

# Bark Beetle Infestation

- ◆ Chronology
- ◆ Gubernatorial Declaration
- ◆ Status
- ◆ Future Impacts



# Chronology Causes of Mortality

- ◆ OVERSTOCKING - Stocking levels have increased over time to approximately five to ten times ideal levels.



# Chronology Causes of Mortality



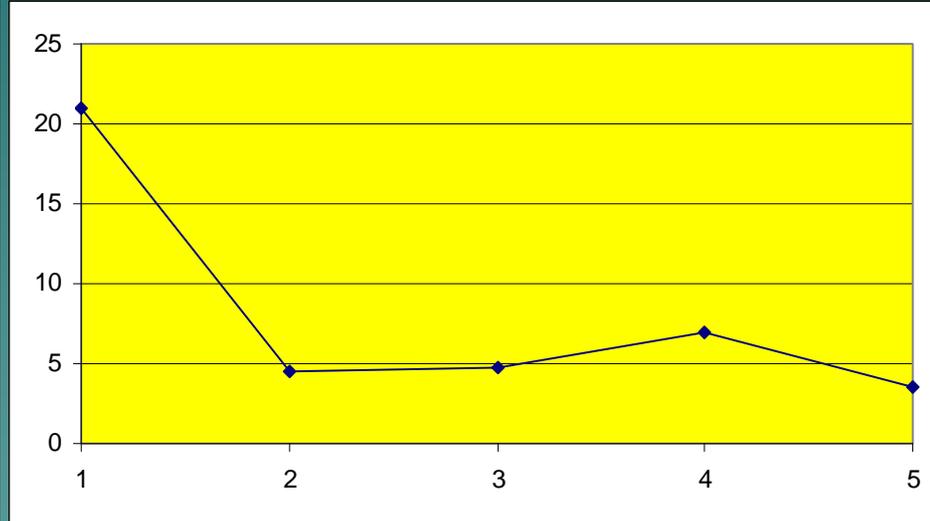
- ◆ Development policies required the preservation of as many trees as possible without regard for impact on tree health or increased fire risk.

# Chronology Causes of Mortality



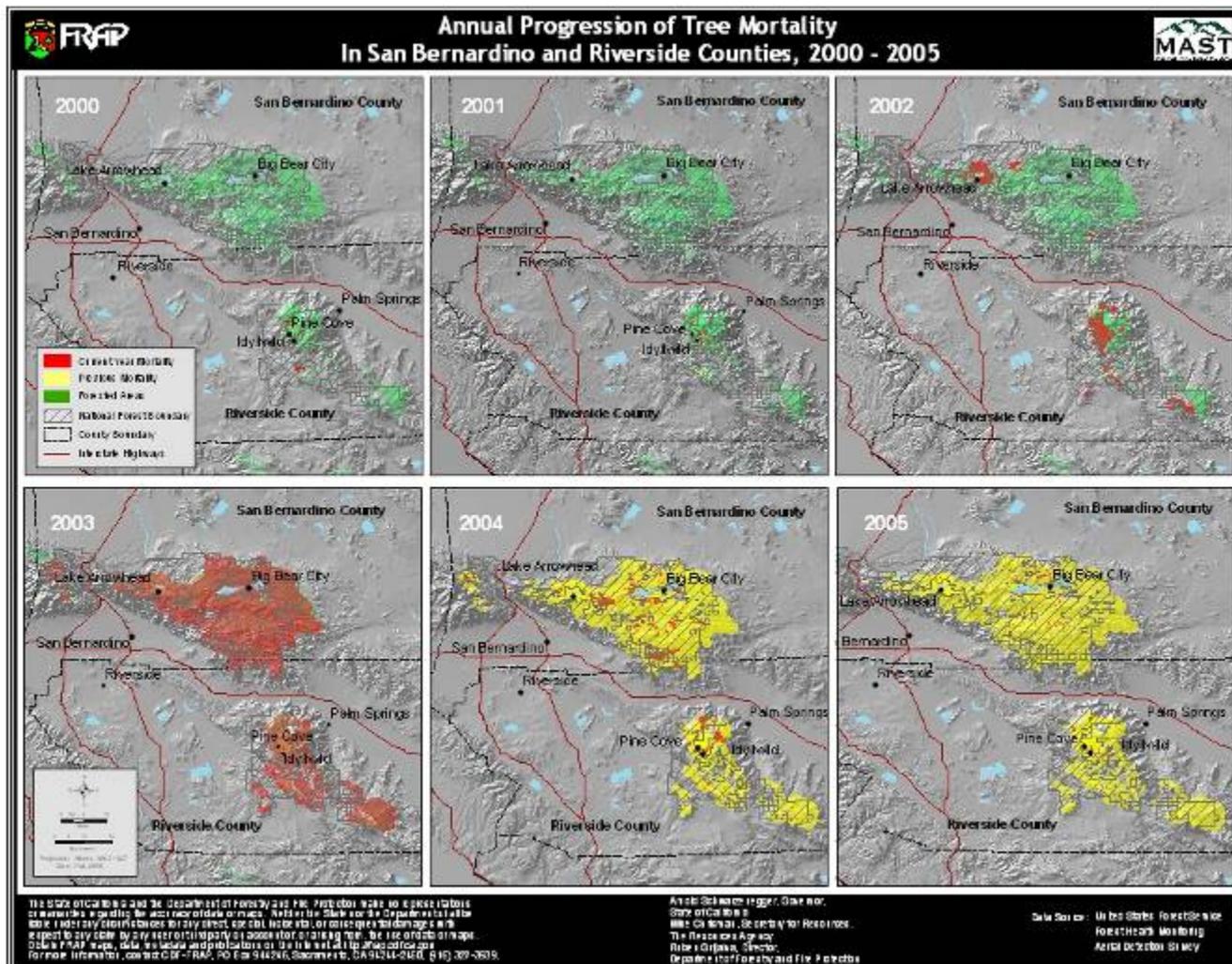
- ◆ Land use decisions have been made without consideration of:
  - Forest and watershed health
  - Increased risk to public and emergency responders
  - Increased Fire Costs

