

# WILDERNESS RESEARCH

for contemporary

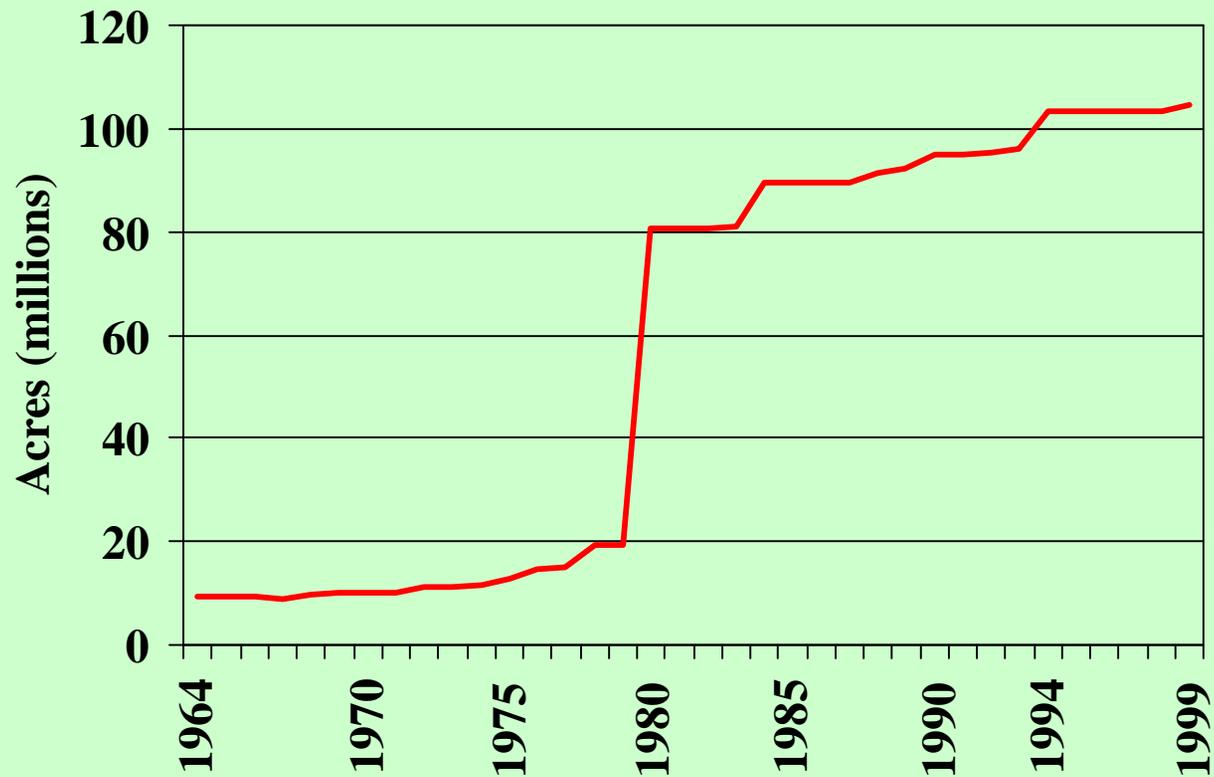
**AMERICA**

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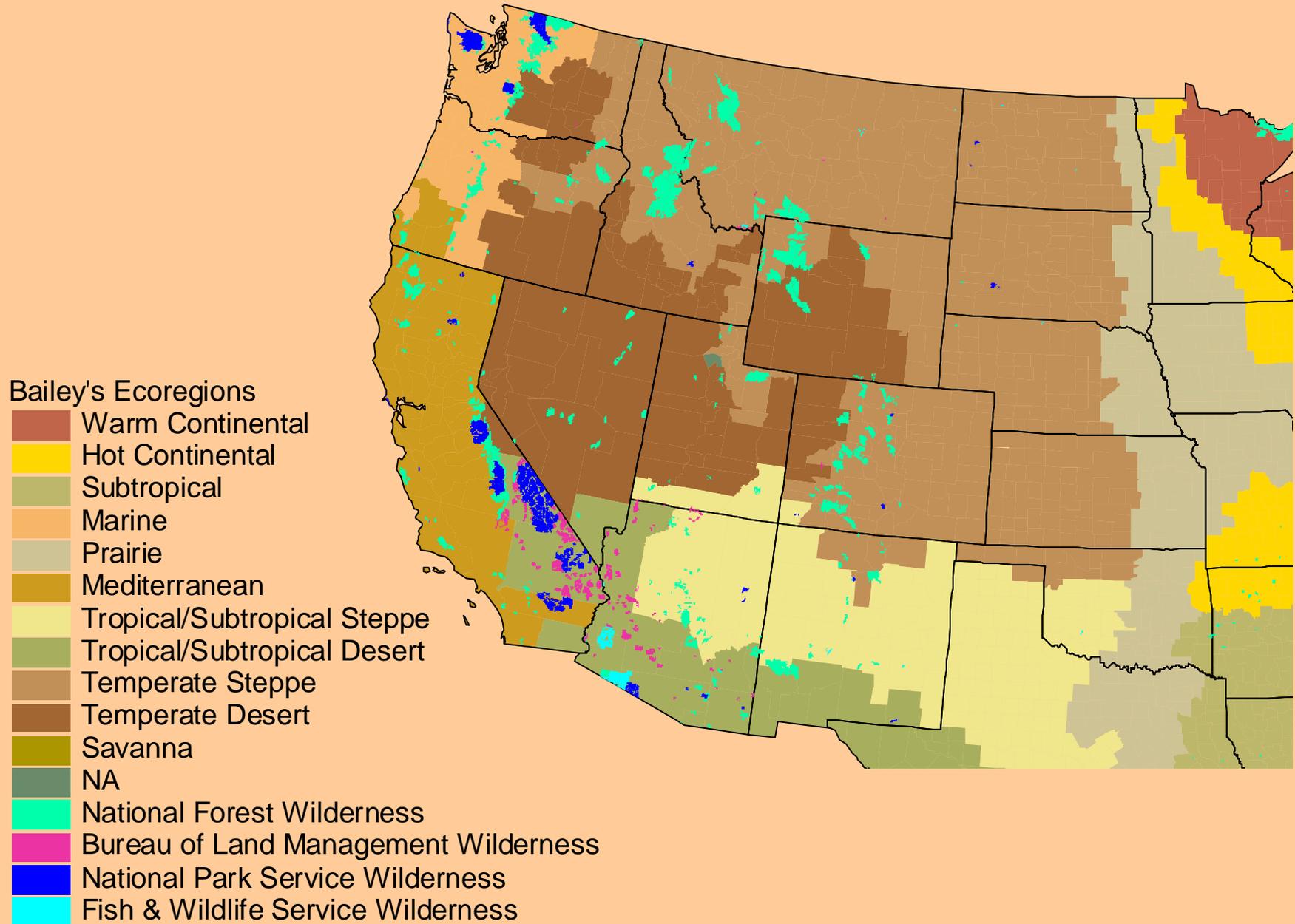
Graphics by Shela Mou

# Acres added to the National Wilderness Preservation System by year, 1964-1994



Source: Rob Hellie, BLM special Areas/Land Tenure Group. Browning et al. (1988). Various Annual Reports of the National Wilderness Preservation System, published as U.S. House Documents

# Wilderness and Ecoregions in the West



# Estimating Total Trips to NWPS

- Nationally, proportion of all recreational trips to public lands where Wilderness was the destination = 0.934%
- Estimates of total trips to Wilderness range from:  
15.7 mm ( $\pm$  3.5 million)  
to  
34.7 mm ( $\pm$  7.8 million)
- Early results from ***NSRE 2000*** show 37 percent reporting visiting Wilderness or other roadless areas.

# How the Public Views Wilderness

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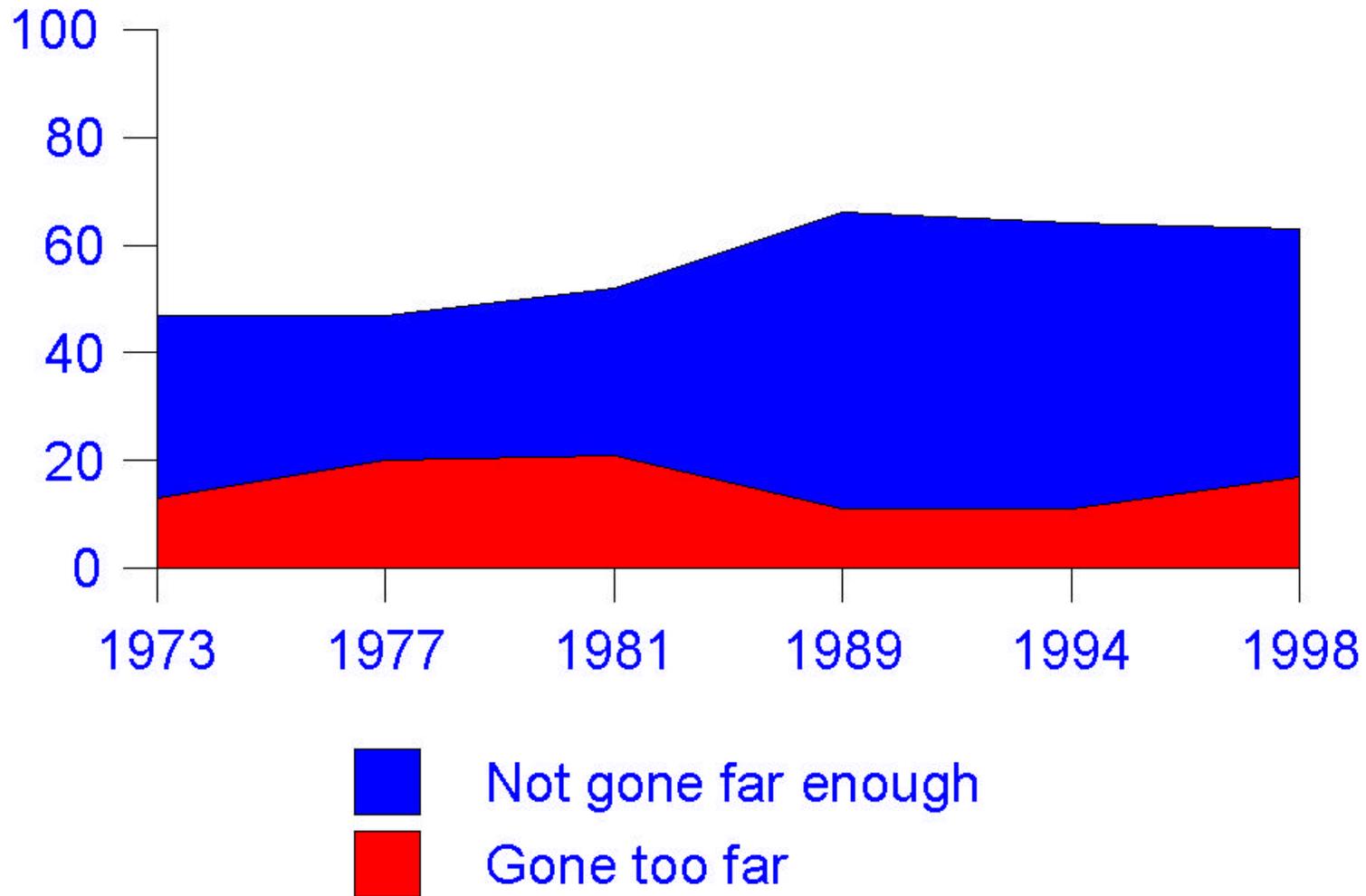
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- NSRE 95 included 13-item Wilderness values scale and awareness questions
- Nationally 44.4% of American's 16+ report knowing about the NWPS in 1994-95; 62.5% in 1999.
- Only 2.5% feel we have put too many acres into the NWPS:

