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Forests on Fire: The Role of Judicial Oversight, Forest Service Discretion, and Environmental Regulations in a Time of Extraordinary Wildfire Danger

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FORESTS ON FIRE: THE ROLE OF JUDICIAL OVERSIGHT, FOREST SERVICE DISCRETION, AND ENVIRONMENTAL REGULATIONS IN A TIME OF EXTRAORDINARY WILDFIRE DANGER

INTRODUCTION

The western United States currently struggles with wildfire conditions, which threaten people and property more than ever before.[1] In 2006, wildfires burned over 9.8 million acres,[2] encompassing an area more than twice the size of New Jersey.[3] Heat,[4] drought,[5] high forest density, and forest mismanagement[6] contribute to the recent increased danger.[7] These factors combine to compromise tree health and increase

1. WHITE HOUSE OFFICE OF COMMUNICATIONS, HEALTHY FORESTS: AN INITIATIVE FOR WILDFIRE PREVENTION AND STRONGER COMMUNITIES 4 (2002) [hereinafter HFI], *available at* http://www.whitehouse.gov/infocus/healthyforests/Healthy_Forests_v2.pdf (noting that wildfires killed nearly 200 firefighters during the last decade. An example of the increased threat is the recent Hayman fire, which "was five times bigger than the previous largest fire in Colorado's modern history, and forced evacuations in over 80 communities." *Id.* In 2002, the Hayman fire and other Colorado wildfires forced 77,000 residents to evacuate for periods of up to several weeks. *Id.* at 5. Thus, wildfires forced more than 1.5 percent of Coloradans to evacuate. *See* Colorado QuickFacts from the U.S. Census Bureau, http://quickfacts.census.gov/qfd/states/08000.html (last visited Jan. 20, 2007) (Colorado population statistics); *see also* Robert B. Keiter, *The Law of Fire: Reshaping Public Land Policy in an Era of Ecology and Litigation*, 36 ENV. L. 301, 302 (2006) (noting "[a] spate of record-setting fire seasons have seen millions of acres burned, hundreds of homes destroyed, numerous lives lost, and multi-million dollar fire suppression bills"). *But see infra* notes 49-62, 73 and accompanying text (discussing the idea that humans cause most of the dangers associated with wildfires). *See also* Forest Guardians, Appeal of the County Line Vegetation Management Project Record of Decision and Environmental Impact Statement Rio Grande National Forest Conejos Peak Ranger District (2005), *available at* http://www.fguardians.org/library/paper.asp?nMode=1&nLibraryID=240 (expressing the view that the government exaggerates the danger).

2. Wildland Fire Statistics, http://www.nifc.gov/stats/fires_acres.html (last visited Feb. 14, 2007).

3. Christopher Smith, *Wildfires Take the Worst Toll in Acreage Since '60*, SEATTLE TIMES, Sept. 14, 2006, *available at* http://seattletimes.nwsource.com/html/nationworld/2003257891_wildfires14.html.

4. EPA: Global Warming: Climate, http://yosemite.epa.gov/oar/globalwarming.nsf/content/climate.html (last visited Jan. 20, 2007) (noting that global warming likely causes the increased temperatures).

5. U.S. Drought Monitor, http://drought.unl.edu/dm/monitor.html (last visited Feb. 14, 2007) (on file with author) (indicating that "severe droughts" currently affect certain areas in each Tenth Circuit state).

6. STEPHEN J. PYNE, FIRE IN AMERICA 242-60 (1997). Likely the most biologically significant element of forest mismanagement in the western United States is fire suppression. *Id.* (noting that the movement toward widespread, comprehensive fire suppression began about a century ago).

7. Keiter, *supra* note 1, at 314-15 (noting that 22,000 communities and over 39 million acres in national forests "face an unnaturally high fire danger" and indicating that many experts define the threat as an "unprecedented forest health crisis"); National Interagency Fire Center, National Year-to-Date Report on Fires and Acres Burned by State (Dec. 17, 2006), http://www.nifc.gov/stats/ytd_st.htm; National Interagency Fire Center, Total Wildland Fires and Acres (1960-2005), http://www.nifc.gov/stats/fires_acres.html (demonstrating that more acres burned in 2006 than any year on record).

the number of trees that are dead and dry.[8] One significant cause of the current high rate of tree mortality is a recent bark beetle infestation.[9] These beetles attack stressed trees, and have killed millions of trees in recent years.[10]

To combat the forest's volatility, President George W. Bush announced the Healthy Forest Initiative ("HFI") in 2002, and Congress enacted the Healthy Forests Restoration Act ("HFRA") in 2003, both of which call for swift action.[11] Both the HFI and HFRA purport to combat wildfire danger by streamlining regulations that control some Forest Service projects.[12] Specifically, the HFI and HFRA allow the Forest Service to forgo environmental analysis before planning, implementing, and completing certain logging projects.[13] Additionally, the directives strip the judiciary of its jurisdiction to hear cases involving some projects.[14] The HFI and HFRA ostensibly aim to protect people, property, and forest health by increasing the Forest Service's ability to quickly and efficiently treat at-risk forests.[15]

Decision makers must balance the restoration of ecosystem health against the safety of people and property. Ecosystems are delicate, dynamic, and dependent on specific elements and events.[16] Modifications to any part of an ecosystem may cause profound consequences.[17] Scientists generally agree that fire is an integral part of most ecosystems.[18] Although ecosystems need fire, many people want to eliminate wildfires because they threaten human safety and property. This presents an espe-

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8. Northern Arizona University Ecological Restoration Institute, Fire Season and Forest Restoration Update (2006), http://www.eri.nau.edu/cms/content/view/702/906/ [hereinafter Fire Season and Forest Restoration Update].

9. *Id.* It is important to understand that bark beetle infestations are natural, cyclical events, which periodically occur in many healthy forests. Therese M. Pollard & Robert A. Haack, *Reading the Lines Under Bark*, ENTOMOLOGY NOTES 25 (1998), *available at* http://insects.ummz.lsa.umich.edu/MES/notes/entnote25.pdf.

10. PAIGE LEWIS ET AL., COLO. DEPT. OF NATURAL RESOURCES, DIV. OF FORESTRY, REPORT ON THE HEALTH OF COLORADO'S FORESTS 2004, SPECIAL ISSUE: PONDEROSA PINE FORESTS 1 (2004), *available at* http://csfs.colostate.edu/library/pdfs/fhr/04fhr.pdf (noting that, in Colorado, the beetle infestation killed "approximately 1.2 million trees" in 2004, "nearly one hundred times the mortality reported in 1996").

11. Healthy Forests Restoration Act of 2003, Pub. L. No. 108-148, 117 Stat. 1887 (2003) (codified as amended at 16 U.S.C.A. §§ 6501-6591 (West 2007)); HFI, *supra* note 1, at 2.

12. 16 U.S.C.A. § 6501; HFI, *supra* note 1, at 2; *see also* Colo. Wild, Heartwood v. U.S. Forest Serv., 435 F.3d 1204, 1209 (10th Cir. 2006) (describing of the relevant regulations).

13. 16 U.S.C.A. § 6514; HFI, *supra* note 1, at 13; *see also Colo. Wild*, 435 F.3d at 1209.

14. 16 U.S.C.A. § 6515.

15. 16 U.S.C.A. § 6501; United States Dept. of Agriculture, Fact Sheet, Making a Difference: Fishlake National Forest – Utah, http://www.healthyforests.gov/projects/state_projects/00-ut-fishlake-nf.pdf (stating that "[i]t was clear that action needed to occur quickly to decrease the threats of uncharacteristically intense and severe wildfires"). *But see* Forest Guardians, *supra* note 1 (noting that many environmentalists are skeptical about the Forest Service's true intentions). "The Healthy Forests Restoration Act of 2003 . . . used forest insect outbreaks as a justification for increasing logging and limiting environmental protections." *Id.*

16. *See generally* ALDO LEOPOLD, SAND COUNTY ALMANAC (1968).

17. *Id.*

18. Keiter, *supra* note 1, at 303.

cially difficult problem because ecosystems are complex and not entirely understood. Ill-conceived projects could eventuate in short-term wildfire relief, while ultimately increasing future danger and causing long-lasting harm to ecosystem health.

This year the Tenth Circuit ruled on four cases concerning Forest Service logging projects promulgated under the HFI and HFRA.[19] These cases are important because they illustrate how the court interprets the recent directives. The Tenth Circuit struggled with the legislation's significant grant of Forest Service deference and recognized that misguided projects may have potentially severe consequences.[20] Each Tenth Circuit case involved projects in forest regions with high wildfire danger, which targeted areas endangered by or susceptible to high tree mortality, caused bark beetle infestation.[21] Therefore, bark beetles are an important element of the litigation. Embedded in the cases is the issue of who should play essential roles in striking the balance between wildfire danger and ecosystem health, i.e., should the Forest Service have unfettered discretion or should courts adjudge the legality of Forest Service projects?

This article explores the relationship between wildfire danger, ecosystem health, bark beetles, agency discretion, and judicial oversight. The purpose of this paper is fourfold. Part I examines the biological and social factors related to wildfires in lodgepole pine ecosystems and ponderosa pine ecosystems, and the bark beetles'[22] role therein. Part II spotlights this issue's timeliness and importance to public policy. Part III scrutinizes recent changes in the law and analyzes the two most recent Tenth Circuit decisions involving logging projects and bark beetles. Part IV articulates a well-reasoned set of rules, which support responsible thinning projects and incorporate black letter law, dicta, and generally accepted science.

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19. The cases are: *Ecology Ctr., Inc. v. U.S. Forest Serv.*, 451 F.3d 1183 (10th Cir. 2006); *Utah Envtl. Cong. v. Bosworth*, 443 F.3d 732 (10th Cir. 2006); *Utah Envtl. Cong. v. Bosworth*, 439 F.3d 1184 (10th Cir. 2006); and *Colo. Wild, Heartwood v. U.S. Forest Serv.*, 435 F.3d 1204 (10th Cir. 2006). When referencing logging or thinning, this paper does not refer to all logging or thinning projects. This paper only addresses pre-fire projects in wildfire prone areas that use recently enacted legislation to avoid environmental regulations and judicial oversight. There are substantial issues regarding post-fire timber salvaging projects. Keiter, *supra* note 1, at 334-36. While it seems dubious that recent jurisdiction-stripping statutes that reduce required environmental analyses are either necessary or beneficial for post-fire projects, that topic is beyond the scope of this paper.

20. *See infra* text accompanying notes 155-98.

21. *Ecology Ctr., Inc.*, 451 F.3d at 1186-88; *Utah Envtl. Cong.*, 443 F.3d at 737-38; *Utah Envtl. Cong.*, 439 F.3d at 1187; *Colo. Wild, Heartwood*, 435 F.3d at 1212.

22. There are many different species of bark beetles, each consuming the bark of one preferred species of evergreen tree. Tom DeGomez & Beverly Loomis, *Firewood and Bark Beetles in the Southwest*, THE UNIVERSITY OF ARIZONA COOPERATIVE EXTENSION, Sept, 2005, at 2, *available at* http://cals.arizona.edu/pubs/insects/az1370.pdf. Differences exist between the species, but the issues involving the species are similar; they kill trees and make forests more susceptible to devastating wildfires. *Id.*

I. THE SCIENCE

This section describes wildfire's role in healthy lodgepole pine forests and ponderosa pine forests. It also illustrates humans' impacts on those ecosystems and explains the problems associated with the wildland urban interface and bark beetles.