# Chronology Causes of Mortality

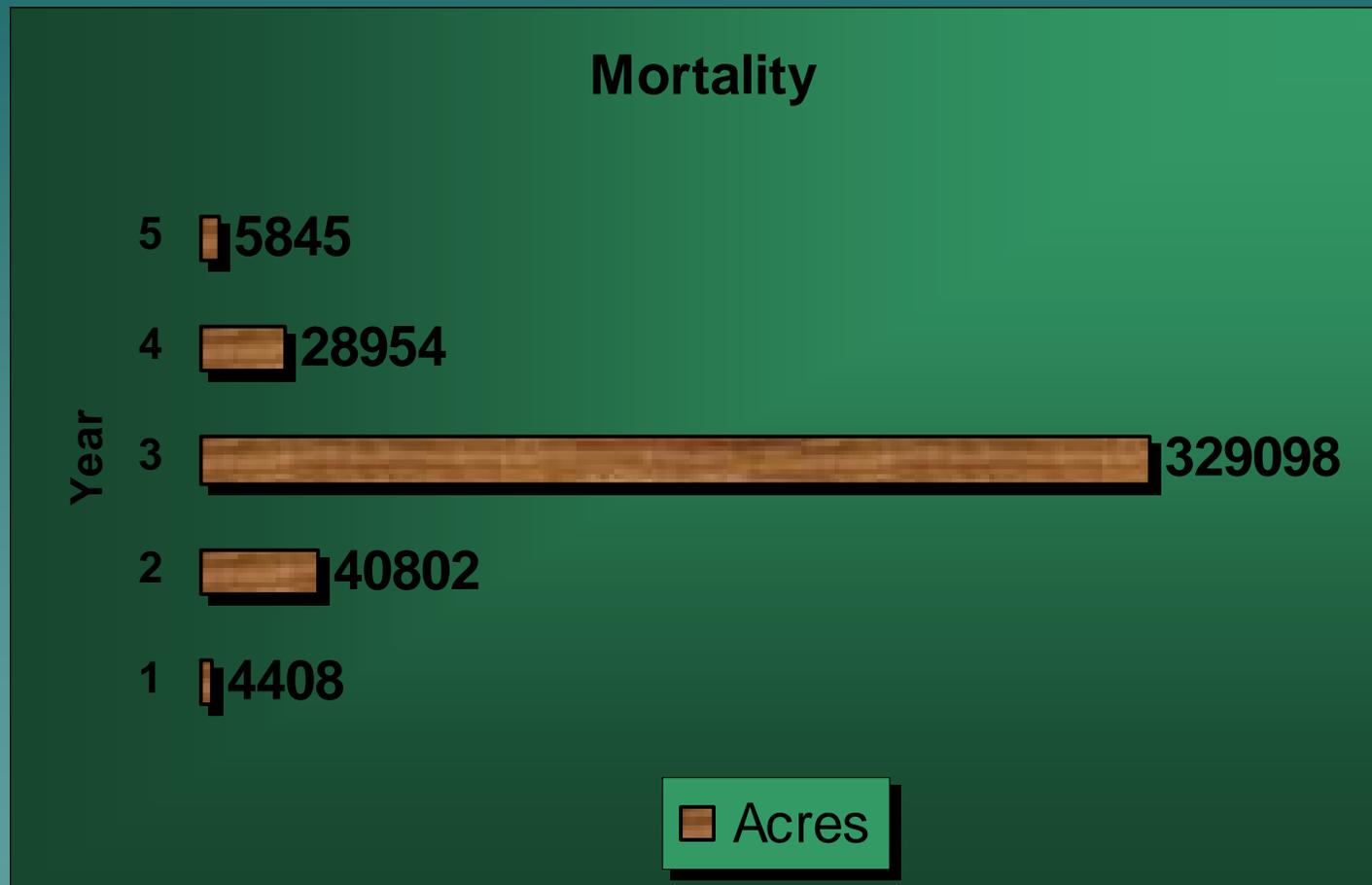


- ◆ 2000, 01, 02 and 03 were severe drought years triggering an outbreak of insects, disease and drought related mortality.

