

## 4 Ignition Workload Assessment (Level of Service)

The legislature has charged the Board of Forestry and California Department of Forestry with delivering a fire protection system that provides an equal level of protection to lands of similar type (PRC 4130). To do this, the department has developed an analysis process that defines a level of service rating that can be applied to the wildland areas in California to compare the level of fire protection being provided. The rating is expressed as the percentage of fires that are successfully extinguished during initial attack. Success is defined as those fires that are controlled before unacceptable damage and cost are incurred.

Successful initial attack is defined in terms of the amount of resources needed to suppress the fire and of fire intensity. It is that effort which contains the fire within an acceptable level of resource commitment, acceptable suppression cost and acceptable damage to assets at risk. The **FIRE PLAN** uses a Geographic Information System (GIS) that overlay a 10-year history of wildfires onto a vegetation type map and derives the average annual number of fires by size, severity of burning and assets lost. This data allows a **LEVEL OF SERVICE** Success (and failure) Rate calculation.

$$\text{SUCCESS RATE} = \frac{\text{annual number of fires that were small and extinguished by initial attack}}{\text{total number of fires}}$$

### **SUCCESS RATE= X PERCENT**

This results in an initial attack success rate in percentage of fires by vegetation type and by area. Similar areas can be compared locally, regionally or statewide using the GIS database.

Using the GIS database, each wildland area of a community, CDF Unit, region or statewide, can be ranked by age and type of vegetation to identify high-volume fuel areas that have accumulations of dead fuel with the potential for costly and damaging fires. Areas are ranked by high, medium or low risk of potential as sites of costly and damaging fires.

#### 4.1 STATEMENT OF SUCCESS RATE BY PLANNING BELT

The following is the success rate per planning belt within the Nevada-Yuba-Placer Unit over the ten year period ending 2005:

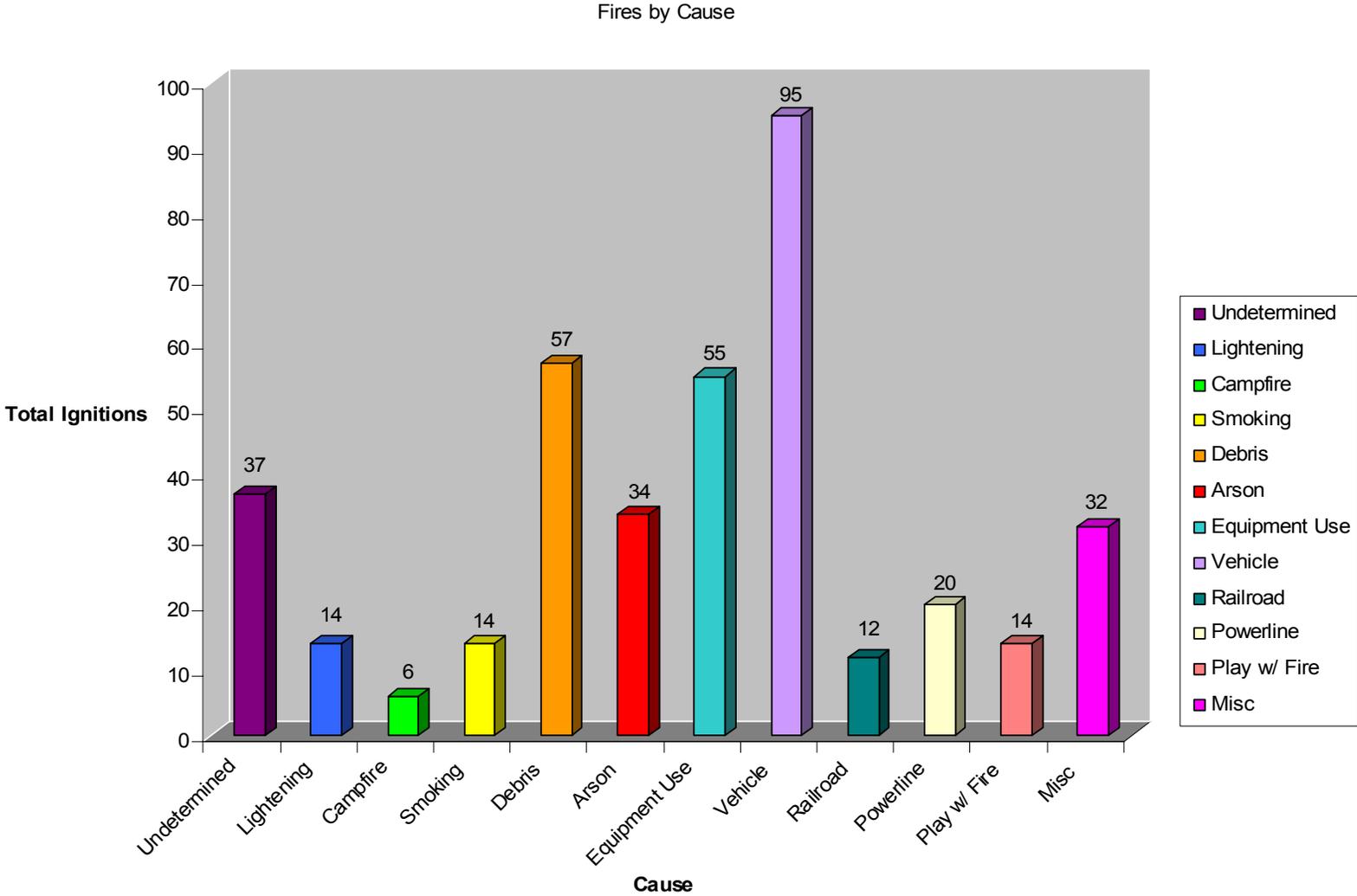
Grass	=	97%
Brush	=	99%
Woodland	=	99%
Interior Conifer	=	98%

