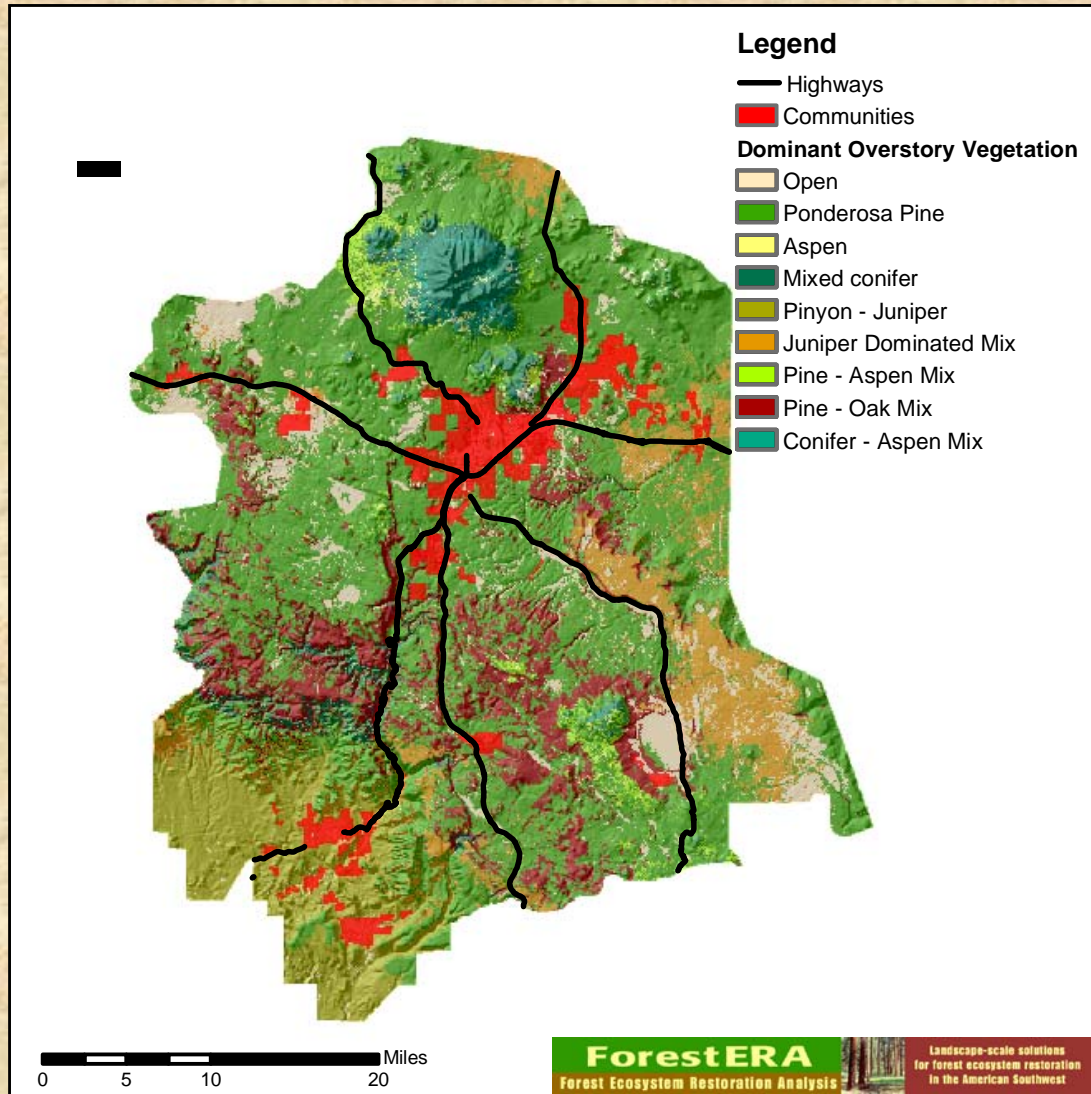
Area description

CWPP: 940,000 acres

USFS: 790,000 acres

Private: 82,000 acres

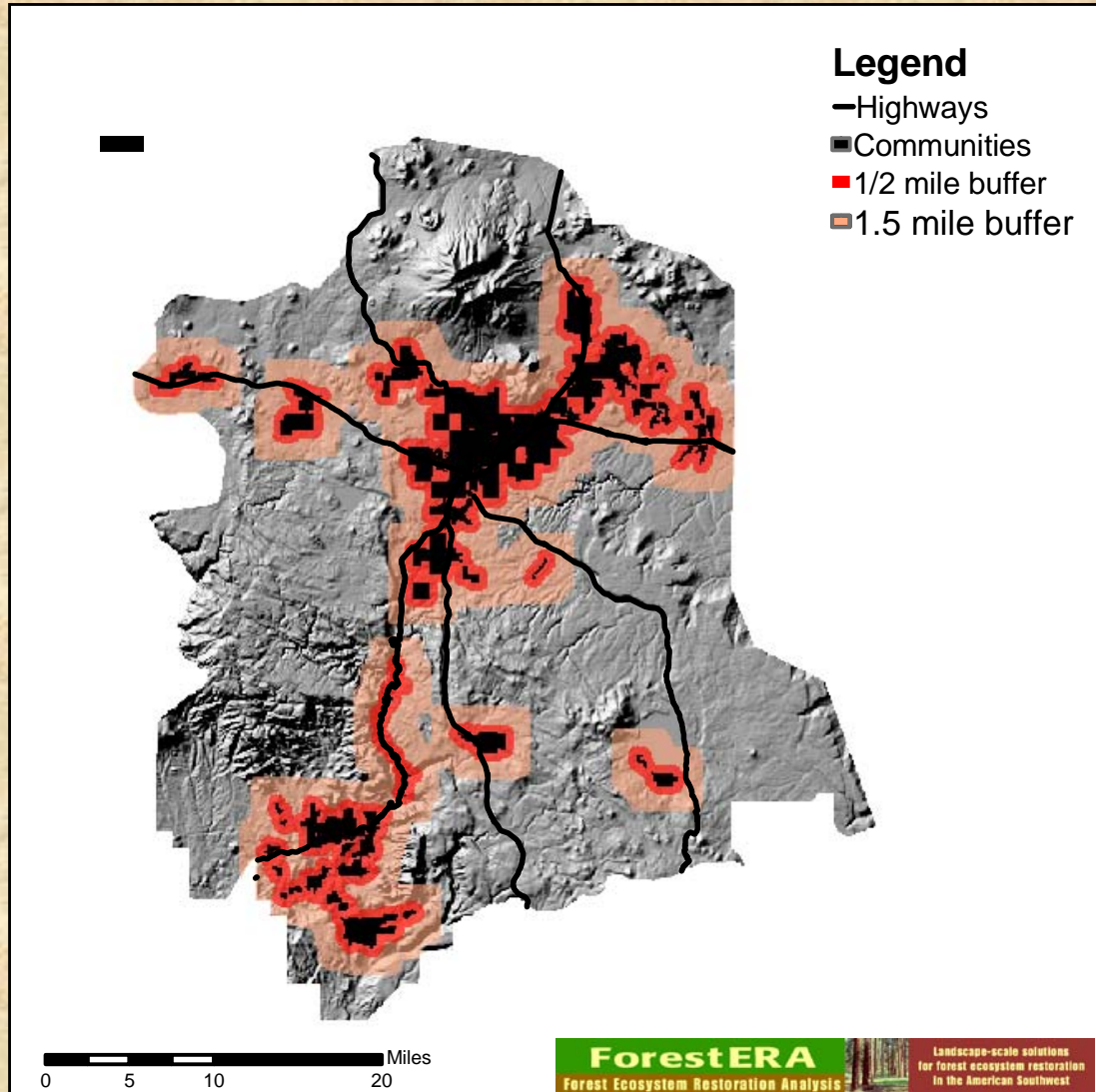
State: 35,000 acres



Flagstaff CWPP

Area description

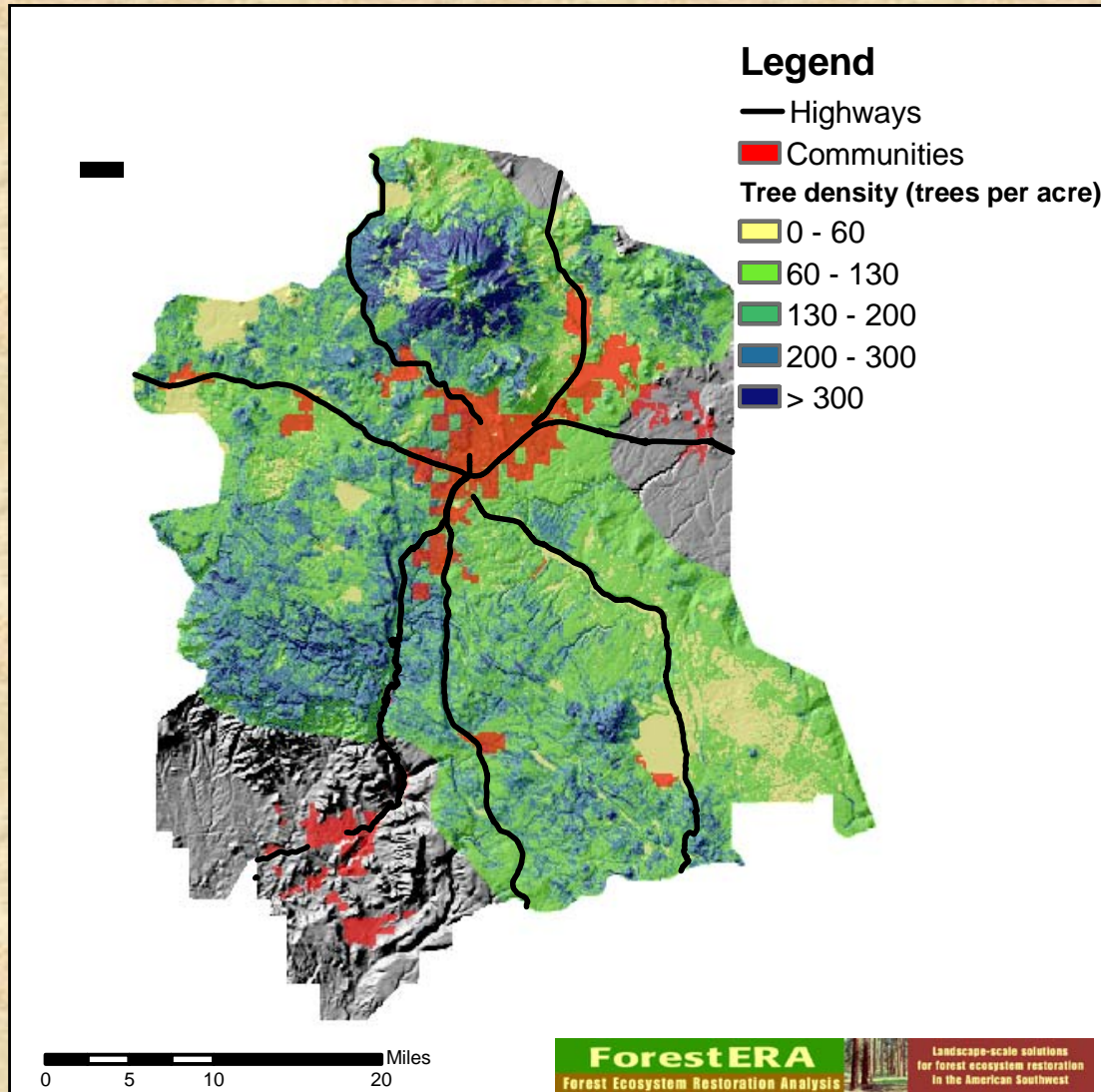
ForestERA overstory
vegetation layer +
National Landcover
Database



