2014 JDSF Option a

Title 14 CCR 913.11 (a)

Implementation Summary for Board of Forestry and Fire Protection Management Committee

Pam Linstedt, State Forest Manager
RPF #2508

September 27, 2016

JACKSON DEMONSTRATION STATE FOREST

JDSF Management Goals

- Goal #1 - **RESEARCH & DEMONSTRATION:** Improve the amount and quality of information concerning economic forest and timber management, forest ecosystem processes, watershed processes, performance of forest protection measures, that is available to the general public, forest landowners, resource professionals, timber operators, the timber industry, and researchers.

- Goal #2 - **FOREST RESTORATION:** Work towards active restoration by managing the Forest to promote and enhance forest health and productivity.

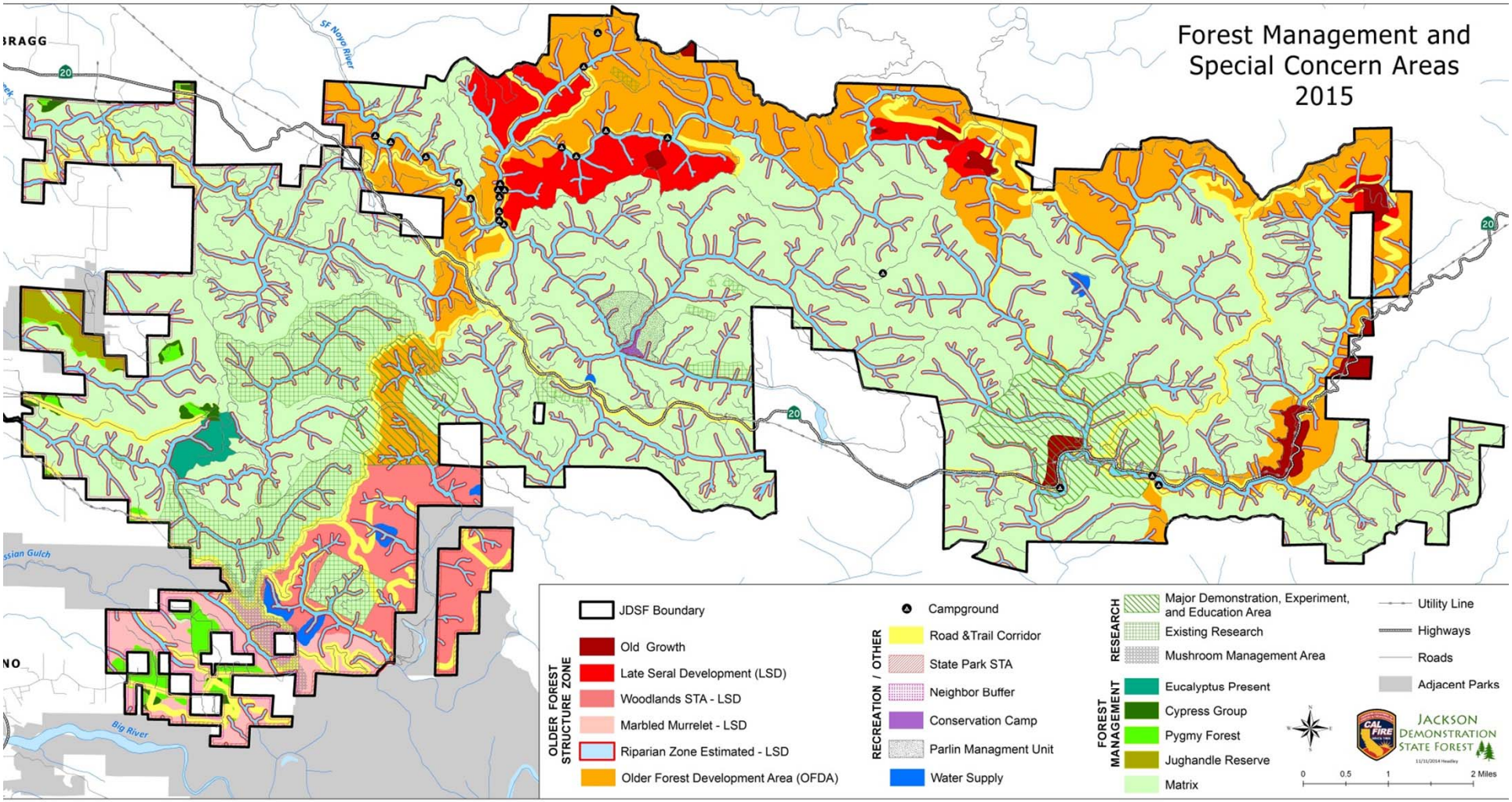
- Goal #3 - **WATERSHED AND ECOLOGICAL PROCESSES:** Promote and maintain the health, sustainability, ecological processes, and biological diversity of the forest and watersheds during the conduct of all land management activities.

