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General Comment: Various emulsifiable concentrate formulations of carbaryl such as Sevin XLR, Sevin SL, Carbaryl 4F and Carbaryl 4L have been used extensively throughout the western United States as a treatment to prevent attack by several species of bark beetles including the mountain pine beetle (*Dendroctonus ponderosae*) the Douglas-fir beetle (*D. pseudotsugae*), the spruce beetle (*D. rufipennis*), the pine engraver beetle (*Ips pini*) and the Pinyon ips (*I. confusus*). Currently, these species of bark beetles are causing significant levels of mortality throughout western coniferous forests. On Federal lands, most of these uses occur in developed recreation areas or administrative sites. On private lands, most of the uses are associated with high-value conifers around homesites. Carbaryl has been an effective treatment to prevent bark beetle attacks on high value trees for more than 25 years. Insecticide treatment remains the only effective method of protecting conifers from bark beetle attack and infestation and the loss of healthy trees. During the massive mountain pine beetle, spruce beetle, and pinyon ips epidemics that continue to kill vast numbers of trees, carbaryl has been the only effective method in protecting high-value trees.

The advantage of using carbaryl treatments within these sites includes its low toxicity to humans. Carbaryl treatments are efficacious for at least 2 years for most of the host type where this insecticide is used.

Although other pyrethroid products are labeled for preventative bark beetle treatments, they require annual applications of the product. Because carbaryl is applied every two years during the course of a bark beetle outbreak, less insecticide is distributed within the treated area during the outbreak cycle. Costs associated with these preventative treatment programs are also significantly reduced due to the every other year treatment cycle compared to an annual application of another bark beetle registered product.

Although this product has been used extensively throughout the west for over 25 years, there have been no adverse human or other non-target effects noted using carbaryl as a preventative treatment. Label directions are strictly enforced by USDA Forest Service personnel during the application process.

Often additional mitigation measures such as fall applied treatments are used to minimize non-target effects. Fall applications are conducted when either the recreation areas are closed or human use has dropped significantly, and non-target activity including pollinators has decreased dramatically from spring/summer levels.

Ground based applications of flowable formulations of carbaryl are point specific because they target only the lower portions of the tree bole using a hydraulic

sprayer. These are not broad based applications affecting a variety of other sites within the treated area similar to those observed if the material was applied using an aerial platform (airplane or helicopter). Often these treatments occur within a limited area encompassing sites less than 10 acres in size.

Removing carbaryl as a preventative treatment for bark beetles would ultimately result in higher costs and heavier concentrations of insecticides used within these high-value sites due to the annual applications required by other registered products.

I strongly recommend that EPA not cancel carbaryl.