Flagstaff CWPP

Assessment of
current conditions

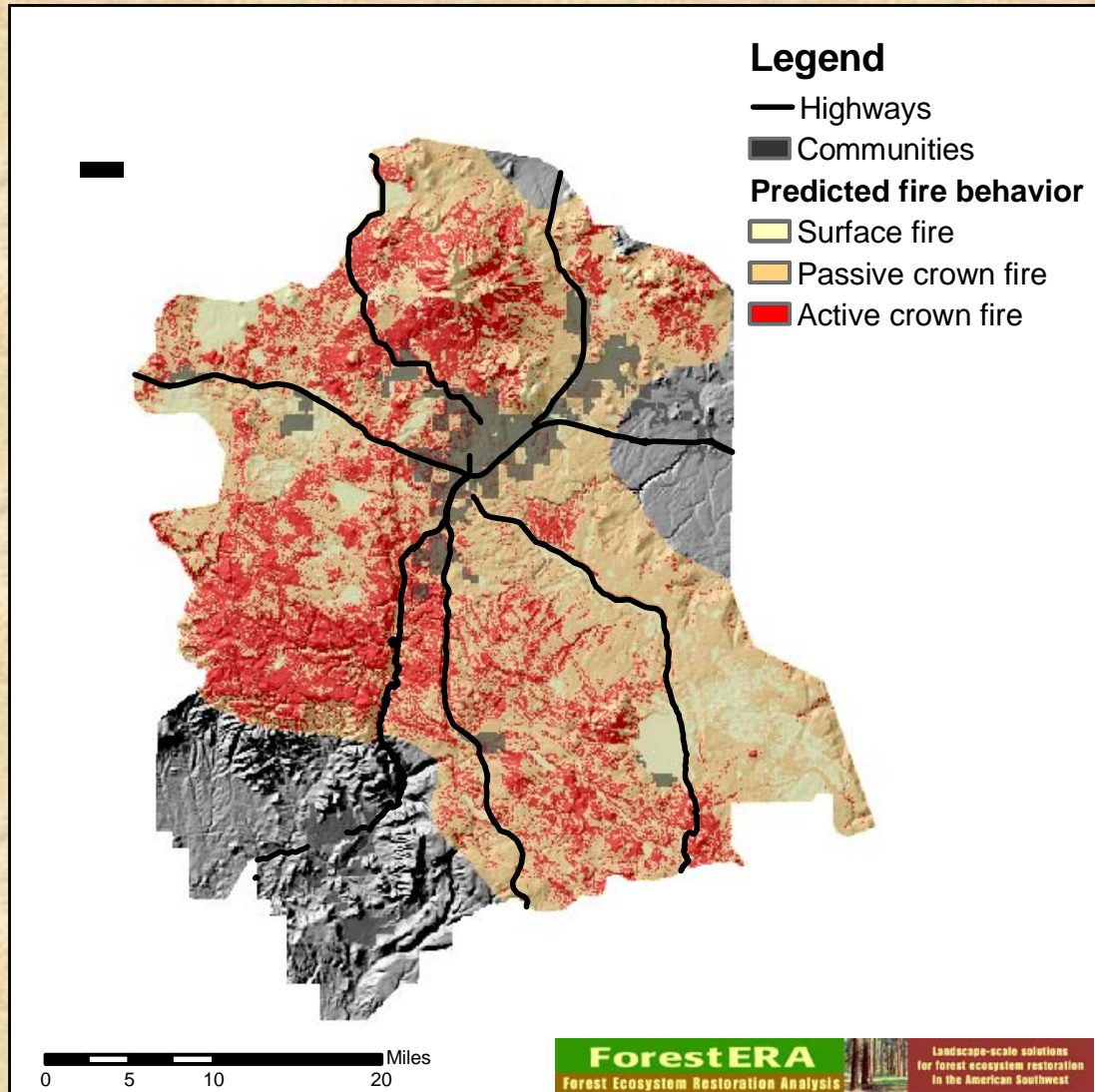
- 1/2 mile buffer
- 1.5 mile buffer
- HFRA WUI definition



