

Managing Fallen Pine Needles

For generations, residents of forested areas have had to deal with the annual deposition of pine needles on their property. In recent years, questions have been raised about what is the best way to manage this resource.

Are fallen needles a blessing or a hazard? Actually, they can be both. If pine and fir needles fall on bare soil and decompose there, they provide valuable mulch and a source of organic matter, which improves the soil and helps prevent erosion. However, if they build up in large quantities close to structures, they can constitute a fire hazard. Since pine needles can be beneficial or dangerous, resource managers are asking residents to consider the setting and the site conditions before taking action.

For years, residents have heard that fire marshals want them to rake up and dispose of all pine needles on and adjacent to their homes. To some extent, this is a valuable practice. Pine and fir needles should be raked off hard surfaces such as pavement, decks, rooftops, gutters, and gravel-covered surfaces, and removed from the soil within 30 feet of all structures. Fallen branches and pine cones should be picked up throughout the property. For extra protection, surround all structures with fire-safe mulch, such as gravel or river rock, for the first 3 feet to 5 feet from the footings.

On the other hand the area outside the 30 feet of structures, if a property has bare soil, especially on slopes, with no vegetation or mulch, a thin, 1-inch to 2-inch layer of decomposing pine and fir needles can provide valuable mulch to prevent soil erosion and enrich the topsoil.

Decomposition of pine needles and leaves in nature creates a valuable mulch layer on top of soil called "duff." This layer mixes with the bare mineral soil below it and protects it, creating more fertile growing conditions for all plants in the landscape. Healthy plants and protective mulch play an important role in the restoration efforts to protect water quality.

The best practice to a healthy mulch and duff layer is to use a leaf rake to remove only the newly fallen needles each year, leaving the decomposing needles below to be compressed by the snow pack each winter. Remember that pine needles left in place during the winter within 30 feet of structures must be removed by the first property inspection, usually in late May.