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## THE MOUNTAIN PINE BEETLE: HOW FOREST MISMANAGEMENT AND A FLAWED REGULATORY STRUCTURE CONTRIBUTED TO AN UNCONTROLLABLE EPIDEMIC

*David J. Willms\**

### INTRODUCTION

During the late 1990s, a tiny insect began ravaging the forests of the Rocky Mountain West, leaving in its wake millions of acres of ghost forests<sup>1</sup> and presenting forest managers and policy makers with the unenviable task of mitigating one of the greatest impacts to western forests in recorded history. The mountain pine beetle is endemic to lodgepole pine dominated forests of the western United States and Canada. For generations, the beetle has quietly killed mature trees and left their remains<sup>2</sup> to provide valuable nesting habitat and food sources for birds and small mammals and a means for younger trees to establish themselves.<sup>3</sup>

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<sup>1</sup> Ghost forests are long-dead stands of trees that have not yet fallen.

<sup>2</sup> Mountain Pine Beetle (draft document), <http://www.fs.fed.us/r6/nr/fid/wfi/revisions/gibson-mpb.doc> (last visited May 20, 2010). Generally, the pine beetle attacks mature trees with a minimum diameter of 4 to 5 inches. *Id.*

<sup>3</sup> Mountain Pine Beetle, *supra* note 2. A mountain pine beetle outbreak from 1894 to 1908 in ponderosa pines in the Black Hills of South Dakota killed 30–50 million trees. *Id.* An outbreak in Kaibab, Arizona from 1917 to 1926 killed 6 million ponderosa pine. *Id.* A series of outbreaks in Idaho and Montana from 1925 to 1935 killed 1.4 billion lodgepole pines. *Id.* Outbreaks in the 1970s and 80s in the western United States and Canada covered 4.5 million acres and the current outbreak in the northern Rocky Mountains and central British Columbia has already infected 20 million acres. *Id.*

However, due to a convergence of factors including poor forest management, climate change and an extended period of drought, we are in the midst of an uncontrollable pine beetle outbreak that threatens to kill up to ninety percent of lodgepole pines in the infected forests before running its course.<sup>4</sup>

In spite of the dire nature of this outbreak, a silver lining exists. In this instance, due to the elimination of billions of trees over much of the western part of the country, forest managers are now uniquely positioned to make amends for over a century of mismanagement that contributed to the creation of an overgrown and homogeneous forest system. These managers can adopt and implement practices encouraging forest regrowth that would more closely resemble the forests before European settlers descended upon the west and changed the landscape.

Due to the rapid assault by the beetles, there may only be a small window of time in which to act before a new generation of even-aged, homogeneous forests takes the place of the dying ones. Unfortunately, our current federal regulatory system presents myriad hurdles that serve to delay or prevent action; and, a six-year old federal initiative that intends to allow the use of more expeditious adaptive management techniques has faced several legal challenges. Consequently, those people with the ability to manage the beetle epidemic are left in a state of paralysis. Overcoming this paralysis will require great leadership, coordination, and a major change to our current federal regulatory system. If our leaders and forest managers are able to succeed, then in time the nation's forests may be returned to their original vigor. However, if these regulatory roadblocks continue to hinder well-intentioned efforts to combat the epidemic, then we may be predisposing our forests to another century of weaker, disease and insect susceptible, even-aged, homogeneous forests. Limited congressional action to remove the regulatory roadblocks for the purpose of mitigation against the beetle epidemic is likely the only way that forest managers will be able to quickly respond.

## I. THE LIFE CYCLE OF THE MOUNTAIN PINE BEETLE

The mountain pine beetle is native to the western forests of North America. It attacks most species of pine, including ponderosa pine, white pine, limber pine, sugar pine, and white bark pine.<sup>5</sup> Lodgepole pines are the most common host of the beetle, and are the predominant forest species from the Colorado Rockies to the Yukon Territory in Canada.<sup>6</sup>

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<sup>4</sup> Julie Sutor, *More Beetle-kill Logging Ahead for Summit County: Forest Service to Run Fuels Reduction Project Near Silverthorne*, STEAMBOAT TODAY, Feb. 6, 2010, available at <http://www.steamboatpilot.com/news/2010/feb/06/more-beetle-kill-logging-ahead-summit-county/>.

<sup>5</sup> ROSS W. GORTE, CONG. RESEARCH SERV., R40203, MOUNTAIN PINE BEETLES AND FOREST DESTRUCTION: EFFECTS, RESPONSES, AND RELATIONSHIP TO CLIMATE CHANGE 1 (2009).

<sup>6</sup> *Id.*

The beetle is a short-lived but rapid-spreading insect that tends to complete its life cycle within one year.<sup>7</sup> Most of the beetle's life is spent as a larva within the innermost bark layer of the pine tree.<sup>8</sup> Beetle eggs hatch ten to fourteen days after they are laid, and the larvae immediately begin feeding on the bark.<sup>9</sup> In the fall, the larvae produce natural antifreeze that allows them to survive extreme winter temperatures.<sup>10</sup> Just prior to creating the antifreeze, beetles are susceptible to cold weather and can be killed by early cold weather systems. However, once winter arrives sustained temperatures of negative 30 degrees Fahrenheit are required to kill the larvae.<sup>11</sup>

Adult beetles emerge in midsummer, after the risk of late spring frosts subsides. At this time, the adults disperse, seeking larger trees in which to lay their eggs. They usually attack trees in large numbers to combat the trees' natural defense mechanisms. They also often introduce a blue-stain fungus<sup>12</sup> into the tree that clogs water transport systems, thus weakening the tree and aiding in the beetles' killing of the tree.<sup>13</sup>

Once the beetles infest a tree, nothing economically viable can be done to save that tree.<sup>14</sup> Also, under epidemic conditions, enough beetles can emerge from an infested tree to kill at least two (and possibly more) trees the following year. This formula equates to the exponential destruction of our forests.

## II. THE RISK OF FIRE PRESENTED BY THE PINE BEETLE OUTBREAK

Once beetles infect a tree in the fall, that tree dies rapidly. The tree generally maintains green needles through the first winter, but over the course of the following spring and summer the needles will proceed to turn a rusty brown.

<sup>7</sup> Jesse A. Logan & James A. Powell, *Ghost Forests, Global Warming, and the Mountain Pine Beetle*, 47 AM. ENTOMOLOGIST 160 (2001).

<sup>8</sup> *Id.* at 160.

<sup>9</sup> GORTE, *supra* note 5, at 1.

<sup>10</sup> D.A. Leatherman, I. Aguayo & T.M. Mehall, *Mountain Pine Beetle*, TREES & SHRUBS no. 5.528 (Colo. State Univ. Extension, Fort Collins, Colo.), Apr. 2007, available at <http://www.ext.colostate.edu/pubs/insect/05528.pdf>.

<sup>11</sup> *Id.* (stating that to effectively kill the beetles the extreme cold temperatures must last a minimum of five consecutive days).

<sup>12</sup> Blue-stain fungus is caused by microscopic fungi that commonly only infect the sapwood of trees. They cause blue or grayish discoloration of the wood, but they do not cause decay. It also has no effect on the strength of the wood.

<sup>13</sup> SUSAN K. HAGEL, KENNETH E. GIBSON & SCOTT TUNNOCK, A FIELD GUIDE TO DISEASES & INSECT PESTS OF THE NORTHERN & CENTRAL ROCKY MOUNTAIN CONIFERS 58 (3d ed. 2003), available at [http://www.fs.fed.us/r1r4/spf/fhp/field\\_guide/PDFs/MountainPineBeetle58.pdf](http://www.fs.fed.us/r1r4/spf/fhp/field_guide/PDFs/MountainPineBeetle58.pdf).

<sup>14</sup> Leatherman et al., *supra* note 10. There are a few available methods of treatment and prevention. The bark on infected trees can be manually peeled away exposing the larvae, which will then starve and dry out. Solar treatments that increase the temperature under the bark to at least 110 degrees Fahrenheit can also kill larvae in infected trees. To prevent infection, individual trees can be treated annually with certain chemical sprays for about \$50 per tree.

When the needles turn brown, the tree becomes quite susceptible to fire.<sup>15</sup> Fires in beetle infested forests can start easier, may spread faster, and burn with greater intensity than fires in forests without beetle infestation.<sup>16</sup> Consequently, there is some risk of a large-scale fire that could burn hot enough to sterilize the soil, thus delaying or preventing forest regrowth.

Within three years of being killed, the tree's needles fall to the forest floor, leaving the dead trunk and branches behind. During this time, the risk of a crown fire diminishes,<sup>17</sup> as fires in lodgepole pines are predominately transmitted through the canopy.<sup>18</sup> However, fires that do start tend to burn longer and with greater intensity than fires in living forests.<sup>19</sup>

Over the next four to seven years many branches fall leaving the main stem of the tree which, after about a decade, can also begin to fall to the forest floor.<sup>20</sup> It can take years, or even decades, before the dead trees finally fall. However, once the trees begin to fall and build up on the forest floor, the risk of fire again rises due to the increased fuel load.<sup>21</sup>

Years of strategic fire suppression have exacerbated the volatile situation on the ground. Today, forests contain nearly twice as much biomass as they contained under historic natural conditions.<sup>22</sup> In turn, the beetle epidemic may increase the risk of a large-scale fire that could sterilize the soil and lead to the delayed regeneration of our forests, increases in erosion, and potential pollution of our water sources. Alternatively, if fires do not burn the beetle killed areas, then ghost forests could become a predominant feature for dozens of years. A reduction of available fuels could lessen the risk of catastrophic fire and encourage the proper regeneration of the forests.