Flagstaff CWPP

Assessment of current conditions

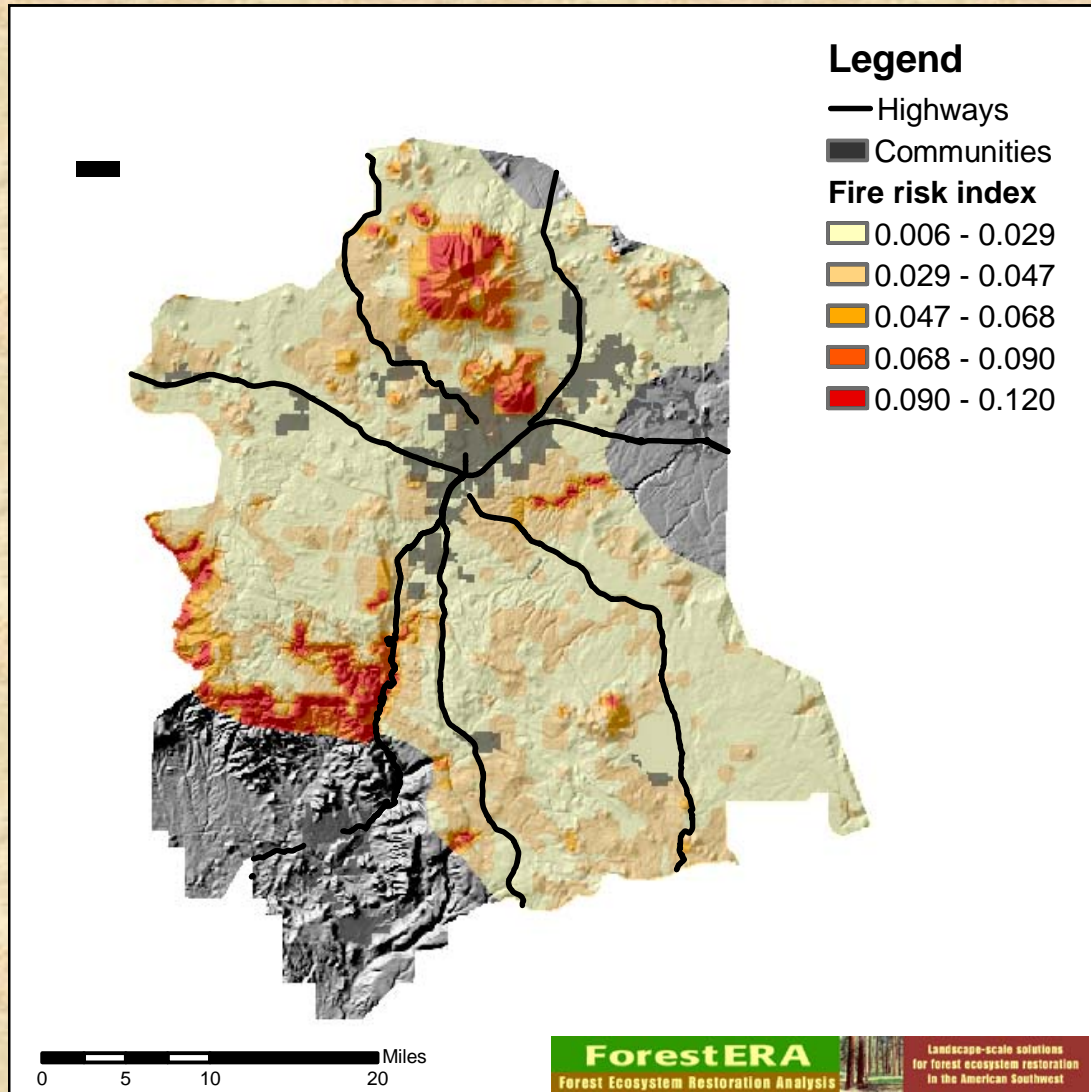
➤ Tree density



Flagstaff CWPP

Assessment of current conditions

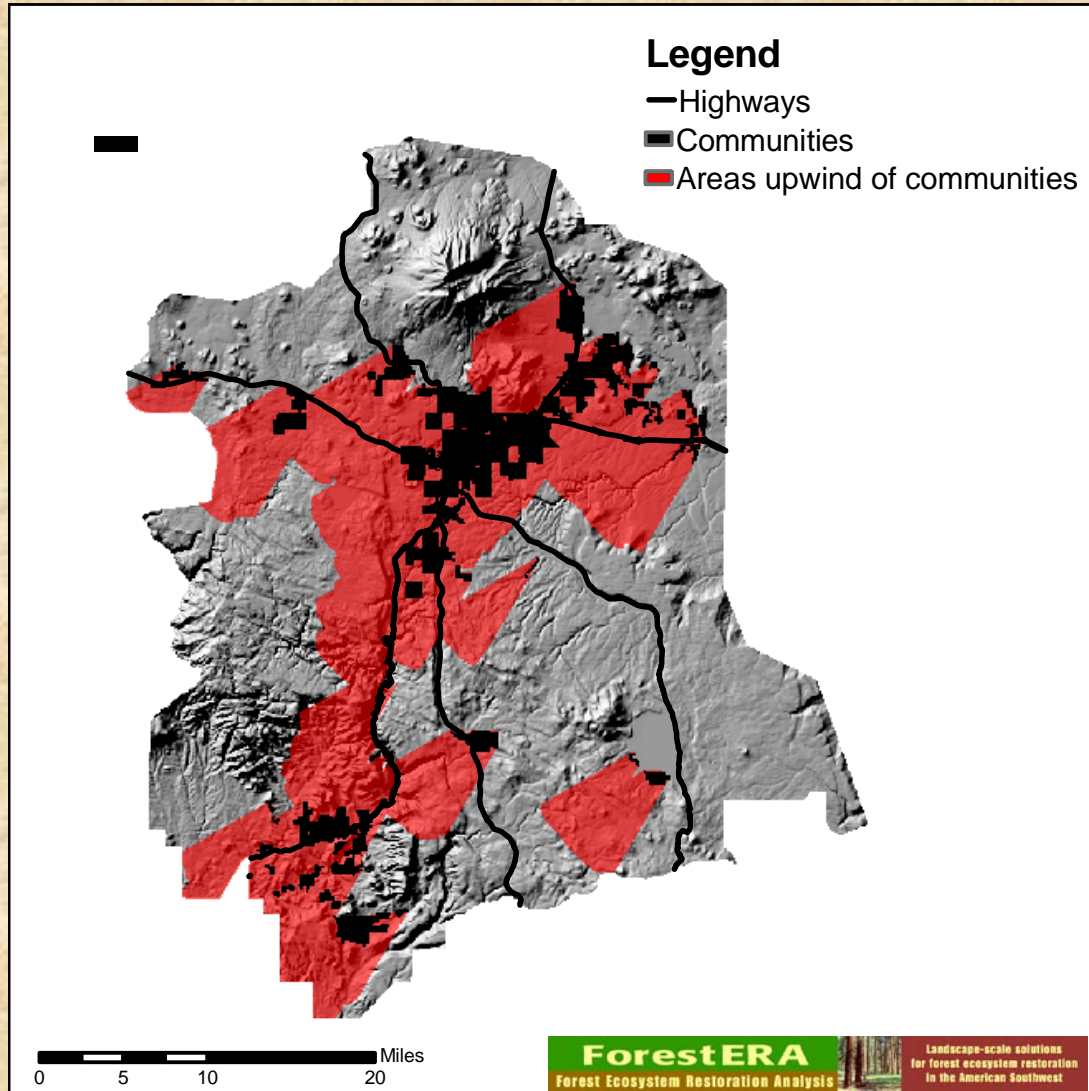
- Fire behavior
- Fire hazard
- Fire risk



Flagstaff CWPP

Assessment of current conditions

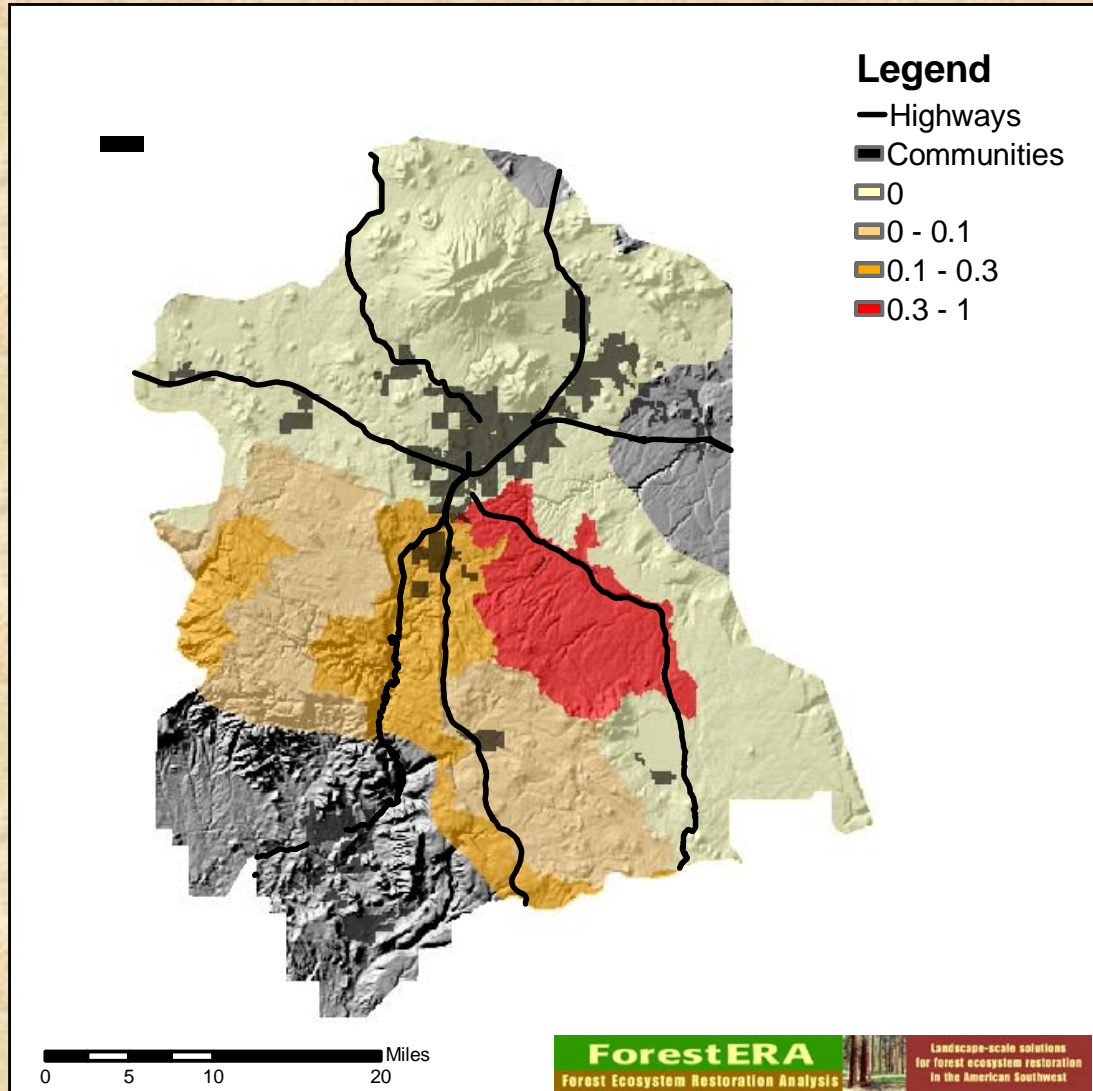
- Fire behavior
- Fire hazard
- Fire risk



