PPT Notes for Teachers - Harvest Thinning

#1 Thinning is not the same process as clear cutting. It is carefully planned removal of some of the trees to harvest wood and improve forest health.

#2 Lightning causes about 10% of wildland fires – the others are caused by man intentionally (prescribed fire, arson), carelessly (abandoned campfire) or accidently (equipment that emits sparks, downed electric lines).

#3 Wildfire recurs in natural cycles and thins the forest by killing some of the diseased or smaller trees. It also clears some of the ground fuels, which recycles nutrients back into the soil.

#4 Prescribed fires set by professional foresters are designed for maximum benefit. Such fires "open" the forest so sunlight can reach the soil to encourage more seeds to sprout and grow. This also allows more snow to pile up, and this snow pack is helpful to restore ground moisture. These open areas are habitats for wildlife and help prevent erosion.

#5 Nothing eats dry pine needles! Needles act like mulch and suppress seed germination and they are slow to decompose in our dry climate. Notice how little is growing on the forest floor in the back (untreated) area, compared with the lush grass in the sunlight and deer in the front (treated).

#6 There are several reasons to reduce the overcrowded conditions in our forest, and they all are interconnected (i.e. if we reduce the wildfire danger by harvesting some of the timber, we also improve the health and resiliency of the forest and the wildlife habitats).

#7 You can clearly see where the ground fire burned in front of the house in this photo, but the trees are not burning. The wood deck may have had cones and needles on or under it that acted like tinder and started the structure fire.

#8, #9 These are before and after pictures of my home. Notice how close the trees were growing to the structure, especially on the left and how little grass there was in front of the house before we thinned our mini-forest. After thinning, more grass sprouted within weeks and the fire threat to my home has been reduced, but not eliminated.

#10 Even the small amount of thinning done around my house produced a lot of "woody biomass" that we use for heat.

#11 If you did the lessons on wildfire, point out the "ladder fuels", shrubs and low branches that will carry any fire up into these trees causing a destructive crown fire. There is a lot of fuel available to a wildfire here, but these shrubs also provide wildlife habitat! This is just one of the difficult decisions necessary in forest management planning.

#12 Point out there is nothing on the ground except dry needles. There is a good chance the trees are competing for any moisture and nothing else can grow. There are very few food sources for wildlife here, and many of the trees look skinny and branches are sparse. With no large trees to produce valuable logs, thinning this forest may be too expensive to do.

#13, #14 Thinning is less expensive where there is a large area and equipment can be used. Thinning can leave large quantities of "biomass" on the forest floor that either pose a fire hazard or add the additional expense of cleaning it out. Prescribed fire can be the best, most economical solution in these situations.

#15 This forest is near Deckers, CO. It was thinned and prescribed fire was used to remove any dead or downed fuels. In just a year or two, there is good ground cover, more habitat for wildlife, and healthy trees with room to grow.

#16 – Definition of "Sustainability" and short (<4 min) YouTube, http://www.youtube.com/watch?v=GbVK02P9xCo