resources needed for growth, especially soil moisture. The trees withdrew water from the ground at a growing rate while the average amount of water (from annual rain and snowfall) remained the same. As this problem grew, trees essentially experienced many artificially induced drought years.

3) The long period between fires, coupled with the immensely increased amount of fuel, guaranteed that future fires would be very, very, destructive to the trees, wildlife, and watersheds.

WHAT ARE WE TRYING TO DO?

Ecologists feel that the primeval forests of the park averaged about 60 to 80 large, mature trees per acre, with reproduction limited to small patches scattered throughout the stand. Today, we have many parts of the forest that have 300 to 400 trees per acre, and sometimes many more!
Reproduction is now evenly distributed throughout the forest, but mostly consists of shade loving species, especially white fir and incense cedar even underneath the majestic ponderosa pines. Our goals are to restore normal densities and distributions of all species, and to allow fire to play its historical role in the forest ecology.

WHAT ABOUT THE GIANT SEQUOIAS?

Fire played an important role in the ancient forest, and it was a critical factor in the ecology of giant sequoias; in the absence of frequent fire, there has been a failure of the species to reproduce and the old-growth trees that have naturally toppled and died have not been replaced. The grove is now disappearing – very, very slowly, of course, but if left unchecked, disappearance will be the ultimate and tragic result.

The frequent fires that naturally occurred in sequoia groves before man-made suppression caused the massive release of seeds from the canopy of the big trees – perhaps as many as 200,000 seeds PER TREE! If this rain of seeds occurred under suitable conditions it could result in a carpet of seedlings across the forest floor providing a suitable bank of young trees, some of which would survive to become saplings, some of which would survive to become pole sized trees, until finally one eventually survives to replace the parent tree.

We will be using fire to burn much of the biomass generated by this thinning project; when we start working within the grove itself, we will strategically place the fires in such a way so as to stimulate seed release and (hopefully) successful reproduction.

WHAT HAPPENS NEXT?

Once the structure of the forest has been restored, we intend to maintain the work by putting fire back into its natural role. Deliberately ignited and closely controlled small fires will be set when it can be done safely. Hopefully, in your future visits to the forest you will see a healthy, vibrant, and productive North Grove.

SIERRA NEVADA CONSERVANCY

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