



FOREST RECOVERY AND REFORESTATION AFTER CATASTROPHIC EVENTS

FREQUENTLY ASKED QUESTIONS:

Q: Is it always necessary for forest managers to intervene after catastrophic events and promptly recover the area?

A: Active recovery is not always necessary but the professionals in the field can make that determination based on science, management objectives, and experience. Today, the courts often end up making these decisions instead of the trained and experienced natural resources professionals. By giving professionals the discretion to act quickly when necessary, Congress will enable these professionals to do what is best for the forest and the communities that rely on it.

Scientific Reference

Dale VH., Crisafulli CM., Swanson FJ. 2005. 25 Years of Ecological Change at Mount St. Helens. *Ecology* Vol 308, Issue 5724, 961-962.

Sessions, J., R. Buckman, M. Newton, and J. Hamann. 2003. *The Biscuit Fire: Management Options for Forest Regeneration, Fire and Insect Risk Reduction and Timber Salvage*. College of Forestry, Oregon State University, Corvallis, OR. 63 p.

Q: Won't forests hit by catastrophic events come back on their own without assistance from forest managers?

A: Indeed, some forests can regenerate on their own without assistance. However, after wildfires in particular, available seed sources are diminished and it can take decades for forests to come back on their own. In many cases competing brush and invasive species can suppress seedlings, hindering natural regeneration. Additionally, we cannot ignore the needs of humans and wildlife and in many cases quick recovery efforts will help improve forests to meet the needs of communities, rehabilitate watersheds and habitat for wildlife and fish.

Scientific Reference:

Carlton, GC. & Bazzaz, FA. 1998. Resource congruence and forest regeneration following an experimental hurricane blowdown. *Ecology*. 79:1305-1319.

Elliot, KJ., Hitchcock, SL., and Kruger, L. 2002. Vegetation response to large scale disturbance in a southern Appalachian forest: Hurricane Opal and salvage logging. USDA Forest Service, Southern Research Station, Coweeta Hydrologic Laboratory

Hobbs, S.D., S.D. Tesch, P.W. Owston, R.E. Stewart, J.C. Tappeiner II, and G.E. Wells. (Eds.). 1992. *Reforestation practices in southwestern Oregon and northern California*. Forest Research Laboratory, Oregon State University, Corvallis. 465 p.

Q: Are there other reasons in addition to economic reasons to remove dead and dying trees?

A: Science and experience have shown that in many cases, removing dead and dying trees can help improve the forest and its associated values. While removing the dead and dying trees can provide economic benefits, these benefits are often incidental to the environmental benefits such as reducing wildfire risk, insect, or disease threats, and rehabilitating watersheds and habitat for wildlife species that depend on the forest. In some cases, the revenue from harvesting dead and dying trees can help offset the costs of reforestation and restoration work.

Scientific Reference:

Ice, G., D. Neary, and P. Adams. 2004. Effects of wildfire on soils and watershed processes. *Journal of Forestry* 102(6): 16-20.

Ice, G. 2003. Can active forest management benefit water supply systems? In *Proceedings of the American Water Resources Association 2003 International Congress: Water Management for Water Supply Systems*- CD. Pfeffer, M.J., D.J. Abs, and K.N. Brooks [Eds.]. AWRA, Middleburg, VA. 9 p.

Q: Doesn't removal of dead and dying trees after catastrophic events cause additional harm to the forest, such as stream sedimentation and soil disturbance?

A: The professionals in the field can take steps to minimize environmental damage in recovery efforts, using harvesting techniques and best management practices that have been proven to mitigate negative affects. In the short term, recovery efforts can cause some temporary stream sedimentation but usually far less and of shorter duration than the sedimentation that can result if the forest cover is not rapidly restored.

Scientific Reference:

Klock, G. 1975. Impact of five postfire salvage-logging systems on soils and vegetation. *Journal of Soil and Water Conservation* 30(2): 78-81.

McIver, J., L. Starr. 2001. A literature review on the environmental effects of postfire logging. *Western Journal of Applied Forestry* 16(4): 159-168.

Poff, R.J. 1989. Compatibility of timber salvage operations with watershed values. 137-140 in *Proceedings of the Symposium on Fire and Watershed Management*. USDA Forest Service, General Technical Report PSW-109. Pacific Southwest Forest and Range Experiment Station, Berkeley, CA.

Q: Why is timeliness so important to recovery efforts following catastrophic events?

A: Timeliness is important for a variety of reasons. First, dead and dying trees can quickly degrade to the point where they lose all value. When these trees lose value it becomes much more expensive to remove them and federal money is then needed to pay for restoration and reforestation work. Secondly, removing dead and dying trees quickly can reduce wildfire risk and insect and disease threats. If fuels are left on the ground, the potential for a more devastating wildfire or insect and disease outbreak is magnified. Additionally, if timely recovery efforts are completed, the values and benefits people derive from forests are more quickly restored.

Scientific Reference:

Sessions, J., P. Bettinger, R. Buckman, M. Newton, J. Hamann. 2004. Hastening the return of complex forests following fire. *Journal of Forestry* 102(3): 38-45.

Prestemon, JP., Pye, JM., Holmes, TP. 2001. Timber economics of natural catastrophes. Southern Forest Economics Workshop pg132-141

Aho, PE., Cahill, JM. 1984. Deterioration rates of blowdown timber and potential problems associated with product recovery. Gen. Tech. Rep. PNW- 167 Portland, OR. USDA FS.