# Chronology San Bernardino and Riverside



# Chronology San Bernardino and Riverside



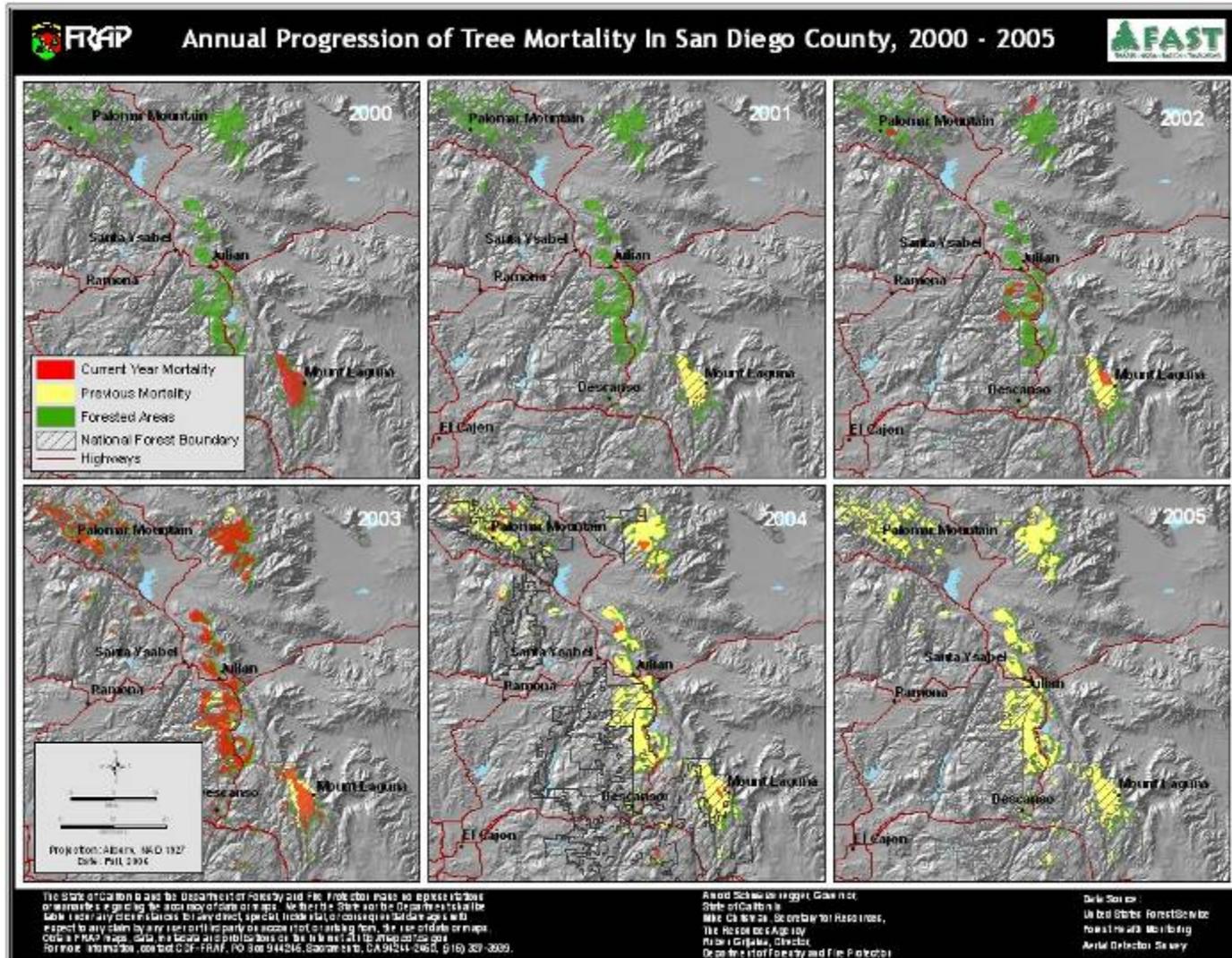
# Chronology

## San Bernardino and Riverside