A. Wildfires in Healthy Lodgepole Pine Ecosystems and Ponderosa Pine Ecosystems

To understand fire behavior in a healthy forest, one must first recognize the dynamics of a healthy forest. Wildfires play divergent roles in different ecosystems. Some ecosystems need frequent, small fires, and other ecosystems depend on infrequent, large fires.[23] Wildfires are a complicated necessary element of most terrestrial ecosystems.[24] Numerous ecosystems exist in the Tenth Circuit,[25] most of which naturally experience fire.[26] In the Tenth Circuit region, wildfires in lodgepole pine ecosystems and ponderosa pine ecosystems present the most significant risk to people and their property; therefore, this paper focuses on these ecosystems.[27]

1. Healthy Lodgepole Pine Ecosystems

Lodgepole pine ecosystems commonly occur at middle elevations (between 8,000 to 10,000 feet in Colorado).[28] High tree density typifies this ecosystem.[29] Generally, the risk of a large wildfire is high in some tree stands, but low in others.[30] Lodgepole pine seeds open when exposed to fire and flourish in bare, sunny areas, like those recently devastated by a large wildfire.[31] Thus, lodgepole pine regeneration depends on

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23. *See generally* Colorado State Forest Service, Colorado's Major Tree Species, http://csfs.colostate.edu/majortrees.htm (last visited Jan. 20, 2007) (listing the major tree species in Colorado, describing their preferred ecosystem, and indicating their relationship with fire).

24. PYNE, *supra* note 6, at 34-44.

25. Scheidler Center for Science Learning, Mesa State College, Ecosystems of Colorado, http://www.mesastate.edu/schools/snsm/shideler/ecosys.htm (last visited Jan. 20, 2007) (listing Colorado ecosystems as grassland, semidesert shrubland, pinon-juniper woodland, riparian land, montane shrubland, montane forest, subalpine forest, treeline, and alpine tundra).

26. Colorado State Forest Service, *supra* note 23.

27. Wildfires in these ecosystems are the most dangerous due to the ecosystem's size, typical proximity to the wildland urban interface, and the amount of highly combustible fuel.

28. Colorado Natural Heritage Program, Rocky Mountain Lodgepole Pine Forest, http://www.cnhp.colostate.edu/projects/eco_systems/pdf/RM_Lodgepole_Pine_Forest.pdf (last visited Jan. 20, 2007).

29. *Id.*

30. *See infra* notes 32-34 and accompanying text. Younger stands are typically more resistant to events such as bark beetle infestations, while other, older, less vigorous tree stands are unable to resist outbreaks and are more susceptible to fire. *See* Scott Condon, *Bark Beetles Converge on Pitkin County Buffet Table*, ASPEN TIMES, Apr. 25, 2006, *available at* http://www.aspentimes.com/article/20060425/NEWS/104250028&SearchID=7326358606296.

31. 1 RUSSELL M. BURNS & BARBARA H. HONKALA, SILVICS OF NORTH AMERICA 604 (1990), *available at* http://www.na.fs.fed.us/pubs/silvics_manual/volume_1/silvics_vol1.pdf; *Fires and Chainsaws*, THE VOICE FOR THE WILD (Biodiversity Conservation Alliance), Summer 2005, at

large, stand replacing, crown fires for regeneration.[32] The result is a dense, evenly-aged stand.[33] Over time, isolated wildfires result in a mosaic of many tree stands of different ages.[34]

2. Healthy Ponderosa Pine Ecosystems

Relatively few trees populate mature, healthy ponderosa pine forests.[35] This lower elevation ecosystem (generally between 6,000 to 8,000 feet in Colorado)[36] typically contains old trees, which create a high canopy—well above the forest bottom.[37] Grasses, shrubs, and seedling trees, that seldom become large and well-developed, cover the forest bottom.[38] In this ecosystem, wildfires periodically burn the underbrush but seldom reach the forest canopy.[39] Ponderosa pine ecosystem fires burn at relatively low temperatures, generally encompass small areas, and infrequently become catastrophic crown fires.[40] While these low intensity fires rarely affect mature trees, they do suppress undergrowth, thereby reducing competition for mature trees.[41] This promotes the prolonged viability of mature trees, prevents fire ladders from forming, and thins the forest naturally.[42] Today, healthy ponderosa pine forests and lodgepole pine forests are both anomalies in the western United States.[43]

4, *available at* http://www.voiceforthewild.org/general/newsletter/theVoiceforthe Wild_Summer 2005.pdf.

32. Colorado Natural Heritage Program, *supra* note 28 (noting that moderate ground fires do not play a significant role in lodgepole pine ecosystems); *Fires and Chainsaws*, *supra* note 31.

33. BURNS & HONKALA, *supra* note 31, at 608; *Fires and Chainsaws*, *supra* note 31, at 6.

34. *See* Condon, *supra* note 30.

35. Robert L. Peters et al., *Managing for Forest Ecosystem Health: A Reassessment of the "Forest Health Crisis,"* http://www.defenders.org/bio-fh00.html (click on Section 5) (last visited Jan. 20, 2007) (noting that periodic wildfires reduce forest density).

36. Biotic Communities of the Colorado Plateau: Ponderosa Pine Forest, http://www.cpluhna.nau.edu/Biota/ponderosa_forest.htm (last visited Jan. 20, 2007).

37. HFI, *supra* note 1, at 4 (noting that typical ponderosa pine forests were 15 times less dense a century ago).

38. *Fires and Chainsaws*, *supra* note 31, at 4.

39. Biodiversity Assoc. v. Cables, 357 F.3d 1152, 1156-57 (10th Cir. 2004); *see* Peters et al., *supra* note 35.

40. *Biodiversity*, 357 F.3d at 1156-57.

41. *Id.*

42. U.S. Forest Serv., Sustaining Alpine and Forest Ecosystems: Development of Management Alternatives for Fire-Prone and Fire-Dependent Ecosystems in Colorado and the Black Hills, http://www.fs.fed.us/rm/landscapes/Fire/Fuelreduce.shtml (last visited Jan. 20, 2007) [hereinafter U.S. Forest Serv., Sustaining Alpine and Forest Ecosystems] (defining a fire ladder as plant material that is high enough to spread a fire to the forest canopy); *see* Peters et al., *supra* note 35 (click on Section 5).

43. Dominick A. DellaSala et al., *Forest Health: Moving Beyond Rhetoric to Restore Healthy Landscapes in the Inland Northwest*, 23 WILDLIFE SOC'Y BULL. 346 (1995), *available at* http://maps.wildrockies.org/ecosystem_defense/Science_Documents/DellaSala_et_al_1995.pdf; *see also "Forests," in* PAUL HARRISON & FRED PEARCE, AAAS ATLAS OF POPULATION AND THE ENVIRONMENT 127 (2001), *available at* http://atlas.aaas.org/pdf/127-30.pdf (noting that people have logged 95% of the forests in the United States).

B. *Wildfires in Today's Unhealthy Lodgepole Pine and Ponderosa Pine Ecosystems*

Unnaturally high wildfire danger currently threatens lodgepole pine ecosystems and ponderosa pine ecosystems in Tenth Circuit forests.[44] Different factors elevate the danger in each ecosystem, but wildfires in both ecosystems threaten people and property; therefore, similar issues arise.

1. Wildfires in Today's Unhealthy Lodgepole Pine Ecosystems

Probably the biggest problem in lodgepole pine ecosystems in the Tenth Circuit results from a century of fire suppression.[45] Removal of fire from lodgepole pine forests resulted in the lack of a mosaic of variously aged tree stands.[46] One hundred years of broad fire suppression resulted in a high proportion of old trees, because no young trees replaced tree stands consumed by catastrophic fire events.[47] Thus, lodgepole pine forests in the Tenth Circuit are unvarying, uniformly declining in vigor, and simultaneously susceptible to events like bark beetle infestations.[48] Widespread bark beetle infestations, high tree mortality, and extraordinary fire danger mark the aging tree stands in the Tenth Circuit.

2. Wildfires in Today's Unhealthy Ponderosa Pine Ecosystems

The effects on the ponderosa pine ecosystem are equally profound. When settlers came to the Rockies more than a century ago, they could drive a wagon through the old growth ponderosa pine forests.[49] Now, trees are so dense that a person cannot even walk through some of those same forests.[50] In most of the western United States, overdeveloped understories and immature canopies comprise ponderosa pine forests.[51] Years of fire suppression, logging, and grazing have caused this ecological crisis.[52] High tree density, one of the most significant results of the degradation, provides more fuel for wildfires.[53] Consequently, wildfires

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44. *See supra* notes 1-4 and accompanying text.
45. *Fires and Chainsaws*, *supra* note 31, at 4.
46. *Id.*
47. *Id.*
48. Condon, *supra* note 30 (noting that 90% of the trees "are in the aged classification[,]" "the vast majority of lodgepole pines in the state are 100 years of age and older[,] . . . [and] [t]rees more than 80 years old are susceptible to mountain pine beetles").
49. USDA Forest Service - Healthy Forest Initiative, http://www.fs.fed.us/projects/hfi/index.shtml (last visited Jan. 20, 2007).
50. *Id.* (noting that historic, healthy ponderosa pine forests had around 25 mature trees per acre and "[t]oday the same forest may have more than 1,000 trees on the same acre").
51. José F. Negrón & John B. Popp, *Probability of Ponderosa Pine Infestation by Mountain Beetle in the Colorado Front Range*, 191 FOREST ECOLOGY & MGMT. 17, 25 (2004).
52. *Biodiversity*, 357 F.3d at 1156; Peters et al., *supra* note 35 (click on Section 4). But, the Forest Service claims that grazing does not result in dramatically increased wildfire danger. Interview with Mr. Rick Cables, Rocky Mountain Regional Forest Ranger, United States Forest Service, in Denver, Colo. (Oct. 18, 2006).
53. Negrón & Popp, *supra* note 51.

in today's ponderosa pine forests burn hotter and faster, and consume larger areas.[54] Some experts warn that the "risk of catastrophic natural disturbances [such as wildfires] has become probable in many areas."[55] Thus, human impact on forest ecosystems in the Tenth Circuit has caused massive, widespread wildfire susceptibility in lodgepole pine ecosystems and ponderosa pine ecosystems.

C. The Wildland Urban Interface Problem

The wildland urban interface constitutes areas where people build homes and other structures amongst undeveloped vegetation.[56] Humans are moving into forested areas at a dramatic rate, especially in the western United States.[57] This current, dramatic rise in human relocation from cities to wooded areas causes the wildland urban interface to grow.[58] A good example of this migration is the Colorado Front Range, where builders develop approximately 10 acres in or around forests every hour.[59] Mr. Rick Cables, Rocky Mountain Regional Forest Ranger, described the effects of this trend as "homes in a sea of green."[60] This geographic expansion of human population results in an increased number of homes and businesses susceptible to wildfires.[61] The current wildfire danger results directly from a century of mismanaged forests, unfavorable climate conditions, and urban sprawl.[62] Bark beetle infestations compound the problem.

D. The Bark Beetle

The bark beetle is "the most destructive forest insect in western North America."[63] These beetles kill trees, thereby increasing fire dan-

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54. *See Biodiversity*, 357 F.3d at 1156-57.