Flagstaff CWPP

Assessment of
current conditions

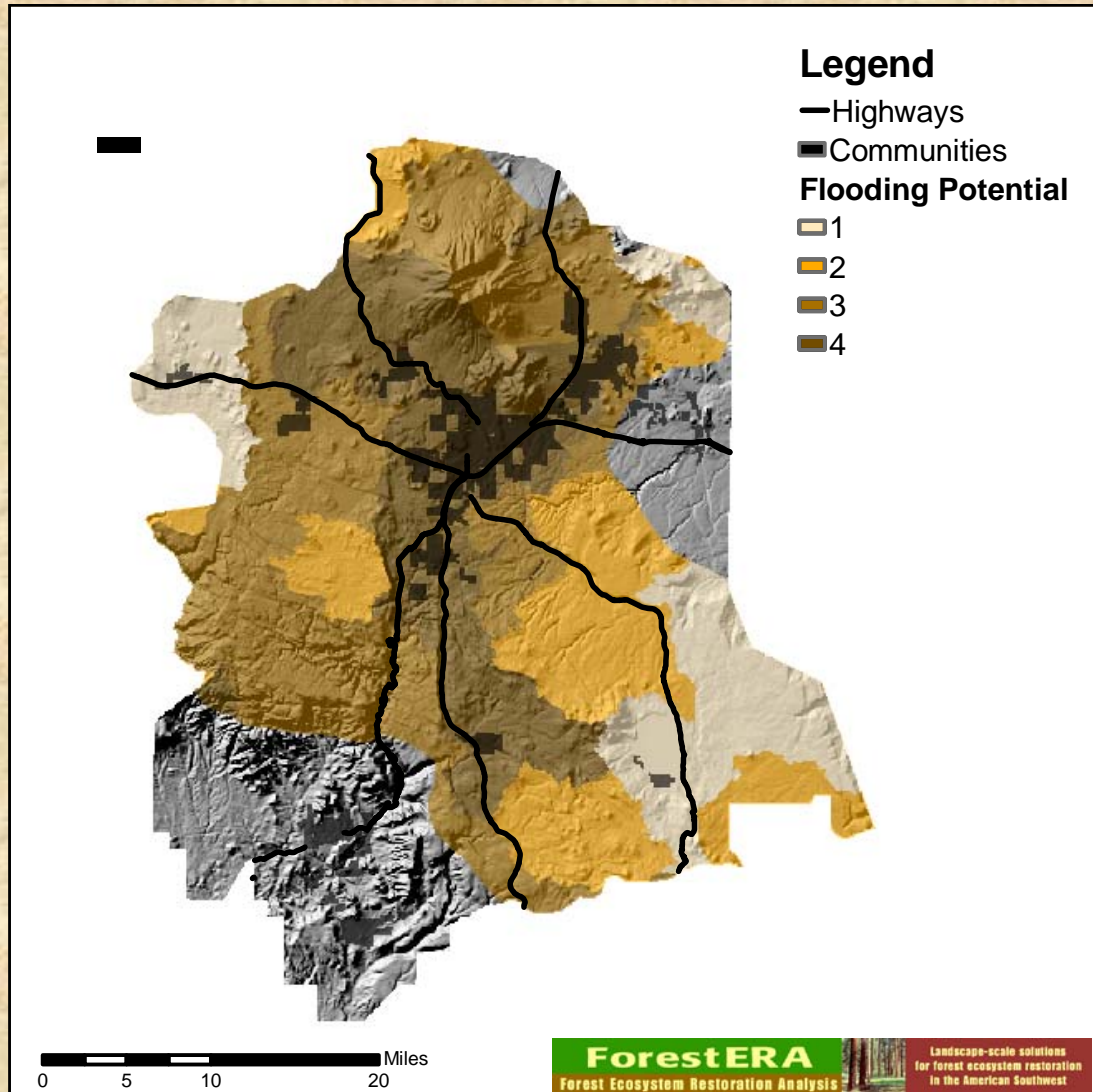
➤ Areas upwind of
communities



Flagstaff CWPP

Assessment of current conditions

➤Municipal
watersheds



Flagstaff CWPP

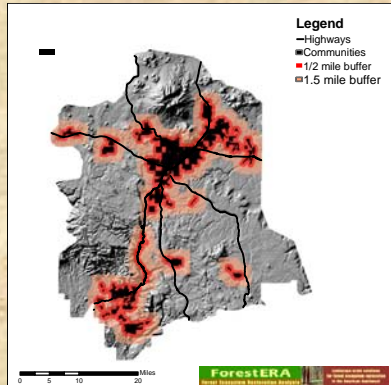
Assessment of
current conditions

➤ Post-fire
flooding potential

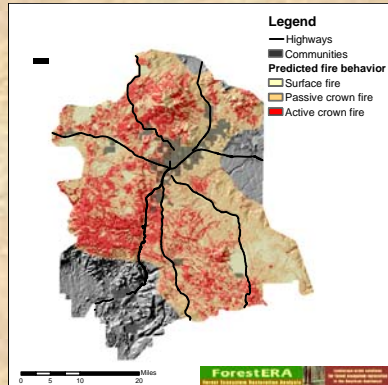
ForestERA

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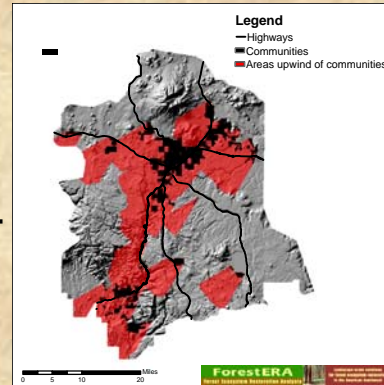
Forest Ecosystem Restoration Analysis



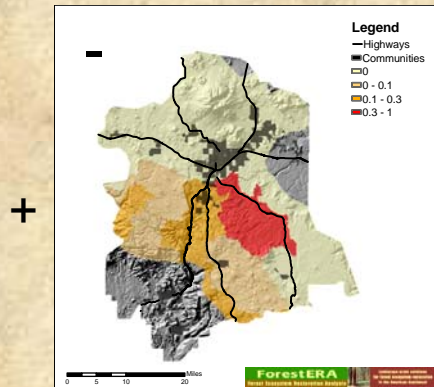
Community proximity (X3)



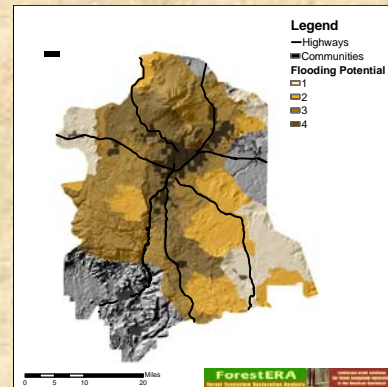
Fire behavior (X2)



Upwind vector (X3)



Municipal watersheds (X1)

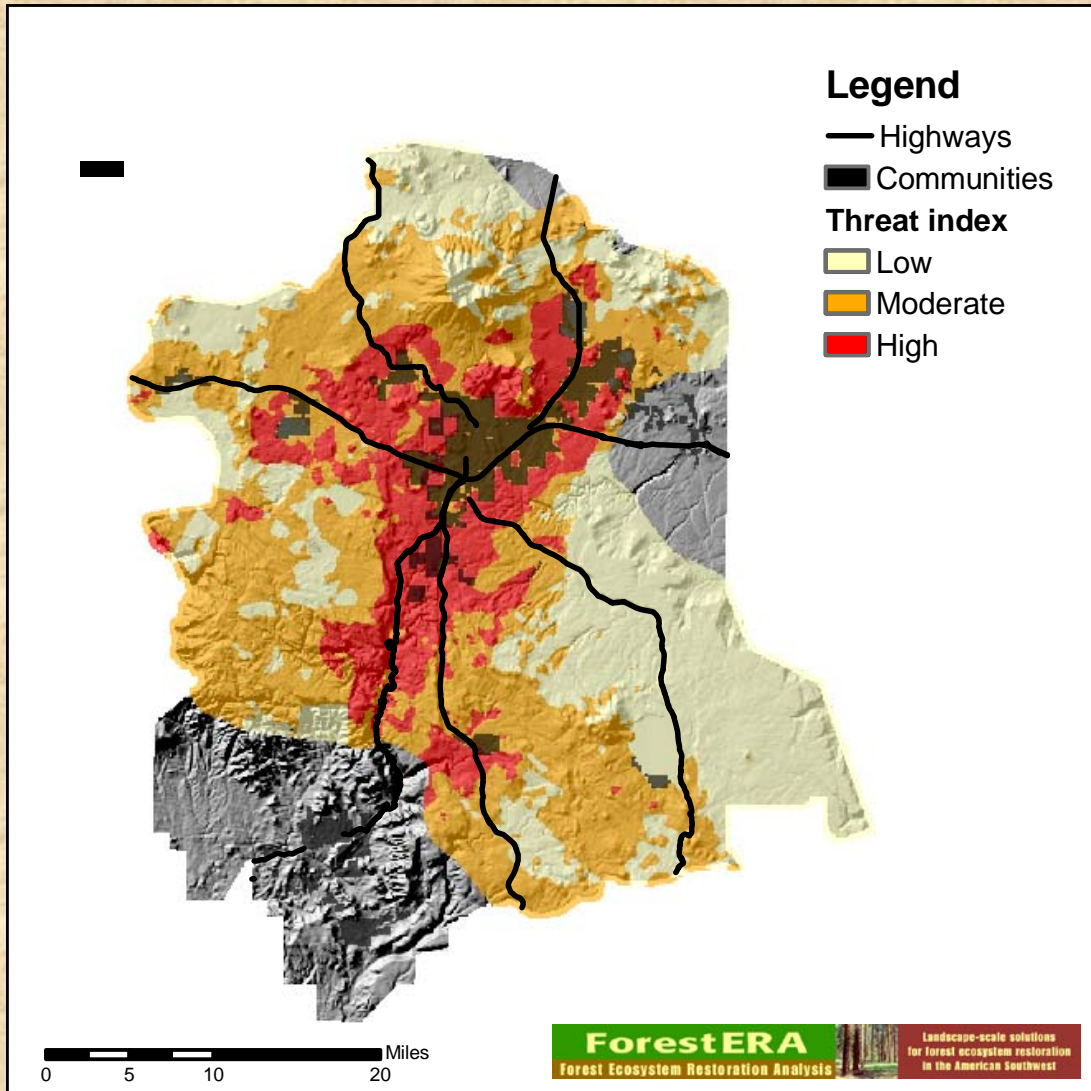


Flooding potential (X1)