- Goal #4 - **TIMBER MANAGEMENT:** Manage the forest on the sustained yield principle, defined as management which will achieve continuous high yields of timber production that contribute to local employment and tax revenue, consistent with environmental constraints related to watershed, wildlife, fisheries, and aesthetic and recreational enjoyment and constraints related to providing a diverse, dynamic matrix of forest habitats and seral stages for researchers.

- Goal #5 - **RECREATION and AESTHETIC ENJOYMENT:** Plan for and provide enhanced levels of low impact recreational opportunities that are compatible with forest management objectives and healthy ecological processes, that are consistent with historic recreational use characteristics, and that allow for engagement of recreation user groups.

JDSF Management Goals

- Goal #6 – **INFORMATION, PLANNING, & STAFFING**
- Goal #7 - **PROTECTION:** Protect the forest from damage and preserve the peace within.
- Goal #8 - **MINOR FOREST PRODUCTS:** Maintain a program that provides an opportunity for the public and small businesses to purchase minor forest products.
- Goal #9 - **PROPERTY CONFIGURATION**: Improve the boundary layout of the State Forest to facilitate management logistics and increase demonstration and research opportunities.
- Goal #10 – **EDUCATION and OUTREACH**: Engage the public and community about the Forest's research and demonstration activities through education, outreach, and recreation.


Forest Management and
Special Concern Areas
2015
BRAGG
SF Noyo River
Big River
JDSF Boundary
OLDER FOREST STRUCTURE ZONE
Old Growth
Late Seral Development (LSD)
Woodlands STA - LSD
Marbled Murrelet - LSD
Riparian Zone Estimated - LSD
Older Forest Development Area (OFDA)
RECREATION / OTHER
Campground
Road &Trail Corridor
State Park STA
Neighbor Buffer
Conservation Camp
Parlin Managment Unit
Water Supply
RESEARCH
Major Demonstration, Experiment, and Education Area
Existing Research
Mushroom Management Area
FOREST MANAGEMENT
Eucalyptus Present
Cypress Group
Pygmy Forest
Jughandle Reserve
Matrix
Utility Line
Highways
Roads
Adjacent Parks
0 0.5 1 2 Miles
JACKSON DEMONSTRATION STATE FOREST

Key Considerations - JDSF Option "a" Development

- Regulatory document

  change greater than 10% revision required
- JDSF Landscape Allocations and Research and Development goals
- Long-term plan and potential changes

  Regulatory – habitat requirements

  Social – control competing species

  Economic – market

Table 1. Land Management Allocations

Land Management Allocation	Acres	Percent of Forest Acres	Allowed Silviculture
Matrix	23,125	47.5	All (with restrictions on Even-aged management acres)
Watercourse and Lake Protection Zones	7,117	14.6	WLPZ Selection, Grow only
Older Forest Development Area	6,580	13.5	Older Forest Development (OFDA), Grow only
Late Seral Development (includes Woodlands Special Treatment)	3,331	6.8	Late Seral Development (LSD), Grow only
Research	2,517	5.2	All (with restrictions on Even-aged management acres)
Reserves (including Jughandle)	1,813	3.7	Grow only
Marbled Murrelet	1,348	2.8	Buffer Selection, LSD, Grow only
Road and Trail Corridor	1,135	2.3	Buffer Selection, OFDA, Selection, Grow only
Old Growth Groves	447	0.9	Grow only
Pygmy	382	0.8	Grow only
Neighbor/Campground Buffers	361	0.7	Buffer Selection, Grow only
Eucalyptus Infestation Area	238	0.5	Selection, Buffer Selection, Group Selection, Grow only
Cypress	110	0.2	Selection, Grow only
Powerline Right of Way	83	0.2	Selection, Buffer Selection, Grow only
Water Supply	32	0.1	Buffer Selection, Grow only
Conservation Camps	32	0.1	Selection, Grow only
Totals	48,650	100	