55. U.S. Forest Serv., Sustaining Alpine and Forest Ecosystems, *supra* note 42.

56. V. C. Radelhoff et al., *The Wildland Urban Interface in the United States*, 15 ECOLOGICAL APPLICATIONS 799 (2005), *available at* http://silvis.forest.wisc.edu/publications/PDFs/Radeloff_etal_ea2005.pdf.

57. FORESTS AT THE WILDLAND-URBAN INTERFACE: CONSERVATION AND MANAGEMENT 3 (Susan W. Vince et al. eds., CRC Press 2005) [hereinafter FORESTS AT THE WILDLIFE-URBAN INTERFACE] (noting that the increase doubled in the past ten years).

58. *Id.* at 3 ("A recent inventory of the nation's land base indicated that 2.2 million acres of rural and open space land were lost to development each year . . . much of this newly developed land had been forested. Urban expansion into the countryside has not only displaced . . . [the] forest, it has also mixed with these rural lands."); Radelhoff, *supra* note 56, at 799 (noting that "39% of all houses" in the "coterminous United States" are in the wildland urban interface); Interview with Rick Cables, *supra* note 52 (stating that "people live in forests now, more than ever").

59. DALE D. GOBLE & ERIC T. FREYFOGLE, WILDLIFE LAW; CASES AND MATERIALS 1148 (Robert C. Clark et al. eds. 2002).

60. Interview with Rick Cables, *supra* note 52 (describing his visual observations of the Colorado Front Range wildland urban interface during flyovers).

61. U.S. Forest Serv., Four Threats – Quick Facts (2006), http://www.fs.fed.us/projects/four-threats/facts/fire-fuels.shtml [hereinafter U.S. Forest Serv., Four Threats].

62. *See supra* Part I.B.1.; *see also* FORESTS AT THE WILDLIFE-URBAN INTERFACE, *supra* note 57.

63. Barbara J. Bentz, *Mountain Pine Beetle Population Sampling: Inferences from Lindgren Pheromone Traps and Tree Emergence Cages*, 36 CANADIAN J. FOREST RES. 351 (2006) (citing R.L.

ger because dead trees dry and become more combustible.[64] A couple of years after a severe bark beetle infestation, a forest can morph into a giant stand of kindling.[65] A few years later, many of the dead trees fall and increase fuel on the forest floor.[66]

Many factors and a long series of events caused the current beetle outbreak in lodgepole pine ecosystems in Tenth Circuit forests. In short, recent elevated temperatures, drought conditions, and high tree density contribute to increased tree stress.[67] Bark beetles target and decimate stressed trees.[68] Stressed trees exude a compound that attracts the beetles.[69] Once a beetle finds a suitable host tree, it emits pheromones, which entice additional beetles.[70] The beetles then consume the inside of the tree's bark, which almost always kills the tree.[71] Most scientists theorize that bark beetle infestations are nature's way of thinning forests that are too dense.[72] The threat of wildfires is a portentous consequence of this cycle.[73] Despite the fact that bark beetles play an important role in forest ecosystems, they are on a collision course with the public policy interests of protecting human safety and property.[74]

The massive scale of bark beetle infestations escalates the magnitude of the problem. Scientific evidence indicates that bark beetles are responsible for more than 20% of tree mortality in some forests.[75] Other research found that bark beetles infested nearly 40% of trees in sample areas.[76] Bark beetle infestations are common in the wildland urban inter-

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Furniss & V.M. Caroline, *Western Forest Insects*, USDA Forest Serv. Misc. Pub. 1339 (1977), *available at* http://www.usu.edu/beetle/documents/2006Bentz_%20MPBTrapping.pdf.

64. Fire Season and Forest Restoration Update, *supra* note 8.

65. *See* Arizona Forest Health, http://ag.arizona.edu/extension/fh/bb_faq.html (last visited Jan. 20, 2007) [hereinafter FAQ].

66. *Id.*

67. *Id.*

68. Negrón & Popp, *supra* note 51, at 23; *see also* Pollard & Haack, *supra* note 9.

69. FAQ, *supra* note 65.

70. *Id.*

71. *Id.*

72. Pollard & Haack, *supra* note 9.

73. *Id.* It is important to understand that bark beetles are one of many causes of wildfire danger; humans are another cause. Fire Ecology Page, http://www.pacificbio.org/Projects/Fire2001/fire_ecology.htm (last visited Jan. 20, 2007) (noting that "[a]pproximately 90% of fires in the last decade have been human-caused, either through negligence, accident or intentional arson"). Arguably, this fact and the trend of human migration into forested areas combine to make humans the primary cause of most wildfires. *See* National Wildfire Coordinating Group, Wildlife Origin and Cause Determination Handbook, National Wildfire Coordinating Group 65 (2005), *available at* http://www.nwcg.gov/pms/pubs/nfes1874/nfes1874.pdf (listing wildfire causes as lightning, camping, smoking, debris burning, arson, equipment use, railroad, children, power lines, cutting, welding, grinding, firearm use, blasting, structures, glass refraction, glass magnification, spontaneous combustion, flare stack, and pit fires).

74. Negrón & Popp, *supra* note 51, at 17.

75. USDA Forest Serv., Sustaining Alpine Forest Ecosystems: Landscape Pathology, Disease Economics, and Impact Assessment (2006), http://www.fs.fed.us/rm/landscapes/Research/Economics.shtml.

76. Appeal of County Line Vegetation Management Project Record of Decision and Environmental Impact Statement Rio Grande National Forest Conejos Peak Ranger District at 12-13, filed Sept. 19, 2005, *available at* http://www.fguardians.org/legal/appeal_county-line-vegetation-

face,[77] thereby compounding the problem to an even greater extent. In the end, these infestations increase the likelihood of wildfires and threaten tens of thousands of people, their homes, and their businesses.[78]

II. PUBLIC POLICY CONCERNS

Why are bark beetles currently at the center of some Tenth Circuit litigation? The answer is simple: they increase fire danger. Addressing wildfire danger is important because: (1) it has economic ramifications for the Forest Service; (2) it may represent an excuse to log forests; and (3) it threatens people and property.[79]

A. Economic Ramifications for the Forest Service

The Forest Service struggles with budgetary problems, losing millions of dollars annually on logging projects.[80] Regulations contribute to these budgetary difficulties.[81] Unnecessary or inefficient regulations may overburden the Forest Service and waste time and money.[82] The Forest Service claims that voluminous statutes, many of which are nearly incomprehensible or contradictory, impede its efficiency.[83] Streamlining the process is appropriate when it ameliorates budgetary problems and

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EIS-rio-grande-forest_9-19-05.pdf [hereinafter Appeal of County Line] (citing T.T. Veblen et al., *Disturbance Regime and Disturbance Interactions in a Rocky Mountain Subalpine Forest*, 82 J. ECOL. 125 (1994)).

77. FORESTS AT THE WILDLIFE-URBAN INTERFACE, *supra* note 57, at 3; DellaSala et al., *supra* note 43, at 353. For example, Colorado's Front Range, the mountainous area just west of Boulder, Denver, and Colorado Springs, has a dramatic bark beetle problem, Negrón & Popp, *supra* note 51, at 18 (noting that bark beetles killed almost half a million trees in 2001, the majority of which were in the Colorado Front Range); U.S. Forest Serv., Sustaining Alpine and Forest Ecosystems, *supra* note 42.

78. HFI, *supra* note 1, at 1.

79. *See* Appeal of County Line, *supra* note 76, at 12-13.

80. *Id.* (stating that logging in the 10th Circuit is essentially never a money-making proposition due to typical tree type, tree size, and costs associated with road construction). *See generally* RANDALL O'TOOLE, REFORMING THE FOREST SERVICE 98-137 (Island Press 1988).

81. Keiter, *supra* note 1, at 337.

82. The basis for this assertion is not costs associated with litigation. It is debatable whether costs of litigation significantly hinder the Forest Service. First, only a small percentage of projects are litigated. Second, if the court enjoins a project, the hindrance is not the regulation, but rather the Forest Service's failure to follow the law. Additionally, litigation costs are minimal in the context of this article's argument, i.e., projects involving pre-fire fuel reduction. Robert Keiter explains:

> Thus far, comparatively little fire-related litigation has involved challenges to pre-fire hazardous fuel reduction projects or suppression policy decisions. In the few reported cases involving challenges solely to hazardous fuel reduction project proposals, the courts have usually sustained agency decisions against NEPA, NFMA, and other claims, finding that the proposals have been adequately analyzed and documented. But when the agencies have sought to justify post-fire salvage logging projects on hazardous fuel removal or disease prevention grounds, the courts have not been as receptive.

Id. at 336.

83. Interview with Rick Cables, *supra* note 52. The government passed these laws over the course of a century, during which time leadership changed, agency goals mutated, and biological understanding morphed. *See generally* Federico Cheever, *The United States Forest Service and National Park Service: Paradoxical Mandates, Powerful Founders, and the Rise and Fall of Agency Discretion*, 74 DENV. U. L. REV. 625 (1997).

poses little environmental risk.[84] Responding to this concern, President George W. Bush and Congress recently decreased the Forest Service's accountability and diminished its responsibility to complete environmental analyses.[85] These efforts to increase Forest Service efficiency probably exceeded the limits of reasonable mitigation of the problem. Diminishing Forest Service accountability creates new, and likely more serious, problems because projects have long-lasting, widespread, and significant effects.

B. Wildfires May Represent an Excuse to Log

The Forest Service's propensity to use wildfire danger and bark beetles to justify the approval of logging projects constitutes another public policy concern.[86] The Forest Service's budget problems provide an incentive to manipulate the classification of projects into categories that allow for abbreviated regulations and no judicial review. Using legislation in this way contradicts the drafters' intent.[87] Legislation should not prevent courts from striking down projects that employ this distortion. Allowing the Forest Service to manipulate statutes in this manner constitutes irresponsible public policy.

C. Danger to People and Property[88]

Wildfires threaten vast portions of the western United States.[89] "A spate of record-setting fire seasons have seen millions of acres burned, hundreds of homes destroyed, numerous lives lost, and multi-million dollar fire suppression bills."[90] In Colorado, 2.4 million acres in the Front Range are "at high risk to catastrophic fire."[91] Wildfires similarly endanger an additional 6.3 million acres in Colorado.[92] Misguided management of this fragile situation could result in billions of dollars of waste, further degradation of habitat, and destruction of sensitive plant

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84. *See infra* Part IV.A. (detailing circumstances when an abbreviated process is rational). Streamlining the process is sometimes beneficial because laws related to fire are "an uncoordinated and fragmented welter of organic statutory provisions, environmental protection mandates, annual budget riders, site-specific legislation, judicial decisions, policy documents, management plans, and diverse state statutory prohibitions." *See* Keiter, *supra* note 1, at 303-04. A primary example of a circumstance that warrants this streamlined process is thinning projects in the wildland urban interface. *See infra* Part IV.A.

85. *See infra* Part III.B.2.

86. Forest Guardians, *supra* note 1.

87. Employing this legislation to approve projects where wildfires do not significantly endanger people or property represents using bark beetles as a smokescreen to log. Both cases addressed in this paper involve proposed logging projects in forests that are far from any significant human population. *See* RandMcNally, http://randmcnally.com/ (click on "online maps," type in "Cedar City, UT," zoom into magnification level 5) (showing that Fishlake National Forest and Dixie National Forest are not in close proximity to any communities).