	<u>1994</u>	<u>1999</u>
- Not enough	57%	51%
- About right	29%	27%
- Too much	2.5%	5.9%
- Not sure	12.5%	15.2%

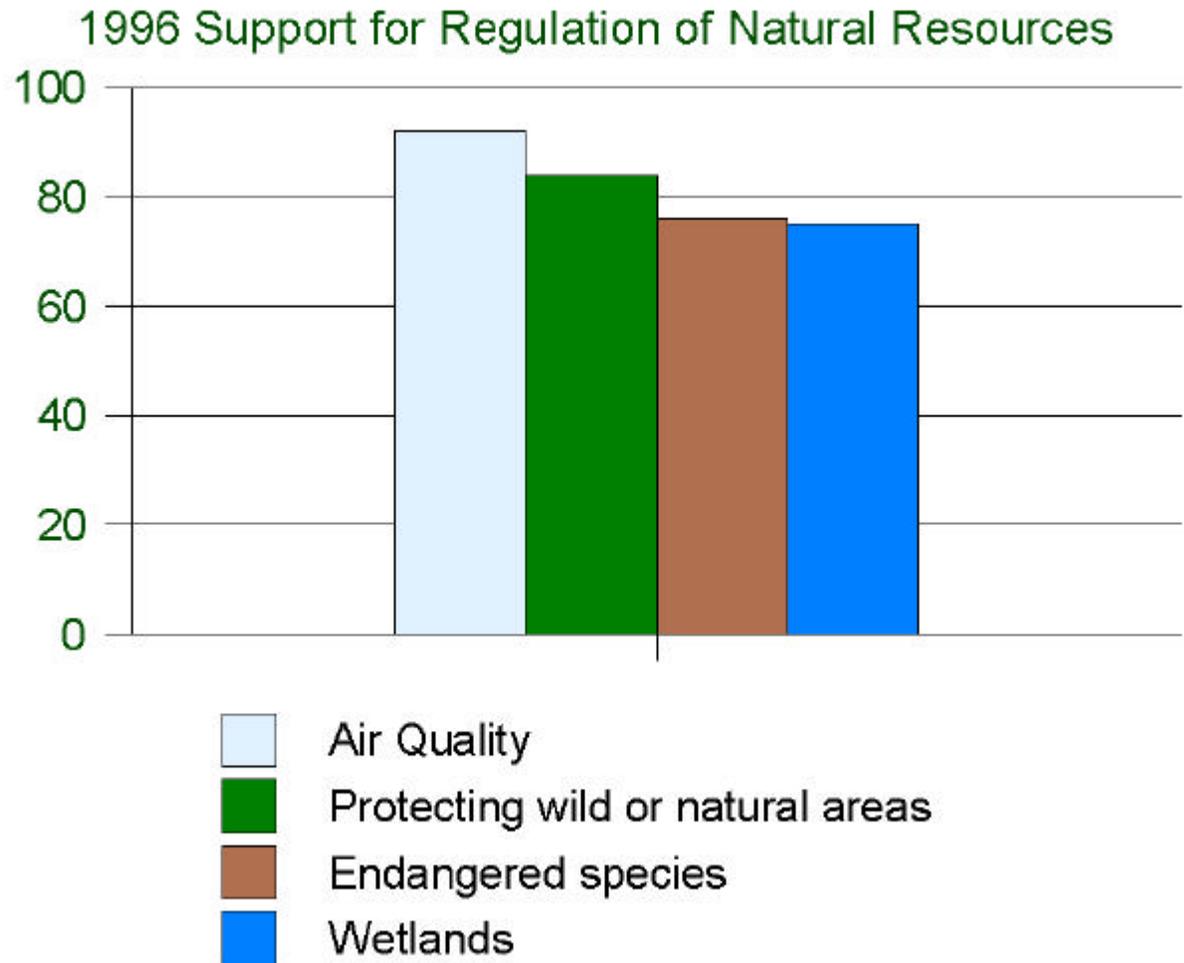
- Age was the only characteristic with differences about System adequacy

## Environmental Protection Laws and Regulations Have:



Source: Roper Organization, 1990; Times Mirror, 1994; NEETF, 1998.

Percentage of Americans Reporting Regulation of Natural Resources is "Just the Right Amount" or has "Not Gone Far Enough."



# Wilderness Values

Percentages of Americans 16 or older indicating “very or extremely important” or “not important” for each of 13 wilderness values (1994-95 and 1999).

Percentages of Americans

Wilderness Value	Very or Extremely Important		Not Important
	1994-95	1999	
Protecting water quality	78.9	92.3	1.7
Protection of wildlife habitat	78.6	85.3	2.6
Protecting air quality	78.0	90.3	2.6
For future generations	76.9	85.4	2.0
Protection for endangered species	73.7	79.8	4.9
Preserving wild plants & animals	66.5	88.8	7.0
Scenic Beauty	59.7	72.1	5.4
Future option to visit	59.4	74.3	7.7
Just knowing it exists	56.1	73.1	6.4
Recreation opportunities	48.9	61.8	10.1
For scientific study	46.3	57.1	14.1
Providing spiritual inspiration	43.2	51.2	18.3
Income for tourism industry	22.8	26.0	41.1

# Recreation Trends

A person is riding a horse on a beach at sunset. The sun is low on the horizon, creating a warm, golden glow over the ocean and sky. The person is silhouetted against the bright light. The horse is dark, and the rider is wearing a light-colored shirt. The background shows the ocean waves and a forested hillside.

## Market Segments

- **The Enthusiasts**

# Fastest Growing One-Half

Recent Trends

(Millions of Participants, 16 and older)

Activity	Number in 1982-83	Number in 1994-95	Percent Change
Bird Watching	21.2	54.1	+155.2
Hiking	24.7	47.8	+93.5
Backpacking	8.8	15.2	+72.7
Downhill Skiing	10.6	16.8	+58.5
Camping-Primitive Area	17.7	28.0	+58.2
Off-Road Driving	19.4	27.9	+43.8
Walking	93.6	133.7	+42.8
Motorboating	33.6	47.0	+39.9
Sightseeing	81.3	113.4	+39.5
Camping-Developed Area	30.0	41.5	+38.3
Swimming/river, lake, or ocean	56.5	78.1	+38.2
Snowmobiling	5.3	7.1	+34.0

# The Rest of the Story

Recent Trends  
(Millions of Participants, 16 and older)

Activity	Number in 1982-83	Number in 1994-95	Percent Change
Cross-country Skiing	5.3	6.5	+22.6
Boating (overall)	49.5	58.1	+17.4
Swimming/Pool	76.0	88.5	+16.4
Picnicking	84.8	98.3	+15.9
Sledding	17.7	20.5	+15.8
Running/Jogging	45.9	52.5	+14.4
Water Skiing	15.9	17.9	+12.6
Bicycling	56.5	57.4	+ 1.6
Ice Skating	10.6	10.5	- 0.9
Fishing	60.1	57.8	- 3.8
Sailing	10.6	9.6	- 9.4
Horseback Riding	15.9	14.3	-10.1
Hunting	21.2	18.6	-12.3

# Early Results From *NSRE 2000*

(Millions of Participants, 16 and Older)



Activity	Number in 1994-95	Number in 1999-2000	Percent Change
Swimming	78	96	+ 23
Hiking	48	67	+ 39
Off-Road Driving	28	40	+ 43
Backpacking	15	27	+ 80
Horseback Riding	14	24	+ 71
Snowmobiling	7	13	+ 86



# Outdoor Recreation Styles

## Sports Hogs

Individual and Team Sports  
Winter Sports  
Boating and Swimming  
Sports Spectators  
Mountain and Rock Climbing

