The background is a solid green color with a pattern of stylized, overlapping leaf shapes in various shades of green, creating a textured, natural feel.

# **Tracking and Reporting Carbon Related Activities of CAL FIRE Resource Management Programs**

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# Presentation Objectives

- Metrics from CAL FIRE Resource Management program activities that relate to forest GHG sequestration and emissions
- Information reported and data collected
- Key findings relevant to GHG trend analysis
- Considerations for use in GHG inventory

# Forest Practices Program

## CAL FIRE Forest Practices Program

Regulates timber harvest on non-federal lands (commercial species for commercial purpose) to achieve maximum sustained timber production and protection of wildlife, watersheds, forests and streams

## CAL FIRE permit reporting requirements

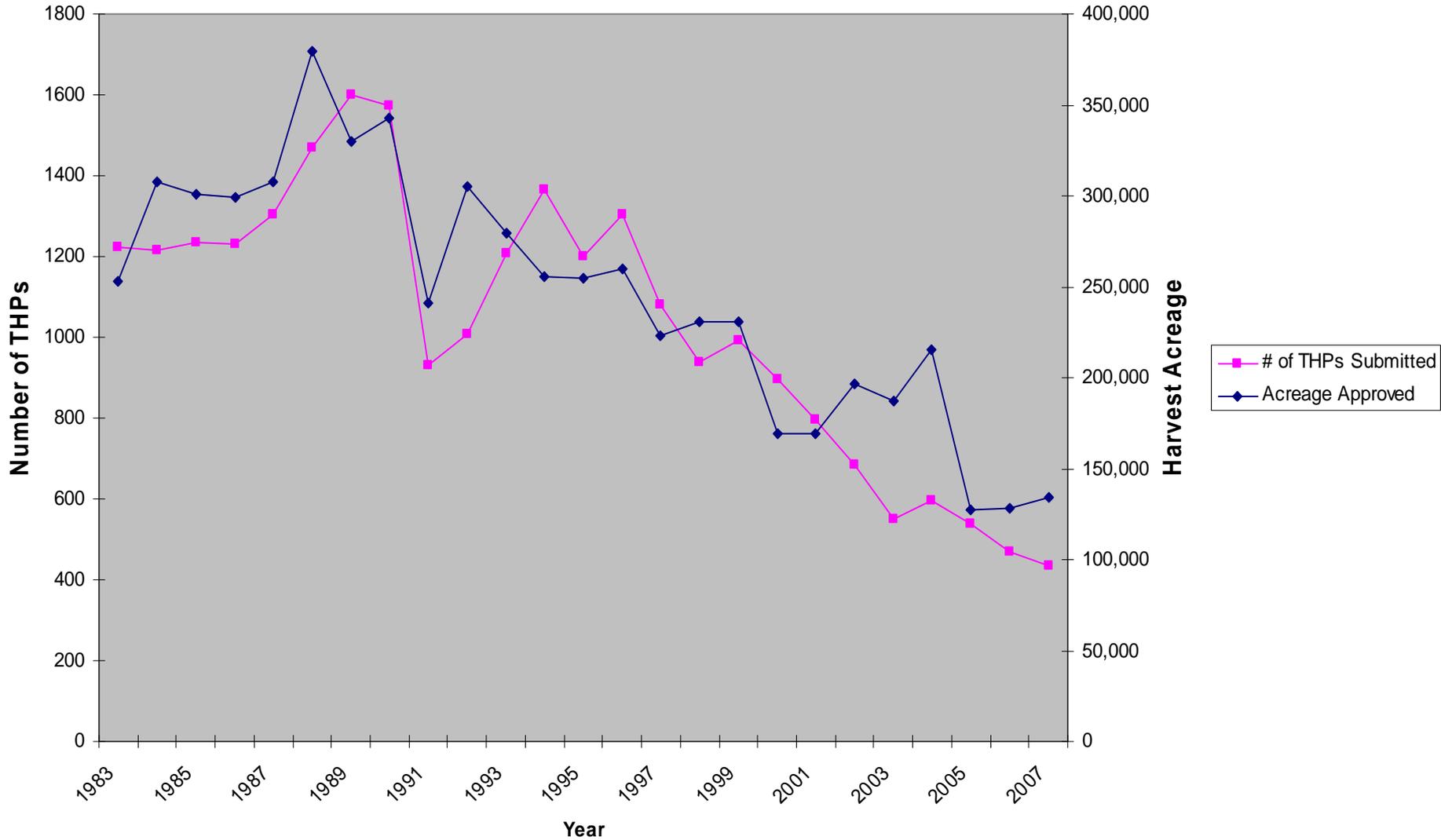
- THP: Project acres x prescription/treatment
- SYP, Option A, PTEIR, NTMP: Ownership-wide 100 year Long-Term Sustained Yield volume projection of growth and harvest
- CAL FIRE permit exemptions and emergency notices
  - Acres, estimated volume removed, % species composition