88. *See supra* notes 1-10 and accompanying text.

89. *See* U.S. Forest Serv., Four Threats, *supra* note 61.

90. Keiter, *supra* note 1, at 302.

91. U.S. Forest Serv., Sustaining Alpine and Forest Ecosystems, *supra* note 42.

92. *Id.*

and animal species.[93] The end result of mismanagement could be the emergence of even higher wildfire volatility and amplified threats to people and property.[94]

In order to mitigate the threat to people and property, Congress must fully understand the potential ramifications of its legislation. It is equally important that Forest Service projects fall within the parameters of legislative intent. If a Forest Service project is not consistent with the legislative intent, courts should enjoin the project. Solving this problem requires a prudent analysis that protects short-term interests and ensures long-term ecological health, both of which eventuate in the protection of people and property.[95]

III. THE LAW

By scrutinizing administrative standards, statutes, and recent Tenth Circuit cases, this section illustrates the amount of deference that courts give Forest Service decisions and explains the Forest Service's role in creating regulations.

A. Administrative Review

Before delving into applicable statutes and recent Tenth Circuit decisions regarding logging in beetle-infested and wildfire-endangered areas, one must understand the relevant administrative framework. The Forest Service provides input during the legislative drafting process and writes the administrative appeals regulations, both of which define the legality of its own actions.[96] A Forest Service official approves logging

93. U.S. Forest Serv., Four Threats, *supra* note 61.

94. For example, if the Forest Service logs in a manner that prevents a healthy, mature canopy with few fuel ladders, fire danger will increase over time. *See generally* Press Release, Tom DeGomez, Forest Health Specialist, University of Arizona, Status of the Pine Bark Beetle Outbreak in Arizona (Feb. 7, 2006), *available at* http://ag.arizona.edu/extension/fh/news_releases/06_23_04.pdf. Examples of projects that fail to effectively mitigate wildfire volatility exist in the Tenth Circuit. *See* Ecology Ctr., Inc. v. U.S. Forest Serv., 451 F.3d 1183, 1187 (10th Cir. 2006) (describing a proposal that included logging aspen stands, which bark beetles do not infest); DellaSala et al., *supra* note 43, at 346. *See generally* National Forest Protection Alliance, *Myths and Facts About Logging National Forests*, http://www.rso.cornell.edu/snrc/documents/NFPA_MythsFacts.pdf (last visited Jan. 20, 2007).

95. This article focuses on methods that seem feasible for large-scale governmental implementation. Many solutions seem plausible for smaller scale treatments, such as those on an individual's property. USDA Forest Serv., Mountain Pine Beetle: Solar Treatment Kills Mountain Pine Beetles in Pine Logs, Sustaining and Alpine and Forest Ecosystems http://www.fs.fed.us/rm/landscapes/Solutions/Pinebeetle (last visited Jan. 20, 2007). These methods generally require significant expenditures of time and money, but may be practicable for property owners. *See id.* (stating that these techniques include solarization, which is essentially cutting down infested trees and wrapping them in plastic; thus, trapping the bark beetles); DeGomez & Loomis, *supra*, note 22. This creates a greenhouse-like environment where temperatures exceed 160 degrees. *See* FAQ, *supra* note 65. Pesticides are effective against trees that are not already infested, but they are toxic to many animals in addition to bark beetles. *Id.* Finally, traps exist that capture beetles after attracting them via pheromones. Bentz, *supra* note 63, at 351-52; *see* FAQ, *supra* note 65 (noting that traps are not currently practical for controlling beetle populations, but suggesting that researchers may develop a trap that could decrease the beetle population).

96. *See* Colo. Wild v. U.S. Forest Serv., 435 F.3d 1204, 1209-10 (10th Cir. 2006).

permit sales.[97] If a party files a complaint against the Forest Service, a Forest Service official hears the petition and adjudges the legality of the Forest Service plan or action.[98] During this petition, the Forest Service official has discretion to interpret applicable statutes.[99] The Tenth Circuit recently commented on the problematic outcome of this process:

> The demonstration of compliance with the applicable regulatory regime heightens the transparency and legitimacy of the Forest Service when it dons multiple hats: it is the institution that issues the legal provision, the institution that is subject to the provision, and the institution charged with the power to interpret the provision.[100]

During the administrative appeal, plaintiffs sometimes face the nearly insurmountable task of proving to the Forest Service that it broke a rule that it created and freely interprets.[101] The plaintiff's next hurdle involves the judicial appeals process, in which the appellate court[102] gives strong deference to the Forest Service's administrative decision.[103] This procedure is favorable to the Forest Service and detrimental to the plaintiff.[104]

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97. *See Ecology Ctr.*, 451 F.3d at 1195.

98. *See id.*

99. Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837, 865 (1984).

100. *Ecology Ctr.*, 451 F.3d at 1195.

101. *See Colo. Wild*, 435 F.3d at 1214. In all four cases on which this paper focuses, the Forest Service ruled in its own favor, finding no merit in the plaintiff's claims. *Ecology Ctr.*, 451 F.3d at 1184; Utah Envtl. Cong. v. Bosworth, 443 F.3d 732, 740 (10th Cir. 2006).

102. Olenhouse v. Commodity Credit Corp., 42 F.3d 1560, 1564 (noting that in the 10th Circuit, a trial court is functionally analogous to an appellate court when reviewing an administrative decision).

103. *Chevron*, 467 U.S. at 842-43 ("When a court reviews an agency's construction of the statute which it administers, it is confronted with two questions. First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. If, however, the court determines Congress has not directly addressed the precise question at issue, the court does not simply impose its own construction on the statute, as would be necessary in the absence of an administrative interpretation. Rather, if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute."); *see also* Colo. Envtl. Coal. v. Dombeck, 185 F.3d 1162, 1170 (10th Cir. 1999) (noting that the deference is applied in special force, "especially when that interpretation involves questions of scientific methodology").

104. *Utah Envtl. Cong.*, 439 F.3d at 1188 (noting that courts review decisions by the Forest Service under the Administrative Procedures Act and courts will only set aside a Forest Service decision if it is a "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." (citing 5 U.S.C.A. § 706(2)(A) (West 2007))); *see also* Jon A. Souder & Sally F. Fairfax, *Arbitrary Administrators, Capricious Bureaucrats, and Prudent Trustees: Does it Matter in the Review of*, 18 PUB. LAND & RESOURCES L. REV. 165, 168-69 (1997) (citing MARTIN SHAPIRO, WHO GUARDS THE GUARDIANS (1988)) (espousing a very critical view of the review process and characterizing it as involving "idiot" and "lunacy" standards). This paper does not suggest that the administrative process' inherent flaws approach idiocy or lunacy. However, the system does provide potential avenues that remove checks and balances on Forest Service interests. This framework should heighten the court's responsibility of ensuring that agencies act within the boundaries of relevant statutory guidelines.

Thus, the Forest Service helps create partisan laws that are inherently discretionary and self-regulatory.[105] Since courts usually defer to Forest Service administrative decisions,[106] this process creates a system fraught with biased decision-making and inequality of powers.[107] Therefore, in order to guard against abuses of power, courts must be prudent when assessing whether projects comply with laws.[108] While the Forest Service is afforded generous deference, it still must comply with statutes such as NEPA and NFMA.

B. Pertinent Statutes and Directives

1. NEPA and NFMA: The Environmental Movement[109]

In the 1970's Congress acknowledged the importance of careful environmental analysis for Forest Service projects, such as logging projects, by enacting The National Environmental Policy Act of 1970 ("NEPA") and The National Forest Management Act of 1976 ("NFMA").[110] These Acts address "the Forest Service's well-documented penchant for harvesting commercial timber" by creating a procedural and substantive framework for agency projects.[111] NEPA and NFMA require the Forest Service to complete environmental analyses and restrict projects with significant impacts.[112] Most litigation over Forest Service projects involves these acts.[113] Therefore, this section illustrates some specific requirements of NEPA and NFMA.

NEPA is a procedural statute that requires agencies, including the Forest Service, to consider and publicly disclose an action's impacts and alternative projects.[114] NEPA's goals are "[t]o declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man[.]"[115] To accomplish these goals, NEPA compels federal agencies to analyze the environmental impacts of "major Federal actions significantly affecting the quality of the human environment[.]"[116] Ini-

105. *Colo. Wild*, 435 F.3d at 1213 (noting that the Administrative Procedure Act's arbitrary and capricious standard is narrow). HFI and HFRA compound this problem by reducing the opportunity for judicial review. *See infra* Part III.B.2.

106. *Colo. Wild*, 435 F.3d at 1213.

107. *See Ecology Ctr.*, 451 F.3d at 1195.

108. One of the biggest problems with HFI and HFRA is that they remove this judicial oversight in some circumstances. *See infra* Part III.B.2.

109. Additional statutes such as the Endangered Species Act also control Forest Service actions. *See* Keiter *supra* note 1, at 333.

110. *Id.* at 332-33.

111. *Id.*

112. *Id.* at 333.

113. *Id.*

114. 42 U.S.C.A. § 4321 (West 2007).

115. *Id.*

116. 42 U.S.C.A. § 4332; *see also* Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 332-33 (1989).

tially, an agency must take a "hard look"[117] at the project's environmental effects and evaluate its impact by performing an Environmental Assessment.[118] An Environmental Assessment must provide "sufficient evidence and analysis" and determine if the action will significantly affect the environment.[119] If an Environmental Assessment indicates no significant effects, NEPA requires no additional analysis.[120] If the agency finds that a proposed action may have significant environmental effects, it must perform an Environmental Impact Statement.[121] In addition to establishing an environmental procedural framework for agency actions, NEPA established the Council on Environmental Quality ("CEQ"), an advisory council appointed by the President.[122] Reporting to the President, the CEQ develops and recommends national environmental policies, reviews federal programs, conducts investigations, and may institute amendments to NEPA.[123]

NFMA is a substantive statute, which controls agency actions, including the Forest Service, and places restrictions on land management.[124] NFMA designates National Forests for "multiple use" and requires that Forest Service projects ensure a "sustained yield."[125] In order to insure that its goals are met, NFMA requires the use of the "best available science."[126] NFMA demands that decisions are based on "current information and guidance,"[127] which rely upon "[c]omprehensive evaluations . . . [of] ecological conditions and trends that contribute to sustainability."[128] NFMA requires the Forest Service to identify and monitor populations of specific species,[129] called "management indicator spe-

117. *See Ecology Ctr.*, 451 F.3d at 1189.

118. *Utah Envtl. Cong.*, 443 F.3d at 736 (citing 40 C.F.R. § 1508.9 (2005)).

119. *Id.* (quoting 40 C.F.R. § 1508.9 (2005)).

120. 40 C.F.R. § 1508.9(a)(1) (2005).

121. 40 C.F.R. § 1508.9(b) (2005); *see infra* Part III.B.2 (describing the recent legislation that deregulates requirements to perform Environmental Impact Statements and Environmental Assessments in some situations).

122. 42 U.S.C.A. § 4342 (West 2007); Clean Air, http://www.whitehouse.gov/ceq/aboutceq.html (last visited Jan. 20, 2007).