Flagstaff CWPP Threat analysis

➤ Simple Additive Weighting-based overlay process

➤ 1/2 day, real-time



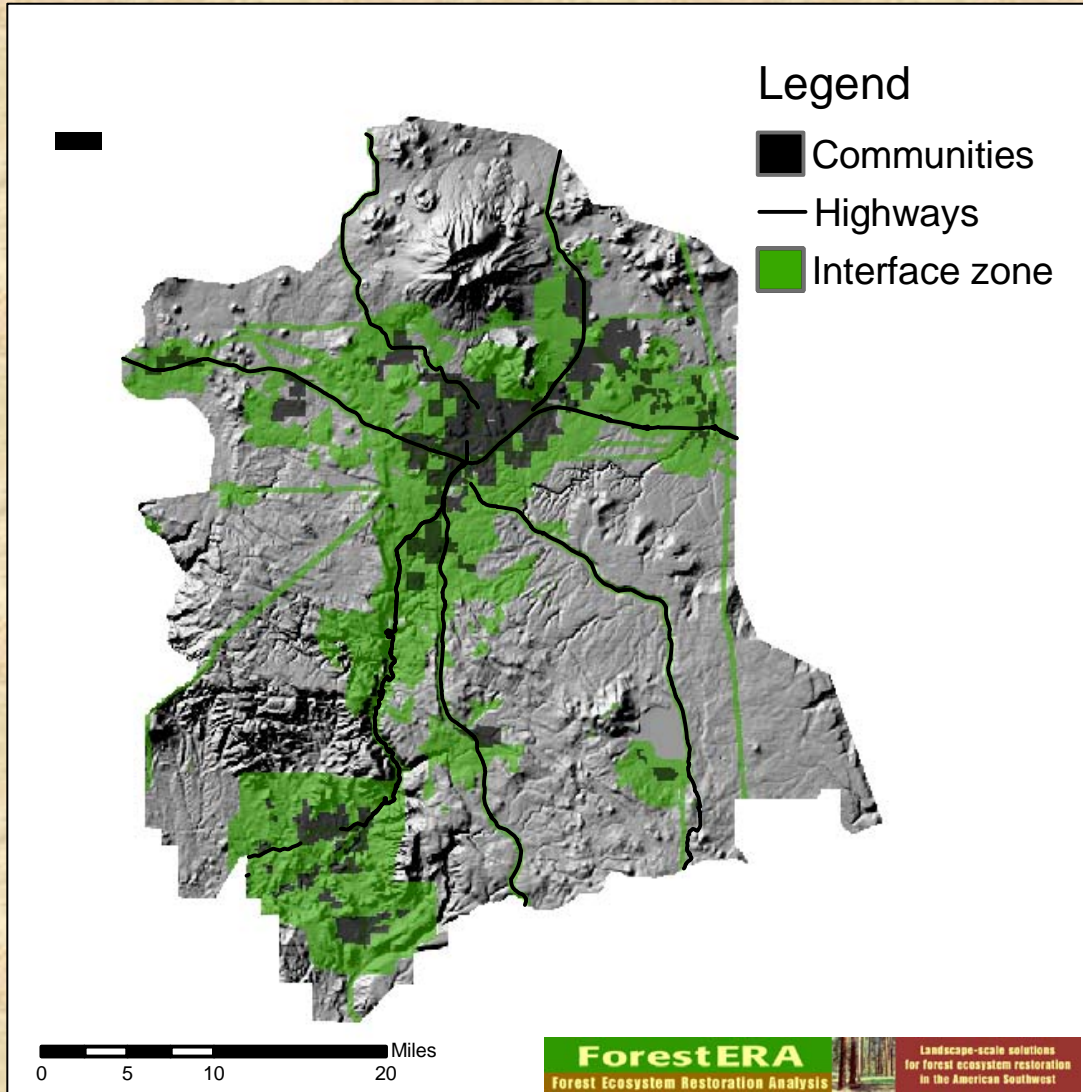
Flagstaff CWPP

Threat analysis

➤ High threat:
135,000 acres

➤ Moderate threat:
355,000 acres

➤ Low threat:
280,000 acres



Flagstaff CWPP

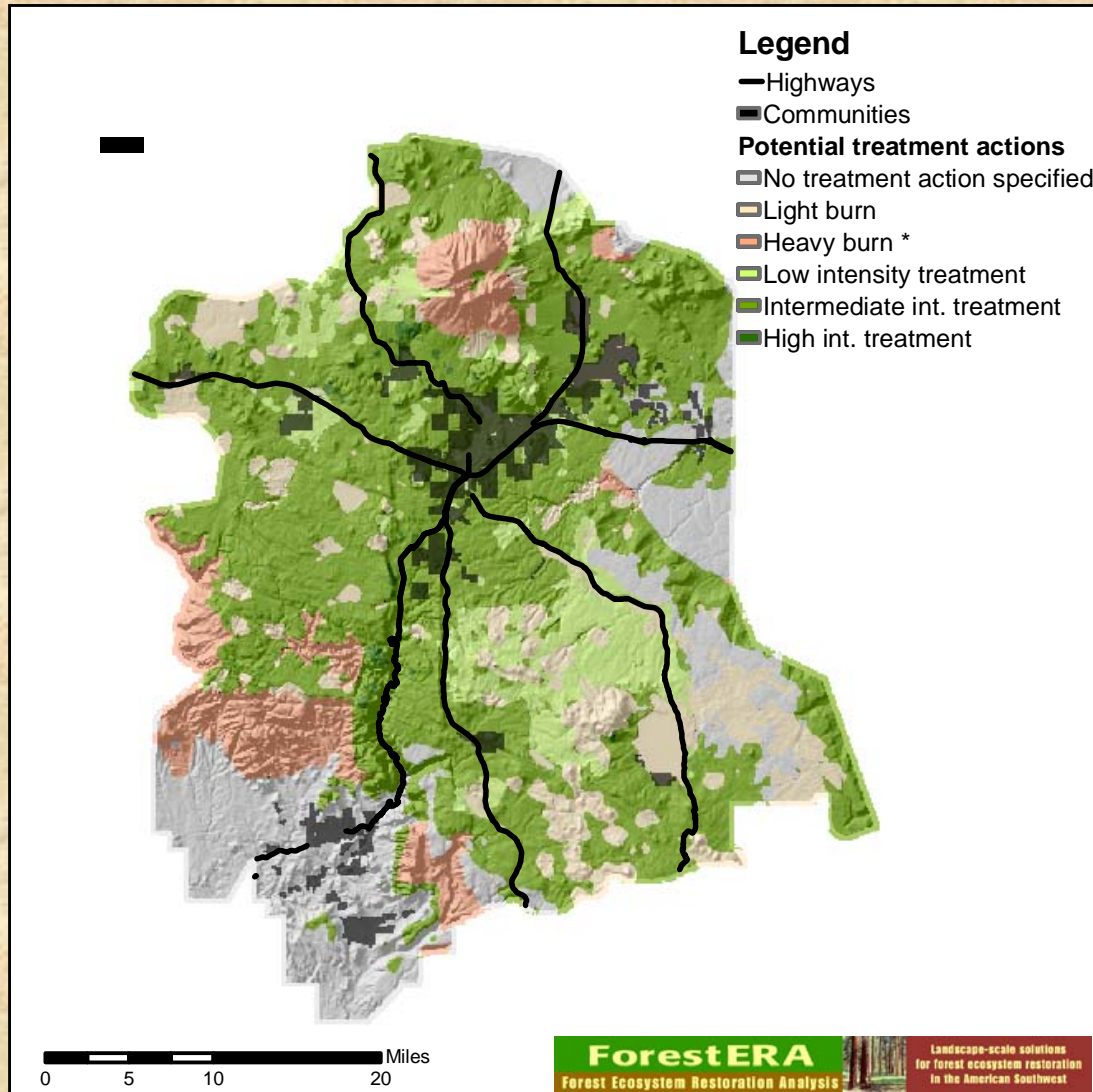
Interface zone

➤ Community protection zones:

- Sedona + O.C. ~ 67,000 + 2100 acres
- Parks, Mormon Lake, Cosnino ~ 36,000 acres

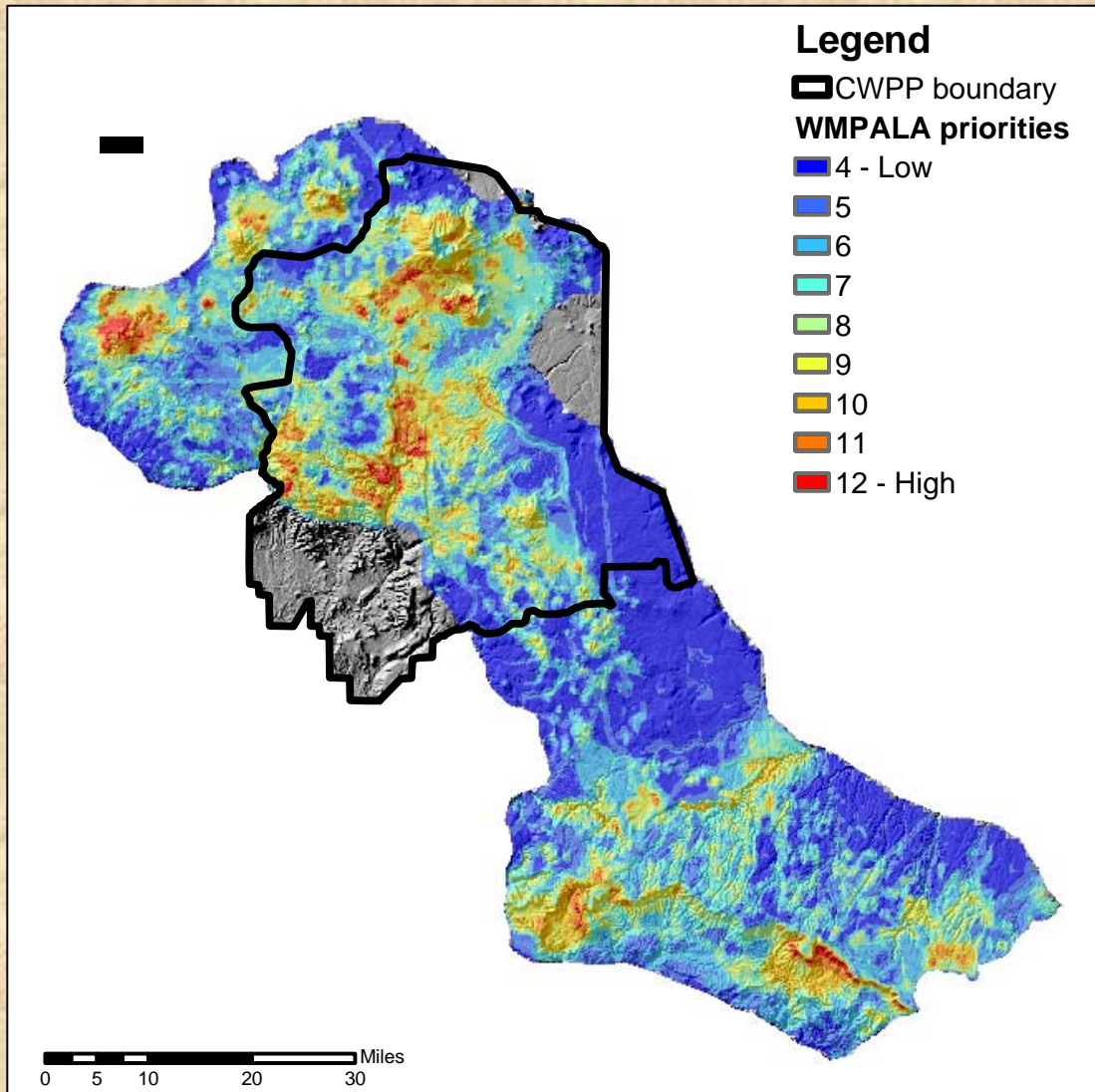
➤ Infrastructure (1/8 mi.):
P.L. – 43,000; Hwy – 42,000 acres; Towers – 1300 acres