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<sup>15</sup> Logan & Powell, *supra* note 7, at 160. “[D]ead needles provide a highly combustible source of fine fuels.” *Id.* “[T]he threat of a conflagration remains high while the dead needles remain on the trees—up to two years following the infestation.” GORTE, *supra* note 5, at 7.

<sup>16</sup> Wesley Page & Michael J. Jenkins, *Predicted Fire Behavior in Selected Mountain Pine Beetle-Infested Lodgepole Pine*, 53 *FOREST SCI.* 662, 673 (2007), available at <http://www.wy.blm.gov/fireuse/pubs/FireBehavior-PineBeetle.pdf>.

<sup>17</sup> Crown fires are aerial in nature, and burn material suspended in the canopy.

<sup>18</sup> GORTE, *supra* note 5, at 7 (“[T]he threat of conflagration declines, because the forests lack the small-diameter fuels needed to start and spread the fire.”). Page & Jenkins, *supra* note 16, at 673 (“[P]otential for active crown fire spread, from tree to tree, was lower in the postepidemic stands.”).

<sup>19</sup> Page & Jenkins, *supra* note 16, at 673.

<sup>20</sup> GORTE, *supra* note 5, at 7. Trees can begin to fall after about a decade, but may take many decades.

<sup>21</sup> Logan & Powell, *supra* note 7, at 160–61.

<sup>22</sup> Leatherman et al., *supra* note 10.

### III. WHAT ACTIONS SHOULD BE TAKEN TO MITIGATE AGAINST THE PINE BEETLE OUTBREAK

At this point, without the interference of Mother Nature, humans are helpless to stop the beetle's progression. The pine beetle epidemic dominates the landscape of the Rocky Mountain West and has already killed billions of trees. Some people may argue that the beetle kill is a natural process needed to restore balance to the ecosystem,<sup>23</sup> and at a rudimentary level this argument has merit. However, decades of human mismanagement created an unnatural forest that may have led to an unnaturally extensive and severe beetle kill.<sup>24</sup> Perhaps under conditions that existed 150 years ago, a beetle kill would have been a healthy way of keeping the forest in check. Unfortunately, our management practices may have irreversibly changed the natural state of the forest, at least for the next several hundred years, and we must be prepared to adapt accordingly. In an attempt to prevent unnatural, catastrophic fires, and encourage a more natural regrowth of the forests while gaining some level of short-term economic benefit, our leaders—both forest managers and Congress—must act quickly.

First, the Forest Service must continue using an existing, ten-year old fire prevention plan,<sup>25</sup> but seek modifications to respond to catastrophic beetle outbreaks and the new reality of predominantly dead forests. Fire prevention, as practiced in the United States for generations, meant aggressively fighting fires once they started, through aerial and ground assaults, in an effort to protect the timber resource as well as infrastructure and homes. This led to increased fuel loads, as well as larger and more damaging fires. Much of the fire plan adopted a decade ago continues the practice of aggressive fighting, but also involves thinning live tree stands to reduce fuel loads, creating buffer zones around homes constructed within forests, and prescribed burns to help control future fires when they do ignite. While these can be useful tools, they primarily apply to the protection of living forests. Instead, policies should be geared toward the reestablishment of the now dead forests.

Forest managers are presented with a unique opportunity to correct several generations of poor management. They should continue their often-challenged efforts to use a combination of techniques, like salvage logging and prescribed burning, to aggressively manage these now dead forests. Through salvage logging, forest managers can reduce unnatural fuel buildup to a level more common with western forests prior to European settlement. In some of those areas, managers

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<sup>23</sup> Jim Robbins, *Some See Beetle Attacks on Western Forests as a Natural Event*, N.Y. TIMES, July 6, 2009, available at <http://www.nytimes.com/2009/07/07/science/earth/07beetles.html>.

<sup>24</sup> *Id.* Human intervention involving fire suppression and large clear-cuts have left many forests simultaneously vulnerable to beetle outbreaks. *Id.*

<sup>25</sup> See *infra* notes 101–02 and accompanying text (discussing the implementation of the ten-year Comprehensive Strategy).

may wish to supplement certain cuts with selective burns to release the seeds from the serotinous cones of the lodgepole pine.<sup>26</sup> In other salvage logged areas, large scale plantings may be required to ensure the emergence of new lodgepole pines. In areas where no salvage or prescribed burns take place, natural fire may regenerate the areas. In areas that do not burn through either natural or artificial means, a spruce–fir forest may emerge from beneath the ghost canopy. By aggressively pursuing ways to revitalize the forest now, managers may be able to establish a multi-aged and biologically diverse forest that more closely resembles the western forests of pre-European settlement.

In addition to the risk of large-scale fires, the commercial lifespan of beetle-killed pine trees is quite limited. Some estimates suggest that any marketability of the wood would be lost within five years of the tree's death.<sup>27</sup> For some of the trees, this time has already passed. However, the majority of the trees were killed in the past three to four years, meaning a small window exists where quick and decisive action can accomplish many objectives. First, dead trees can be harvested and used for many commercial products, such as furniture, home building, pellets for stoves, pulp, and other products.<sup>28</sup> In Canada, where much of British Columbia's forests have been killed by the beetle, the government intends to use these dead forests as a bioenergy alternative.<sup>29</sup> A niche market even exists for the wood that has been stained by the blue-stain fungus.<sup>30</sup> In a time when our nation is desperately searching for ways to create jobs, this could be at least a short term boon for many existing and new businesses.

Although the Forest Service is valiantly trying to respond to the outbreak and has allocated significant money to combat the problem,<sup>31</sup> the complexity of our existing regulatory structure may prevent any significant action from coming

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<sup>26</sup> Serotinous cones refer to cones that require heat, usually fire, to release the seeds and allow a new tree to grow. Lodgepole pines are a common tree whose seeds require fire to release them from cones.

<sup>27</sup> Ministry of Forests and Range, Frequently Asked Questions, [http://www.for.gov.bc.ca/hfp/mountain\\_pine\\_beetle/faq.htm](http://www.for.gov.bc.ca/hfp/mountain_pine_beetle/faq.htm) (last visited Apr. 14, 2010). In some cases, the timber can retain its value for up to eighteen years depending on local site conditions. *Id.*

<sup>28</sup> *See id.*

<sup>29</sup> Posting of Jennifer Cleall to Climate Change Practice Group Blog, Davis LLP, <http://www.davis.as/en/blog/Climate-Change-Law-Practice-Group/2010/03/11/BC-Out-to-Top-Ontario-as-Canadas-Leading-Clean-Energy-Destination> (Mar. 11, 2010, 12:29 EST). British Columbia's budget includes the establishment of a \$100 million fund to promote biofuel production as well as other forms of low carbon electricity generation. *Id.*

<sup>30</sup> *See* Vancouver 2010, *Richmond Olympic Oval*, <http://www.vancouver2010.com/olympic-spectator-guide/venues/richmond-olympic-oval/sustainability—legacy/> (last visited Apr. 20, 2010). The Richmond Olympic Oval, used during the 2010 Winter Olympics held in Vancouver, British Columbia, was constructed largely with beetle killed trees. *Id.*

<sup>31</sup> Ryan Budnick, *Colorado to Receive Bulk of Pine Beetle Money*, KMGH DENVER, Feb. 8, 2010, <http://www.thedenverchannel.com/news/22502859/detail.html>. Although 40 million dollars

to fruition. While not an exhaustive list, the next section of this article discusses some of the regulatory hurdles that currently prevent aggressive and proactive responses to the pine beetle epidemic.

#### IV. YEARS OF POOR FOREST MANAGEMENT PRACTICE AND AN INCREASINGLY COMPLEX REGULATORY STRUCTURE HELPED CONTRIBUTE TO THE OUTBREAK

In order to understand why so many trees are being killed and why comparatively very little has been done to combat the outbreak, one must understand how our early deforestation practices that eliminated multi-aged forest stands resulted in the creation of our current regulatory structure, and how this structure inherently prevents quick, proactive responses to on the ground challenges.

Early in our nation's history, deforestation was a major concern. Unregulated logging resulted in the deforestation of most of the eastern United States, including Appalachian states, the Great Lakes region, and the Ozarks.<sup>32</sup> Additionally, European settlement of the western United States also led to wide spread deforestation. In response to the deforestation, the United States Congress passed the Forest Reserve Act (Creative Act) in 1891, which authorized the President to create public forest reserves. President Harrison quickly reserved nearly 13 million acres of timbered land in many western states.<sup>33</sup> The Creative Act laid the foundation for the National Forest system.<sup>34</sup> Six years later, Congress enacted the Organic Administration Act (Organic Act).<sup>35</sup> The Organic Act appropriated funds for forest management and declared that the forest reserves should be managed "to improve and protect the forest within the boundaries, or for the purpose of securing . . . a continuous supply of timber."<sup>36</sup> Under President Theodore Roosevelt's administration in the early part of the twentieth century, the Forest

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have been allocated to combat the beetle outbreak, the funds will generally be used for public safety projects. *Id.* These projects may include removing or treating trees in or near campgrounds, homes, roads, power lines, or other structures. *See id.*

<sup>32</sup> Rebecca Smith, *Lands Council v. Powell and the Ninth Circuit's Refusal to Blindly Defer to Unreliable Forest Service Science*, 28 PUB. LAND & RESOURCES L. REV. 65, 69 (2007); Jack Tuholske & Beth Brennan, *The National Forest Management Act: Judicial Interpretation of a Substantive Environmental Statute*, 15 PUB. LAND L. REV. 53, 57 (1994).