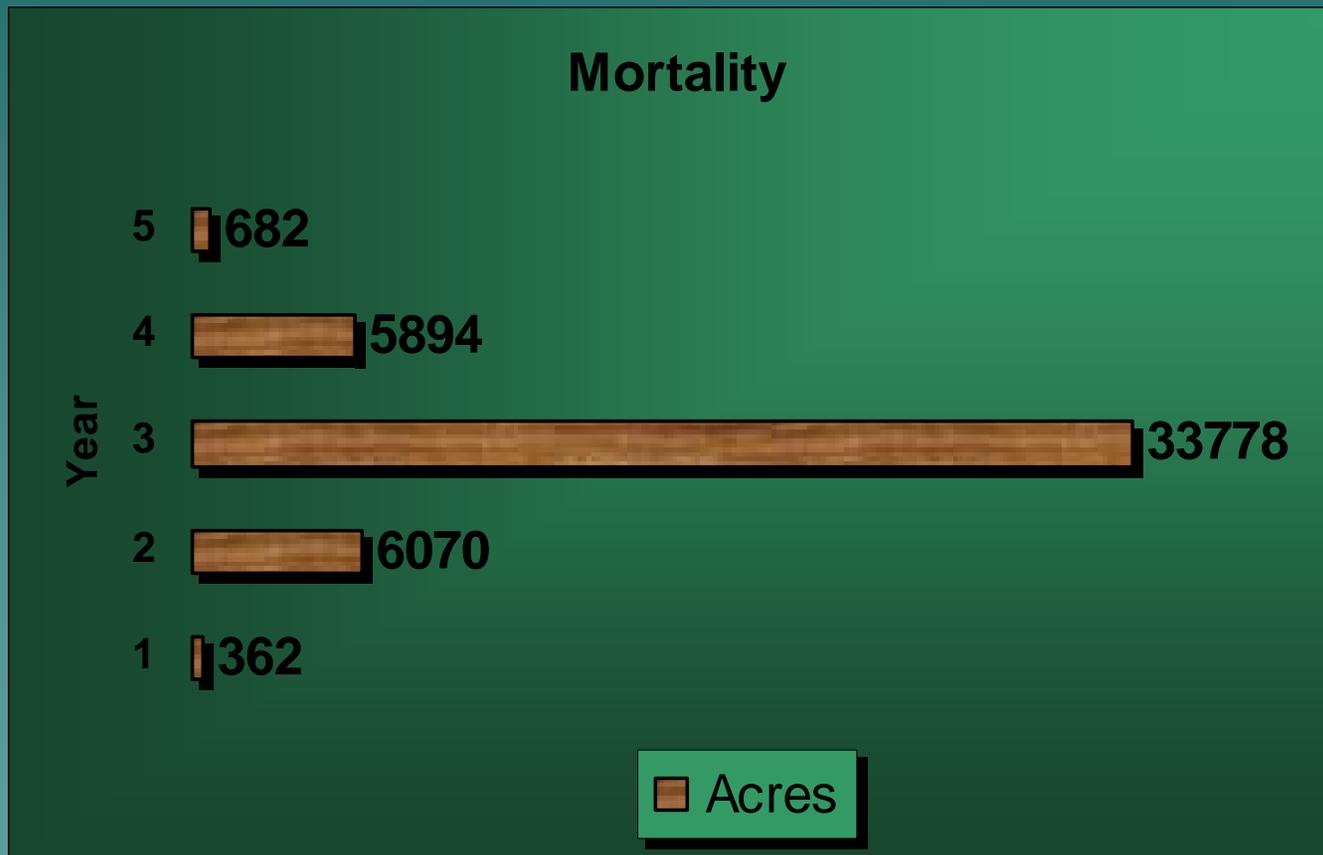


- ◆ The “Old” Fire burned only a small percentage of the dead trees.
- ◆ The potential for a catastrophic fire remains and will increase over time.