Modeled Silvicultural Prescriptions

Silvicultural Descriptions (BA targets, etc.)			Site III Example	
Single Tree Selection / Single Tree Selection High30/Med35/Low40%				
Re-entry Interval	15, 20 years			
Residual Conifer Basal Area		Low RBA	Med RBA	High RBA
	Site III	100 / 60%	120 / 65%	150 / 70%
Harvest as a max% of preharvest basal area	None / 30,35,40% max			
Maximum conifer diameter retained	60			
Older Forest Development / Older Forest Development High35, Med30, Low25				
Re-entry Interval	15, 25 years			
Residual Conifer Basal Area		Low RBA	Med RBA	High RBA
	Site III	100 / 65%	150 / 70%	160 / 75%
Maximum conifer diameter retained	56			
Late Seral Development/Late Seral High25_ 2X*, Late Seral Low30_2X*				
Re-entry Interval	15, 25 years			
Residual Conifer Basal Area		Low RBA		High RBA
	Site III	125 / 70%		160 / 75%
**Note: The LSD Rx is limited the harvesting to 2 entries during the planning period, and 25/30% max harvest*				
Transition Low /Transition High				
Precondition for Transition harvest	Site II-III	Preharvest Conifer BA < 125*,		
Residual Conifer Basal Area Transition1 Entry		50 (15 BA 12"DBH+)		
Residual Conifer Basal Area Transition2 Entry		Low RBA		High RBA
	Site II	125		125
Residual Conifer Basal Area post Trans Selection		Low RBA		High RBA
	Site II	125		150
	Site III	100		120
	Site IV	75		100
WLPZ				
Re-entry Interval	20,25,30 years			
Residual Conifer Basal Area			RBA	
	Site II-IV		240	
Buffer Selection (same as WLPZ but allowed 15 year re-entry cycle)				
Re-entry Interval	15,20,25,30 years			
Residual Conifer Basal Area			RBA	
	Site II-IV		240	

The following prescriptions have the option to have a 20 year rotation Selection High RBA entries prior to the primary sivicultural Rx (e.g. if an "even age" harvest entry is scheduled 50 years out, 2 Selection entries can be scheduled).

EvenAge 70, 80, 90, 100 with or without Commercial Thin

Rotation Ages	70, 80, 90, 100	
Comm Thin Entries	EvenAge 70	50 years
	EvenAge 80	40, 60 years
	EvenAge 90	50, 70 years
	EvenAge 100	40, 60, 80 years
Comm Thin Residual BA	Site II-III	100

Variable Retention with Commercial Thin

Precondition for VR harvest	Low RBA	30 BA Conifer over 22"
	High RBA	45-50 BA Conifer over 22"
Residual Conifer Basal Area VR entry	Low RBA	30 BA, smallest over 22"
	High RBA	45-50 BA, smallest over 22"
Comm Thin Entries	50 years	
Comm Thin Residual BA	Site II-III	100
	Site IV	75
Rotation Age VR entries	70 years	

Variable Retention without Commercial Thin

Precondition for VR harvest	Low RBA	30 BA Conifer over 22"
	High RBA	45-50 BA Conifer over 22"
Residual Conifer Basal Area VR entry	Low RBA	30 BA, smallest over 22"
	High RBA	45-50 BA, smallest over 22"
Rotation Age VR entries	70 years	

Group Selection with Matrix Thinning

Precondition for harvest	Low RBA	None
	High RBA	2 or more Conifer over 22"
Re-entry Interval Group Cut	20 years, 100 years for complete cycle	
Group Comm Thin Entries	40, 60, 80 years	
Group Comm Thin Residual BA	160 for all Site Class	
Matrix Comm Thin Residual BA	160 for all Site Class	
Residual Conifer Basal Area	Low RBA	None
	High RBA	2 Conifer over 22"
Residual HW Basal Area	Low RBA	None
	High RBA	1 largest