<sup>33</sup> Tuholske & Brennan, *supra* note 32, at 57.

<sup>34</sup> *See id.* at 57 n.14 (citing Act of March 6, 1891, 26 Stat. 1103, *repealed by* 90 Stat. 2792 (1976)).

<sup>35</sup> 16 U.S.C. §§ 473–482, 551 (1897) (amended 1905, 1911, 1925, 1962, 1964, 1968, and 1976). This is the original organic act governing the administration of national forest lands. The Act requires the Secretary of Agriculture to protect national forests from fire and depredations.

<sup>36</sup> Tuholske & Brennan, *supra* note 32, at 57 (citing 30 Stat. 34, 35, 36 (current version codified in part at 16 U.S.C. § 475 (1988))).



Service became a federal agency with oversight over much of the nation's forests.<sup>37</sup> A pioneer of multiple-use management, Gifford Pinchot was named the first head of the National Forest Service.<sup>38</sup> Under his leadership and those who followed, the Forest Service coordinated fire fighting and reforestation, among other conservation efforts.<sup>39</sup> However, upon the conclusion of World War II there was a much greater demand for wood products, principally for home building, which led to large-scale industrial logging.<sup>40</sup> From 1940 to 1966, annual timber harvest increased by a staggering 600 percent.<sup>41</sup> With this increased demand for timber, fire fighting and suppression remained at the forefront of forest management. In fact, since the 1920s, forest managers viewed every fire as a management failure, and as a result efforts to prevent and fight them increased to ensure that timber would be available for harvest.<sup>42</sup>

### A. *The Multiple-Use, Sustained-Yield Act*

The increase in landscape level logging methods such as clear-cutting and road building did not go unnoticed by the public. In response to what was deemed as a forest policy promoting only timber harvest, Congress passed the Multiple-Use, Sustained-Yield Act (MUSYA) in 1960.<sup>43</sup> The MUSYA sought to expand the goals of National Forest management beyond providing timber and water to include the protection of recreation, wildlife, fish, and range resources.<sup>44</sup> Of course, this policy meant that fighting and suppressing fires remained important in order to protect the multiple uses of the national forests. Additionally, large-scale timber harvests, including clear-cutting, remained a valuable management tool for the Forest Service, often under the guise of the MUSYA.

The 1960s gave rise to the environmental movement in the United States, and the public began to challenge the Forest Service's logging practices as violating the MUSYA. In 1970, at the request of Senator Lee Warren Metcalf

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<sup>37</sup> Scott W. Hardt, *Federal Land Management in the Twenty-First Century: From Wise Use to Wise Stewardship*, 18 HARV. ENVTL. L. REV. 345, 355 n.58 (1994) (citing Act of Feb. 1, 1905, ch. 288, § 1, 33 Stat. 628 (codified as amended at 16 U.S.C. § 472 (2000))).

<sup>38</sup> *Id.*

<sup>39</sup> Smith, *supra* note 32, at 69.

<sup>40</sup> GEORGE C. COGGINS, CHARLES F. WILKINSON & JOHN D. LESHY, *FEDERAL PUBLIC LAND AND RESOURCES LAW* 713–14 (5th ed. 2002).

<sup>41</sup> Tuholske & Brennan, *supra* note 32, at 59.

<sup>42</sup> See ROBERT B. KEITER, *KEEPING FAITH WITH NATURE: ECOSYSTEMS, DEMOCRACY, AND AMERICA'S PUBLIC LANDS* 136–41 (2003); JAMES G. LEWIS, *THE FOREST SERVICE AND THE GREATEST GOOD: A CENTENNIAL HISTORY* 73–81 (2005); MICHAEL WILLIAMS, *AMERICANS AND THEIR FORESTS: A HISTORICAL GEOGRAPHY* 315–30, 344–52 (1989). See generally DAVID A. CLARY, *TIMBER AND THE FOREST SERVICE* (1986); Jamison Colburn, *The Fire Next Time: Land Use Planning in the Wildland/Urban Interface*, 28 J. LAND RESOURCES & ENVTL. L. 223, 226 (2008).

<sup>43</sup> 16 U.S.C. §§ 528–531 (2006).

<sup>44</sup> *Id.*

from Montana, Arnold Bolle, then Dean of the University of Montana School of Forestry, investigated timber harvest practices in the Bitterroot National Forest.<sup>45</sup> Dean Bolle later published a report criticizing the Forest Service's timber practices, specifically clear-cutting. He contended that the MUSYA mandated that wildlife, recreation, fish, and range resources must be considered when the Forest Service makes management decisions on the National Forests, and that far too often the Forest Service overemphasized timber production.<sup>46</sup> Following this report, the U.S. Senate held hearings on clear-cutting, which were chaired by Senator Frank Church of Idaho.<sup>47</sup> The Church Hearings raised enough concern that the Senate proposed limitations on logging in the National Forests. These limitations became known as the Church Guidelines, which encouraged limiting the size of clear-cuts, among other things.<sup>48</sup> However, clear-cutting continued, and in the early 1970s, a flood caused by a clear-cut on the Monongahela National Forest in West Virginia wiped out a nearby community.<sup>49</sup> Citizens of the town sued the Forest Service with the support of the Natural Resource Defense Council, and the United States Court of Appeals for the Fourth Circuit determined that clear-cutting violated the clear language of the Organic Act, and thus prohibited clear-cutting in National Forests.<sup>50</sup>

### B. *National Forest Management Act*

In the face of overwhelming public pressure, and the *Monongahela* case, Congress enacted the National Forest Management Act (NFMA) in 1976.<sup>51</sup> The NFMA can be divided into two mandates, one procedural and the other substantive, for the Forest Service's management of the National Forests.<sup>52</sup> It created the most detailed forest planning process of its time.<sup>53</sup> First, the Act requires the Secretary of Agriculture to develop, maintain, and, as appropriate, revise land and resource management plans for units of the National Forest System.<sup>54</sup> When developing

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<sup>45</sup> Tuholske & Brennan, *supra* note 32, at 61.

<sup>46</sup> Charles F. Wilkinson, *The National Forest Management Act: The Twenty Years Behind, The Twenty Years Ahead*, 68 U. COLO. L. REV. 659, 663 (1997).

<sup>47</sup> Tuholske & Brennan, *supra* note 32, at 62.

<sup>48</sup> COGGINS ET AL., *supra* note 40, at 714.

<sup>49</sup> Smith, *supra* note 32, at 70.

<sup>50</sup> *Id.*; W. Va. Div. of Izaak Walton League of Am., Inc. v. Butz (*Monongahela*), 522 F.2d 945, 954 (4th Cir. 1975). This case is sometimes referred to as the *Monongahela* case, after the national forest on which the contested clear-cut occurred.

<sup>51</sup> Smith, *supra* note 32, at 70; 16 U.S.C. §§ 1600–1614 (2006).

<sup>52</sup> Smith, *supra* note 32, at 70.

<sup>53</sup> Michael J. Gippert & Vincent L. DeWitte, *The Nature of Land and Resource Management Planning Under the National Forest Management Act*, 3 ENVTL. LAW. 149, 153 (1996).

<sup>54</sup> *Ohio Forestry Ass'n v. Sierra Club*, 523 U.S. 726, 728 (1998) (citing 90 Stat. 2949 (codified as amended at 16 U.S.C. § 1604(a) (1994))). Units are individual forests such as the Arapaho National Forest in Colorado or the Bighorn National Forest in Wyoming.

the plans, the Forest Service is to account for both environmental and commercial goals using the multiple-use and sustained-yield principles of the NFMA.<sup>55</sup> In doing so, the Forest Service often divides a unit into management areas that each denotes a particular type of use.<sup>56</sup> For example, certain management areas may not permit any timber harvest, while others may be managed for wildlife winter range, and others still may be managed for timber production. Once the Forest Service completes a plan, all future projects, including timber sales, must be consistent with that plan.<sup>57</sup>

At the second level, the Forest Service implements the forest plan by approving particular projects.<sup>58</sup> In short, the NFMA acts as “a gateway through which all forest activities must pass.”<sup>59</sup> Forest activities, often on the individual project level, must comply with all applicable environmental laws, which can include the Wilderness Act,<sup>60</sup> Endangered Species Act,<sup>61</sup> Federal Land Planning Management Act,<sup>62</sup> Clean Water Act,<sup>63</sup> Antiquities Act,<sup>64</sup> Administrative Procedure Act<sup>65</sup> and the National Environmental Policy Act,<sup>66</sup> to name a few.<sup>67</sup> For the purposes of this article, I will address two of the principle statutes that often receive the most attention: the Endangered Species Act and the National Environmental Policy Act.

### C. *Endangered Species Act*

Congress passed the Endangered Species Act (ESA) in 1973 to protect our nation’s plant and animal species from extinction. The ESA requires that the Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) make various decisions about plant and animal species. Section 4 of the ESA is the listing function and authorizes the FWS and NMFS to identify “endangered”

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<sup>55</sup> *Id.* at 730 (citing 16 U.S.C. § 1604(g) and 36 C.F.R. § 219.1(a) (1994)).