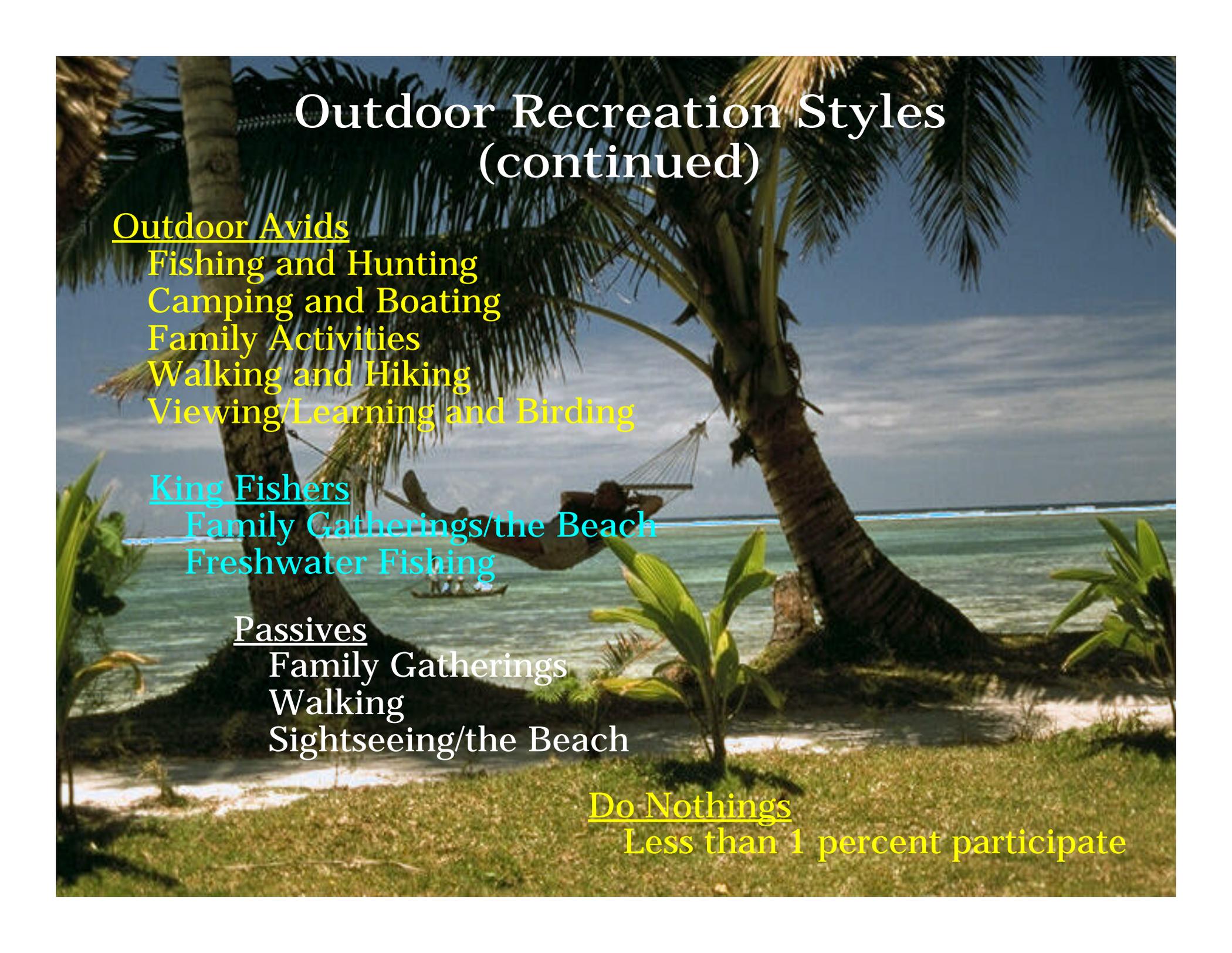
## Fitness Buffs

Running and Walking  
Biking  
Swimming  
Do Not Hunt or Fish

## Nature Lovers

Walking and Birding  
Wildlife and Fish Viewing  
Photography  
Nature Study



A tropical beach scene with palm trees, a hammock, and the ocean. The background shows a clear blue sky, a sandy beach, and the ocean with a small boat in the distance. A person is lying in a hammock strung between two palm trees in the foreground.

# Outdoor Recreation Styles (continued)

## Outdoor Avids

Fishing and Hunting  
Camping and Boating  
Family Activities  
Walking and Hiking  
Viewing/Learning and Birding

## King Fishers

Family Gatherings/the Beach  
Freshwater Fishing

## Passives

Family Gatherings  
Walking  
Sightseeing/the Beach

## Do Nothings

Less than 1 percent participate

# ENTHUSIASTS



Activity	This number of days per year or more	Percent of population	Percent of total days
Biking	30	7.4	80
Bird watching	50	9.1	91
Downhill skiing	6	2.6	74
Developed camping	8	6.3	76
Canoeing	4	1.8	73
Hiking	10	7.1	83
Off-road driving	14	4.5	87
Horseback riding (and others)	6	2.3	94