1ST Decade - Option "a" Implementation

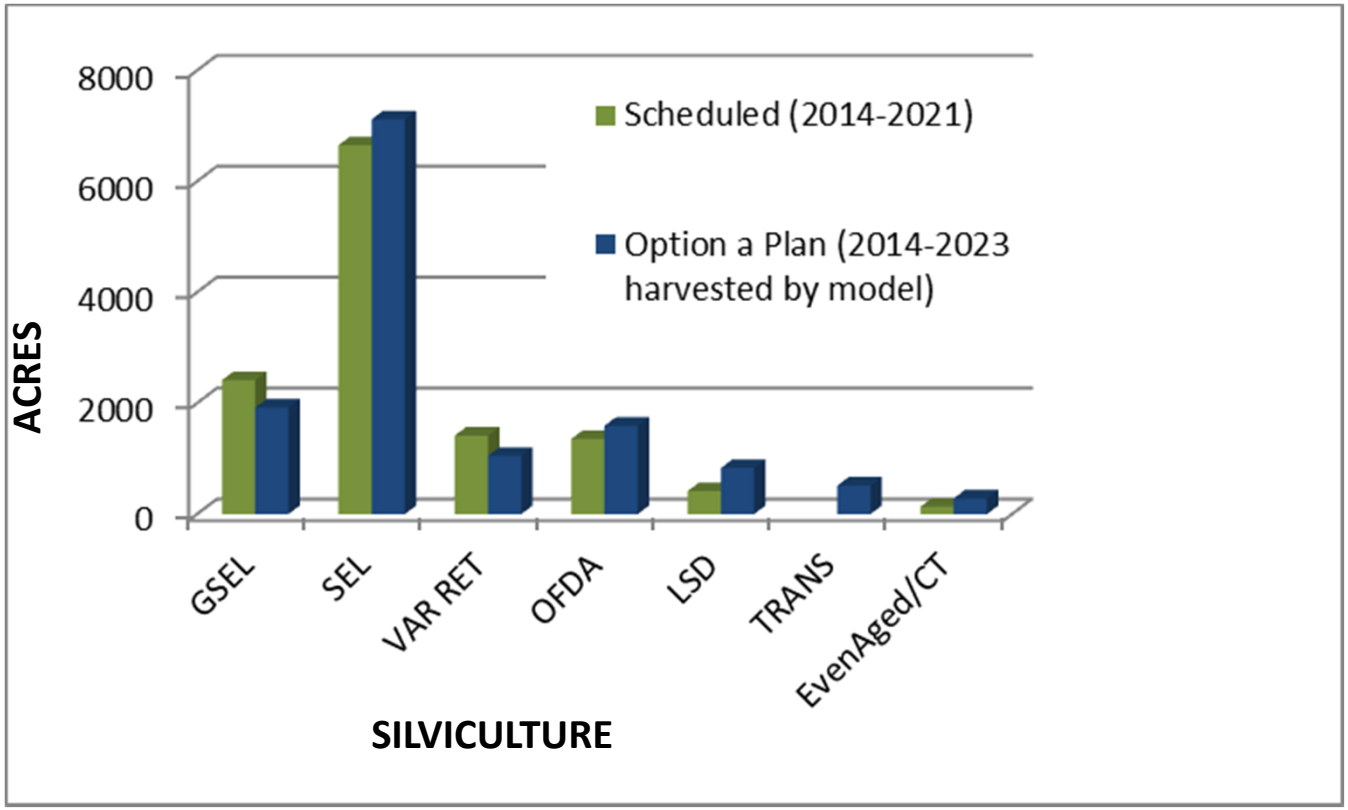
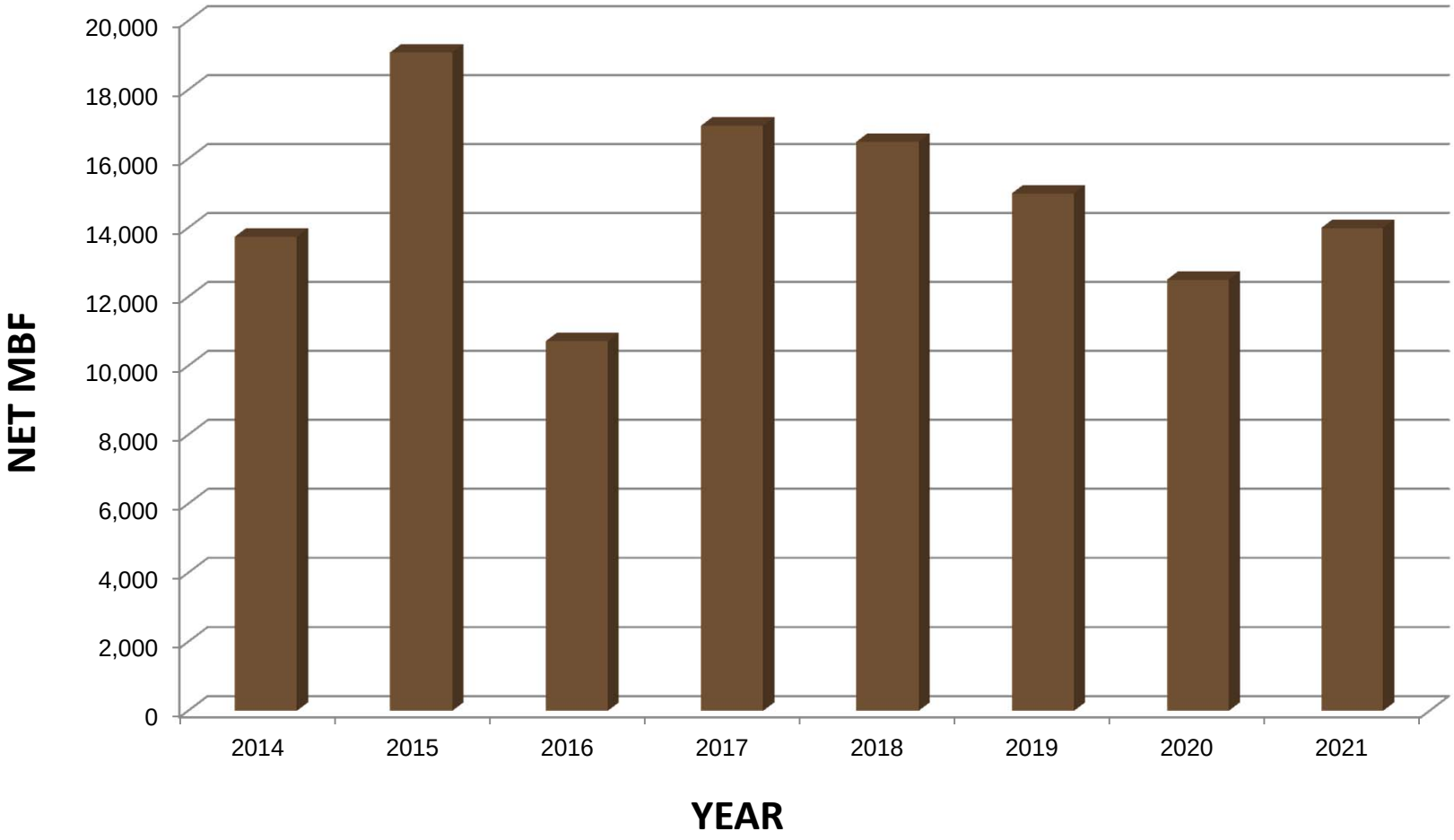
