Stand Density Index (SDI) – An expression of relative stand density based on the predictable relationship between average tree size and trees per unit area in dense stands. This relationship, independent of both stand age and site quality, provides an excellent basis from which to develop an understanding of the competitive interactions between individuals in a population

% Maximum SDI*	Competitive Interactions
0 – 24% Low density	Less than full site occupancy, maximum understory forage production. No competition between trees, little crown differentiation. Maximum individual tree diameter growth. Minimum whole stand volume growth.
25-34% Moderate density	Less than full site occupancy, intermediate forage production. Onset of competition among trees, onset of crown differentiation. Intermediate individual tree diameter growth. Intermediate whole stand volume growth.
35-55% High density	Full site occupancy, minimum forage production. Active competition among trees, active crown differentiation. Declining individual tree diameter growth. Maximum whole stand volume growth. **Upper range of zone marks the threshold for the onset of density-related mortality**.
56%+ Extremely high density	Full site occupancy, minimum to no forage production. Severe competition among trees, **active competition-induced mortality**. Minimum individual tree diameter and growth, stagnation. Declining whole stand volume growth due to mortality

* Ponderosa pine SDImax basis (450)

SDI Class	Ponderosa Pine SDI
Low Density (0-24% of SDImax)	0 - 110
Moderate Density 25-34% of SDImax)	111 - 155
High Density (35-55% of SDImax)	156 - 248
Extremely High Density (56%+ of SDImax)	249 +

Site Index – A particular measure of site potential, based on the height of the dominant trees in a stand at a chosen age (age 100 for western ponderosa pine). A site index of 100 equals a tree that is 100 years and 100 feet tall. C. Minor's southwestern ponderosa pine site index procedures were used.

Site Class - A measure of the relative productive capacity of a site, based on tree height that is attained or attainable at a given age.

Site Index/Site Class Relationship

Site Class	Site Index Range
1	75 +
2	55-74
3	40 - 54
4	<40

Silvicultural Priority – Relative rating of need for change based on a comparison of the existing condition to the desired condition. Rating of 1 is the highest need for change and rating of 5 the lowest. Those with a rating of NA currently are within an acceptable range.

	SDI Rating		
Site Class	Low	Moderate	High*
1	NA	#3	#1
2	NA	#3	#1
3	NA	#4	#2
4	NA	NA	#5

*High SDI in this table includes both the high and extremely high categories.