# Chronology San Diego County



# Chronology San Diego County



# Gubernatorial Declaration

- ◆ Signed by Governor Gray Davis  
March 7, 2003
- ◆ San Bernardino, Riverside and San Diego Counties had previously declared local emergencies and have maintained those declarations in place.

# Gubernatorial Declaration Authorities and Immunities

- ◆ Authorities Granted
  - CDF in consultation with other State Agencies to assist:
    - ◆ Evacuation Plans
    - ◆ Evacuation Centers
    - ◆ Communications
    - ◆ Emergency Access
    - ◆ Clear dead, dying and diseased trees



# Gubernatorial Declaration Authorities and Immunities



- ◆ CDF *specifically* ordered to improve:
  - Public Evacuation Corridors
  - Fire Evacuation Centers
  - Emergency Response Routes
- ◆ Authority to enter private property

# Gubernatorial Declaration Authorities and Immunities

- ◆ Prior to the Declaration CDF had the authority to treat trees with active Bark Beetle Infestation only.
- ◆ Authority based on BoF declared Zone of Infestation (1940's)



# Gubernatorial Declaration Funding Impacts

- ◆ Senator Dianne Feinstein and Congressman Jerry Lewis have been instrumental in securing federal funds to assist California.
  - NRCS
  - State and Private Forests
  - Direct funding to the USFS
- ◆ Both rededicated themselves to this effort at the Engine 57 Memorial Service.

# Gubernatorial Declaration Funding Impacts

- ◆ CDF has received federal grants, primarily from USFS to carry out this work.
- ◆ Grant total is \$12,808,658
- ◆ Unexpended portion is \$6,182,434 or 48% of funding remaining.
- ◆ NRCS grants to local government.

# Gubernatorial Declaration Project impacts

- ◆ CDF's treatment activities along Evacuation routes
  - Status is deceptive
  - Multiple treatments along same portion of highway are required
  - 52 miles are under treatment or planned for treatment
  - 35% left to do!

County	Status	Miles
	2006	
Riverside	Complete	11
	In Progress	7
	Planned	16
San Bernardino	Complete	77
	In Progress	13
	Planned	7
San Diego	Complete	7
	In Progress	9
	Planned	0
Grand Total		147

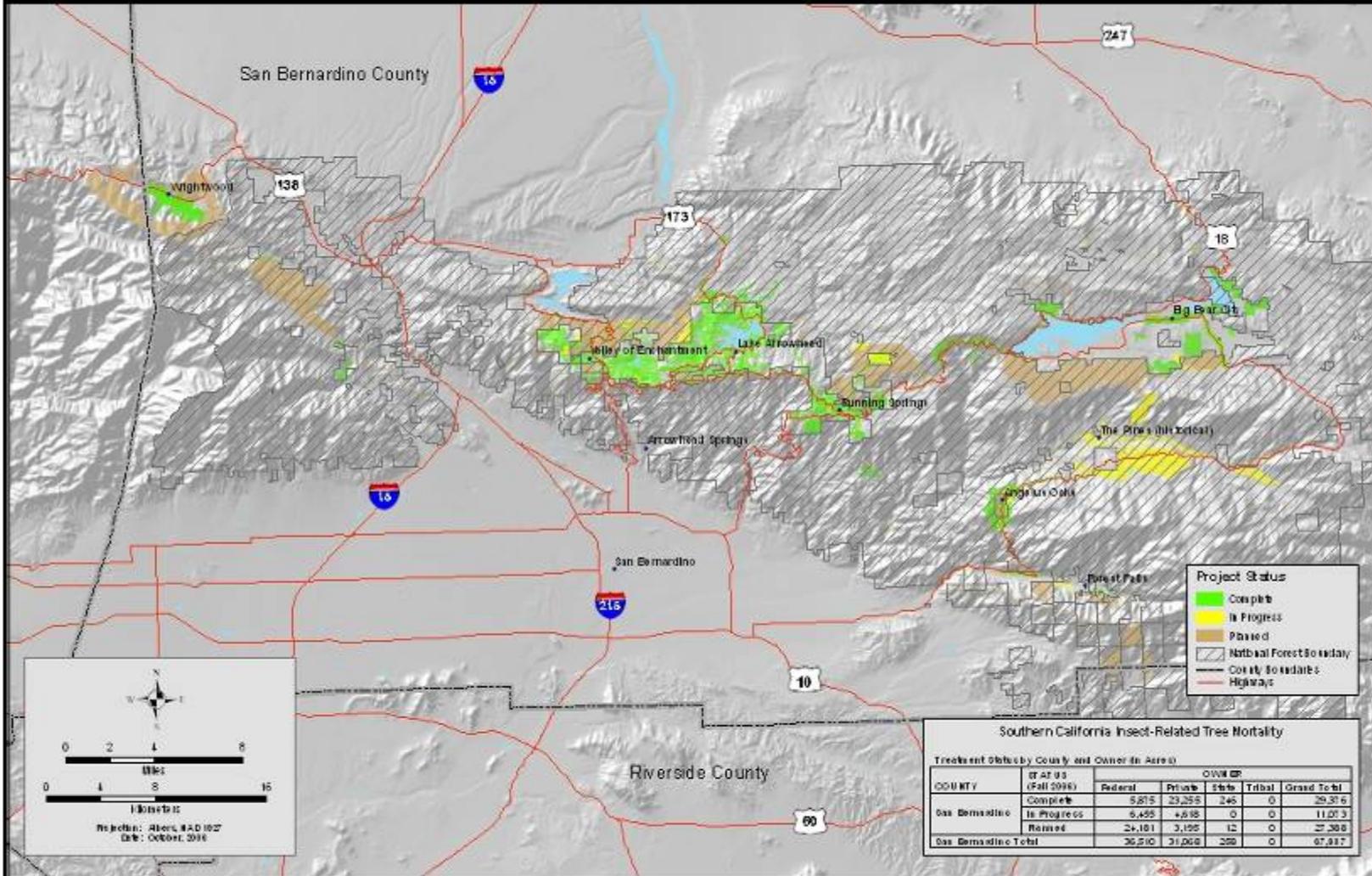
# Gubernatorial Declaration Project impacts