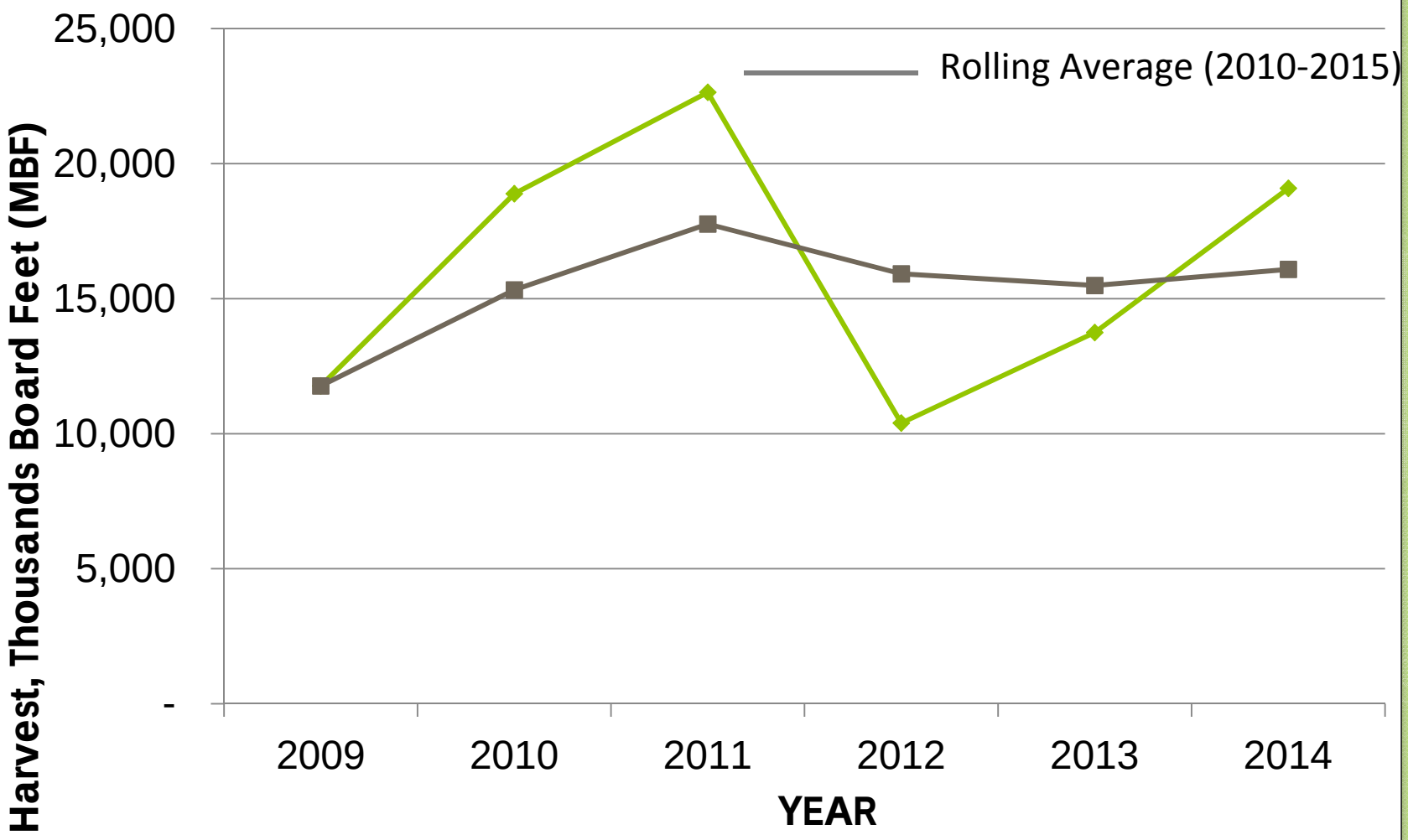