## Board of Equalization:

- Timber volume sold from private and public lands

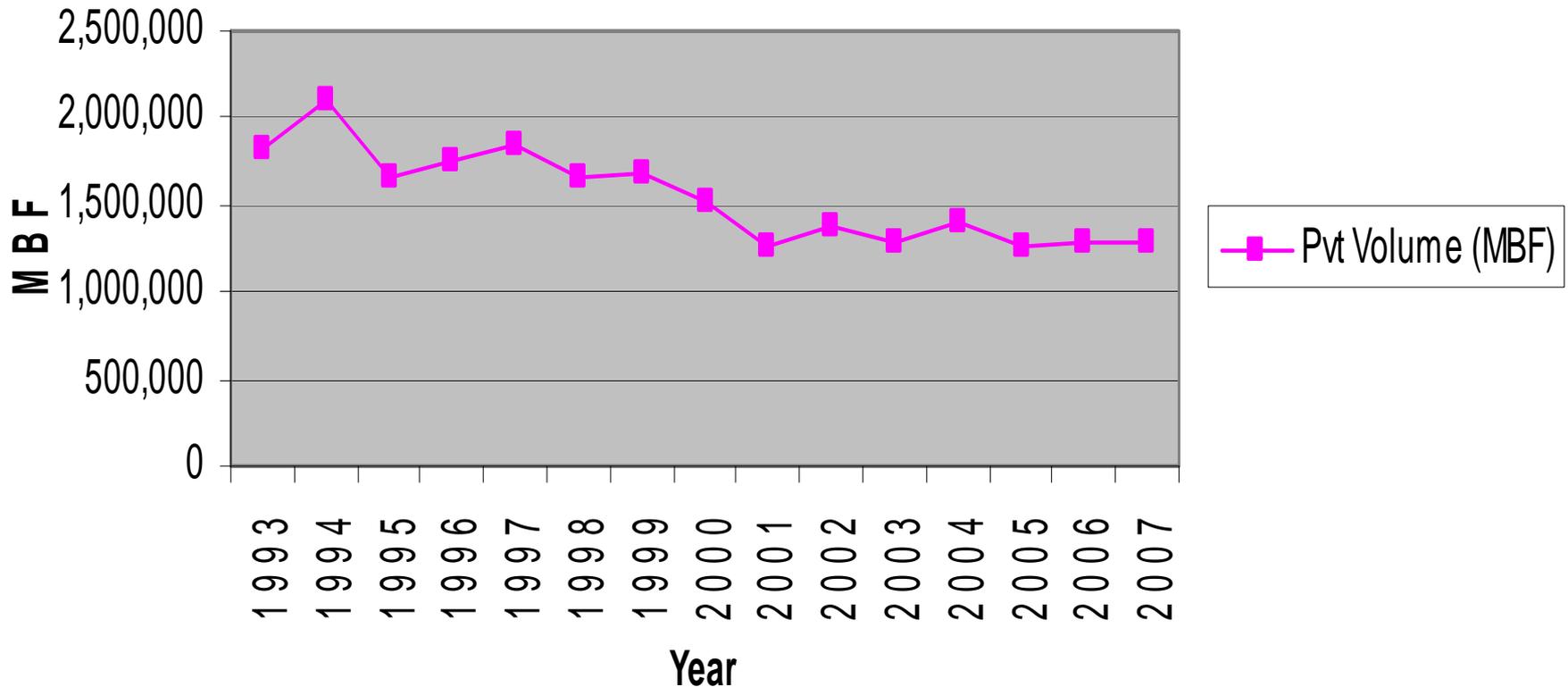
# Harvest Trends on Non-Federal Lands (CAL FIRE)