123. 42 U.S.C.A. § 4344 (1)-(8) (West 2007). *See generally* Clean Air, *supra* note 122. The CEQ is empowered to amend NEPA. 40 C.F.R. § 1504.1(c). In fact, CEQ has recently decreased NEPA's strength by creating "categorical exclusions" which allow some Forest Service thinning projects to proceed without environmental regulations. *See* Fact Sheet, Administrative Actions to Implement the President's Healthy Forests Initiative December 12, 2002 at 3-4, *available at* http://www.whitehouse.gov/ceq/hfi_usda-doi_fact_sheet_12-11-02.pdf. The effects of these categorical exclusions are discussed in depth in Part III.B.2.

124. 16 U.S.C.A. § 1604(a) (West 2007).

125. 16 U.S.C.A. § 1604(e)(1). Multiple uses include timber, so long as its harvest is sustainable. *Id.*

126. 36 C.F.R. § 219.6(a)(3)(b)(iii) (2005).

127. 36 C.F.R. § 219.3 (2003).

128. 36 C.F.R. § 219.6(a)(1) (2003).

129. In order to satisfy this requirement, the Forest Service must use quantitative data. 36 C.F.R. § 219.6 (2003).

cies,"[130] which indicate a project's overall effects on the health of the entire ecosystem.[131]

2. HFI and HFRA: The Jurisdiction-Stripping Movement

Widespread, deadly, and destructive fires devastated the western United States at the turn of the twenty-first century and President Bush reacted.[132] With the stated goal of increasing agency efficiency and suppressing wildfires, the President announced the HFI.[133] While the HFI was not substantively significant, it had great procedural significance.[134] The HFI effectively dissolved many NEPA requirements by adopting the CEQ's new categorical exclusions for fuel reduction thinning projects up to 4,500 acres for high-risk areas outside the wildland urban interface[135] and small, live tree harvests.[136] The categorical exclusions establish an avenue for the Forest Service to avoid performing an Environmental Impact Statement and an Environmental Assessment.[137] Some categorical exclusions are subject to an "extraordinary circumstances" limitation, which precludes situations that may cause a "significant environmental effect[.]"[138] The statutory definition of categorical exclusions also requires that a project have no significant cumulative or individual environmental effect.[139] The HFI also weakened the judicial appeals process by restricting the parties who may appeal project decisions, restricting appeals of categorical exclusions, and eliminating certain types of appeals altogether.[140] Professor Robert Keiter recently summarized HFI as

130. 36 C.F.R. § 219.19(a)(1) (2003).

131. *Id.*; *Utah Envtl. Congress*, 439 F.3d at 1188.

132. Keiter, *supra* note 1, at 332.

133. *Id.* at 337-39.

134. 40 C.F.R. § 1508.4 (2005); *Colo. Wild*, 435 F.3d at 1209. This also results in the lack of a public release of environmental analysis and potential alternative projects. *Id.*; *see also* U.S. Forest Service Manual § 1909.15(30.3) (2004).

135. U.S. Forest Service Manual § 1909.15(31.2)(10) (2004) (noting that no more than 1000 of those acres can employ mechanical thinning).

136. *Id.* The Forest Service may harvest healthy tree stands up to 70 acres or may thin dead tree stands up to 250 acres and avoid environmental regulation and judicial oversight. *Id.*

137. 10 C.F.R. § 51.21-22; *Colo. Wild*, 435 F.3d at 1209. Altogether, Forest Service regulations stipulate 24 categorical exclusions, most of which are quite reasonable. *See* U.S. Forest Service Manual § 1909.15(31.2) (2004) (listing current categorical exclusions). Circumstances with limited effects such as trail construction, utility line maintenance, native plant regeneration, and so on, should remain categorical exclusions.

138. 40 C.F.R. § 1508.4 (2005). Extraordinary circumstances also switch the burden of proof.

139. *See infra* note 166 (defining cumulative effects). It is problematic that categorical exclusions, by definition, have no cumulative impact, because common sense dictates that some categorical exclusions must have a cumulative effect. For example, a 4500-acre thinning project promulgated under a categorical exclusion (which could be adjacent to multiple other 4500 acre thinning projects promulgated under a categorical exclusion) would most definitely have a cumulative impact on the environment.

140. There is some doubt as to whether the Healthy Forest Initiative will survive intact. *See* Keiter, *supra* note 1, at 340-42; *see also infra* note 179.

"a targeted assault on the basic legal framework governing forest management in the name of efficiency and safety."[141]

In 2003, Congress followed the President's lead by passing the HFRA. The HFRA was a collaborative effort that addressed some environmental concerns, but like the HFI, it removed judicial oversight from some Forest Service actions and eliminated the requirement for certain environmental analyses.[142] The HFRA dedicated over three quarters of a billion dollars[143] to achieve its purpose of "reducing wildfire risk to communities, municipal water supplies, and other at-risk Federal land through a collaborative process of planning, prioritizing, and implementing hazardous fuel reduction projects[.]"[144] Similar to the HFI, the HFRA supported expedited judicial review and the CEQ's categorical exclusions.[145] While HFRA does provide the environmental upshot of protecting endangered species and creating a tree diameter cap,[146] these environmental protections are insignificant when compared to the harm that may result from HFRA's jurisdiction stripping and deregulation of environmental analysis. Professor Robert Keiter summarized the problematic effects of HFI and HFRA:

> [T]he public land agencies are no longer directly accountable for their fire-related management decisions. The principal legal accountability mechanisms--the NFMA planning standards, NEPA environmental analysis requirements, ESA consultation mandates, and related administrative and judicial review opportunities--have all been modified in the name of managerial efficiency. At the planning level, the Forest Service's revised NFMA rules have eliminated NEPA compliance from planning level decisions and jettisoned key biodiversity and other management standards, thus effectively insulating most fire-related and other forest planning decisions from judicial review. At the project level, under the HFRA and the Healthy Forests Initiative reforms, NEPA and NFMA compliance obligations have been significantly curtailed too. Add on the recent ESA consultation reforms and revised administrative appeal regulations, and the agencies face few explicit legal constraints when making important fire-related management decisions, as well as little likelihood of administrative or judicial intervention.[147]

141. Keiter, *supra* note 1, at 343 ("It is hard to see these reforms as anything other than an overt effort to significantly reduce judicial oversight opportunities by removing substantive legal mandates from forest management and eliminating NEPA-based procedural requirements from the planning process."). *Id.*

142. *See* 16 U.S.C.A. § 6501 (West 2007).

143. 16 U.S.C.A. § 6518.

144. 16 U.S.C.A. § 6501.

145. 16 U.S.C.A. §§ 6514-6516.

146. Keiter, *supra* note 1, at 344-45.

147. *Id.* at 368-69.

NEPA, NFMA, HFI, and HFRA all assert a goal of promoting forest health,[148] although they attempt to achieve this goal in quite disparate manners. NEPA and NFMA empower environmental ideals by requiring analyses and accountability.[149] HFI and HFRA eliminate requirements for environmental analysis, reduce judicial oversight, and weaken NEPA and NFMA.[150] The President and Congress agree that an integral part of promoting forest health includes the elimination of conditions that lead to catastrophic wildfire danger.[151] They attempt to achieve that goal by deregulating the Forest Service and increasing its discretion. A deregulated Forest Service with significant discretion enacted the blanket fire suppression philosophy, which contributed to the current predicament.[152] Granting the Forest Service that responsibility again could eventuate in the same results—mismanagement and disaster. Legislation should not restrain courts from ensuring that the Forest Service complies with the law. Rather, courts should probe the reasoning behind Forest Service projects. In a recent, classic deference case, *Utah Environmental Congress v. Bosworth*,[153] the Tenth Circuit was unwilling to examine the subject matter of the case and thus, failed to probe the Forest Service's reasoning.[154]

C. *Tenth Circuit Cases*

1. *Utah Environmental Congress v. Bosworth*[155]

a. Facts and Procedural History

In *Utah Environmental Congress*, the plaintiff challenged a 123-acre thinning project.[156] The project, which treated bark beetle infested trees in Utah's Fishlake National Forest, was not located in the wildland urban interface.[157] The Forest Service approved the project pursuant to the Forest Service's categorical exclusion for thinning projects on small parcels.[158] The Forest Service proceeded without public comment or

148. *See* 16 U.S.C.A. § 1604 (West 2007); 16 U.S.C.A. § 6501 (West 2007); 42 U.S.C.A. § 4321 (West 2007); HFI, *supra* note 1, at 1.

149. *See supra* Part III.B.1.

150. *See supra* Part III.B.2.

151. *See* 16 U.S.C.A. § 1604(a) (West 2007); 16 U.S.C.A. § 6501 (West 2007); 42 U.S.C.A. § 4321 (West 2007); *see also* HFI, *supra* note 1, at 1.

152. Keiter, *supra* note 1, at 306.

153. 443 F.3d 732 (10th Cir. 2006).

154. *Id.* at 738-40.

155. *Id.* at 732.

156. *Id.* at 735.

157. *Id.* It is noteworthy that this logging project was not likely to reduce wildfire danger to humans. It was in an unpopulated area far from communities. *See supra* note 87 and accompanying text. The Forest Service claims that this project guarded human interests by protecting watersheds. *See* Interview with Rick Cables, *supra* note 52. But, considering the project's small size and isolated location, its connection to protecting people and property against wildfires seems attenuated. *See supra* note 87.

158. *Utah Envtl. Cong.*, 443 F.3d at 735.

disclosure of alternative projects.[159] The plaintiff, Utah Environmental Congress, claimed that the Forest Service violated the Administrative Procedure Act's requirement of a cumulative effects analysis and NEPA's public comment and disclosure requirement.[160] The Forest Service rejected the petition.[161] Both the district court and the Tenth Circuit Court of Appeals affirmed, holding that the categorical exclusion was appropriate, no extraordinary circumstances existed, and HFRA allowed the preclusion of public comment and disclosure of alternatives.[162]

b. Tenth Circuit Rationale

The Tenth Circuit avoided considering the subject matter of this case by deferring to the Forest Service administrative decision.[163] The opinion enunciated the rule that lower courts may not fail "to consider an important aspect of the problem" and must consider "relevant facts."[164] The court addressed the possibility that the proposal would have cumulative effects.[165] The opinion cited the definition of cumulative effects as follows:

> [I]mpact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.[166]

The court reasoned that logging projects on small parcels could not have a cumulative effect because, "[b]y definition, . . . a categorical exclusion does not create a significant environmental effect; consequently, the cumulative effects analysis required by an environmental assessment need not be performed."[167]

Considering the extraordinary circumstances exception to categorical exclusions,[168] the court conceded, "it may be conceptually possible for a large number of small projects to collectively create conditions that could significantly affect the environment."[169] The court acknowledged that "the degree of the potential effect of a proposed action on . . . resource conditions" determines whether there are extraordinary circum-

159. *Id.* at 740.
160. *Id.*
161. *Id.* at 739.
162. *Id.* at 735.
163. *Id.* at 739.
164. *Id.* (citing Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983)).
165. *Id.* at 740-41.
166. *Id.* at 740 (citing 40 C.F.R. § 1508.7 (2005)).
167. *Id.* at 741 (noting that cumulative impacts are synonymous with cumulative effects).
168. *Id.* at 740-41.
169. *Id.* at 741.

stances.[170] The court stopped short of assessing the big picture and entertaining the idea of carving out a new exception for thinning to mitigate wildfire danger.[171]

c. Discussion and Recommendations

This case makes some of the effects of the recent legislation readily apparent. By removing some regulatory constraints, HFRA allowed the Tenth Circuit to avoid examining potential environmental concerns. Rather than recognizing that (1) thinning projects may increase dramatically in beetle-infested areas, and (2) those thinning projects may have a considerable effect, the Tenth Circuit's circular reasoning[172] gave deference to the Forest Service administrative court's technical aptitude and summarily dismissed the claim.[173] Thus, the court sidestepped the possibility that many small projects may combine to have a cumulative effect.