- ◆ All agency (CDF, Parks, USFS, NRCS) treatment activities by project acre
  - Status is deceptive
  - Multiple treatments on the same acre are required
  - 70,139 acres are under treatment or planned for treatment
  - 42% left to do

County	Status	Acres
	2006	
Riverside	Complete	9,299
	In Progress	10,600
	Planned	25,909
San Bernardino	Complete	23,107
	In Progress	4,434
	Planned	3,285
San Diego	Complete	30,384
	In Progress	12,209
	Planned	13,702
Grand Total		169,938



# MAST Community and Watershed Protection Projects: Fall 2006 - San Bernardino County



Southern California Insect-Related Tree Mortality

Treatment Status by County and Owner (in Acres)

COUNTY	OF AT 95 (Fall 2006)	OWNER				
		Federal	Private	State	Tribal	Grass Total
San Bernardino	Complete	5,815	23,259	245	0	29,319
	In Progress	6,455	4,618	0	0	11,073
	Planned	24,161	3,155	12	0	27,328
San Bernardino Total		36,431	31,032	257	0	67,720

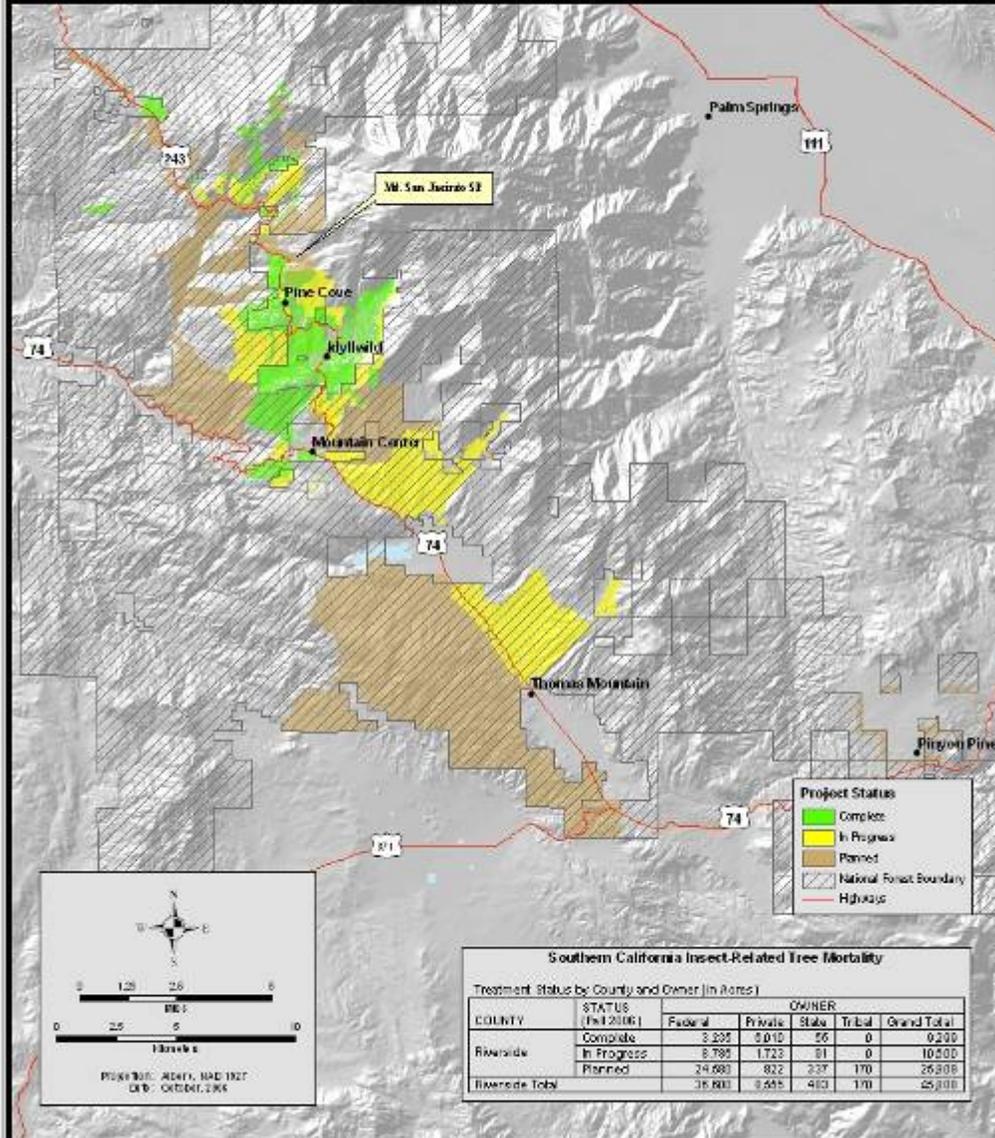
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Arnold Schwarzenegger, Governor  
State of California  
Mike Christman, Secretary for Resources  
The Resources Agency  