<sup>56</sup> Tuholske & Brennan, *supra* note 32, at 65.

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

<sup>59</sup> Gippert & DeWitte, *supra* note 53, at 169; *see* 36 C.F.R. § 219.

<sup>60</sup> 16 U.S.C. §§ 1131–1136 (2006).

<sup>61</sup> *Id.* §§ 1531–1543 (2006).

<sup>62</sup> 43 U.S.C. §§ 1701–1784 (2006).

<sup>63</sup> 33 U.S.C. §§ 1251–1387 (2006).

<sup>64</sup> 16 U.S.C. §§ 431–433.

<sup>65</sup> 5 U.S.C. §§ 500–504, 551–559, 571–584, 701–706 (2006).

<sup>66</sup> 42 U.S.C. §§ 4321–4347 (2006).

<sup>67</sup> FOREST SERV. & U.S. DEP’T OF AGRIC., FOREST SERVICE MANUAL 1922; Land and Resource Management Planning, 53 Fed. Reg. 26,807, 26,809 (July 15, 1988); *see* National Forest System Land and Resource Management Planning, 56 Fed. Reg. 6,508, 6,518–19 (Feb. 15, 1991).

and “threatened” species and also designate these species’ “critical habitat.”<sup>68</sup> Section 7 requires federal agencies to consult with the FWS and NMFS to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species.<sup>69</sup> Section 9 of the ESA prohibits any action that causes a “taking” of any listed species of endangered fish or wildlife.<sup>70</sup> However, section 7 and section 10 do establish a procedure for the FWS and NMFS to allow for the “incidental take” of a listed species.<sup>71</sup>

In theory, the requirements outlined above are easy to understand. For example, the Secretary of the Interior listed the Northern Spotted Owl (owl) as a threatened species on June 26, 1990.<sup>72</sup> In 1992, the FWS designated 6,887,000 acres of federal lands as critical habitat for the owl.<sup>73</sup> If the Forest Service proposes a project within the area of critical habitat of the owl, such as a selective harvest of timber involving some minimal road construction, it must comply with the consultation mandates of section 7 of the ESA prior to proceeding with the project.

First, the Forest Service would need to determine if the proposed action may adversely affect the owl. If it concludes that the action would not likely adversely affect the owl, and the FWS agrees, then no further consultation is required. However, if the Forest Service determines that the owl would likely be adversely affected by the proposed action, then it must request a formal consultation with the FWS. This request invokes a formal, time-sensitive process. From the moment

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<sup>68</sup> 16 U.S.C. § 1533(a)(3). “Critical habitat” is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for species conservation. *Id.* § 1532(5)(A).

<sup>69</sup> *Id.* § 1536(a)(2).

<sup>70</sup> *Id.* § 1538(a)(1)(B). The term “take” means to “harass, harm, pursue, hunt, shoot, wound, kill trap, capture, or collect, or attempt to engage in any such conduct.” *Id.* § 1532(a)(19).

<sup>71</sup> *Id.* §§ 1536(b)(4), 1539(a)(1). Section 7 applies to federal actions, while section 10 applies to private actions. “Incidental take” is a take that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” *Id.* § 1539(a)(1)(B). The FWS and NMFS have adopted this meaning for the implementing regulations of section 7 as well. 50 C.F.R. § 402.02 (2009).

<sup>72</sup> 50 C.F.R. § 17.11 (1994). The proposal for the listing can be found at 55 Fed. Reg. 26,194 (June 26, 1990).

<sup>73</sup> Endangered and Threatened Wildlife and Plants; Determination of Critical Habitat for the Northern Spotted Owl, 57 Fed. Reg. 1,796 (Jan. 15, 1992). In a 2007 proposed revision, the FWS proposed 5,337,839 acres be designated as critical habitat thereby removing nearly one and a half million acres from critical habitat designation. Endangered and Threatened Wildlife and Plants; Proposed Revised Designation of Critical Habitat for the Northern Spotted Owl (*Strix occidentalis caurina*), 72 Fed. Reg. 32,450, 32,461 (June 12, 2007).

of the request for formal consultation, the FWS has ninety days to consult with the Forest Service and forty-five days to prepare a biological opinion.<sup>74</sup> If the biological opinion concludes that the proposed project is likely to jeopardize the continued existence of the owl, then further conference becomes necessary. The Forest Service and FWS would then work together to develop reasonable and prudent alternatives that may be undertaken to avoid the likelihood of jeopardizing or adversely modifying habitat. Even though these alternatives must avoid jeopardy or adverse modification of the owl's critical habitat, they could still result in adverse effect to, or even a take, of an owl. If it appears that take will occur, an incidental take statement must be developed to exempt such take from the section 9 prohibitions.

The completion of this process involves great time and resource commitments, which could stall a project, or even prevent the Forest Service from proposing a project. With the speed at which the pine beetle spreads through pine forests, any measurable delay of a mitigation project caused by the need to comply with the ESA could greatly diminish the effectiveness of the project, or render it unnecessary.

Perhaps the pine beetle outbreak could change the culture within the FWS by speeding up the process to attain a biological opinion and develop reasonable and prudent alternatives, as well as allowing for more flexibility with respect to take. For example, certain species, like the owl or grizzly bear, may require a dense canopy of mature, interior forests for cover and the associated food sources they provide. If a beetle outbreak modifies the species' critical habitat to the point that the characteristics that caused the FWS to designate it no longer exist, then a couple of things could occur. Initially, the FWS may seek to modify the area designated as critical habitat to remove the beetle killed forests, thus alleviating the need for a formal consultation and biological opinion in many places. Alternatively, the FWS may approve more liberal reasonable and prudent alternatives that may allow for additional take. Such approval may be rationalized if the FWS concluded that while there may be increased take during a project, the impacts to the species would result in greater population losses if no action were taken at all. Of course, this may lead to a flurry of time intensive legal challenges under the Administrative Procedure Act, accusing the FWS of acting arbitrarily or capriciously<sup>75</sup> that would again render any action to mitigate the beetle outbreak unfeasible. Even if a method existed to avoid time delays under the ESA, other prominent laws could still grind any Forest Service actions directed toward pine beetle mitigation to a halt.

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<sup>74</sup> A biological opinion documents the opinion of the FWS as to whether or not a federal action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of the species's critical habitat.

<sup>75</sup> 5 U.S.C. § 706(2)(A) (2006).

#### *D. National Environmental Policy Act*

In addition to the multiple-use sustained-yield mandates of the NFMA, the procedural mandates of the National Environmental Policy Act (NEPA)<sup>76</sup> also apply to many Forest Service management decisions including timber harvesting and prescribed burns that fall within the auspices of the NFMA.<sup>77</sup>

Congress passed NEPA in 1969, and President Nixon allowed for its implementation with his signature in 1970. Since that time, its language has been at the heart of countless lawsuits.<sup>78</sup> Generally, NEPA requires federal agencies to take a “hard look” at the environmental effects of proposed federal actions and to inform the public of the factors that were considered in the agency’s decisionmaking.<sup>79</sup>

For example, if the Forest Service wanted to combat the pine beetle epidemic through a variety of treatments, including selective tree harvest, salvage tree harvesting, prescribed burns, or reseedling and other habitat improvement projects, then NEPA would be triggered and the Forest Service would have to take a “hard look” to determine what the environmental effects of the action may be.

Title II of NEPA created the Council on Environmental Quality (CEQ) and charged it with promulgating regulations that provide categories of agency action and the required agency review for each of several categories.<sup>80</sup> The categories are: (1) actions that require an Environmental Impact Statement (EIS) because they may significantly affect the environment; (2) actions that require a more limited environmental assessment (EA) to determine whether an EIS is necessary because they may or may not have a significant environmental impact; and (3) actions that qualify for a categorical exclusion (CE) from the requirements of preparing an EA or an EIS because the actions do not have a significant effect on

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<sup>76</sup> 42 U.S.C. §§ 4321–4370(f) (2006).

<sup>77</sup> 16 U.S.C. § 1604(g)(1) (2006).

<sup>78</sup> Sam Kalen, *The Devolution of NEPA: How the APA Transformed the Nation’s Environmental Policy*, 33 WM. & MARY ENVTL. L. & POL’Y REV. 483, 484 (2009).

<sup>79</sup> *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983); see also *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971). In *Overland Park*, the Court determined that it must consider whether the decision of the agency was based on a consideration of the relevant factors, and if so, it may not substitute its judgment for that of the agency. *Baltimore Gas & Electric Co.* applied this standard to a NEPA review and the court said that an agency only had to take a “hard look” at environmental consequences prior to taking action.