# Footprints on the Land

Ken Cordell

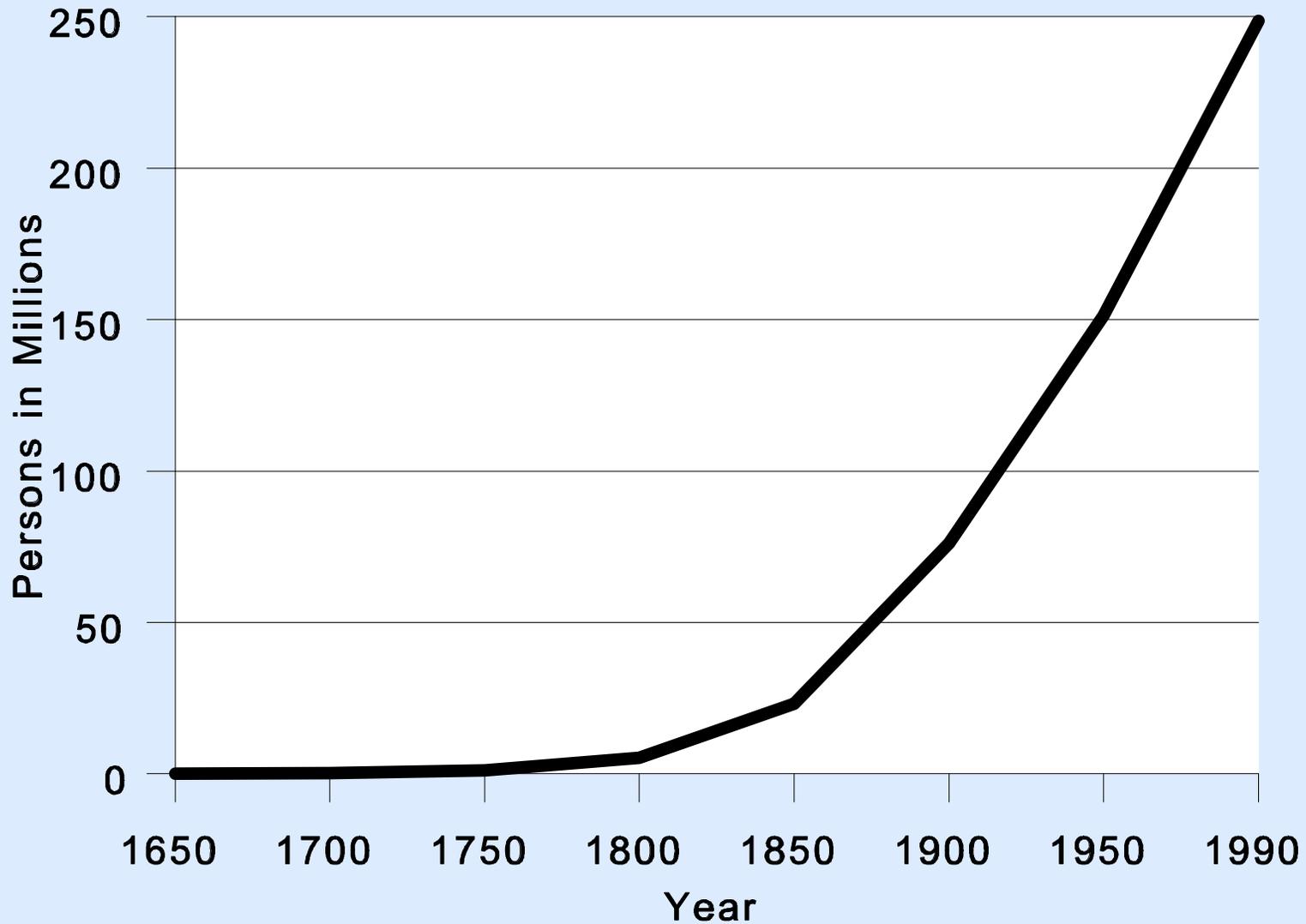
Southern Research Station

Athens, GA

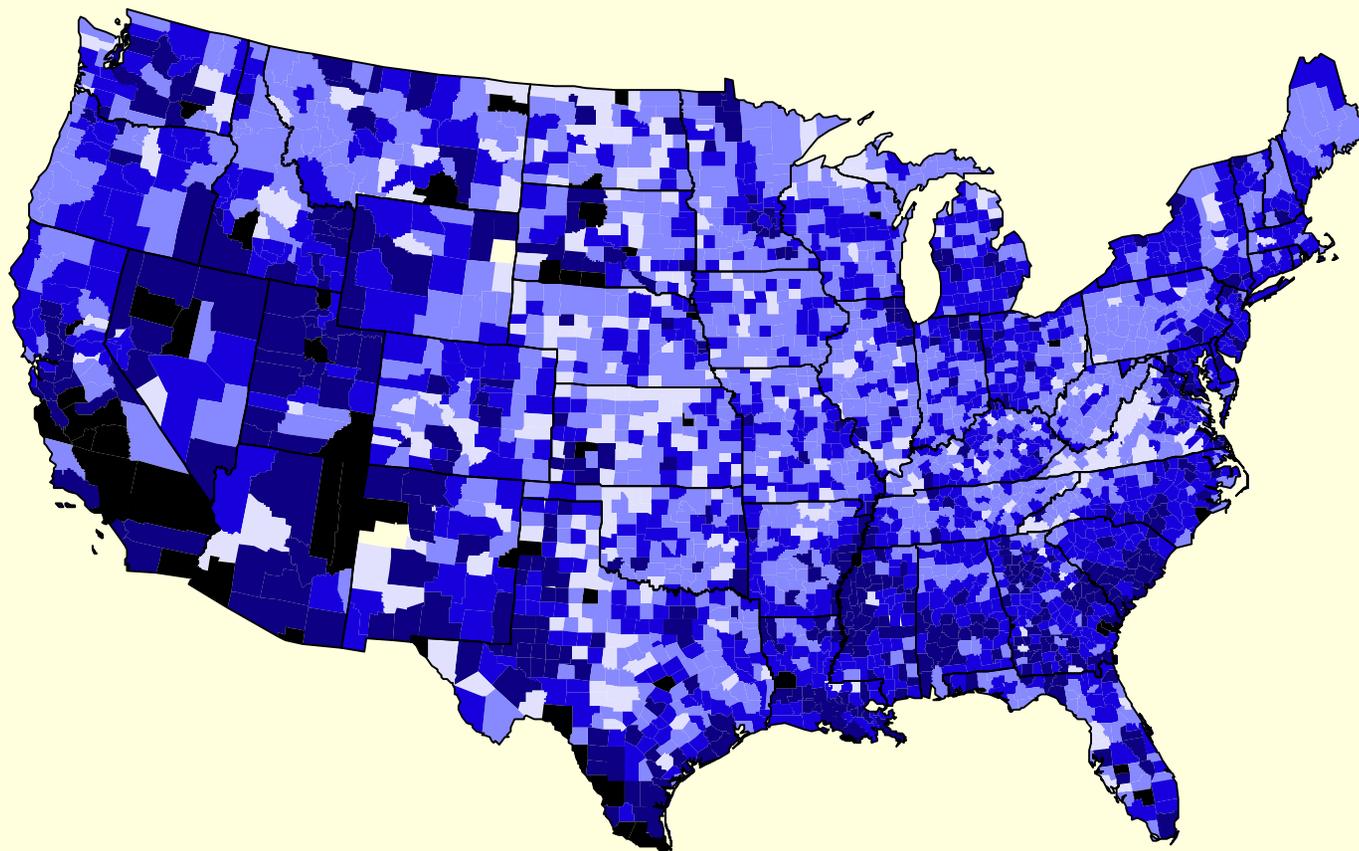


An Assessment of Social Trends and  
Natural Resource Impacts

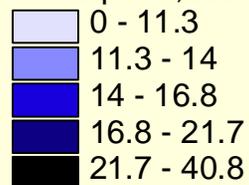
# Historic U.S. Population Growth



# Filling the West: Distribution of U.S. Birth Rate, 1990



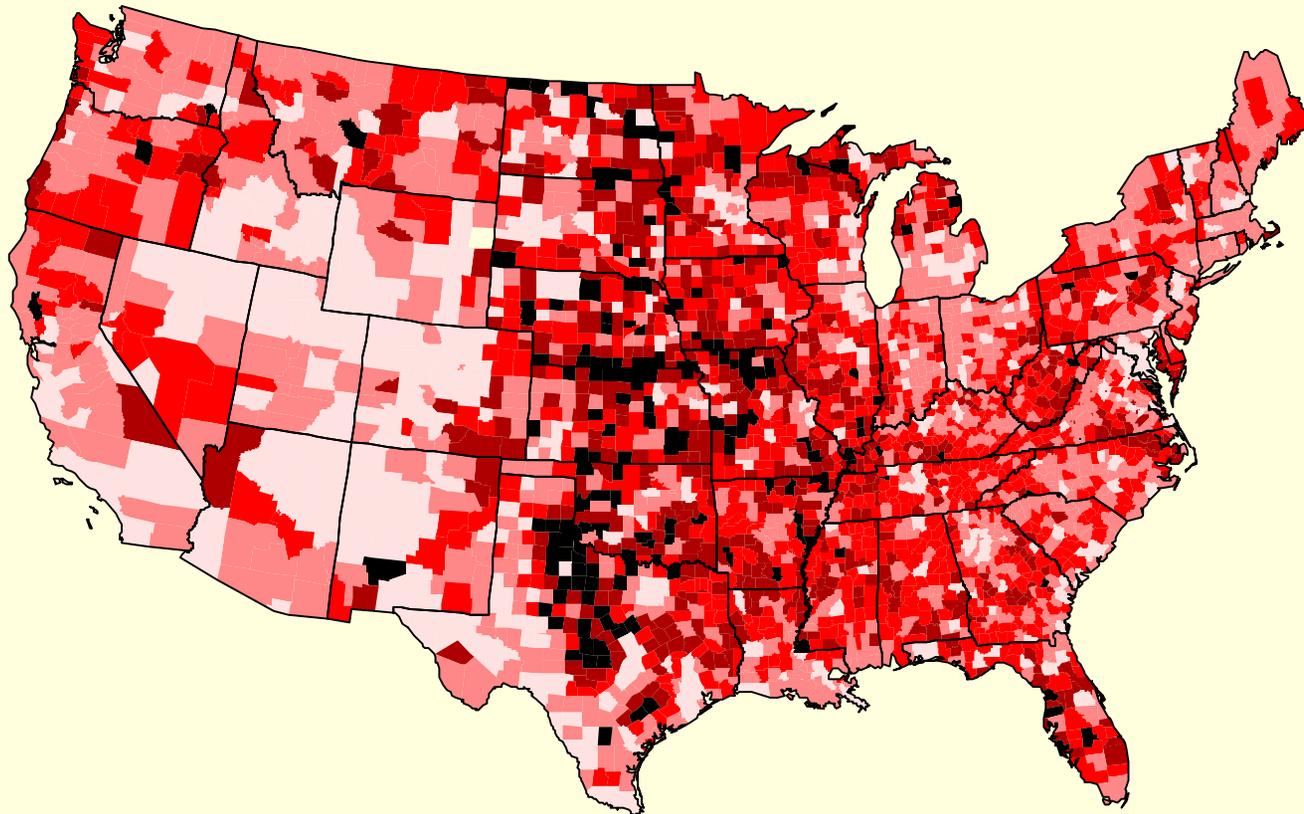
Births per 1,000 Population



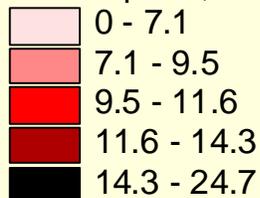
Births per 1,000 Population by  
Region and Conterminous U.S.

North	15.8
Pacific Coast	19.6
South	16.5
Rocky Mountains	17.1
Conterminous States	16.7

# Emptying the Midwest: Distribution of U.S. Death Rates, 1990



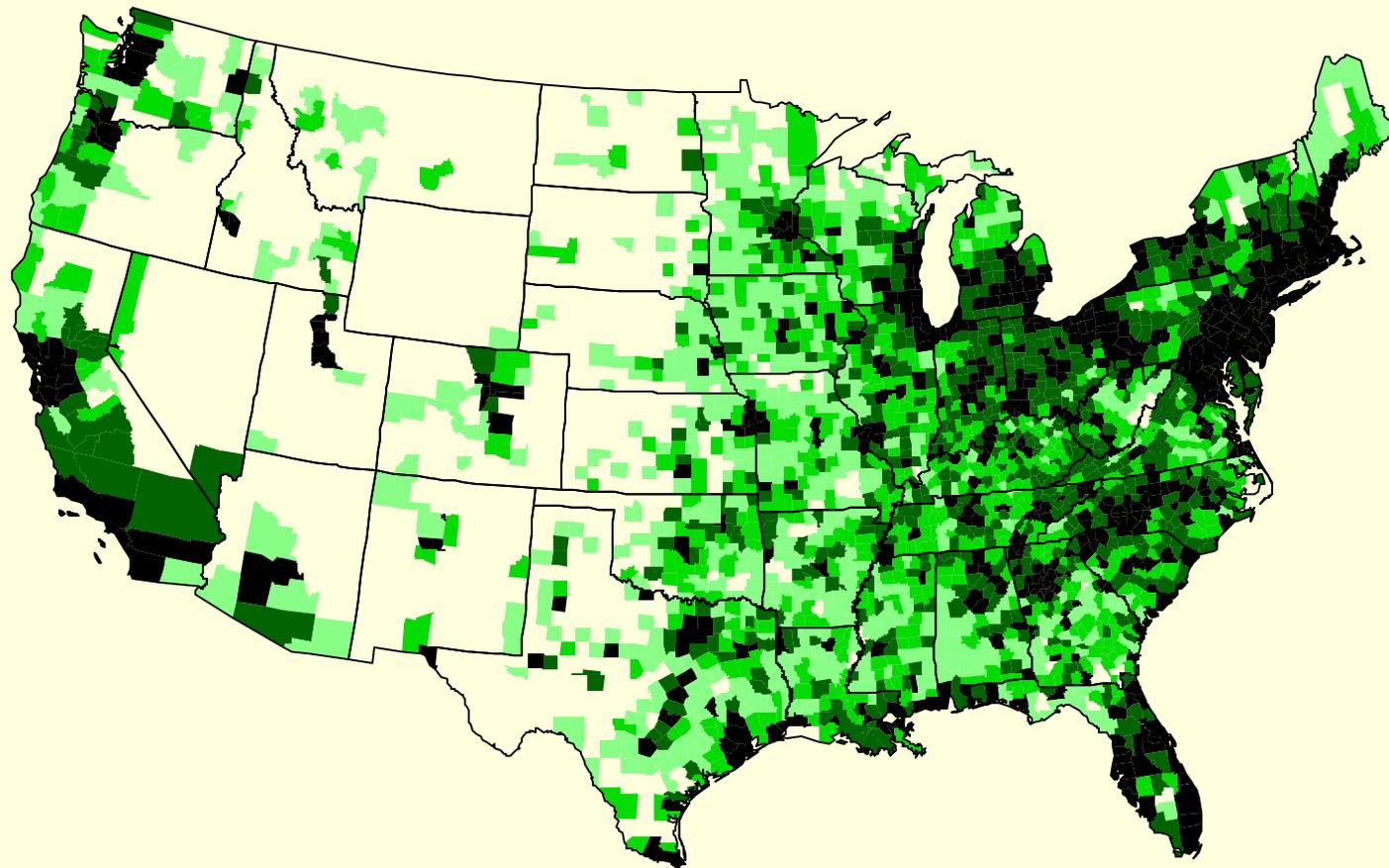
Deaths per 1,000 Population



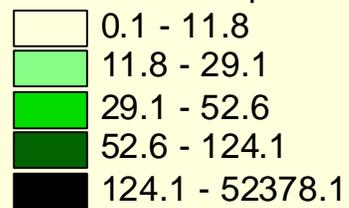
Deaths per 1,000 Population  
by Region and Conterminous U.S.