Ruben Grigalva, Director  
Department of Forestry and Fire Protection

Date: \*CDF\_2005\_w \* FCE\_2005\_w  
Source: \*USFS\_2005\_w \* HRCs\_2005\_w  
\*Valley View Water 2005\_w  
\*San Bernardino County\_2005\_w  
\*MAST Forest Council\_2005\_w



# MAST Community and Watershed Protection Projects: Fall 2006 - Riverside County



**Southern California Insect-Related Tree Mortality**

Treatment Status by County and Owner (in Acres)

COUNTY	STATUS (Fall 2006)	OWNER				
		Federal	Private	State	Tribal	Grand Total
Riverside	Complete	3,235	3,010	26	0	6,271
	In Progress	5,785	1,723	51	0	10,559
	Planned	24,680	822	227	170	25,900
<b>Riverside Total</b>		<b>33,600</b>	<b>5,555</b>	<b>403</b>	<b>170</b>	<b>39,738</b>

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Arnold Schwarzenegger, Governor  
State of California  
Mike Christman, Secretary for Resources  
The Resources Agency  
Robert Orpin, Director  
Department of Forestry and Fire Protection

Date: 02/10/07  
 \*CDP\_2006\_02 \*PDMU\_2006\_03  
 \*URP\_2006\_V \*MCC\_2006\_04  
 \*RCE\_2006\_05  
 \*Riverside County\_2006\_02  
 \*MAST PROJECTS COURSE\_2006\_02