Courts may add additional extraordinary circumstances to the list if those circumstances have some "significant effect."[174] Therefore, the court could have continued its analysis of significant effects.[175] The court should have considered the significance of effects more broadly when it examined extraordinary circumstances. Wildfires threaten millions of acres.[176] Frequently, treating these at-risk areas is the best course of action.[177] Therefore, numerous projects may ensue.[178] The combined effects of these numerous projects may be significant. Employing reasoning and accepted science, the court should have recognized that the combined impact of potential projects could be significant.

The Forest Service creates the list of extraordinary circumstances; thus, it can add a new type of project to the list of extraordinary circumstances. The Forest Service should create a new class that includes small parcel logging projects in remote areas[179] that attempt to mitigate wildfire

170. *Id.* at 743.

171. *See id.*

172. *See supra* note 166 and accompanying text (quoting the Tenth Circuit's circular reasoning).

173. *Utah Envtl. Cong.*, 443 F.3d at 735.

174. *See id.* at 735-38; *Colo. Wild*, 435 F.3d at 1211 (noting that the list is not all-inclusive and "extraordinary circumstances include, but are not limited to" a list of circumstances).

175. *See supra* notes 162-71 and accompanying text.

176. *See supra* notes 1-4 and accompanying text.

177. *See infra* notes 215-22 and accompanying text.

178. The President and Congress expressed the goal of increased logging to mitigate wildfire danger. *See, e.g.*, Keiter, *supra* note 1, at 344-45 (noting that the legislature suggests aggressively removing trees in order to reduce fire danger).

179. "Remote areas" are outside the wildland urban interface. A logical definition of a "remote area" is a roadless area. Roadless areas contain "no provision for the passage of motorized transportation and which is at least 100,000 acres in extent." 25 C.F.R. § 265.1 (2005). It is noteworthy that laws affecting roadless areas might be in flux. The Clinton Administration provided environmental protections for roadless areas. These protections dissipated quickly under George W. Bush's administration, but Bush's efforts to reduce protections in roadless areas may prove unsuccessful. "A federal court [] struck down President Bush's effort to undo protections for roadless forests and reinstated President Clinton's Roadless Area Conservation Rule. The Clinton roadless rule protects

danger related to bark beetle infestations.[180] The number of acres affected by the beetles and the possibility of numerous ill-conceived land management strategies necessitates this new exception. The new class would increase the chance of long-term ecological success by requiring environmental analysis. Since the Forest Service drafts the regulations, it would be most efficient for it to create the exception. If the aforementioned analysis does not persuade the Forest Service, Congress should add the new class. If both the Forest Service and Congress fail to create the exception, the Tenth Circuit should exercise its power to do so by interpreting extraordinary circumstances.

2. *Ecology Center v. United States Forest Service*[181]

a. Facts and Procedural History

This case involved a larger-scale tree density reduction project in Utah's Dixie National Forest.[182] No categorical exclusion applied to the project because it encompassed 11,835 acres, 552 acres of which were subject to clear cutting.[183] The forest was in a state of degradation.[184] Its high tree density yielded unhealthy trees and high wildfire danger.[185] Thus, the benefit of agency action[186] seemed apparent. The plaintiff, Ecology Center, filed a petition claiming that the Forest Service did not assess its proposed action using the "best available science."[187] Once again, the Forest Service rejected the petition, but in this case, the Tenth Circuit enjoined the project.[188]

b. Tenth Circuit Rationale

In assessing the Forest Service's decision, the Tenth Circuit noted that while affording deference to the lower court, "our inquiry must 'be searching and careful.'"[189] The opinion then asserted that higher courts

about one-third of the acreage in National Forests from most logging and road construction." Newsroom, Center for Native Ecosystems, http://www.nativeecosystems.org/newsroom (follow "Clinton Roadless Rule Reinstated" hyperlink) (last visited Jan. 20, 2007). In addition to reintroducing NEPA's requirement for environmental analysis, public disclosure, and public comment, this recent issuance of a nationwide injunction against projects using Bush's regulatory scheme could restrict future logging projects in roadless areas. *See generally* Earth Island Inst. v. Ruthenbeck 459 F.3d 954, 966 (9th Cir. 2006); Earth Island Inst. v. Pengilly, 376 F. Supp. 2d 994, 1004 (E.D. Cal. 2005).

180. The creation of the new class of extraordinary circumstances would not be necessary if Congress amended HFRA. *See infra* note 237.

181. 451 F.3d 1183 (10th Cir. 2006).

182. Ecology Ctr. v. Russell, 361 F. Supp. 2d 1310, 1312 (D.C. Utah 2005).

183. *Ecology Ctr.*, 451 F.3d at 1187.

184. *Id.* at 1186.

185. *See id.* at 1187.

186. Agency action does not just mean a logging project. Even though the NFMA and HFI focus primarily on mechanical thinning, prescribed or controlled burns are also effective agency actions. These actions are frequently preferable because, in addition to thinning the forest, they return nutrients to the soil.

187. *Ecology Ctr.*, 451 F.3d at 1195.

188. *Id.*

189. *Id.* at 1183 (citing Marsh v. Or. Natural Res. Council, 490 U.S. 360, 378 (1989)).

generally submit to lower courts when evidence is "legitimately conflicting," but this presumption is rebuttable and "the agency action may be overturned."[190] In the court's "careful search" it found no "legitimately conflicting" information as to the Forest Service's failure to consider the "best available science."[191] In fact, the court indicated that the logging plan departed from what the Forest Service recognized as the "best available science."[192] The location of the proposed project is habitat for the Northern Goshawk.[193] Under the NFMA and the Dixie Forest Plan, the Forest Service has a duty to take special care to ensure the hawk's viability.[194] Further, the Northern Goshawk is a "sensitive species" and the Dixie Forest Plan stipulates the goshawk as a management indicator species.[195] The Forest Service did not include the Northern Goshawk as a management indicator species, thereby failing to satisfy the legislation.[196] Next, the court addressed the meaning of best available science.[197] While noting that no black letter definition exists, the court explained that the Forest Service must use "the most accurate, reliable, and relevant . . . good-science" data.[198]

c. Discussion and Recommendations

Creating a clear, concrete definition for best available science would provide effective guidelines for responsible forest thinning. Therefore, courts should adopt a bright line rule defining best available science as that which restores overall forest health and reduces the threat of catastrophic fire in the wildland urban interface.[199] Specifically, the rule should be the product of carefully inspecting scientifically legitimate data. The rule would allow removing dead or dying trees and thinning smaller tees in dense forests in the wildland urban interface. This would provide the Forest Service with guidance, which could result in more predictable judicial outcomes and more efficient procedures. Further, by conforming to these guidelines, the Forest Service would likely benefit from decreased litigation. Of course, the guidelines would be dynamic and capable of changing as science evolves.

190. *Id.* at 1188-89.
191. *Id.* at 1188.
192. *Id.* at 1193-94.
193. *Id.* at 1186 (citing Inland Empire Pub. Lands v. U.S. Forest Serv., 88 F.3d 754, 759 (9th Cir.1996)). The Northern Goshawk population is dramatically decreasing and in 2002 the population was between 20-30 hawks. *Id.* at 1187.
194. *Id.* at 1186 (citing *Inland Empire*, 88 F.3d at 759).
195. *Id.*
196. *Id.* at 1195.
197. *Id.* at 1194.
198. *Id.*
199. The rationale for the definition of best available science parallels the rationale for the categorical exclusion proposed *infra* Part V.A.

IV. VIABLE SOLUTIONS: CREATING STANDARDS THAT INCORPORATE LAW, SCIENCE, AND RATIONALITY

Any proposed solution will likely cost money; therefore, a paramount issue is who should pay. Many people believe that individuals who assume the risk of living in wildfire-prone areas should not benefit from the government subsidization of an inherently dangerous lifestyle choice that degrades the environment.[200] This argument begins with the idea that people living in mountainous, forested areas subject themselves to a greater chance of encountering a wildfire.[201] Therefore, these people should pay their own way via increased insurance premiums, higher taxes, or privatized thinning projects.[202] This concept analogizes individuals living in the wildland urban interface to those living on a flood plain or a coastal area that is overly susceptible to hurricanes.[203] People living in those at-risk areas generally pay increased insurance premiums.[204] States sometimes use their police power to impose restrictive zoning in especially at-risk areas.[205] Maybe homeowners in the wildland urban interface should be subject to similar regulations. This deincentivization may deter relocation into fire-prone areas and could promote movement back to urban areas. The fact that a significant number of endangered homes are second homes in mountain resort areas strengthens this argument, i.e., why should the majority of taxpayers who cannot afford to live in the mountains subsidize the wealthy few who can afford to live in the mountains? Many would argue that common people should not be forced to subsidize an obviously dangerous, ecologically degrading, and expensive luxury.

Though compelling, this argument faces significant hurdles.[206] The government would have to implement it prospectively; thus, it would address only future wildfire threats, and not the current threat. The imposition of immediate, significant economic requirements on individuals living in at-risk areas could threaten those people's livelihoods. Gradual administration would not generate enough money to immediately combat the problem and would be a less effective deterrent. Thus, the idea of

200. *See* DellaSala et al., *supra* note 43, at 354; *see also All Things Considered: Bark Beetles Spark Western Wildfire Threat* (National Public Radio broadcast July 15, 2006), http://www.npr.org/templates/story/story.php?storyId=5560058).

201. *See* DellaSala et al., *supra* note 43, at 354.

202. *Id.*

203. *Id.*

204. *Id.*

205. Keiter, *supra* note 1, at 382-83.

206. States depend on many at-risk areas for tourism revenue. Increased taxes, insurance, and privatized thinning projects could significantly impact already skyrocketing lodging, food, and ski lift ticket prices. This may deter tourists. States and powerful political groups would disapprove of this consequence. Finally, a tremendous number of people live in at-risk areas. In fact, some studies indicate that nearly 4 out of every 10 homes are in the wildland urban interface. Radeloff et al., *supra* note 56, at 799. Resort areas are commonly at-risk for wildfires and many of the residents are politically powerful and wealthy. This group, dominant in both numbers and status, could represent a formidable opposition to the imposition of a new fiscal burden.

paying one's own way for a luxury and the concept of deterring undesirable activities should be a part of the long-term solution. However, solving the immediate problem requires additional measures.