North	10.2
Pacific Coast	8.9
South	10.2
Rocky Mountains	9.8
Conterminous States	10.1

# U.S. Population Density by 2020



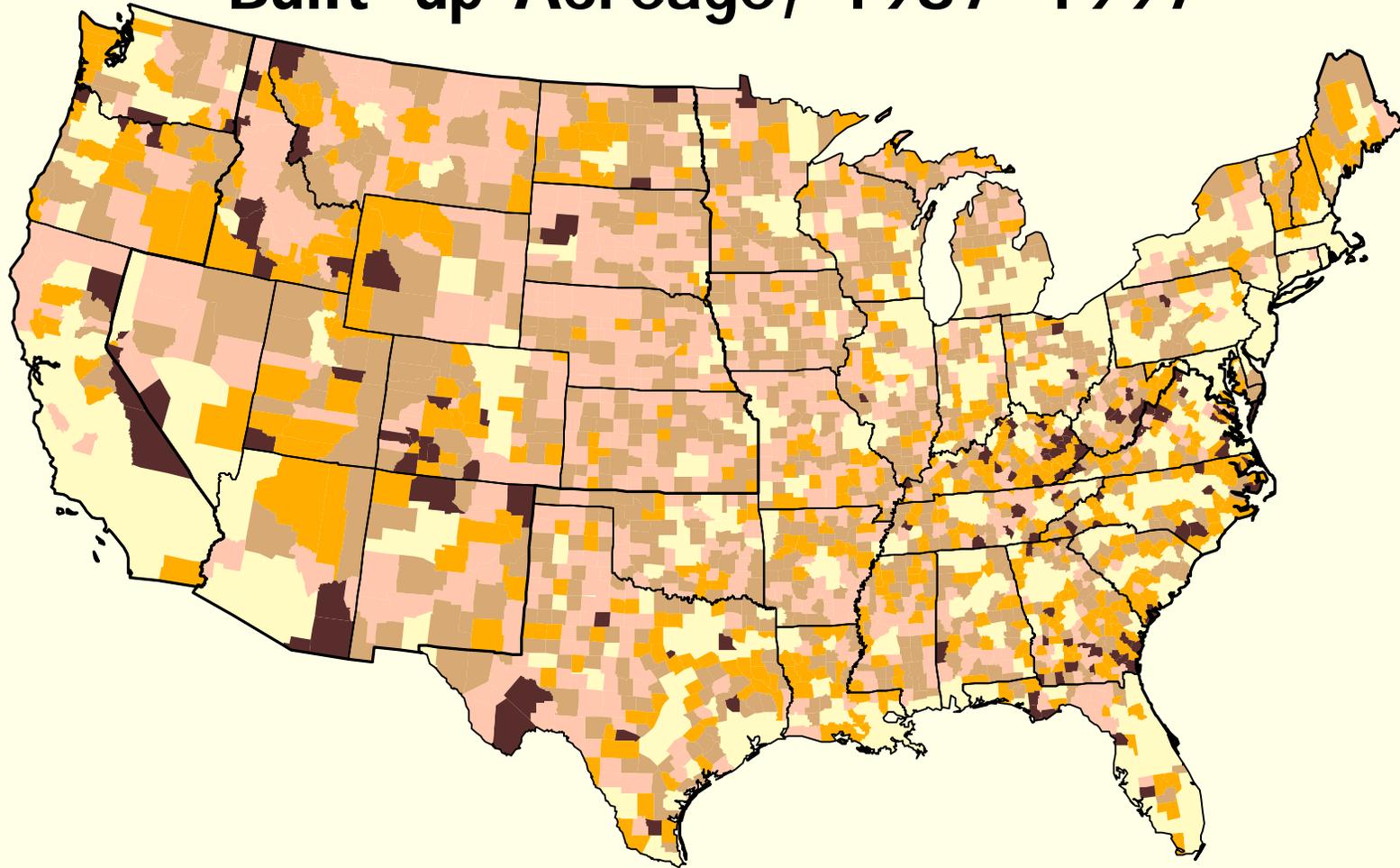
## Persons Per Square Mile



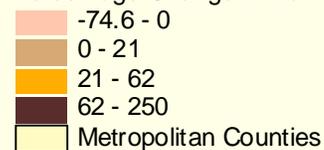
## Persons Per Square Mile by Region and Conterminous U.S.

North	174.8
Pacific Coast	117.6
South	92.9
Rocky Mountains	16.4
Conterminous States	83.5

# Rates of Conversion from Rural to Urban and Built-up Acreage, 1987-1997



Percentage Change in Non-metropolitan Urban Build-up Acreage



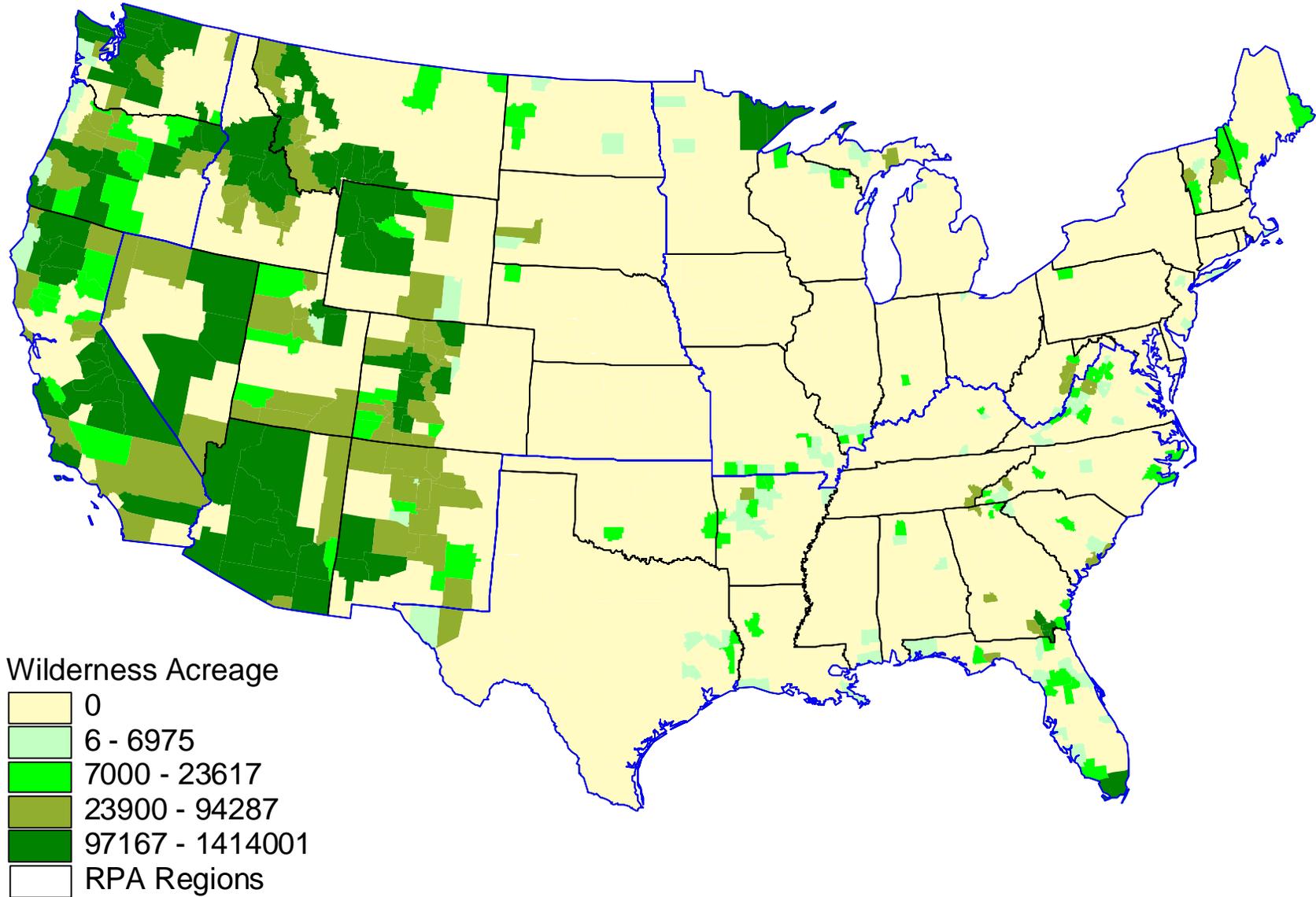
Percentage Non-metropolitan Change in Urban Built-up Acres by Region and Conterminous U.S.

