

May 11, 2012

Re: Tenderfoot Wood Piles; RCSC-09-12

To: Dennis Yellow Thunder

CC: Brent Foster, Greg Bohls, Mike Shay-Song

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On May 9, 2012, Dennis Yellow Thunder (Natural Resources Technician), Brent Foster (Sales Forester/Timber Program Leader), Greg Bohls (NG Coordinator), Mike Shay-Song (Innovative Readiness Training), Dan Two Bulls (Hydrology Technician), and I visited 8 wood piles in the Black Hills National Forest of South Dakota. The wood piles are located within compartment 305 in the Tenderfoot #1 (western unit) and Tenderfoot #2 (eastern unit) of the Hell Canyon Ranger District (Tenderfoot Creek area northwest of Custer, SD). Logs from these wood piles will be sent to the Pine Ridge Indian Reservation in South Dakota to be used as firewood by the tribal membership. The logs will be cut soon after delivery. There is concern that mountain pine beetles (*Dendroctonus ponderosae*) (MPB) could be transported with the wood.

Charles Harbach (Forestry Technician, Black Hills National Forest) indicated the wood in these piles came from trees cut on or before March 2, 2011 at Tenderfoot #1 and June 14, 2011 at Tenderfoot #2 locations. Trees were cut during regular Forest thinning operations and were not cut as a result of MPB activity.

Observations:

MPB are no longer present in the wood piles and the wood is no longer suitable for MPB to inhabit. MPB exit holes were present on a little over half of the logs in the piles. The other logs show no indication of ever being infested. There is some wood decay and fungal growth under the bark indicating the logs are too old to sustain MPB.

Within 8 wood piles 53 logs were partially debarked to check for MPB presence. No live MPB eggs, larvae, pupae, or adult beetles were found. MPB overwinter mostly as larvae within the inner bark of host trees. Most pupate in late spring, and adults emerge from the bark in midsummer (about early July through August). The tissues beneath the bark where beetles feed were degraded and extensively stained, indicating the beetles have long exited the logs.



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Other observations:

We found a few live flatheaded and roundhead wood borer larvae, which are white, legless grubs, with elongate bodies. We also observed many wide, meandering galleries under the bark and holes in the wood that are typical of these larvae. Emerging adults leave oval (flatheaded) or round (roundhead) exit holes. Most of the logs had numerous exit holes typical of wood borers. These beetles often attack freshly cut timber before it dries and many have exited the wood. These wood borers are native to both the Black Hills and Pine Ridge Indian Reservation in South Dakota, they do not attack healthy trees, and do not kill live trees.

Four logs examined had old pine engraver beetles (*Ips* spp.) galleries (about 8%). No eggs, larvae, pupae, or adult beetles were found. These beetles are often attracted to green slash piles, and rarely cause tree mortality in the area. As with the MPB, the logs are too old to support live pine engravers.

A few small-black-flat beetles (likely click-beetles), fly larvae, and other insects were observed in the logs that do not harm trees.

Conclusions:

- The wood piles examined at the Tenderfoot Creek area on May 9 present no continuing threat regarding the transport of MPB or *Ips* spp.
- These trees were cut about a year ago and held in log piles well after the MPB exited the logs. Some of the logs never contained MPB, and a few were cut after MPB exited the trees.
- Logs infested with live MPB should not be shipped until all beetles have exited the logs, the beetles have died within the logs due to desiccation, or logs are debarked. The wood piles we examined all fit this criteria and are safe to ship.