Developing workable options for immediately mitigating the wildfire danger must begin with the recognition that the problem directly results from past mistakes.[207] In an executive press release prior to the adoption of the HFI, President Bush attributed the current problem of "unnaturally extreme fires" to "a century of well-intentioned but misguided land management."[208] The President called for "[r]enewed efforts to restore our public lands to healthy conditions" and implied the need for wise and forward-thinking land management.[209]

Despite acknowledging the failures of "well-intentioned but misguided land management" of the past, the HFI states that careful analysis of current management results in "needless red tape and lawsuits."[210] The President emphasizes the urgency of wildfire management, and claims that an immediate, anticipatory attack is necessary to defeat wildfire risk.[211] He states "it is imperative that we act quickly."[212] While this situation is urgent, it seems wise to support action that is rational as well as rapid.[213] Hasty actions are likely to give rise to long-term failure, which could endanger future generations. Prospective, yet rapid actions that employ foresight are superior to rash decisions. Decision makers must not repeat the mistakes of past "well-intentioned but misguided land management[.]"[214] The HFI is flawed because increased knowledge and long-term efficacy is worth a little time and effort; therefore, most projects should involve judicial oversight and in-depth environmental analysis of agency actions.

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207. HFI, *supra* note 1, at 4; DellaSala et al., *supra* note 43, at 346.

208. HFI, *supra* note 1, at 1; Peters et al., *supra* note 35 (click on Executive Summary) ("The record of past mistakes shows that forest management must be redesigned to protect forest ecosystem health if the nation's forests are to sustainably provide us with economic benefits . . . Rather than legislate ill-advised, wholesale measures to cut more trees -- the very thing that caused many existing problems with forest ecosystem health -- the nation needs a coordinated, ecosystem-focused strategy that uses appropriate restoration techniques based on the best available science and carefully evaluated as to environmental impacts.").

209. HFI, *supra* note 1, at 1.

210. *Id.* at 1-2.

211. *Id.* at 10.

212. *Id.*

213. This article recognizes the urgency posed by wildfire danger, but suggests a less frantic approach. Natural threats are cyclic and the bark beetle infestations may lose momentum naturally. A good comparison by analogy is the fire danger caused by the dwarf mistletoe infection in the Rocky Mountains nearly ten years ago. *See generally* Kurt F. Kipfmueller & William Baker, *Fires and Dwarf Mistletoe in a Rocky Mountain Lodgepole Pine Ecosystem*, 108 FOREST ECOLOGY & MGMT. 77-78 (1998). Just as many people were bracing for a fight against the mistletoe, its danger declined dramatically. Another example is the Blue Mountain's recovery from western spruce budworm and Douglas-fir tussock moth outbreaks. Peters et al., *supra* note 35 (click on Section 3) ("Even in areas where disease or insect outbreaks are occurring, natural recovery is often relatively rapid.").

214. HFI, *supra* note 1, at 1.

After being carefully analyzed, acceptable projects should employ practices that incorporate established methods for reducing risk. Experts agree that reducing catastrophic fire danger in the wildland urban interface requires removing excess fuel, especially dead, highly combustible trees.[215] "A good rule to remember is '[i]f the tree is brown cut it down, if in doubt cut it out.'"[216] Research indicates "that a combination of thinning and prescribed burning, developed as elements of a site-specific treatment, can effectively restore . . . forests."[217] "Such treatments can [] decrease the severity of natural or human-caused fires."[218] Many environmental groups agree:

> Some areas of forest -- particularly those dry forest types that have been most altered as a result of past logging, livestock grazing and fire suppression -- have become so dense with smaller trees that fire cannot be safely or successfully reintroduced without first reducing fuel loads. In overly dense stands, thinning some of the smaller trees from below the tree canopy has potential to facilitate fire's return and thereby improve forest ecosystem health.[219]

Forest management tools include natural fire, prescribed fire, and elimination of grazing.[220] Additionally, experts agree that preventative measures can limit bark beetle infestations.[221] The first step towards preventing bark beetle infestations is decreasing tree density via thinning.[222] These scientific statements demonstrate that that thinning sometimes increases forest health while protecting people and property.

Despite this evidence, some environmental groups advocate a do-nothing approach.[223] This argument begins with the premise that legislation such as HFI and HFRA is not acceptable because laws should require environmental analysis and judicial oversight.[224] Courts should hold the Forest Service accountable for following the law, analyzing

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215. The reintroduction of fire into its natural role is preferable, but the balancing act of protecting people and property and allowing fires to burn in the wildland urban interface is precarious. When the reintroduction goes bad, it can be devastating. Recent examples of fire's danger to the wildland urban interface include a prescribed burn near Los Alamos, New Mexico that nearly overtook the city in 2000 and the 2003 wildfires in southern California, which destroyed 3,600 homes and killed 24 people. Keiter, *supra* note 1, at 310-11. Therefore, while the vast majority of people agree that blanket fire suppression is bad, incautious reintroduction is similarly dangerous. Consequently, a well-reasoned balance between reintroduction and selective suppression seems essential.

216. Press Release, Tom DeGomez, *supra* note 94.

217. Fire Season and Forest Restoration Update, *supra* note 8.

218. *Id.*

219. Peters et al., *supra* note 35 (click on Section 5). *See generally* Front Range Fuels Treatment Partnership (FRFTP), http://www.frftp.org/ (last visited Jan. 20, 2007) (providing information about the Colorado State Forest Service's fuels reduction efforts).

220. *See* FAQ, *supra* note 65.

221. Press Release, Tom DeGomez, *supra* note 94.

222. *Id.*

223. Appeal of County Line, *supra* note 76, at 9-10.

224. *Id.* at 9.

environmental impacts, and publicly disclosing findings.[225] At this point in the analysis, the do-nothing approach is well-reasoned, but some environmental groups choose to focus on issues other than protecting human safety and property from wildfires.[226] Some of these groups advocate minimal government protection for property located in the wildland urban interface.[227] They only support protecting property located in significant population centers.[228] Their argument contends that individuals who choose to live in dangerous areas assume the inherent risks associated with their choice of residence and they should be on their own to deal with the consequences.[229] Contrary to this contention, judicial precedent and public sentiment indicate that deterring this danger is tremendously important.[230] Many environmental groups seem to gloss over this fundamental issue and avoid aggressively addressing the wildfire threats to human safety and property.[231] Failing to focus on this threat is a fatal flaw that renders the do-nothing approach unfavorable.[232] Therefore, in addition to proposing a new extraordinary circumstance[233] and defining best available science,[234] this article acknowledges that the Forest Service should sometimes selectively thin at-risk forests in the wildland urban interface.[235]

Well-reasoned thinning of certain at-risk forests, is preferable, but difficult to describe comprehensively. The starting point for such a definition should be the goals expressed by Congress and the President: pro-

225. *Id.* at 6 (asking the court to follow Congress's intention, as expressed in NEPA and NFMA, which requires environmental analysis and mandates taking a "hard look" at potential impacts).

226. Forest Guardian argues that the government exaggerates the fire risk due to beetle infestations, wildfires may be desirable, and thinning will not reduce wildfire threat. *Id.* at 12-16. Despite the fact that these arguments likely have biological merit, they are flawed because they do not address the reality that a few short years ago, Tenth Circuit judges, potential jurors, and politicians watched the Hayman fire on the nightly news and breathed its smoke all summer. Further, the fact that many decision makers have property in threatened areas decreases their chance for success. Arguably, environmental groups would be more successful if they recognized their audience and acknowledged that protecting people and property is paramount.

227. *Id.*

228. *All Things Considered*, *supra* note 200 (interview with Sloan Shoemaker of Colorado's Wilderness Workshop, where Shoemaker suggested that homeowners, not government, should bear the risk and assume the responsibility of living in areas with high wildfire danger).

229. *Id.*

230. Appeal of County Line, *supra* note 76, at 8-10.

231. *Id.* Courts are concerned with the underlying issue of protecting people and property against wildfires. Forest Guardians' argument would be more persuasive if it addressed mitigating the danger in an ecologically responsible manner rather than focusing on the percent of trees cut down and the effects on beetle populations. *Id.*

232. Keiter, *supra* note 1, at 316 (supporting a similar conclusion, "[o]ver the long term, these all-or-nothing approaches will not reliably restore ecologically healthy forests or safeguard adjacent communities. Thus, the real policy debate is over how and where to use prescribed fire and selective cutting to reduce fuel loads, ensure human safety, and restore forest ecosystems.").

233. *See supra* Part III.C.1.c.

234. *See supra* Part III.C.2.c.

235. *See infra* Part IV.A. But, one should remember that prescribed fires are sometimes the most effective solution to this problem, so long as they do not significantly endanger people and property.

tect human safety, protect property, and increase forest health.[236] A logical approach to solving this dilemma involves two phases. Phase I addresses pre-fire projects, which mitigate wildfire conditions in the wildland urban interface by removing dead, dry trees. Phase I addresses the most urgent threats and its goal is reduction of wildfire danger to people and property in the wildland urban interface. Phase II responds to all other projects that address pre-fire fuel reduction projects. The goal of these projects is to combat less urgent threats to people and property and increase forest health.

Currently, the HFI and HFRA markedly increase the Forest Service's efficiency for projects in both proposed phases, but the price for the efficiency is too high. The Forest Service should not have such broad discretion for these projects because there is no general consensus as to the most effective method for protecting people and property from wildfires and restoring forest health. Therefore, Congress should amend the HFRA and reduce the scope of categorical exclusions.[237] Congress should reinstate environmental analysis for the most impactful and expansive actions currently listed as categorical exclusions. Additionally, Congress should amend the HFRA and restore judicial oversight for all Forest Service plans, even those that remain listed as categorical exclusions.[238] This is important because it would reestablish accountability for Forest Service actions and ensure that the Forest Service serves the goals of protecting people and property and restoring forest health.

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236. *See* HFI, *supra* note 1, at 1.

237. This congressional remedy is timely because of the current political landscape. HFI and HFRA were both the product of Republican control of the Executive Branch, the House of Representatives, and Congress. The newly elected Democratic Congress may be more amenable to protecting environmental ideals. "Democrat Barbara Boxer is replacing Republican James Inhofe as chairman of the Senate Environment and Public Works Committee[.]" Froma Harrop, Red Orbit – Science – Commentary – At Last, U.S. Might Act on Global Warming, Red Orbit Breaking News, December 21, 2006, *available at* http://www.redorbit.com/news/science/776929/commentary__at_last_us_might_act_on_global_warming/index.html?source=r_science. Political changes such as these could mean that Congress will amend the HFRA. Congress should remove the expansive categorical exclusions enacted by HFRA and explicitly reestablish judicial oversight. If Congress desired maintaining some Forest Service discretion, it could allow for judicial review of agency regulations, but not for specific agency actions. Thus, petitioners could not challenge individual projects, but could challenge the rules that create the framework for the projects.

238. The effect of restoring judicial oversight for the plans described in this article would be de minimis because little litigation challenges pre-fire logging projects similar to these. *See supra* note 82.

A. Phase I Projects: A New Categorical Exclusion[239]

Congress should create a new categorical exclusion for projects of urgency so great that a new categorical exclusion is appropriate. These few circumstances occur when the environmental effects of projects are well-known, the risks of inaction are significant, the window for effective action is brief, and the costs associated with analysis are high.[240] One of the circumstances that should be a categorical exclusion is selectively removing dead and dying trees in the wildland urban interface.[241] This categorical exclusion aims to protect people and their property.[242] When implementing these projects, the rules would require the Forest Service to utilize specific methods that increase forest health, decrease fire danger, and minimize environmental effects. Further, the rule would employ limitations similar to those on current categorical exclusions. For example, the rule would require the Forest Service to comply with the Endangered Species Act.