North	8.8
Pacific Coast	19.5
Rocky Mountain	10.4
South	18.8
Conterminous U.S.	13.9

# The Literature says of Wilderness

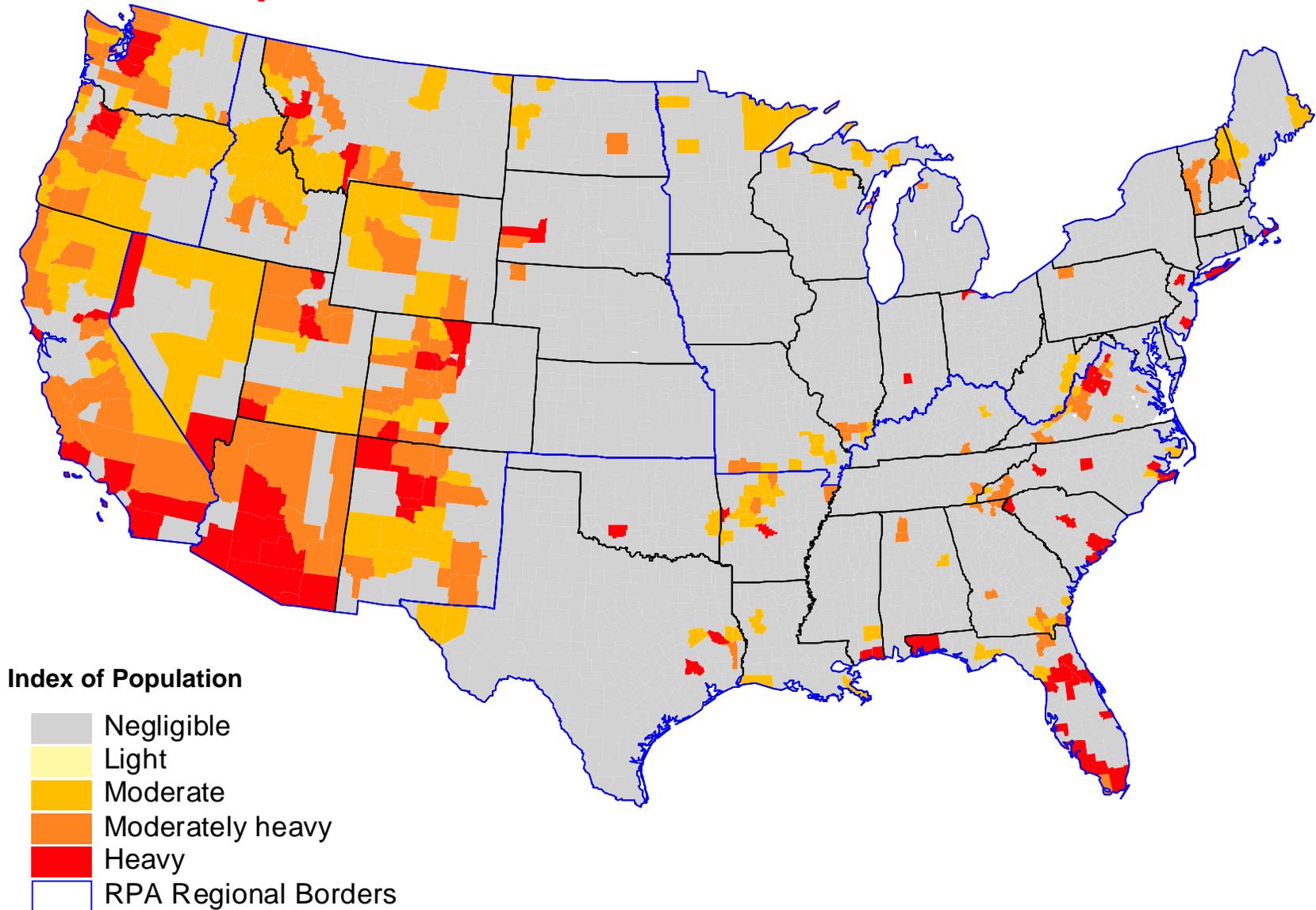
- The United States has designated 625 areas totalling nearly 105 million acres.
- On Federal lands, an additional 20 million acres are recommended for designation; there are between 16 and 18 million other roadless acres not recommended.
- The Congress is not likely to add substantially to the NWPS, but the Administration is moving to protect and restore roadless conditions.
- Alpine, forest, desert, and water systems are better represented than grassland and subtropical ecosystems.
- Recreational use, nearby development, pollutants, and political winds are the most prominent threats to the NWPS.

# Counties with Wilderness



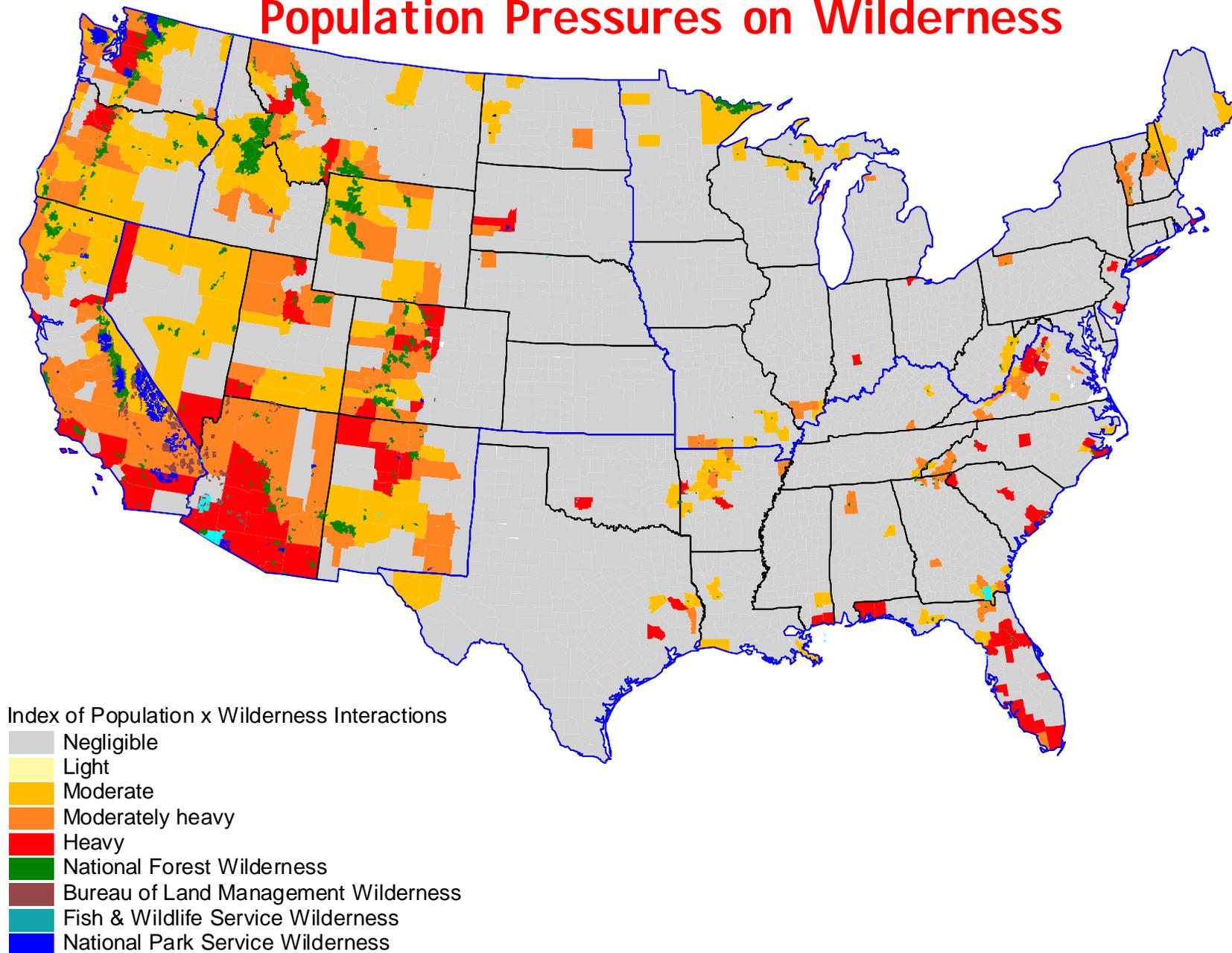
# Wilderness Hotspots (1999)

## Population Pressures on Wilderness



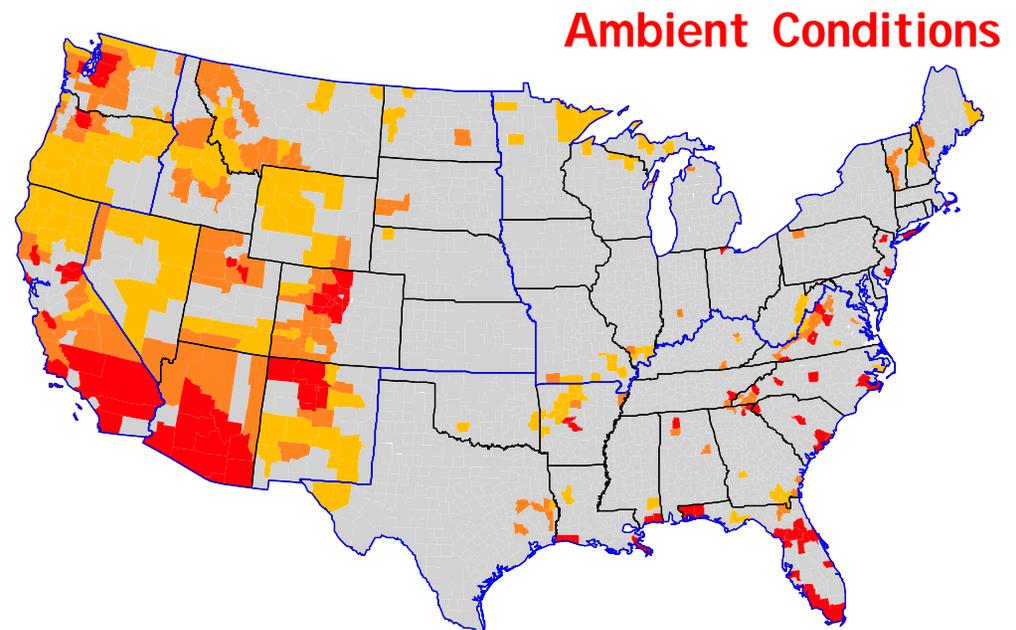
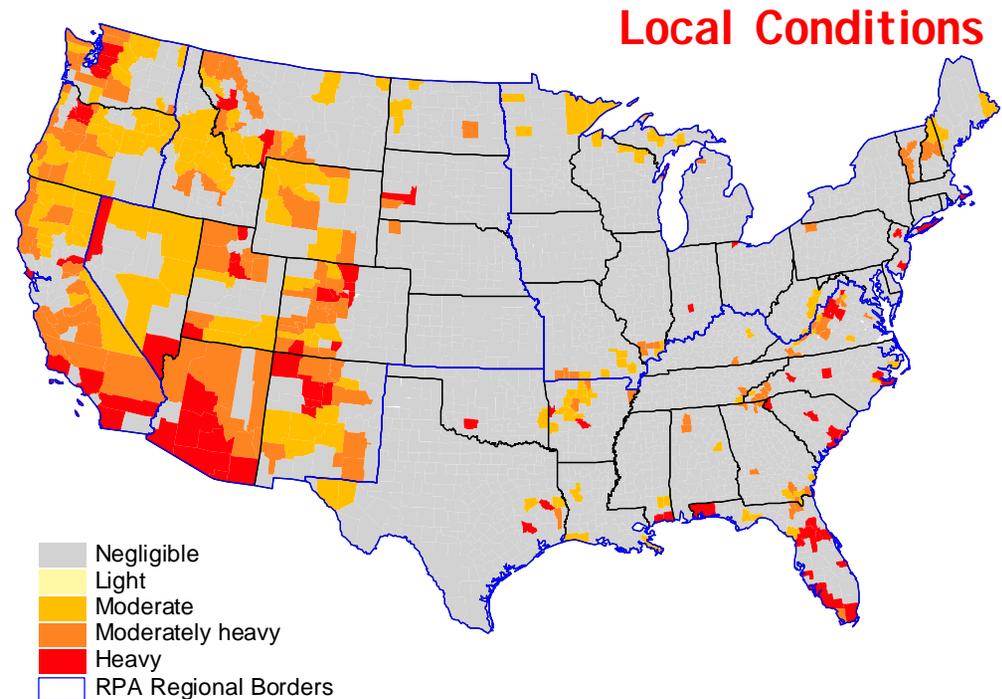
# Wilderness Hotspots (1999)