While these success rates are high for the unit, it still should not overshadow that the 1 fire in 100 that becomes an unacceptable fire may be a costly and damaging fire (49'er Fire, 1988, for example) and may cause extreme loss in terms of safety, assets and costs. In addition, the percentages above reflect the LOS success inclusive of all agency resources also. This includes all 45 local government fire districts, US Forest Service, and 5 state agencies. The percentages DO NOT show the LOS success rate of NYP CDF resources only.

The following matrix shows the number of fires NYP responded to in 2005, and the resultant success per planning belt and *statistically*, the number of "unacceptable" fires per planning belt:

Planning Belt	LOS	Number of Fires	Unacceptable Fires
Grass	97%	83	3
Brush	99%	80	1
Woodland	100%	107	0
Interior Conifer	99%	44	1
Not Classified	94%	64	4
<u>Totals</u>	<u>98.4%</u>	<u>378</u>	<u>9</u>

2005 Unit-wide number of Fires by cause type.



(Statistical information provided by NYP Fire Prevention Bureau and may not correlate with EARS data.)

This map graphically shows the historic Level of Service for the unit within the CDF DPA.

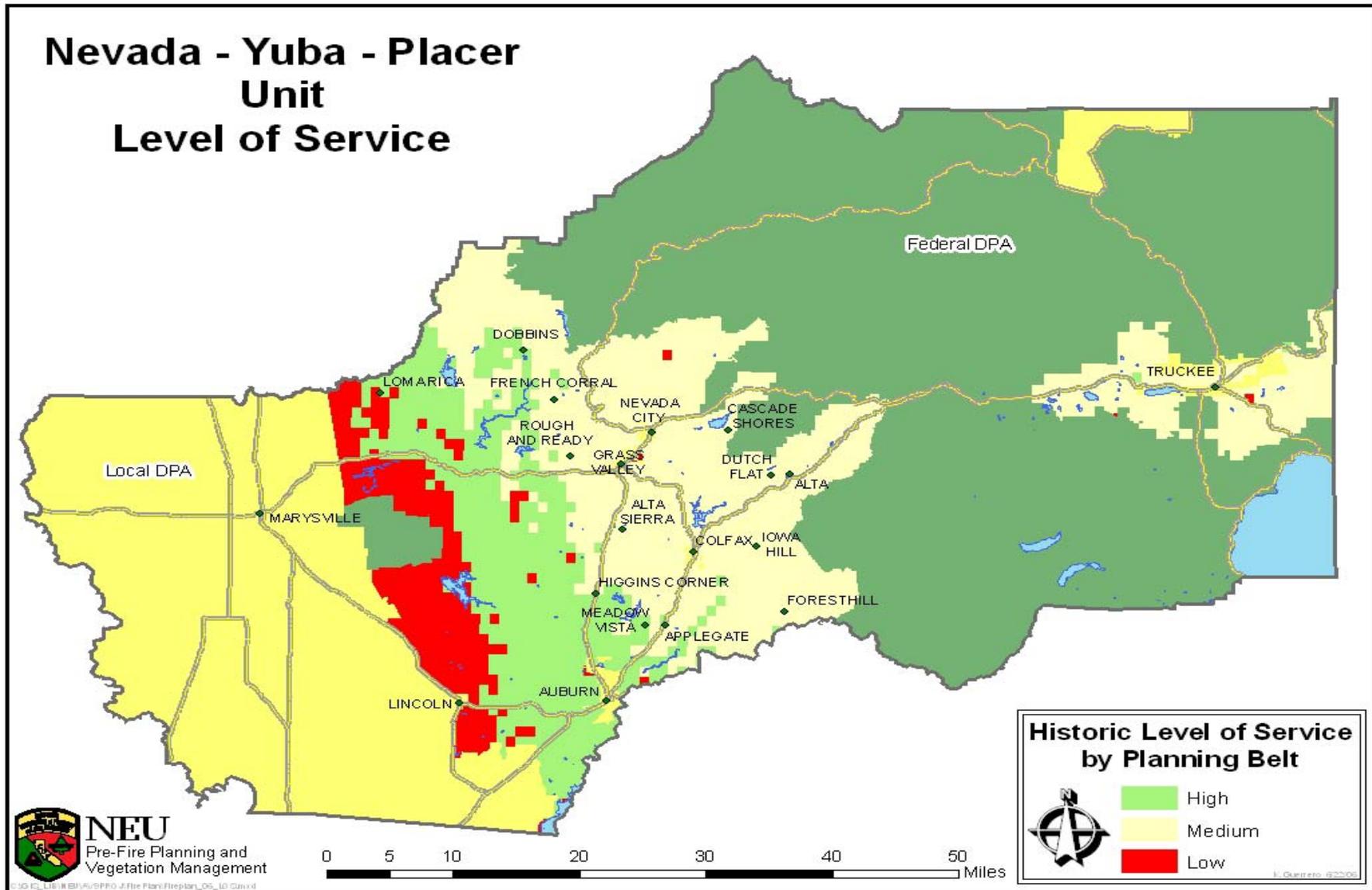


Fig.  
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