<sup>80</sup> Dinah Bear, *NEPA at 19: A Primer on an “Old” Law with Solutions to New Problems*, 19 Env’tl. L. Rep. (Env’tl. L. Inst.) 10,060, 10,061–65 (1989); Exec. Order No. 11,514, 35 Fed. Reg. 4247 (Mar. 5, 1970), reprinted in 42 U.S.C. § 4321 app. (2006) (allowing the CEQ to adopt guidelines for the preparation of an EIS); Exec. Order No. 11,990, 42 Fed. Reg. 26,967 (May 24, 1977), reprinted in 42 U.S.C. § 4321 app. (2006) (modifying the 1970 Order to allow the CEQ to adopt regulations, rather than guidelines).

the environment.<sup>81</sup> The CEQ's regulations require agencies to adopt procedures that include criteria for CEs—classes of actions that normally do not require either an EIS or an EA.<sup>82</sup> This issue of CEs will be addressed in a later section when discussing the Healthy Forests Initiative.<sup>83</sup>

First, assuming the project does not qualify for a CE, the agency would generally be required to prepare an EA, a concise public document that provides enough evidence and analysis to help determine whether the agency must prepare an EIS.<sup>84</sup> The EA includes a discussion of the need for the proposal, of alternatives, and of the environmental impacts of the proposed action and alternatives.<sup>85</sup> Once the agency completes the EA it must follow with one of two conclusions: either a Finding of No Significant Impact (FONSI) or a decision to prepare an EIS.<sup>86</sup> The FONSI states the reasons why an action will not have a significant effect on the human environment.<sup>87</sup>

If the agency issues a FONSI then the project may proceed. However, if the agency determines that the proposed project necessitates an EIS, then further analysis is required. Sometimes the agency does not need to prepare an EA prior to conducting an EIS. If the project will clearly have environmental impacts, then the agency may forgo the EA and simply conduct an EIS. The EIS must provide a full and fair discussion of significant environmental impacts and present reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment.<sup>88</sup> Prior to initiating the EIS, the agency must publish a notice of intent in the Federal Register describing the action and possible alternatives, the intent to prepare an EIS, and the scoping process and meetings.<sup>89</sup> After that, the agency must begin the scoping process through involvement of interested parties in identifying significant issues related to a proposed action.<sup>90</sup>

Next, the agency prepares a draft EIS and circulates it for public comment for at least forty-five days.<sup>91</sup> Once the comment period ends, the agency must evaluate all the comments and respond to the substantive comments on the draft EIS when

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<sup>81</sup> 42 U.S.C. §§ 4342, 4344(3); 40 C.F.R. §§ 1501–1508 (2009).

<sup>82</sup> 40 C.F.R. § 1508.4.

<sup>83</sup> See *infra* notes 107–26 and accompanying text.

<sup>84</sup> 40 C.F.R. § 1508.9(a)(1).

<sup>85</sup> *Id.* § 1508.9(b).

<sup>86</sup> *Id.* §§ 1508.9, 1508.13.

<sup>87</sup> *Id.* § 1508.13.

<sup>88</sup> Bear, *supra* note 80, at 10,063.

<sup>89</sup> *Id.* at 10,064.

<sup>90</sup> *Id.* at 10,064–65.

<sup>91</sup> *Id.* at 10,065.

it completes the final EIS.<sup>92</sup> The agency must notify the public when it completes a final EIS, and cannot make a decision on the proposed action for thirty days following that notification.<sup>93</sup> Once a decision is made, the decisionmaker within the agency must sign a Record of Decision (ROD).<sup>94</sup> The ROD lays out the final decision, identifies which alternatives were considered in the decisionmaking process, as well as which alternatives were considered environmentally preferable and explains the factors considered by the agency, as well as any requirement for avoiding or minimizing environmental harm. While the agency need not select the environmentally preferable alternative, it does have to explain its reasons for selecting a less environmentally protective alternative.<sup>95</sup>

The purpose of going into such detail about the procedural requirements of NEPA is to show just how time consuming that process can be. A typical EIS consists of hundreds of pages and often costs millions of dollars to create.<sup>96</sup> A study for the Federal Highway Administration determined that an EIS generally takes 3.6 years to complete, and can take up to twelve years.<sup>97</sup> Then, even if the agency's decisionmaker signs a ROD, the project can often be held up for many more years through litigation that alleges violations of NEPA. While some judges may allow a project to begin while the litigation proceeds, often a preliminary injunction will be granted, halting the project until the judicial process and all of its appeals have run their course.

All of these hurdles present forest managers with a great dilemma. First, as discussed earlier, the Forest Service must create a long term management plan for the forest unit.<sup>98</sup> This process invokes the procedural requirements of NEPA. Unfortunately, beetle epidemics begin so quickly that there would be no sign of danger when forest managers first proposed the forest plan. Then, after the beetle outbreak begins and managers want to react, there may not be any means within the existing forest plan to take action. Instead, the forest plan would need to be revised, again requiring adherence to the procedural requirements of NEPA, to allow for the adoption of specific plans. After amending the forest plan, any site specific plans would also have to follow the same NEPA procedures before commencing action.

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<sup>92</sup> *Id.*

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

<sup>95</sup> *Id.*

<sup>96</sup> Katie Kendall, *The Long and Winding "Road": How NEPA Noncompliance for Preservation Actions Protects the Environment*, 69 BROOK. L. REV. 663, 665 (2004).

<sup>97</sup> *Id.*

<sup>98</sup> See *supra* notes 51–67 and accompanying text.



These hurdles alone may be sufficient to make any action impossible. As discussed, the life cycle of a beetle is quite short, and within a matter of a few years entire forests can be destroyed.<sup>99</sup> After such forests are dead, only a handful of years remain to extract any economically recoverable timber. However, even if the NEPA process alone were not enough to prevent the Forest Service from acting, it is virtually certain that some conservation group would initiate a lawsuit challenging the Forest Service's decision under NEPA, effectively preventing anything from being implemented.

Before the pine beetle epidemic challenged the resolve of even the most seasoned forest managers, Congress recognized the barriers that NEPA presented to being able to effectively and quickly react to western fire dangers. In response, Congress acted.

#### *E. Healthy Forest Initiative and the Forest Service's New Categorical Exclusions*

The Clinton administration created the National Fire Plan in response to several years of very active fire seasons, including the year 2000 season when 123,000 fires burned more than 8.4 million acres.<sup>100</sup> Congress supported the fire plan through appropriations in 2001 and further mandated the creation of a national 10-year comprehensive strategy, which I mentioned briefly earlier in this article.<sup>101</sup> By May of 2002, a consortium of federal, state, tribal, and local government and nongovernmental representatives completed the Implementation Plan for the 10-Year Comprehensive Strategy.<sup>102</sup> Then, on August 22, 2002, the Bush Administration issued "Healthy Forests: An Initiative for Wildfire Prevention and Stronger Communities," otherwise known as the Healthy Forests Initiative (the Initiative).<sup>103</sup> The principal purpose of the Initiative was to respond to a century of mismanagement that led to unnaturally dense and fire-prone forests in the western United States.

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<sup>99</sup> See *supra* notes 5–14 and accompanying text.

<sup>100</sup> U.S. DEP'T OF AGRIC. & U.S. DEP'T OF THE INTERIOR, A COLLABORATIVE APPROACH FOR REDUCING WILDLAND FIRE RISKS TO COMMUNITIES AND THE ENVIRONMENT: 10-YEAR COMPREHENSIVE STRATEGY 3–4 (Aug. 2001), available at <http://www.forestsandrangelands.gov/plan/documents/7-19-en.pdf>.

<sup>101</sup> Department of Interior and Related Agencies Appropriation Act of 2001, Pub. L. No. 106-291, 114 Stat. 922 (2000) (codified in scattered sections of 16 U.S.C.) (appropriating necessary funds to the Department of the Interior for "fire preparedness, suppression operations, research, emergency rehabilitation, and hazardous fuels reduction").

<sup>102</sup> U.S. DEP'T OF AGRIC. & U.S. DEP'T OF THE INTERIOR, A COLLABORATIVE APPROACH FOR REDUCING WILDLIFE FIRE RISKS TO COMMUNITIES AND THE ENVIRONMENT, 10-YEAR COMPREHENSIVE STRATEGY IMPLEMENTATION PLAN (May 2002), available at [http://www.westgov.org/wga/initiatives/fire/implem\\_plan.pdf](http://www.westgov.org/wga/initiatives/fire/implem_plan.pdf).

<sup>103</sup> THE WHITE HOUSE, HEALTHY FORESTS: AN INITIATIVE FOR WILDLIFE PREVENTION AND STRONGER COMMUNITIES (Aug. 22, 2002), available at [http://www.firesafecouncilnevco.com/Publications/Healthy\\_Forests\\_v2.pdf](http://www.firesafecouncilnevco.com/Publications/Healthy_Forests_v2.pdf).

The Initiative directed the Secretaries of the Departments of Agriculture and the Interior to make improvements to their existing regulatory systems that would speed up the decisionmaking process by improving procedures and streamlining environmental reviews.<sup>104</sup> The Initiative further stated that legislation would be necessary to ensure the implementation of the program. That legislation came in the form of the Healthy Forests Restoration Act of 2003 (HFRA), which President Bush signed on December 3, 2003.<sup>105</sup> The HFRA allowed for hazardous fuel reduction projects consistent with the 10-Year Implementation Plan.<sup>106</sup> Beyond that, implementation of the Initiative did a number of things to try and meet the challenges of regaining management control over a forest system that had been allowed to overgrow for generations.

As part of the Initiative's implementation, the Forest Service adopted a series of new rules and policy statements, as well as new CEs, aimed at increasing agency efficiency, reducing project delay, and ensuring that forest managers could react with greater ease to situations on the ground. Some of these changes may be utilized now to mitigate against the pine beetle outbreak.