## Population Pressures on Wilderness



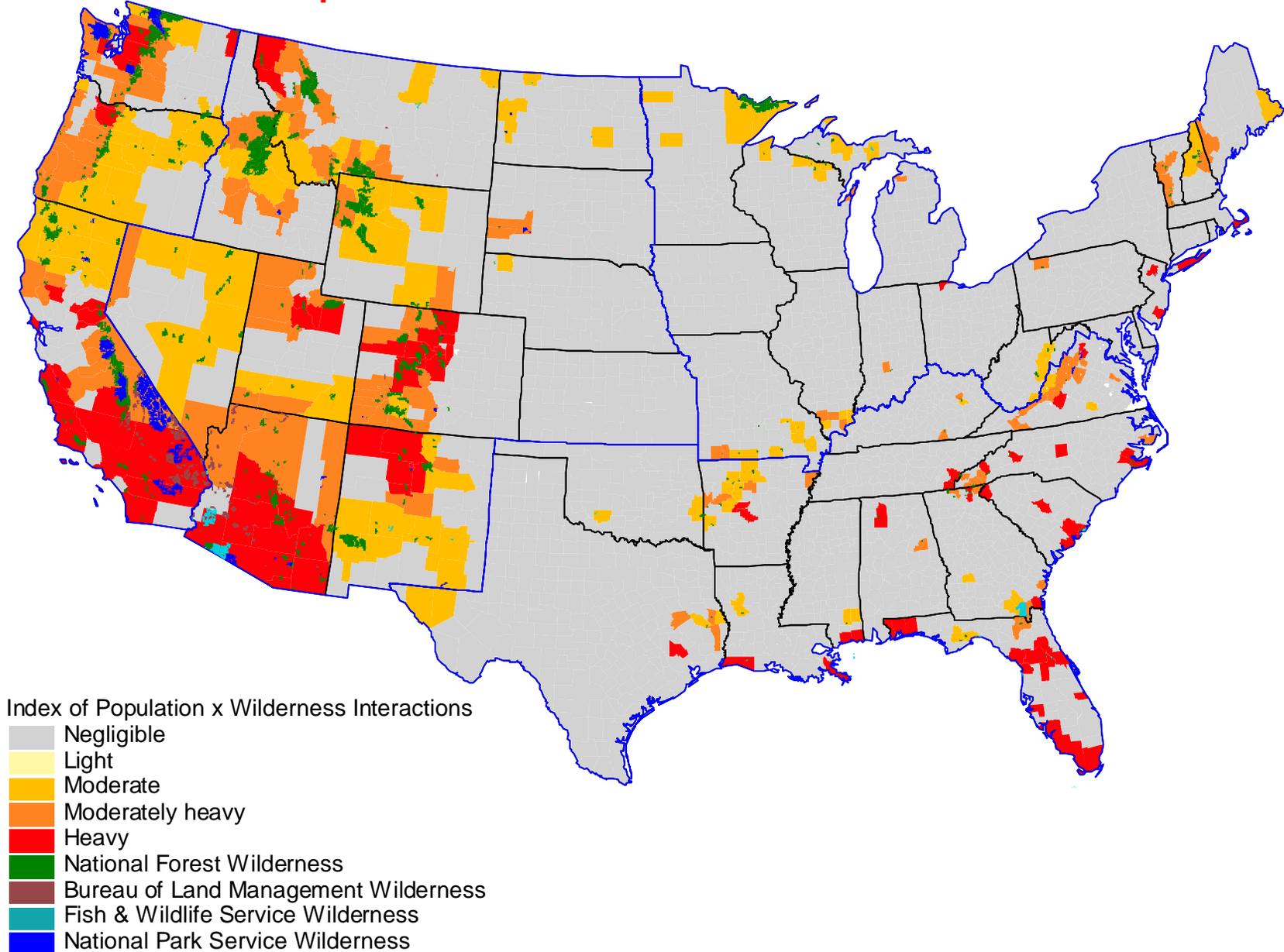
# Wilderness Hotspots (1999)