TOTAL: 280,655



Flagstaff CWPP Implementation strategies

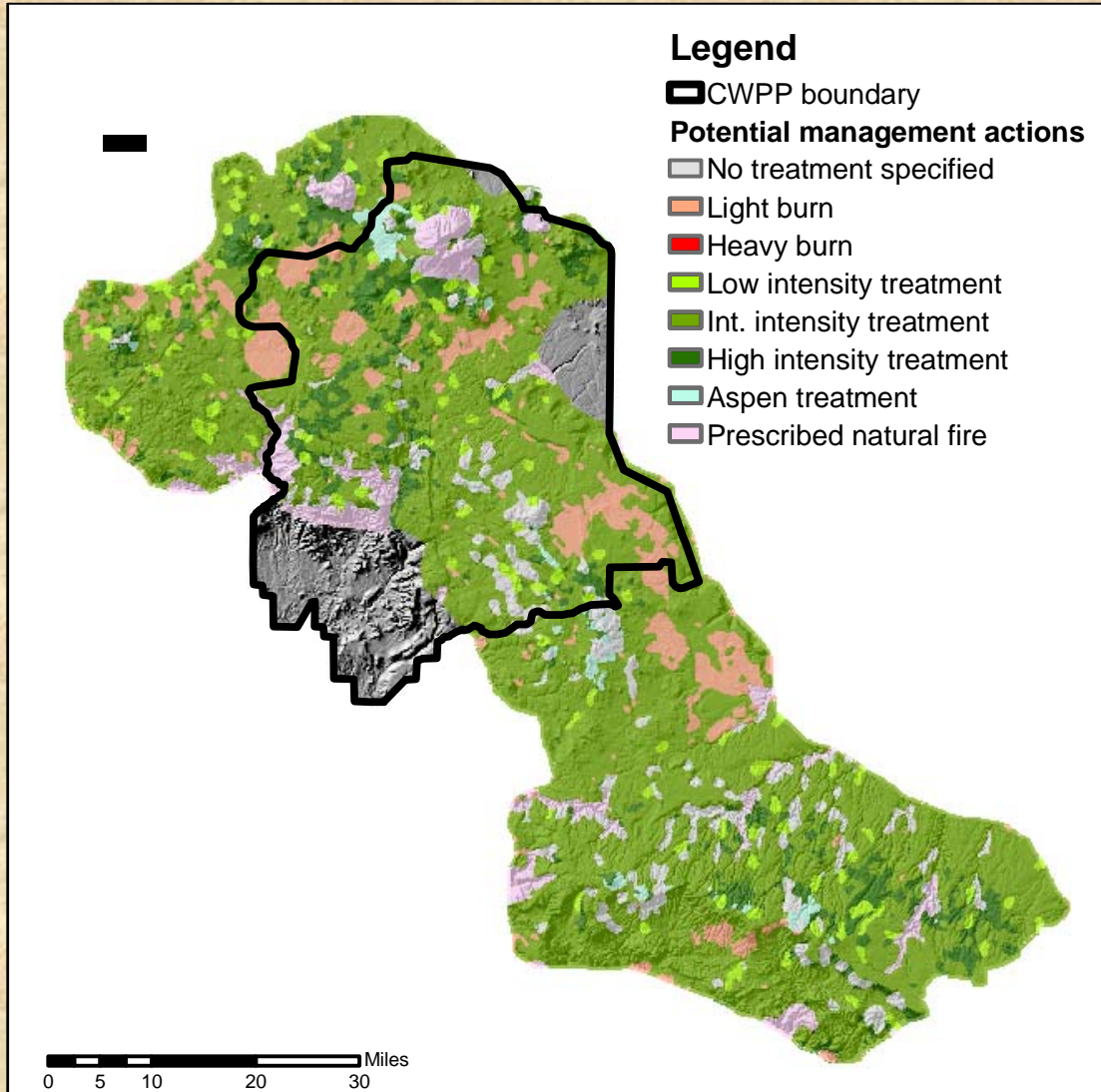
- Facilitated session using CWPP objectives, evaluation criteria, and maps to define management guidelines (1/2 day)



Flagstaff CWPP

Placement within a
broader landscape
context

➤ WMPALA
priorities



Flagstaff CWPP

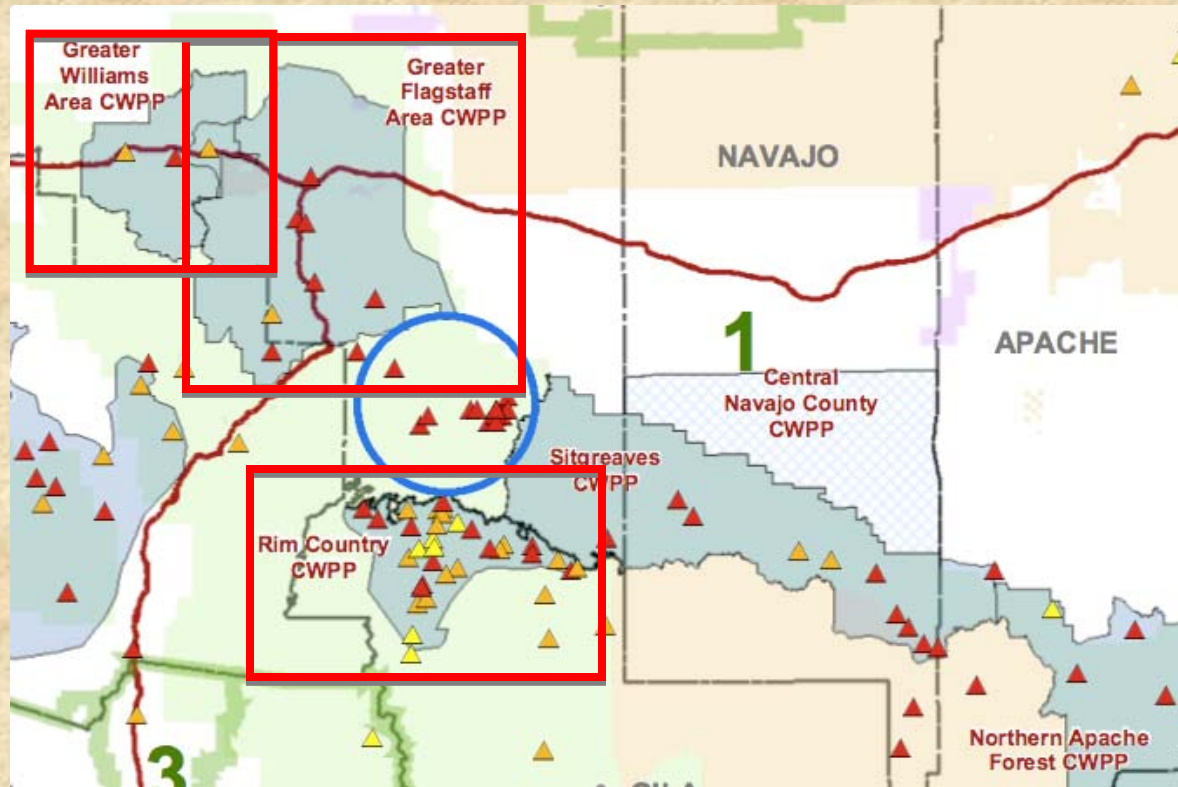
Placement within a
broader landscape
context

➤ WMPALA
management actions

FOREST ERA

Providing a landscape-scale perspective on ecosystem restoration in Southwest forests

Forest Ecosystem Restoration Analysis

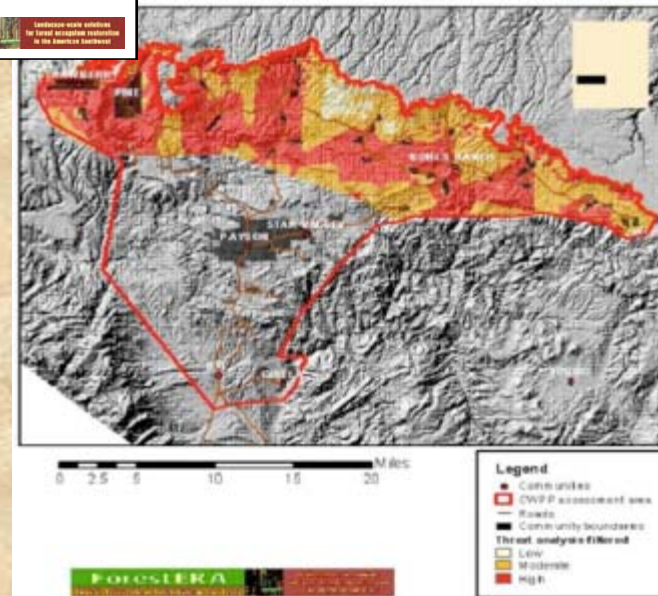
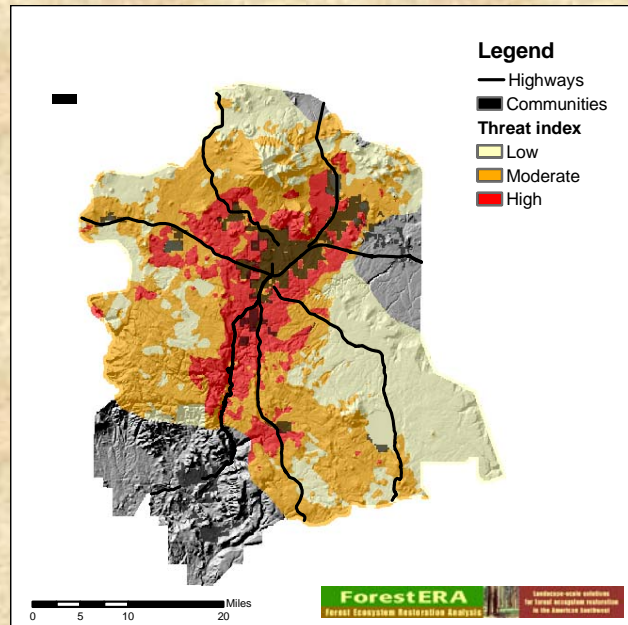


Mogollon Rim CWPPs

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Forest Ecosystem Restoration Analysis