First, the Forest Service revised Chapter 30 of the Forest Service Handbook 1909.15 by changing its definition of "extraordinary circumstances." The term generally refers to situations where, but for some extraordinary circumstance, a CE would apply and the procedural requirements of NEPA would not have to be followed.<sup>107</sup> Prior to the change, the Forest Service had identified seven situations which, if present, would require an activity that would normally be excluded from NEPA review to conduct an EA. These activities included: the presence of threatened or endangered species, presence of steep slope conditions, municipal watersheds, wilderness or wilderness study areas, American Indian religious or cultural sites, archeological sites, or inventoried roadless areas.<sup>108</sup> The revised handbook still includes the seven situations identified above; however, instead of automatically requiring an EA, each are now "resource conditions" that are to be considered when deciding whether "extraordinary circumstances" are present.<sup>109</sup> The Forest Service further stated within the revised definition that the "mere presence of one or more of these resource conditions does not

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<sup>104</sup> *Id.*

<sup>105</sup> 16 U.S.C. §§ 6501–6591 (2006).

<sup>106</sup> *Id.* § 6512(a).

<sup>107</sup> Clarification of Extraordinary Circumstances for Categories of Actions Excluded From Documentation in an Environmental Assessment or an Environmental Impact Statement, 67 Fed. Reg. 54,622, 54,622 (Aug. 23, 2002).

<sup>108</sup> U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15 ch. 30, § 30.3(2) (1992).

<sup>109</sup> U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15 ch. 30 (July 6, 2004).

preclude use of categorical exclusions.”<sup>110</sup> By changing the language of the Forest Service Handbook, the Service gave itself more discretion to determine what projects may or may not constitute an extraordinary circumstance. Thus, the Forest Service may now permit a CE that would historically fall under one of the defined extraordinary circumstances to proceed without completing an EA. Making this change helped pave the way for the Forest Service to create new categorical exclusions.

However, prior to creating any new CEs, the Forest Service revised its administrative appeal procedures.<sup>111</sup> Three important changes came about from this revision. First, CEs are now exempt from notice, comment and appeal.<sup>112</sup> This allows the Forest Service to expedite critical projects and avoid delays that appeals can cause. Second, projects under appeal that do not fall within the guise of a CE can be implemented immediately under “emergency” provisions to prevent economic loss.<sup>113</sup> Third, appeals are limited to those individuals who submitted “substantive” comments to the agency,<sup>114</sup> and decisions signed by the Secretary of Agriculture or his or her Undersecretary are exempt from appeal.<sup>115</sup>

Following these changes to the appeals process, in the summer of 2003, the Forest Service adopted several new CEs for forest management that have since become the source of litigation. First, the Forest Service issued two new CEs that exempted the Forest Service from preparing an EA or EIS for fire-related projects: one for hazardous fuels reduction (Fuels CE) using prescribed fire and mechanical thinning<sup>116</sup> and the other for post-fire salvage operations.<sup>117</sup> Then, the Forest Service created categorical exclusions that exempted it from preparing an EA or EIS for (1) small live tree harvests,<sup>118</sup> (2) salvage logging of dead or

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<sup>110</sup> *Id.* This clarification began as interim guidance; however, it is now considered a permanent revision. Clarification of Extraordinary Circumstances for Categories of Actions Excluded From Documentation in an Environmental Assessment or an Environmental Impact Statement, 67 Fed. Reg. 54,622, 54,627 (Aug. 23, 2002).

<sup>111</sup> Notice, Comment, and Appeal Procedures for National Forest System Projects and Activities, 36 C.F.R. § 215.1(a) (2003).

<sup>112</sup> *Id.* §§ 215.4(a), 215.12(f).

<sup>113</sup> *Id.* § 215.10.

<sup>114</sup> *Id.* § 215.13(a); *see also id.* § 215.2 (defining “substantive comments” as those that “are specific to the proposed action, have a direct relationship to the proposed action and include supporting reasons for the Responsible Official to consider”).

<sup>115</sup> *Id.* § 215.20(b).

<sup>116</sup> U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 31.2(10) (2003).

<sup>117</sup> 36 C.F.R. § 220.6(e)(11) (2004); U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 31.2(11).

<sup>118</sup> 36 C.F.R. § 220.6(e)(12); U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 31.2(12). It may not be used for clear-cutting, but may be used for the removal of individual trees and thinning projects.

dying trees,<sup>119</sup> and (3) sanitation harvest to control insects or disease and prevent infection of adjacent healthy forests.<sup>120</sup>

The CEs using prescribed fire, mechanical thinning, or post-fire salvage operations have certain restrictions. For prescribed fire CEs, the projects must be less than 4,500 acres. Only areas less than 1,000 acres are allowed for projects that use mechanical methods like brush removal and commercial logging,<sup>121</sup> and post-fire rehabilitation activities such as repairs or improvements to areas unlikely to recover from fires are limited to 4,200 acres.<sup>122</sup> For each of these CEs, fuels reduction must be the primary purpose in order to qualify.<sup>123</sup>

The second set of CEs is specific to the harvest of live trees. Any timber harvest under seventy acres can qualify for a categorical exclusion,<sup>124</sup> as can salvage of dead or dying trees in areas up to 250 acres,<sup>125</sup> and commercial harvest of trees to control insects or disease in areas up to 250 acres.<sup>126</sup>

The implementation of the Healthy Forests Initiative and subsequently, the creation of these new CEs, served as a new method for forest managers to potentially avoid the time-consuming regulatory hurdles of NEPA, and begin to effectively combat the pine beetle epidemic. For example, in areas that the beetle already killed, the Forest Service could seek to implement a series of categorically excluded projects. First, it could mechanically thin small stands of dead, yet still overgrown, forest to remove the most ignitable materials, thus lessening the chances for a catastrophic, soil sterilizing fire. Then, it could follow up with a series of small controlled burns to targeted areas, which would ensure more age-diverse forest regeneration. In essence, forest managers would have the ability to create a forest that more closely resembles the forest prior to a century of fire suppression. Further, in areas currently infested with beetles, the Forest Service could approve individual projects of fewer than 250 acres to remove infected trees. Using a series

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<sup>119</sup> 36 C.F.R. § 220.6(e)(13); U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 31.2(13).

<sup>120</sup> 36 C.F.R. § 220.6(e)(14); U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 31.2(14).

<sup>121</sup> National Environmental Policy Act Documentation Needed for Fire Management Activities; Categorical Exclusions, 68 Fed. Reg. 33,814, 33,814 (June 5, 2003).

<sup>122</sup> 36 C.F.R. § 220.6(e)(11); U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 31.2(11).

<sup>123</sup> U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 31.2(10)(e).

<sup>124</sup> 36 C.F.R. § 220.6(e)(12); U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 31.2(12).

<sup>125</sup> 36 C.F.R. § 220.6(e)(13); U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 31.2(13).

<sup>126</sup> 36 C.F.R. § 220.6(e)(14); U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 31.2(14).

of these categorical exclusions and many small projects, the Forest Service may be able to avoid the time constraints of NEPA in order to effectively combat the beetle outbreak in the western United States. Of course, the theoretical and reality seldom match.

Upon adoption, the Forest Service immediately began using these new CEs on projects throughout the western states, and almost as quickly, conservation groups began challenging their use. The groups generally challenged the adoption of the CEs as well as individual projects under NEPA.

Several cases involving these exact issues have been litigated in the past seven years, and the most relevant are discussed in the following section.

## V. JUDICIAL CHALLENGES TO THE NEW CATEGORICAL EXCLUSIONS

### A. Colorado Wild v. United States Forest Service

On July 31, 2004, forest managers for the Rio Grande National Forest of southwestern Colorado announced the Shaw Lake Project, which proposed to use a CE to treat approximately 241 acres of a spruce beetle outbreak within the Rio Grande National Forest.<sup>127</sup> Colorado Wild, a consortium of conservation groups, challenged the project by claiming the CE used by the Forest Service violated a CEQ regulation that required that a categorical exclusion only encompass activities “which do not individually or cumulatively have a significant effect on the human environment.”<sup>128</sup> By doing so, Colorado Wild claimed that the Forest Service acted arbitrarily and capriciously due to the methodology it used to promulgate the CE, as well as in reaching the conclusion that activities included in the CE normally would not have significant environmental impacts.

The case was brought under the Administrative Procedure Act. Relying on this Act, the court based its decision on the principle that it may not overturn the decision of an administrative agency unless the action was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.<sup>129</sup> The Forest Service limited projects to 250 acres for dead stands and 70 acres for living stands. It devised these acreage limitations by surveying 154 timber harvest projects across the country. Of the 154 projects, 101 were salvage projects and 53 were green timber harvest projects.<sup>130</sup> Additionally, 122 of the projects were approved under a CE that no longer exists, and 32 were documented with EAs. The projects ranged

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<sup>127</sup> Colo. Wild v. Forest Serv., 435 F.3d 1204, 1212 (10th Cir. 2006).

<sup>128</sup> *Id.*

<sup>129</sup> *Id.* at 1213 (citing 5 U.S.C. § 706(2)(A) (2000) and *Utahns for Better Transp. v. U.S. Dep't of Transp.*, 305 F.3d 1152, 1164 (10th Cir. 2002)).