## Population Pressures on Counties with Wilderness

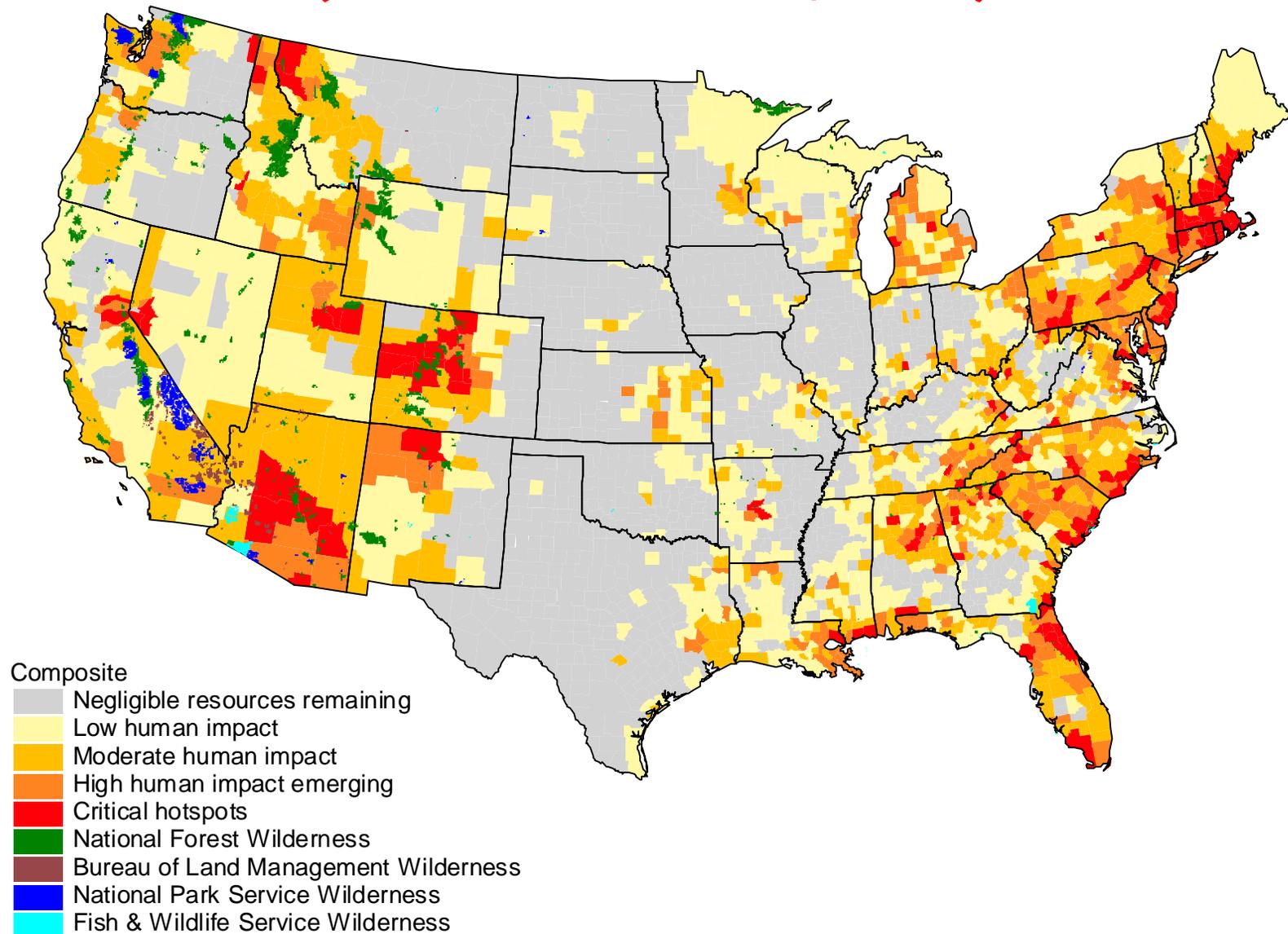


# Future Wilderness Hotspots (2020)

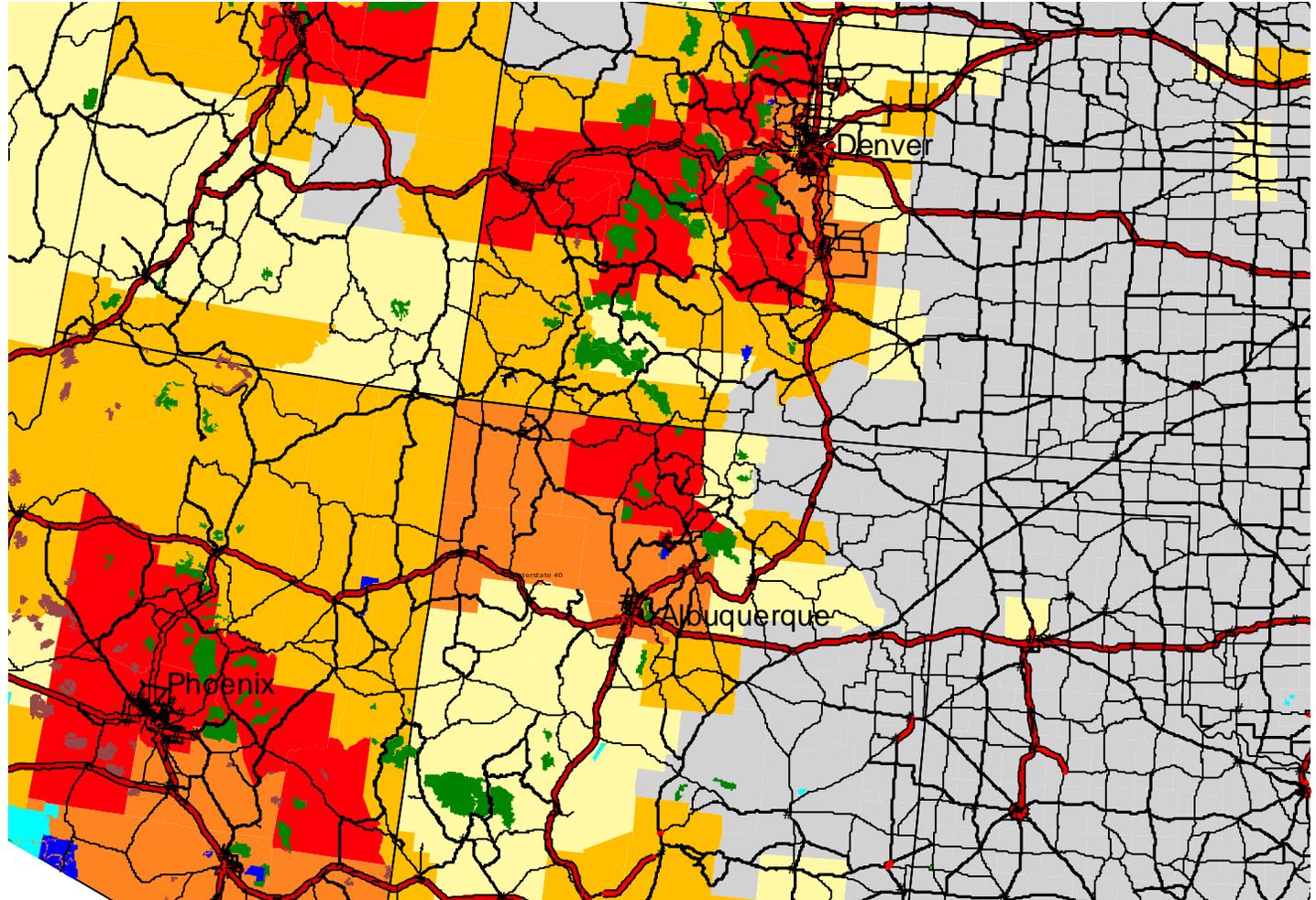
Ambient Population Pressures on Counties with Wilderness



# Composite Natural Resource Hotspots (Ambient Conditions, 2020)

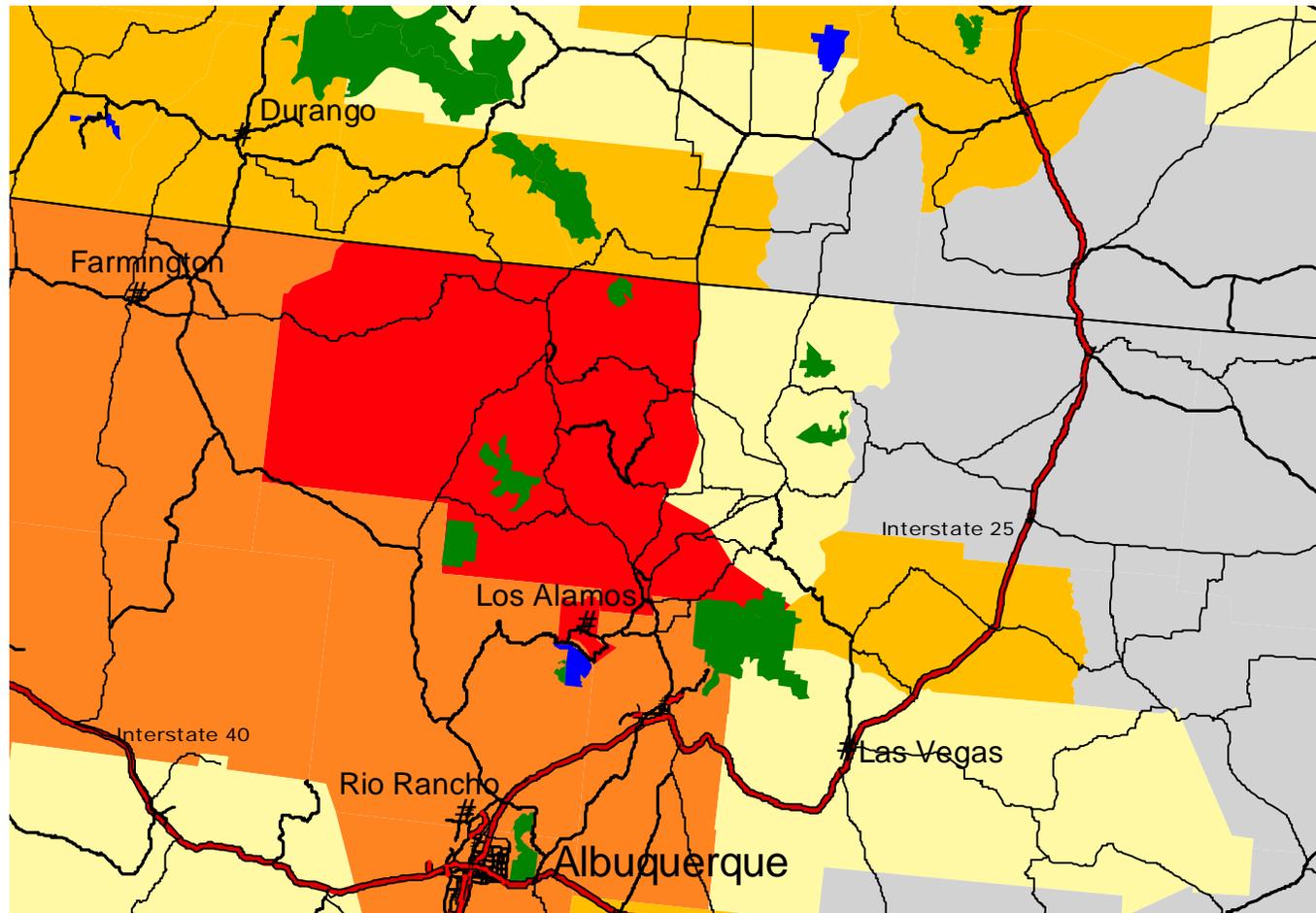


# Arizona, Colorado, and New Mexico Area Hotspots



- Composite
- Negligible resources remaining
  - Low human impact
  - Moderate human impact
  - High human impact emerging
  - Critical hotspots
  - National Forest Wilderness
  - Bureau of Land Management Wilderness
  - National Park Service Wilderness
  - Fish & Wildlife Service Wilderness

# Albuquerque Area Hotspots



## Composite

- Negligible resources remaining
- Low human impact
- Moderate human impact
- High human impact emerging
- Critical hotspots
- National Forest Wilderness
- Bureau of Land Management Wilderness
- National Park Service Wilderness
- Fish & Wildlife Service Wilderness



# What is the Biggest **Threat** to the NWPS

- Anchors?
- Encroaching land uses?
- Invasive exotics?
- Recreation use?
- Air and water pollutants?
- None of the above?

## ANSWER

## PROBLEM

## ACTION

## HOW?

- The biggest threat is loss of the NWPS altogether, combined with “chipping away”
- Low awareness, no public voice, and little collective energy
- Provide wilderness information in places and in forms where people will encounter and digest it
- Start with marketing research and lifestyle segmentation
- Design educational programs
- Monitor results and refine programs

# NSRE 2000 and Marketing Research

- NSRE 2000 will ask knowledge, attitudes, sensitivities, uses, and values of wilderness among prominent segments of the American public
- Segment the public using differences in environmental attitudes, recreation participation patterns, lifestyles, demographics and region of the country
- Use significant factors in the design of tailored marketing and educational strategies.
- With the Wilderness Society organize a national workshop to conceptualize a wilderness benefits framework (WBF).

# Better Understanding the Value of Wilderness

What are the values and the value of sustainably managed Wilderness?

- With TWS, convene national workshop of thought leaders to define a Framework of Wilderness Values
- From NSRE 2000, identify the benefits from Wilderness that people value most
- Develop estimates of use, bequest and existence values
- Develop estimates of economic returns to local and subregional communities
- Provide estimates of NF and System-wide recreational use of wilderness

# NSRE 2000

## Wilderness Outcomes

- Wilderness recreation and visitor profiles
- Attitudes toward and values from NWPS
- Constituencies -- population segments with differing views and values
- Attitudes concerning management issues
- Place of Wilderness and other protected public lands in American's minds and lifestyles
- Marketing and education opportunities

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