## THPs and Harvest Acreage



# Timber Harvest Volume Trends on Private Lands (BOE)

## Harvest Trends



# Timberland Conversion Permit Program

## CAL FIRE permits:

- Timberland conversion (*acres approved for timberland conversion operations*)
- Immediate rezoning of TPZ (*acres rezoned indicate near-term conversion*)

## CAL FIRE tracks:

- Subdivision exemption (*acres subject to conversion without TCP*)
- 3 acre exemptions (*acres*)

## Timberland or forest conversions not reported or tracked by CAL FIRE

- 10 year Timberland Production Zone roll-out-county determination (*acres indicate future development*)
- Utility rights of way (*acres of timberland subject to clearing*)
- Forest and woodland conversions (impacts subject to consideration under CEQA and some county ordinances)

# Timberland Conversion Data

	TCP Applications		Subdivision Exemptions		< 3 Acre Exemptions	
	Nos. Approved	Acres	Nos. Submitted	Acres	Nos. Submitted	Acres
<b>1999</b>	8	468	7	538	427	1,027
<b>2000</b>	12	488	14	1,852	446	1,062
<b>2001</b>	11	143	10	972	368	824
<b>2002</b>	24	653	6	688	553	1,040
<b>2003</b>	16	1,248	8	470	679	1,210
<b>2004</b>	11	163	13	2,840	731	1,383
<b>2005</b>	17	354	13	543	732	1,332
<b>2006</b>	20	987	16	1,048	678	1,273
<b>2007</b>	3	62	7	175	508	951
<b>2008</b>	5	263	4	468	298	598
<b>Total</b>	<b>127</b>	<b>4,829</b>	<b>98</b>	<b>9,594</b>	<b>5,420</b>	<b>10,700</b>
<b>Average</b>	<b>13</b>	<b>482</b>	<b>10</b>	<b>959</b>	<b>542</b>	<b>1,070</b>

# Forestry Assistance Programs

## California Forest Improvement Program (CFIP)

- Forestland tree planting (*acres*)
- Vegetation removal (eg brush, small trees) for site preparation, follow-up or tree stand improvement (*acres x treatment*)

## Fuels Reduction Programs

- Mechanical or manual removal of brush and small trees to reduce fire hazard (*acres treated*)

## Vegetation Management Program (VMP)

- Prescribe burning of brush to reduce fire hazard (*acres burned*)

## Urban Forestry Program

- Urban tree planting (*number of trees planted*)
- Urban forest management assistance and guidance

## Forest Legacy Program

- Easement purchase or fee title acquisition (*acres*)