<sup>130</sup> *Id.* at 1218.

in size from quite miniscule acreage to one project that covered 9,000 acres.<sup>131</sup> All 154 projects were reviewed by the Forest Service, which concluded that they did not individually or cumulatively have a significant impact on the human environment. Consequently, the Service set the CE limitations at dispute here by taking the acreage mean of the projects. The mean of dead stand projects totaled just over 250 acres and the mean for living projects was just over 50 acres.<sup>132</sup> The court found that the Forest Service did not act arbitrarily or capriciously when it decided to impose acreage limitations of 250 acres for dead stands and 70 acres for living stands.<sup>133</sup>

Colorado Wild also made a two-part argument regarding the use of the acreage-limited CEs. First, it contended there was a risk that similar salvage projects, over both time and different geographic areas, would cause significant cumulative impacts on the environment.<sup>134</sup> Next, it claimed that there was a risk the Forest Service would break up larger salvage projects into smaller ones so as to fit them within the CE.<sup>135</sup>

The court found those claims to be ill founded. First, the court said that those concerns are addressed in the CEQ regulations. The regulations require that the Forest Service scope all proposed projects, which entails considering the cumulative impacts of connected, cumulative, and similar actions.<sup>136</sup> If, based on the scoping, the Forest Service is uncertain whether the proposed project “may have a significant effect on the environment,” it must prepare an EA.<sup>137</sup> Therefore, the court found that this requirement addressed the risk of similar projects, over both time and different geographic areas, causing significant cumulative impacts on the environment.

With regard to the second claim, the court found that CEQ regulation prevented the Forest Service from breaking down large projects into small component parts to avoid cumulative significance.<sup>138</sup> Although other courts in

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<sup>131</sup> *Id.* at 1210.

<sup>132</sup> *Id.* at 1214.

<sup>133</sup> *Id.* at 1216.

<sup>134</sup> *Id.* at 1220.

<sup>135</sup> *Id.*

<sup>136</sup> *Id.* at 1221; *see, e.g.*, 40 C.F.R. § 1508.25(a)(3) (2009) (stating that the Forest Service must consider “[s]imilar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography”); U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 10, § 11.2 (referencing 40 C.F.R. § 1508.25).

<sup>137</sup> *Colo. Wild*, 435 F.3d at 1221; U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, ch. 30, § 30.3.

<sup>138</sup> *Colo. Wild*, 435 F.3d at 1221; 40 C.F.R. § 1508.27(b)(7) (“[The agency must consider] [w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts. . . . Significance cannot be avoided by . . . breaking [a project] down into small component parts.”).

other cases have determined that the Forest Service acted arbitrarily or capriciously by approving many small projects that were essentially part of one large project,<sup>139</sup> this court maintained that such an analysis should be conducted on a case-by-case basis and that, until shown otherwise, there will be a presumption that the Forest Service will observe the CEQ regulation.<sup>140</sup> The court thus concluded that the Forest Service did not act arbitrarily or capriciously in promulgating its CEs.

### B. *Wildlaw v. Forest Service*

In 2003, shortly after the Forest Service promulgated its new rules in connection with the Healthy Forests Initiative, a group of sixteen conservation groups (*Wildlaw*) filed suit, alleging multiple violations by the Forest Service when it promulgated its new CEs. Included in the eleven count complaint were claims that the Forest Service violated NEPA by adopting the new CEs without preparing either an EA or an EIS.<sup>141</sup> Additionally, *Wildlaw* claimed that the Forest Service violated NEPA by adopting the CEs because actions that would validate one of those CEs significantly affect the human environment.<sup>142</sup> In its decision, the district court afforded a great amount of deference to the Forest Service and found no NEPA violations.

With respect to *Wildlaw's* first claim, the court adopted the Seventh Circuit's reasoning in *Heartwood v. U.S. Forest Service*, which determined that "the adoption of a CE is not an 'action' within the meaning of NEPA."<sup>143</sup> The *Wildlaw* court based this decision on three points.

First, it reasoned that the CEQ regulations "do not expressly state that the agency must follow the same procedures in adopting a CE as it would in taking any other action."<sup>144</sup> Second, the court concluded that preparing an EA prior to

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<sup>139</sup> *Colo. Wild.*, 435 F.3d at 1221 (citing *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1215 n.6 (9th Cir. 1998) (holding that a single EIS was required to address the cumulative effects of five projects that were part of a coordinated strategy); *Found. for Global Sustainability, Inc.'s Forest Protection v. McConnell*, 829 F. Supp. 147, 151 (W.D.N.C. 1993) (finding that the evidence that the Forest Service did not segment the operation purposely to avoid the mandatory documentation outweighed the inference of improper motive)).

<sup>140</sup> *Colo. Wild.*, 435 F.3d at 1221; *Sullivan v. Everhart*, 494 U.S. 83, 94 (1990).

<sup>141</sup> *Wildlaw v. U.S. Forest Serv.*, 471 F. Supp. 2d 1221, 1230 (M.D. Ala. 2007).

<sup>142</sup> *Id.*

<sup>143</sup> *Id.* at 1242–43. In *Heartwood, Inc. v. U.S. Forest Service*, "the plaintiffs alleged that, in adopting a set of CEs, the Forest Service violated NEPA by not preparing an EA or EIS to assess the CEs' environmental impact." *Id.* at 1242 (citing *Heartwood, Inc. v. U.S. Forest Serv.*, 230 F.3d 947 (7th Cir. 2000)). The *Heartwood* court found that NEPA documentation was not necessary and that no NEPA violation had occurred. *Heartwood*, 230 F.3d at 954–55.

<sup>144</sup> *Wildlaw*, 471 F. Supp. 2d at 1242–43.

adopting a CE does not make sense because “the adoption of a CE does not itself authorize any particular actions that could impact the environment.”<sup>145</sup> Third, it determined that

because the CEQ must review and approve CEs before the Forest Service adopts them, the fact that the CEQ has not required the Forest Service to prepare an EA before adopting CEs can be viewed as an interpretation by the Council of its own regulations that no NEPA analysis is required.<sup>146</sup>

Wildlaw’s second pertinent claim differed slightly from the *Colorado Wild* claim. In *Colorado Wild*, the plaintiffs contended that multiple categorically excluded projects in the same area required a cumulative impact analysis. However, Wildlaw instead claimed that the Forest Service failed to consider the cumulative impact of the regulations when it chose not to prepare an EIS.<sup>147</sup> Wildlaw claimed that the regulations, taken together, along with several proposed regulatory changes that were not challenged in the case, have a significant effect on the human environment and thus require preparation of an EIS.<sup>148</sup> The court determined that, although NEPA regulations do require that agencies consider the cumulative impacts of their actions, that requirement is limited to actions that are related to one another in some way. Additionally, the court said that no suit may be brought until those projects are specifically proposed or undertaken, making their cumulative impact concrete enough to be analyzed in an EIS.

Finally, Wildlaw challenged the CEs that excluded “[h]azardous fuels reduction activities using prescribed fire, not to exceed 4,500 acres, and mechanical methods for crushing, piling, thinning, pruning, cutting, chipping, mulching, and mowing, not to exceed 1,000 acres,”<sup>149</sup> as well as the CE that excludes post-fire rehabilitation not exceeding 4,200 acres.<sup>150</sup> In challenging the CEs, Wildlaw contended that the CEs will have significant effects on the environment, and that the Forest Service failed to consider relevant scientific literature while relying on faulty information.

The court addressed these concerns by outlining the process taken by the Forest Service that led to it adopting the CEs. Based on its review, the court determined that neither (1) the Forest Service’s determination that the activities

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<sup>145</sup> *Id.* at 1243.

<sup>146</sup> *Id.*

<sup>147</sup> *Id.* at 1248–49.

<sup>148</sup> *Id.* at 1249.

<sup>149</sup> *Id.* at 1252 (challenging FOREST SERVICE HANDBOOK 1909.15 ch. 30, § 31.2(10)).

<sup>150</sup> *Id.* (discussing FOREST SERVICE HANDBOOK 1909.15 ch. 30, § 31.2(11)).



defined in the CEs would not individually or cumulatively have a significant effect on the human environment nor (2) the reliance on past projects and a Forest Service study caused the Forest Service to act arbitrarily or capriciously in adopting the CEs. The court therefore determined that the Forest Service had satisfied its requirement under NEPA to take a “hard look” at its actions, and the CEs were valid. This court’s decision was rendered on January 26, 2007. However, three months later a similar case was decided that drastically changed the way the Forest Service can permit CEs.

### C. *Sierra Club v. Bosworth*

The Sierra Club filed an action challenging the application of the hazardous fuels reduction (Fuels) CE to three projects in the Eldorado National Forest.<sup>151</sup> The projects all involved a combination of logging and burning of a quantity of acres that fell within the CE’s limitations.<sup>152</sup> In bringing suit, Sierra Club sought a nationwide injunction that would enjoin use of the Fuels CE. In its argument, Sierra Club claimed that the CE inappropriately included activities that have significant effects on the environment, that data underlying the Fuels CE did not support promulgation of the CE, that the Forest Service did not adequately identify activities covered by the CE, and that the Forest Service did not adequately determine that there were no “extraordinary circumstances” under which the CE would not be appropriate. The district court granted summary judgment in favor of the Forest Service and Sierra Club appealed.<sup>153</sup>

On appeal, the United States Court of Appeals for the Ninth Circuit found that the Fuels CE was not in compliance with NEPA on several grounds and, thus, granted the permanent injunction. First, the court found that the Forest Service failed to engage in the required scoping process before establishing the CE.<sup>154</sup> It concluded that the Forest Service decided to establish a CE for hazardous fuels reduction before gathering relevant data.<sup>155</sup> Instead, the Service gathered data to affirm a predetermined outcome. For this reason, the Court determined that the Forest Service failed to take NEPA’s requisite “hard look” at the environmental consequences of its actions early enough, which prevented its analysis from contributing to the decisionmaking process.<sup>156</sup> In effect, the court said that even if

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<sup>151</sup> *Sierra Club v. Bosworth*, 510 F.3d 1016, 1021–22 (9th Cir. 2007).