Table 5. Inventory, Growth, Harvest

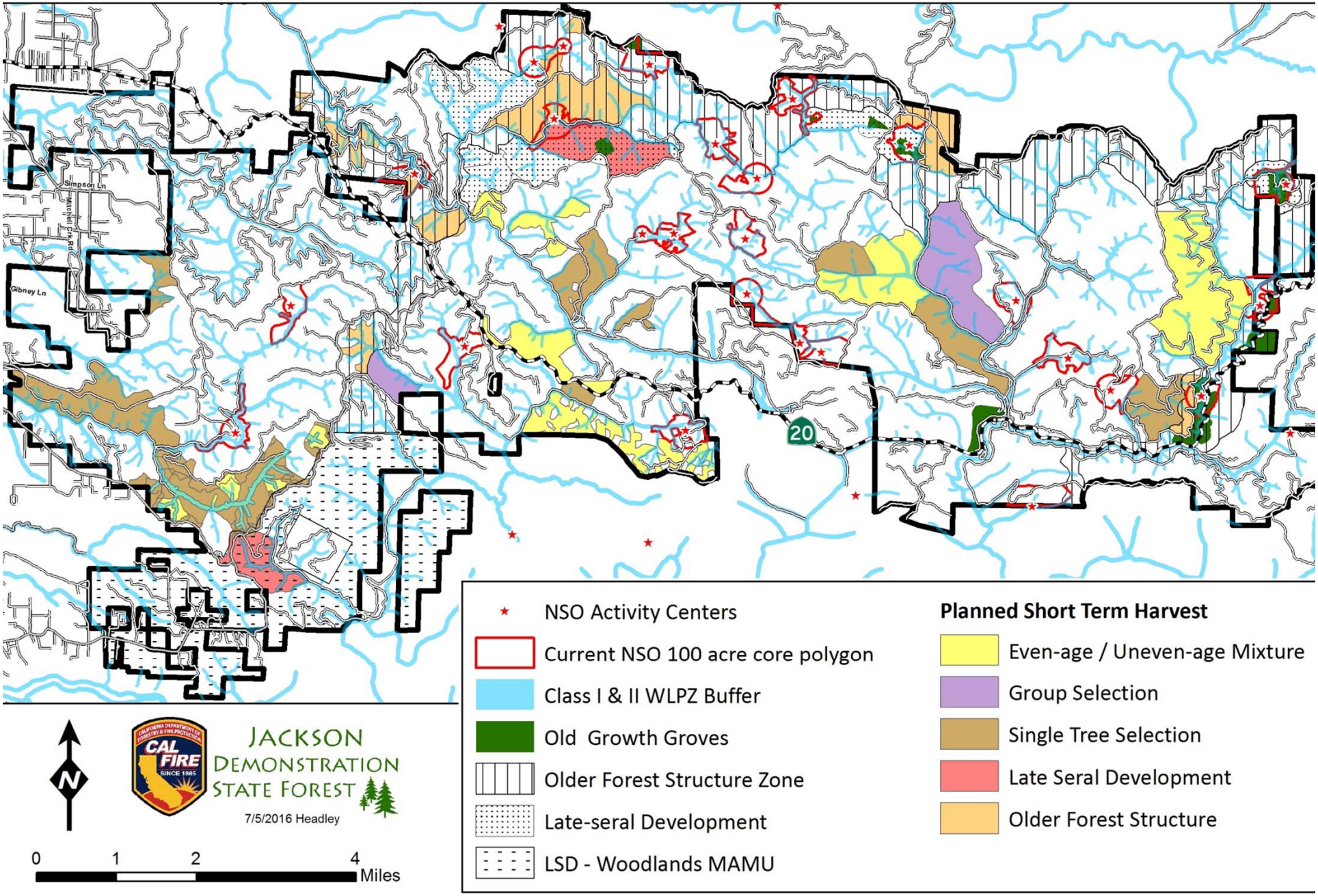
Decade	Inventory	Growth	Harvest
1	2,009,155,356	413,908,795	220,634,819
2	2,202,428,634	460,916,754	293,736,591
3	2,369,608,033	487,772,432	373,978,386
4	2,483,400,651	490,988,172	346,447,902
5	2,627,976,322	488,445,360	358,430,848
6	2,757,170,367	479,581,461	355,790,162
7	2,879,403,414	471,798,658	348,792,348
8	3,002,114,623	464,448,980	371,599,422
9	3,093,472,058	452,523,794	360,292,798
10	3,184,509,013	445,875,774	358,461,646

Harvest – Actual and Planned




25,000
20,000
15,000
10,000
5,000
-
Harvest, Thousands Board Feet (MBF)
Rolling Average (2010-2015)
2009
2010
2011
2012
2013
2014
YEAR

JDSF Short Term Harvest Schedule 2017-2021



Option "a" - **MONITORING**

- Maintain individual timber sale records of volume harvested (based on a log yard-scaled basis).
- Annually summarize acres harvested by silvicultural method.
- Provide estimate of volume harvested from these acres based on our forest inventory system. This estimate is the basis for the long-term sustained yield calculations and is therefore the most accurate representation of volume removed, against which our adherence to the LTSY can be evaluated.
- Periodic re-measurement of continuous forest inventory (CFI) plots, as has occurred periodically since 1959.
- Periodic reinventory of the entire Forest

  Completed: 1989, 2005, 2010 and completion expected in *2017*.

QUESTIONS?
CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
CAL FIRE
SINCE 1885
JACKSON
DEMONSTRATION
STATE FOREST