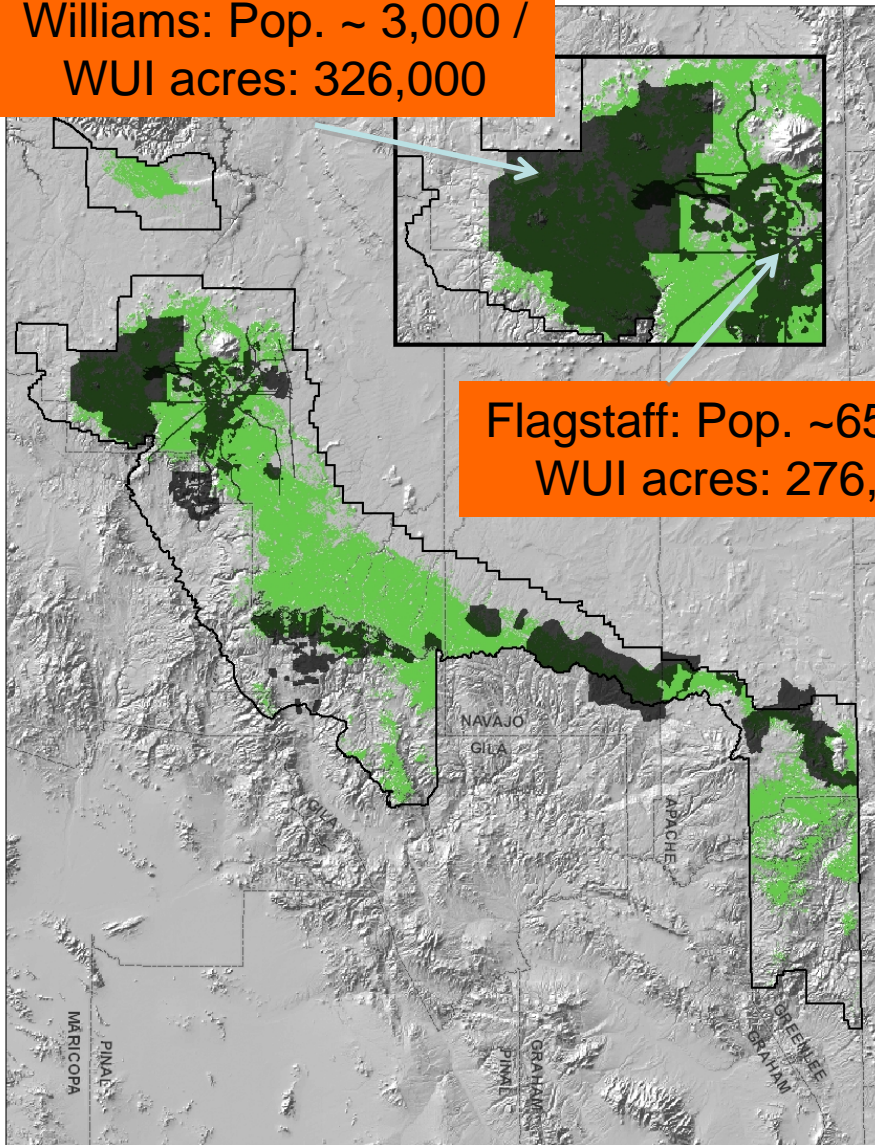
Flagstaff + Rim Country CWPP

Similar datasets

Somewhat similar
analysis process,
results

Williams: Pop. ~ 3,000 /
WUI acres: 326,000

Flagstaff: Pop. ~65,000 /
WUI acres: 276,000



Flagstaff + Williams CWPPs

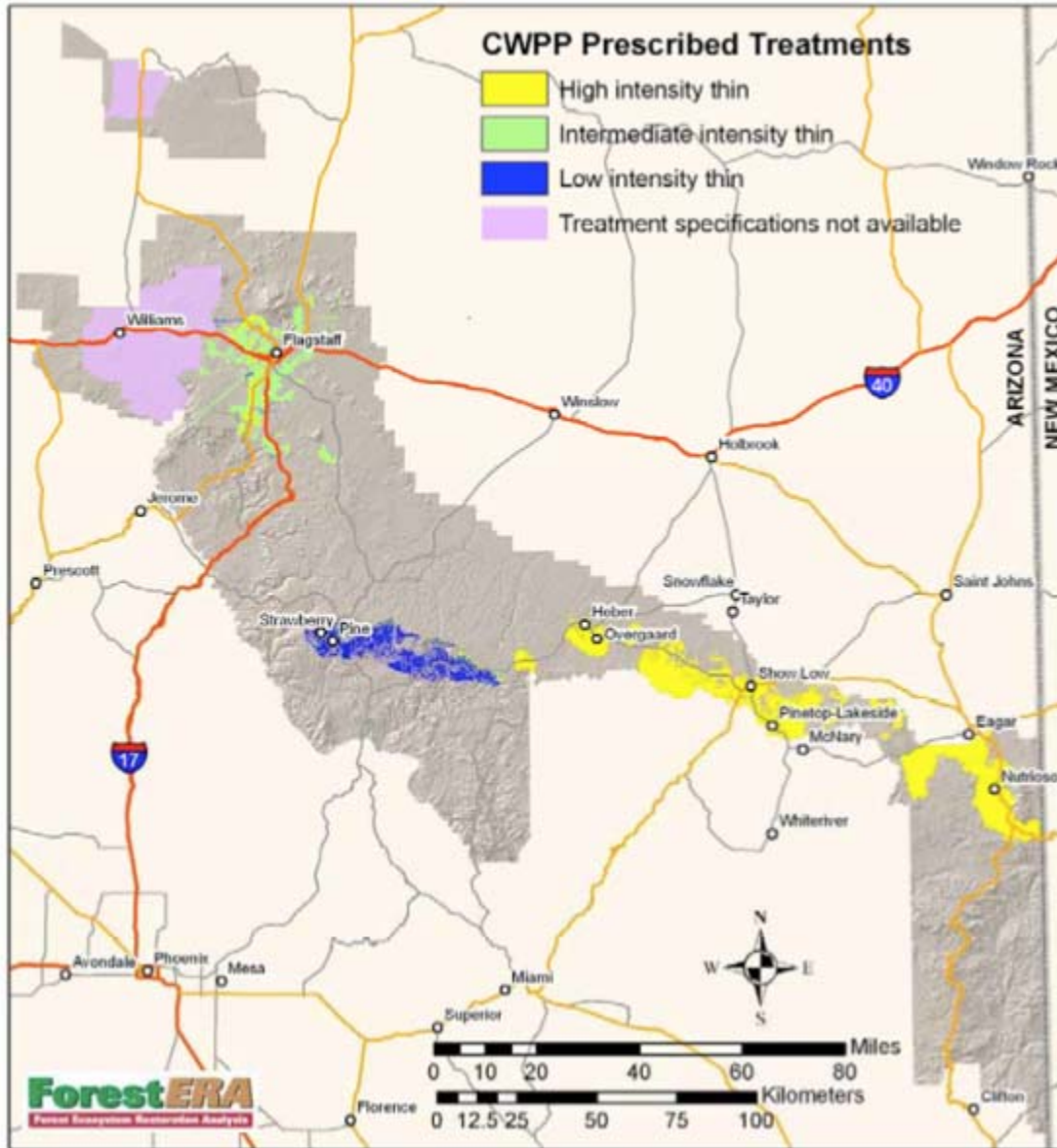
Dissimilar datasets
and analysis process

Dramatically
dissimilar results

Forest ERA

Providing a landscape-scale perspective on ecosystem restoration in Southwest forests

Forest Ecosystem Restoration Analysis



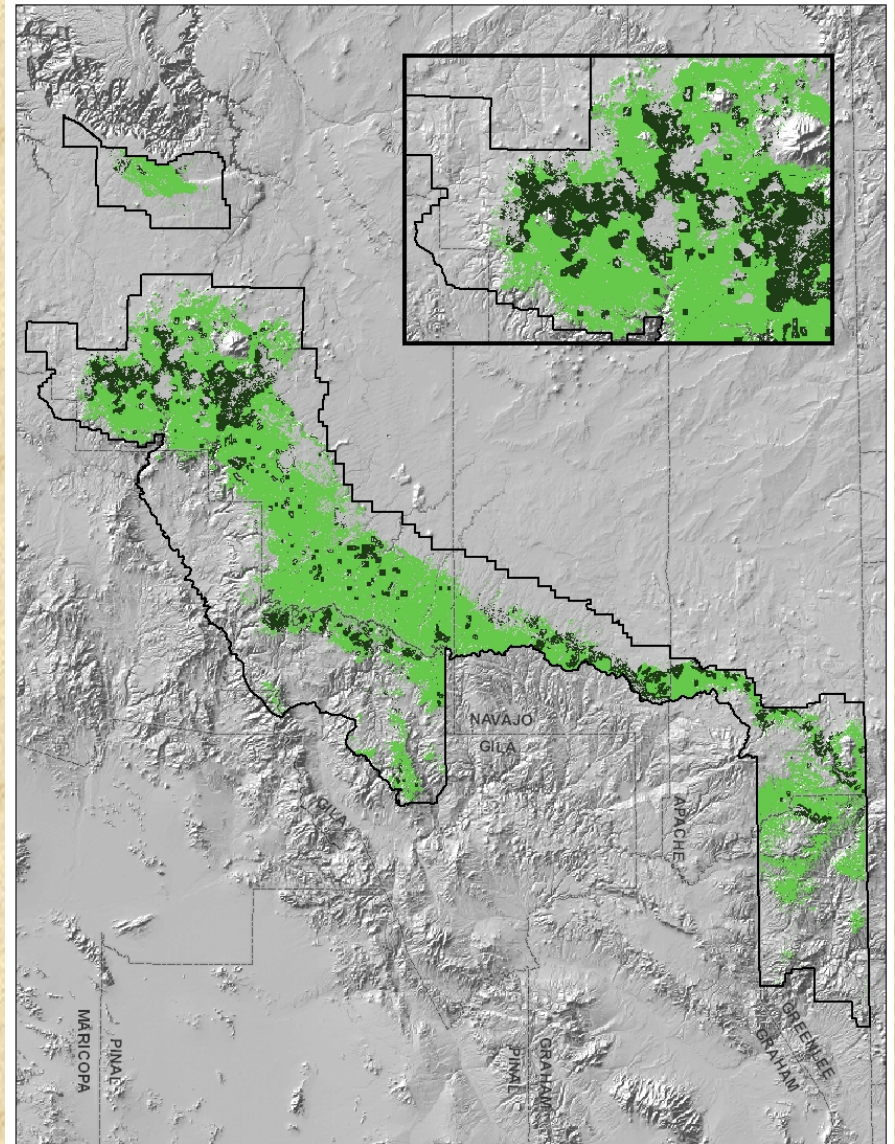
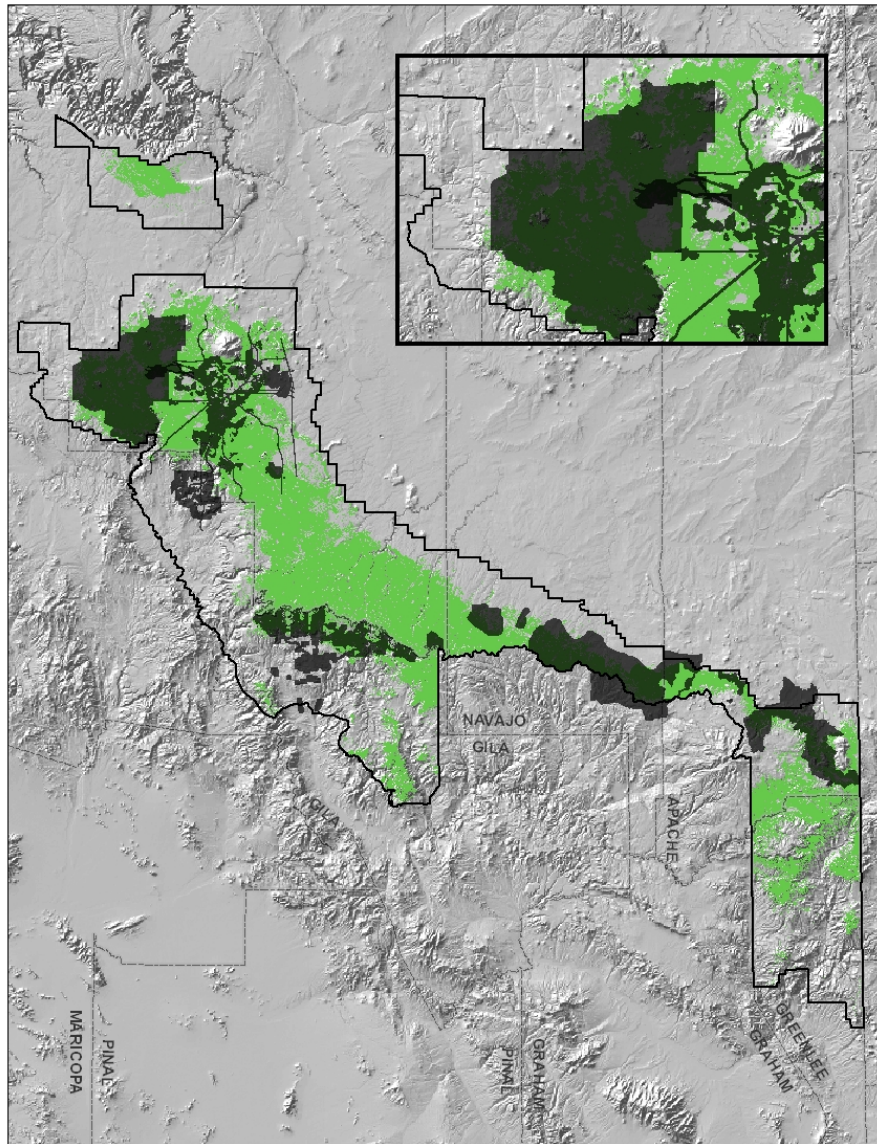
Northern Arizona CWPPs