<sup>152</sup> *Id.* at 1021.

<sup>153</sup> *Id.* at 1022.

<sup>154</sup> *Id.* at 1027.

<sup>155</sup> *Id.* at 1026.

<sup>156</sup> *Id.* (citing *California v. Norton*, 311 F.3d 1162, 1175 (9th Cir. 2002) (other citations omitted)).

the data ultimately supported the Forest Service's decision to create a CE, the fact that the Service put the cart before the horse made the CE procedurally deficient and as such it must be set aside.

Second, the Ninth Circuit found that the Forest Service failed to adequately consider:

[T]he unique characteristics of the applicable geographic areas, the degree to which effects on the quality of the environment were controversial or the risks were unknown, the degree to which the CEs might establish a precedent for future actions with significant effects or represented a decision in principle about future considerations, the degree to which the actions might affect endangered species, and whether there existed cumulative impacts from other related actions.<sup>157</sup>

Specifically, the court found that the Forest Service needed to conduct a cumulative impacts analysis for the Fuels CE as a whole.<sup>158</sup>

The court remanded the case to the United States District Court for the Eastern District of California with specific instructions, and on November 25, 2008, the district court entered a stipulation and order enjoining the use of the CE, pending new rulemaking.<sup>159</sup> In response to this litigation, the Forest Service amended its handbook on April 15, 2009 to strike the text of the contested Fuels CE and add language that prohibits its use.<sup>160</sup>

#### VI. CONGRESSIONAL INTERVENTION MAY BE THE ONLY VIABLE MEANS OF COMBATING THE PINE BEETLE EPIDEMIC

With seemingly insurmountable regulatory hurdles in place and a legal system that often moves at glacial speed, Congress may be the only viable option to fast-track a beetle management strategy. When presented with issues of

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<sup>157</sup> *Id.* at 1027.

<sup>158</sup> *Id.*

<sup>159</sup> *Sierra Club v. Bosworth*, No. 04-2114 (E.D. Cal. Nov. 25, 2008).

<sup>160</sup> U.S. FOREST SERV., FOREST SERV. HANDBOOK 1909.15 ch. 30, § 31.2(10) strikes out text of the categorical exclusion and adds the following language prohibiting its use:

“[T]he Forest Service is enjoined from implementing the Fuels CE pending its issuance of a new decision that is consistent with the Court's opinion in *Sierra Club v. Bosworth*, 510 F.3d 1016 (9th Cir. 2007) and that complies with 40 C.F.R. § 1507.3 (including prior public notice and comment).” *Sierra Club v. Bosworth*, No. 04-2114 (E.D. Cal. Nov. 25, 2008). Unless and until the Agency complies with these requirements, this category is not to be used. See also the Chief's 1570-1 memo dated December 1, 2008.

national, regional, or even local significance, Congress has created special interest exemptions to many of the laws discussed above, including NEPA and the ESA. The following are two of the most notable exemptions.

In 1968, oil was discovered at Prudhoe Bay, Alaska, but how best to transport it became an issue. After considering many options, the oil companies in the region determined that a large pipeline leading from the Prudhoe Bay oil fields to the Port of Valdez was the most economically viable method of transport. However, before any construction could begin, Congress passed NEPA. Three environmental organizations filed a lawsuit claiming that the pipeline project violated NEPA, as well as the Mineral Leasing Act of 1920.<sup>161</sup> Although the Department of the Interior engaged in the NEPA process and drafted an EIS, the project's completion stalled due to a court-determined violation of the Mineral Leasing Act. In response to growing political pressures to develop a more vibrant supply of domestic oil, including the Arab oil embargo, Congress voted to pass the Trans-Alaska Pipeline Authorization Act on November 16, 1973. The Act exempted the construction of the Alaska oil pipeline from NEPA and halted court involvement under related laws, including the Mineral Leasing Act.<sup>162</sup> Construction began in 1974, and oil began flowing down the pipeline in 1977.

The second instance of a Congressional exemption involved the snail darter: a small fish native to the waters of Tennessee. In 1967, the Tennessee Valley Authority began construction of the Tellico Dam and reservoir. In 1973, Dr. David Etnier discovered the previously unknown snail darter, and in 1975, the FWS listed the snail darter as endangered under the relatively new ESA. The FWS classified the area that was supposed to become Tellico reservoir as snail darter critical habitat. Consequently, the Federal District Court for the Eastern District of Tennessee ordered that the Tennessee Valley Authority halt construction of the dam. The United States Supreme Court affirmed the lower court's decision by recognizing the ESA's ordering of priorities in favor of preventing the extinction of species.<sup>163</sup> The Supreme Court decision caught the ire of Congress because the dam meant jobs and, especially, electricity for the area; so in 1978, Congress circumvented the ESA to ensure the completion of the Tellico Dam.<sup>164</sup>

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<sup>161</sup> L.J. Clifton & B.J. Galloway, *History of Trans Alaska Pipeline System*, in ENVIRONMENTAL REPORT FOR THE TRANS-ALASKA PIPELINE SYSTEM RIGHT-OF-WAY 1.3-1 (Feb. 15, 2001) (draft), available at [http://tapseis.anl.gov/documents/docs/Section\\_13\\_May2.pdf](http://tapseis.anl.gov/documents/docs/Section_13_May2.pdf).

<sup>162</sup> Victor M. Sher & Carol Sue Hunting, *Eroding the Landscape, Eroding the Laws: Congressional Exemptions from Judicial Review of Environmental Laws*, 15 HARV. ENVTL. L. REV. 435, 436 n.2, 438-41 (1991); Stephen W. Owens, *Congressional Action Exempts Observatory from the Endangered Species Act*, 13 J. ENERGY NAT. RESOURCES & ENVTL. L. 314 (1993).

<sup>163</sup> *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 173 (1978).

<sup>164</sup> Sher & Hunting, *supra* note 162, at 441-44.

In addition to these two high profile instances of Congress exempting projects from environmental regulation, other projects have been fast-tracked through Congressional action. In 1984, Congress passed a number of bills that exempted certain logging projects in the Pacific Northwest from environmental laws.<sup>165</sup> Then in 1987, Congress passed legislation regarding timber-related conflicts in the Northwest that allowed the Forest Service to continue management in certain situations without having to consider the established protections for the threatened Northern Spotted Owl.<sup>166</sup>

All of these examples indicate that when an issue of national or even regional significance is held hostage by a web of regulation and the courts, Congress weighs in. The pine beetle falls within this realm. The death of billions of trees can have impacts on a variety of levels. Snowpack may be reduced or the timing of runoff could be altered, which could lead to municipal and irrigation water supply issues. Industries that rely on wood products could be forced to reduce their workforce or even shut down. Of course, the loss of jobs and industry would invariably trickle down to impact the economic conditions of the towns where those people reside. Species that rely on the forests may be impacted as well. Some may thrive under the new conditions, but other species that rely heavily on particular species of pine trees and a dense canopy could be impacted immensely. Congressional action would not only be prudent and timely, it may be the only option forest managers have to quickly and effectively react to the pine beetle epidemic.

#### CONCLUSION

The roots of the recent outbreak of pine beetles across the Western United States and Canada can be traced to more than a century of forest mismanagement. In response to this mismanagement, Congress passed a series of acts that were meant to protect the environment and encourage thorough analysis prior to undertaking any projects on federal land. Unfortunately, all too often compliance with NEPA, ESA, NFMA, and MUSYA takes years and costs millions of dollars, which can stall or prevent the commencement of useful projects. Consequently, these well-intentioned acts may have contributed to the homogeneous, unnaturally dense, even-aged forests of today, and, in fact, may have contributed to the scale of the current beetle epidemic. At the very least, they are a principal reason for the inability to combat the outbreak.

Even when the Forest Service attempted to create limited categorical exclusions to NEPA analysis for small, individual projects, environmental groups filed lawsuits that ultimately forced the Forest Service to abandon this creative

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<sup>165</sup> *Id.* at 444–47.

<sup>166</sup> Owens, *supra* note 162, at 452.

solution. The recent *Bosworth* decision forced the Forest Service to amend its handbook, and until a new provision can be adopted, the only way to begin a project aimed at removing copious amounts of beetle killed trees would be through the creation of an EIS. Due to the time-sensitive nature of the beetle epidemic, an expensive, time-consuming EIS is not plausible. This cornucopia of environmental regulation leaves only one option that may result in a more efficient means of combating the beetle outbreak: Congress. Perhaps, through a coordinated effort by western governors, legislators, ranchers, businessmen, and other interested parties, our nation's leaders will recognize the limited time available to act and pass legislation that would allow the Forest Service to avoid the time consuming constraints of the ESA, NFMA, and NEPA and quickly try to set the course for healthier forests in the United States. However, if Congress does not act, then our current regulatory structure may be predisposing us to another highly stressed, overgrown, homogeneous, even-aged forest system susceptible to future cataclysmic beetle outbreaks. In short, a failure to act quickly may cause the impacts of this beetle epidemic to be seen for generations, rather than decades.