# Future Impacts Short Term



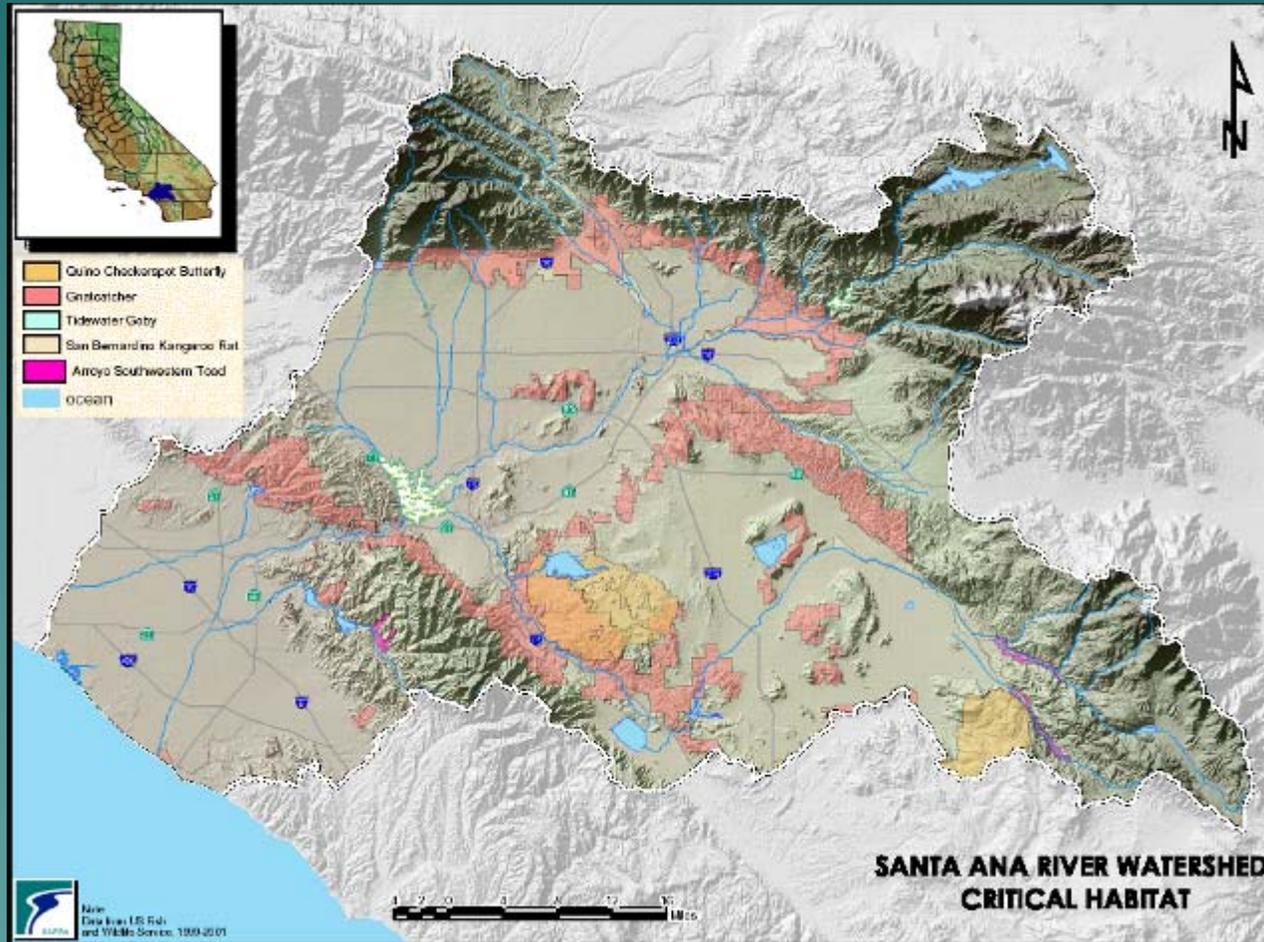
- ◆ Rate of new mortality will remain low
  - Most acreage has been consumed
- ◆ Fire threat will diminish
  - Needle cast reduces aerial component
- ◆ Falling limb and snag threat will increase dramatically
  - Dead trees are decaying at a rapid rate and are unstable
  - Threats to Public and Firefighters

# Future Impacts Long Term



- ◆ Fire behavior will increase dramatically
  - High percentage of down/dead and decaying timber comparable to slash fed fires of late 19<sup>th</sup> century logging era
- ◆ Plume dominated fire
  - Unusually large and fast fires
  - Fire spread is a function of fire not wind
  - Convection column well developed
  - Profuse spotting
  - Whirlwinds

# Future Impacts Watershed



# Pushback

- ◆ Declaration expanded the number of contractors available to property owners for tree removal service.
- ◆ Contractor's License Board (CLB)
  - LTO's are not required to have a Contractor's License under the Declaration.
  - Tree Service Contractors are allowed to perform work normally restricted to LTO's.
  - LTO's are performing tree removal services.
  - This is an enforcement issue for the CLB.

# Agency and Other Impacts

- ◆ CDF
  - ◆ Cal Trans
  - ◆ State Parks
  - ◆ Riverside, San Bernardino, and San Diego County
  - ◆ USFS
  - ◆ NRCS
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- A stylized silhouette of a mountain range in shades of teal, located in the bottom right corner of the slide.