?

FOREST ERA

Providing a landscape-scale perspective on ecosystem restoration in Southwest forests

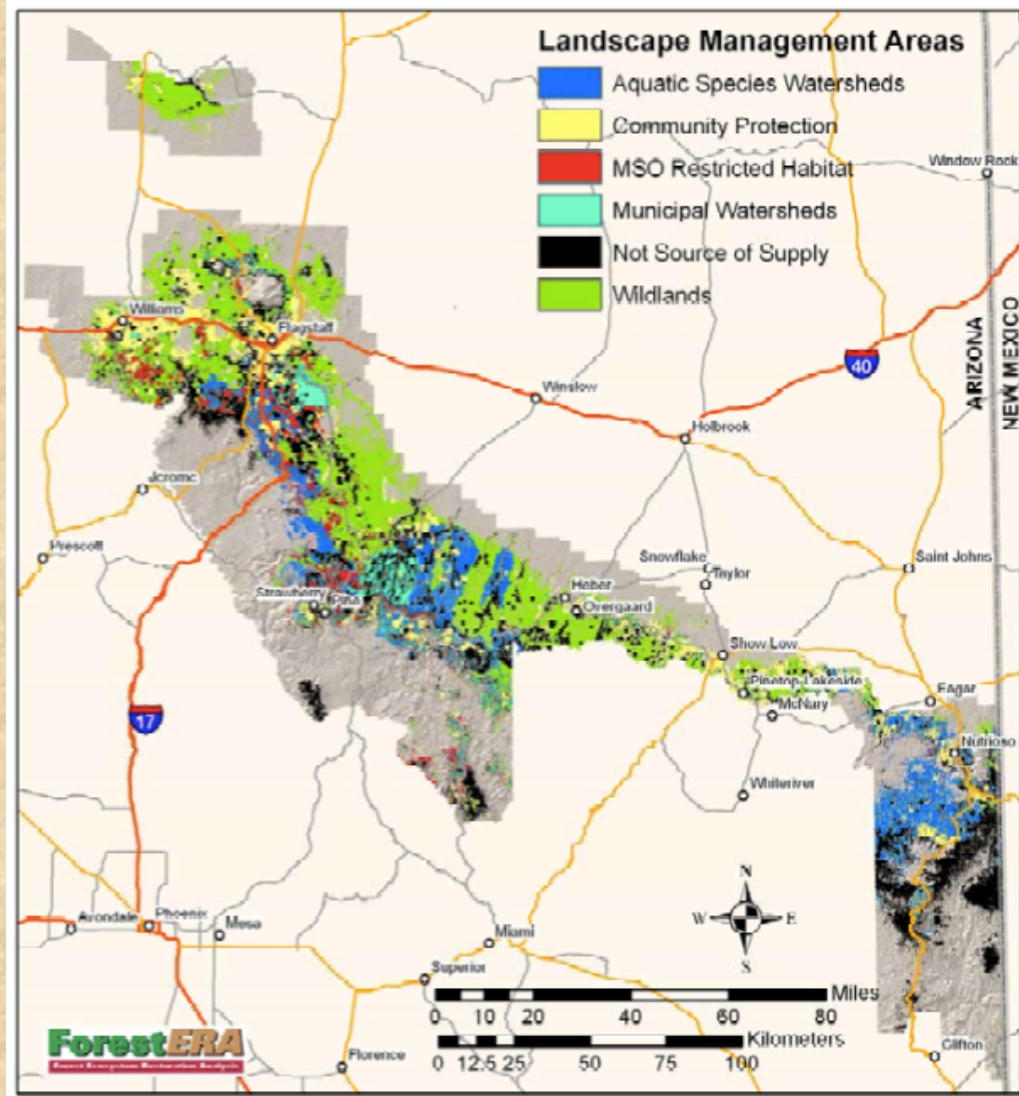
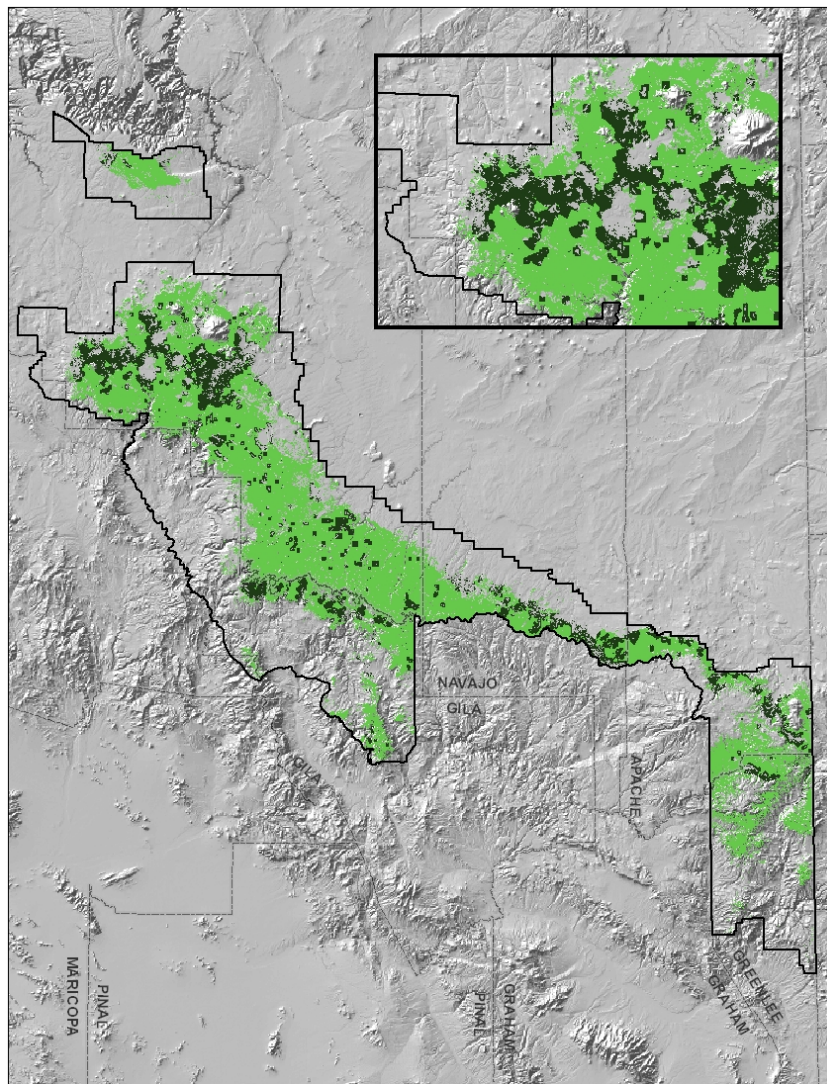
Forest Ecosystem Restoration Analysis



Forest ERA

Providing a landscape-scale perspective on ecosystem restoration in Southwest forests

Forest Ecosystem Restoration Analysis



Lessons learned

1. Consistent foundational datasets are necessary
1. Partnerships with information providers are very important
1. Coordination, communication between communities is difficult but ultimately very helpful
1. Scoping out beyond direct WUI/priority zone is helpful