Mr. Cliff. Major changes?

Representative Dellenback. Would you make in forest practices? Mr. CLIFF. First, Congressman, we are not guided by the principle of maximizing timber yields and timber yields only. We are guided by the principle of multiple use which maximizes the total benefits from the national forests, which includes the other resources. I just think we need to be clear there.

Within that framework we do want to maximize timber yields, and the things that would need to be done are completing the access road system, so we have access to the land that needs to be managed, so that

the other land treatments can go forward efficiently.

We need a comprehensive program of reforestation of the remaining lands that need to be reforested, about 67,000 acres in western Washington and Oregon; it is more than that if you include the whole of the two States. We need a strong program of precommercial thinning. In order to maximize growth you have to have control of stocking. The important thing in developing and maximizing growth is to control stocking, which necessitates periodic thinnings, weedings of the young stands, periodic thinnings through to the point where you have commercial thinnings and then you need the commercial thinnings, and the commercial thinning program needs roads to move materials.

I would just like to illustrate in a simple way how this can affect

rotations and allowable cuts.

Under a natural forest condition on site III land in the Douglas-fir region, it takes about 100 years to produce a 16-inch tree. One hundred years to produce a 16-inch tree from scratch, under natural conditions, if you give it no help, no thinning. By controlling the spacing-the growing space for these same trees on this same site-you could produce that same size tree in 50 years, depending on the intensity of the program, or you might even produce the same size tree in a shorter time than that. So the length of the rotation and the response you get in the way of growth depends on the control of stocking primarily, fertilization may come into the picture, but you can influence the length of rotation and in turn the speed at which you can properly replace old growth with new young growth just by the way you invest time and work. But in order to reduce those rotations you have to earn the right to do it by the investment of work and money.

Representative Dellenback. Would this be a sound economic invest-

ment measured in terms of dollars?

Mr. Cliff. Over a great deal of the area we are managing, it would. In some sites, some of our low quality sites it might not. But the study that I mentioned this morning, the Douglas-fir study, we are going to analyze every alternative, including shortening of rotations by 10, 20, and 30 years, of lengthening rotations on the other side, and analyzing the impact it has on the economy and on the production and on other resources. So everybody concerned, the timber people, the recreationists, the water people and the Forest Service will all have a chance to examine the alternatives.

Representative Dellenback. What I think you were very sound in mentioning to Congressman Wyatt was your theory of management of the forests precluded your launching forth into increased cuts until you were actually underway with programs of this type to which you now refer. If you were to start under those programs next