This categorical exclusion should incorporate significant guidelines. Most important, the Forest Service should initially commence projects close to areas with significant value, such as population centers—the higher the population, the higher the priority. Next, the Forest Service should initiate projects near other valuable areas, such as ski resorts and campgrounds. After treating forests directly adjacent to these locations, the projects should continue into the forest, creating wildfire barriers. If possible, the Forest Service should not construct new roads.[243] It stands to reason that populated, at-risk areas already contain roads. If no road

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239. Implementation of Phase I Projects would cost a significant amount of money, but mitigation of catastrophic fire danger in the wildland urban interface would offset some of the costs. In addition to spending significant capital on wildfire disaster relief every year, the government spends billions of dollars fighting fires. Reduction of fire danger would result in a reduction of fire fighting expenditures. In fact, some studies indicate that implementation of projects similar those suggested in Phase I would actually save the government money. *See* Larry Mason et al., *Investments in Fuel Removal Avoids Public Costs*, RTI FACTSHEET 28: RURAL FOREST COMMUNITY ISSUES, May 2004, *available at* http://www.ruraltech.org/pubs/fact_sheets/fs028/fs_28.pdf.

240. These circumstances exist when there is a general consensus about the environmental effects of the project and concerns for safety are high.

241. Standing dead trees are vitally important for wildlife; therefore, a predetermined number of dead trees should remain. A Snagging Issue – National Wildlife Federation, http://habitat.thecolumbiarecord.com/default.asp?item=182340 (last visited Jan. 20, 2007) (noting that "dead or downed trees in various states of decay - provide vital habitat for as many as 1200 species of wildlife nationwide. Despite the importance of snags to wildlife, many modern forestry practices encourage the removal of dead wood from the forest floor.").

242. It is important to note that thinning in areas already affected by bark beetles does not effectively reduce bark beetle populations, but it does reduce fire threat by removing highly combustible fuel. Press Release, Tom DeGomez, *supra* note 94. After bark beetles infest a tree, they kill it and move on to the next tree, so removing a tree only reduces bark beetle populations if the tree is currently infested and if it is then burned or solarized. *Id.* Thus, the first at-risk category only addresses wildfire risks linked to bark beetles, because it will not decrease bark beetle populations. *Id.*

243. There may exist situations where insignificant road additions, like turnouts or loading areas would be necessary, but the Forest Service should mitigate any such disturbances once the project is complete; thus, allowing the forest a greater chance of recovery.

exists, it is unlikely that thinning will significantly protect the wildland urban interface.

As a general rule, this categorical exclusion should not apply to trees that do not pose a significant wildfire threat. For example, bark beetles do not infest aspens and aspens pose a very low fire threat.[244] Thus, the Forest Service should not log aspen trees under this categorical exclusion. Finally, there should be a diameter limit for removed trees. For example, the rule would prohibit the Forest Service from removing trees with a diameter greater than twelve inches.[245] This would remove the economic incentive to abuse the categorical exclusion. In other words, these projects would be unattractive money makers because smaller trees are worth very little. This would help ensure that the Forest Service does not dress up a timber sale as crisis intervention. Finally, these projects would be useless if the forest was not allowed to return to its natural state. Therefore, when practicable, the Forest Service should allow the reintroduction of fire and disallow grazing.

The immediate treatment of localized bark beetle outbreaks (i.e., when the beetles are still in the tree) serves as another example of an appropriate project under this categorical exclusion. If the Forest Service treats such infestations in a timely manner, it can kill the bark beetles by cutting down and burning the infested trees.[246] This does involve cutting down a high percentage of trees in the affected area, but these trees would succumb to the bark beetles, anyway. These areas generally encompass a small geographic region; thus, a project is quite localized.[247] Burning the trees kills the beetles and, thus, stops them from attacking other trees. The opportunity to execute this type of project is uncommon, but sometimes quite valuable.[248] Regulations requiring in-depth analyses prevent these projects because the Forest Service has only 120 days until the beetles emerge from the trees to find and kill new host trees.[249] The rule would require the Forest Service to complete a program Environmental Assessment, which would determine the general effects of potential future projects. This requirement would provide environmental safeguards, while allowing rapid agency response to localized outbreaks.

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244. *Fire and Chainsaws*, *supra* note 31, at 5 (stating that "aspen stands are fire resistant); Saskatchewan Forest Centre, A Guide to Managing Community Wildfire Risk, *available at* http://www.saskforestcentre.ca/uploaded/Guide_to_Managing_Community_Wildfire_Risk.pdf (noting that "[a]spen stands are one of the least volatile fuel types)."

245. The Forest Service should leave some large dead trees standing. They are important wildlife habitat for animals such as cavity nesting birds and predatory birds. *See generally Cavity-Nesting Birds of North America*, Agricultural Handbook 511 (United States Forest Service; Department of Agriculture, Washington, D.C.) November 1977, *available at* http://www.na.fs.fed.us/spfo/pubs/wildlife/nesting_birds/.

246. Interview with Rick Cables, *supra* note 52.

247. *Id.*

248. *Id.*

249. *Id.*

B. Phase II Projects

Pre-fire fuel reduction projects that respond to less significant threats to people and property comprise Phase II.[250] These projects consist of essentially any pre-fire fuel reduction projects not covered under Phase I. Within the context of Phase II projects, environmental regulations and judicial oversight are more important than Forest Service efficiency. No categorical exclusions apply to these projects; compliance with NEPA and NFMA is worth the sacrifice of agency efficiency. Thus, the jurisdiction stripping and deregulatory effects of HFI and HFRA should not apply to these projects.

These projects respond to a less considerable threat, but the projects may still be important because they respond to threats to people, property, and forest health. Therefore, the Forest Service may proceed with Phase II projects, so long as they comply with NEPA and NFMA. When considering appropriate agency action in these areas, the proposed rule would require the Forest Service to consider a range of alternatives including thinning, prescribed burning, or no treatment at all. The proposed rule would also require the Forest Service to consider a hands-off approach, which would allow some wildfires to burn naturally since ecosystems recover from even the most catastrophic fire events.[251] A great example of this is Yellowstone, where the ecosystem is recovering miraculously following the 1.5 million acre fire of 1988.[252] The rule would require Forest Service thinning projects in Phase II forests to attempt to replicate natural events, thereby making the forest less susceptible to future bark beetle outbreak and catastrophic, widespread wildfires. An example of a project included in this phase is live tree thinning inside and outside of the wildland urban interface. These projects are useful because they decrease tree competition and can eventuate in healthier, more resistant trees.[253]

C. Proposed Rules' Impact on the Tenth Circuit

The proposed rules would impact litigation over logging projects and general logging practices in the Tenth Circuit. These changes would reinstitute judicial oversight and most environmental analysis eliminated by HFI and HFRA. Had such regulations been in effect, they would have prevented the Forest Service from using a categorical exclusion in

250. Phase I projects purposefully exclude dead tree removal outside the wildland urban interface and live tree thinning inside the wildland urban interface because the threat they pose fits within Phase II.

251. Yellowstone National Park – Wildland Fire in Yellowstone (U.S. National Park Service), http://www.nps.gov/yell/naturescience/fire.htm (last visited Jan. 20, 2007).

252. *Id.*

253. Some basic guidelines include removing the trees after October if possible, burning or covering infected trees with plastic, and removing thrash from the forests. *See* Press Release, Tom DeGomez, *supra* note 94 (describing effective methods for removing dead, infested, or overly dense trees).

Utah Environmental Congress v. Bosworth.[254] The project occurred in a very remote location; the closest population center was 22 miles away in Richfield, Utah.[255] Richfield's population is fewer than 7,000 people.[256] The proposed rule would require environmental analysis for such projects because they do not pose an immediate threat to person or property and they may have a cumulative effect. The new rule would have had no affect on *Ecology Center, Inc. v. United States Forest Service*.[257] That case did not involve a categorical exclusion.[258] The plaintiffs filed the action because the Forest Service's clear omission of Northern Goshawk as a management indicator species represented a failure to consider best available science.[259] The result of the case would remain unchanged under the proposed rules because the Forest Service action would still represent a failure to consider the best available science.

The proposed rules re-empower the courts and individuals who wish to file a complaint. Additionally, the proposed rules require reinstitution of most environmental regulations. These rules also strengthen environmental regulations by requiring the Forest Service to consider the combined effects of many small projects. The proposed rules allow streamlined, prophylactic treatment of some at-risk areas in the wildland urban interface to continue. Therefore, projects near areas with significant value would be cheaper and faster. These projects would help curb wildfire dangers in many communities, but they would do so under the constraints of a framework that supports long-term forest health.

In the end, the proposed rules recognize situations that warrant speedy action with abbreviated regulatory processes, but they limit these situations. The rules also recognize the congressional and presidential goals of protecting people, property, and forest health. Finally, the proposed rules do not limit the Forest Service's ability to conduct any logging projects; they simply subject the Forest Service to judicial oversight and require the Forest Service to comply with environmental regulations. The Tenth Circuit would benefit from the rules because of the positive effects on human safety, protection of property, and forest health.

CONCLUSION

There is a general consensus that the government should protect people and property and rehabilitate forest ecosystems. Conditions in lodgepole pine and ponderosa pine ecosystems render unnaturally extreme and widespread fire danger, which threaten people and property.

254. 443 F.3d 732 (10th Cir. 2006).
255. *Utah Envtl. Congress*, 443 F.3d at 737-38.
256. Richfield, Utah, http://www.citytowninfo.com/places/utah/richfield (last visited Jan. 20, 2007).
257. 451 F.3d 1183 (10th Cir. 2006).
258. *See Ecology Ctr.*, 451 F.3d at 1185-88.
259. *Id.* at 1195.

These forests could actually erupt into massive fires, encompassing millions of acres, and releasing the energy equivalent of atomic bombs. However, current forest dynamics make the goals of protecting people, property, and forest health very difficult. Protection requires rational land management, but authorities disagree about how to best solve the problem.

President Bush and Congress support a solution that seems destined for failure for two reasons. First, stripping the judiciary of its jurisdiction to adjudicate Forest Service actions is unwise because it creates unfettered Forest Service discretion. Second, blanket removal of the requirement to perform certain environmental analyses forebodes the reoccurrence of past failures. There are situations in which Forest Service projects should be streamlined, but those situations are limited and should be closely monitored so as to avoid their misapplication. These situations must provide a compromise between environmental issues like protecting intact ecosystems, legal issues such as maintaining jurisdiction, agency issues like retaining some discretion, and policy issues like protecting the wildland urban interface.

The Forest Service must take some action to mitigate wildfire danger. Wildfires threaten huge areas and scientists predict that devastating wildfires are probable in many forests. Many of the endangered forests are near homes and businesses. Congress should bridge the gap between science and the law by creating laws that mitigate the ramifications of a century of forest degradation. Long-term sustainability of forest ecosystems and the return to healthy forests requires careful adherence to rational standards, rather than reactive, unchecked, short-sighted actions. Therefore, careful, selective thinning in areas where humans and their property are at risk is the most reasonable course of action. This protects the public from wildfires and envisions the future. The Tenth Circuit should require Forest Service projects to comply with the legislative intent of protecting people, property, and forest health. The proposed definition of best available science, a new extraordinary circumstance, and amendments to the list of categorical exceptions would satisfy the public policy interest of protecting people and their property.

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