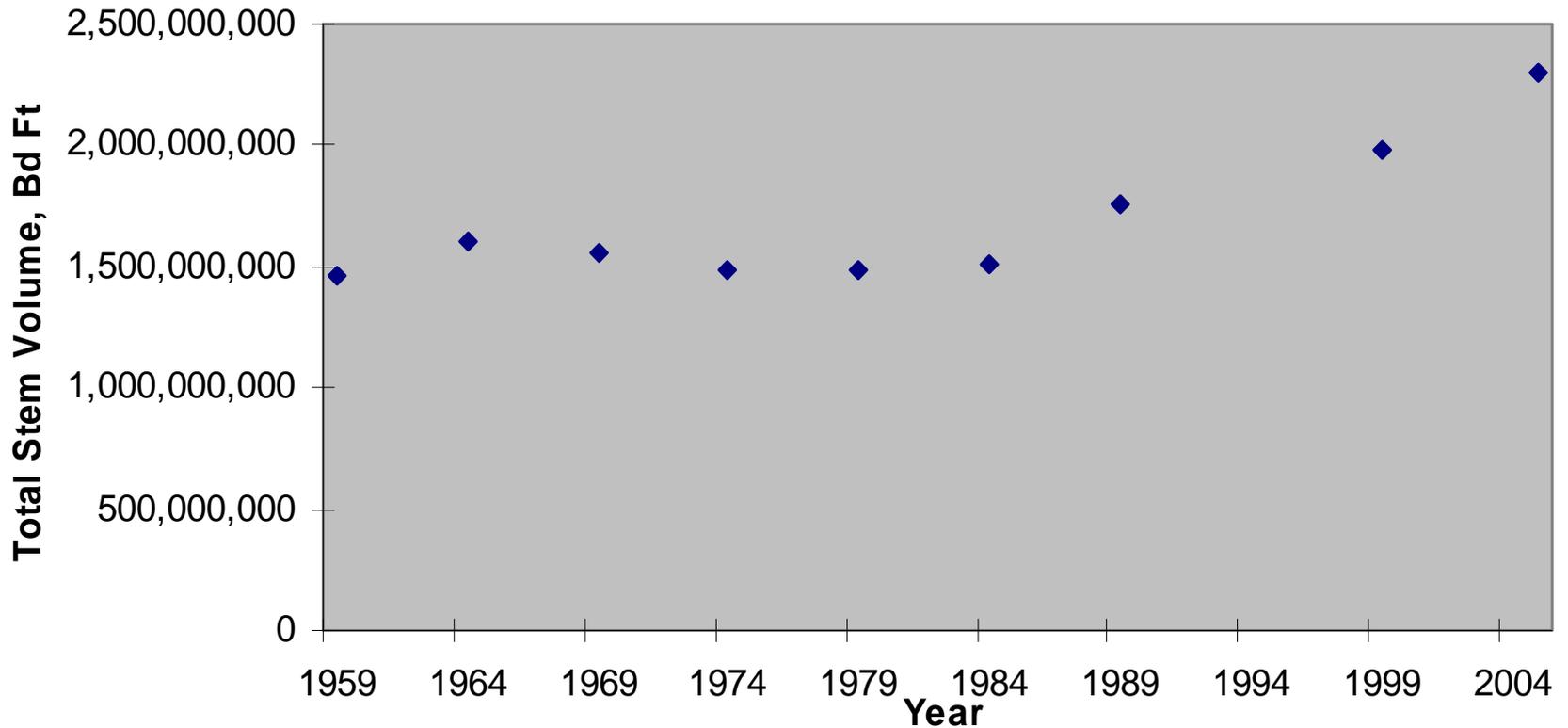
	Acres Vegetation Removal	Acres Prescribed Burned	Acres Reforested	Urban Forest Trees Planted	Acres Conserved
1990	3,492*	42,878	2,566*		
1991	3,492*	40,594	2,566*		
1992	3,492*	19,587	2,566*		
1993	3,492*	27,105	2,566*		
1994	3,492*	23,279	2,566*		
1995	3,492*	44,176	2,566*		
1996	3,492*	50,867	2,566*		
1997	3,492*	24,216	2,566*		1,750
1998	3,492*	20,381	2,566*		
1999	7,219	19,739	1,444	34,097	
2000	1,190	23,279	116	31,431	
2001	120	17,643	128	15,684	600
2002	2,036	14,193	471	18,182	1,526
2003	2,636	12,705	455	15,222	1,097
2004	14,071	4,322	475	14,725	
2005	12,098	8,377	735	11,017	409
2006	7,856	9,965	66	9,406	6,202
2007	15,281	6,980	329	18,675	
2008	4,566	8,949	512		2,631

# State Forest Program

- Description and Mission
  - 71,000 acres of productive forest land
  - Research and demonstration of sustainable forestry, recreation and protection of other forest values
- Resources monitoring and inventory
  - Permanent plots, measured every 5 years on five major forests. Stem volume, LWD, snags, structural characteristics, canopy cover
  - Intensive inventory every 10 years, periodic snapshot of resource conditions
  - Data bank of research data
- Climate Research
  - Carbon sequestration benefits of different silvicultural practices
  - Effects of different silvicultural practices on growth rates and stem volume yields

# Volume Trends on Jackson State Forest

JDSF Total Stem Volume, 1959-2005



# Considerations for Improving GHG Inventory

- Network of State Forests, other state agencies, federal and University research forests, private ownerships to track statewide changes in sequestration and emissions from climate change
- CAL FIRE forestry assistance - small portion of statewide activity
  - Improve forest activity reporting across government programs
  - Improve biomass reporting procedures
  - Work with private landowners to measure effects of voluntary activities
- Urban Forestry mapping and inventory projects in planning stages (FRAP and Urban Forestry programs)
- Consider ways to improve tracking of forest conversions, e.g. including other state agencies, local entities, etc.
- As data becomes available, collaborate with agencies and public to track and evaluate overall carbon effects of fuels management on wildfires, forest health and forest growth