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## Calming the Fire: How a Negligence Standard and Broad Cost-Recovery Can Help Restore National Forests After Wildfires

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# CALMING THE FIRE: HOW A NEGLIGENCE STANDARD AND BROAD COST-RECOVERY CAN HELP RESTORE NATIONAL FORESTS AFTER WILDFIRES

CHARLES RIORDAN\*

**Abstract:** This Note provides an overview of the statutory and common law relating to forest fires, with a particular focus on fires started by power lines in National Forests. Fire is a constant threat to America's forests and is capable of doing enormous damage to critical ecological systems. Yet the legal ramifications of forest fires are often determined by state law, which leads to doctrinal inconsistency. Recently, the U.S. Court of Appeals for the Ninth Circuit has joined California courts in allowing the federal government to bring broad damages claims against utility companies responsible for forest fires. Other states, by contrast, limit the types of damages that the government can claim. The standard of liability for forest fires can be similarly ambiguous. The best way forward, from an environmental perspective, is to condition recovery on a showing of negligence, while granting restoration costs in cases where culpability is clear.

## INTRODUCTION

In September 2011, a forest fire in Bastrop County, Texas destroyed more than 1600 homes and burned more than 34,000 acres of land.<sup>1</sup> By some measures, it was the largest fire ever to strike Texas.<sup>2</sup> Gusting winds and an ongoing drought exacerbated the fire, but the initial cause was mundane: a dead tree falling against a power line.<sup>3</sup>

The Bastrop Fire was not the first of its kind. Power lines are not the most common source of forest fires, but fires started by power lines

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<sup>1</sup> Ciara O'Rourke & Patrick George, *What Caused the Bastrop Fire?*, AUSTIN AM-STATESMAN, Sept. 21, 2011, at A01.

<sup>2</sup> See Jordan Breal et al., *Trial by Fire*, TEX. MONTHLY, Dec. 2011, at 134, 134 (“In terms of human habitation, it was the single most devastating wildfire in Texas history.”).

<sup>3</sup> See Ricardo Gándara, *Bastrop Victims Sue Utility, Claim Negligence*, AUSTIN AM-STATESMAN, Sept. 27, 2011, at A08.

often occur in remote locations, and can be devastating.<sup>4</sup> California estimates that power lines cause one to three percent of its fires each year, and the Federal Energy Regulatory Commission has reported that the actual number could easily be larger.<sup>5</sup> Any power line running through a forest is a fire hazard because encroaching vegetation often causes fires.<sup>6</sup>

In the face of this threat, federal and state governments are aggressively pursuing public utilities for costs related to forest fires.<sup>7</sup> Utility companies in California have paid tens of millions of dollars in settlements;<sup>8</sup> one company has even applied (unsuccessfully) for a rate increase to cover uninsured costs.<sup>9</sup> Utilities have complained that they might be found liable for forest fires even when complying with safety regulations.<sup>10</sup> Moreover, a recent ruling from the U.S. Court of Appeals for the Ninth Circuit seems to expand the range of potential damages to include a forest fire's "intangible" effects.<sup>11</sup> This presents a quandary for utility companies that are obligated to serve fire-prone areas.<sup>12</sup>

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<sup>4</sup> See FEDERAL ENERGY REGULATORY COMMISSION, UTILITY VEGETATION MANAGEMENT FINAL REPORT 7 (2004) [hereinafter UVM REPORT].

<sup>5</sup> See *id.* at 7 n.7. California averaged slightly more than five thousand fires annually from 2008–2012. *Incident Information*, CAL FIRE (Jan. 21, 2011), [http://cdfdata.fire.ca.gov/incidents/incidents\\_stats?year=2012](http://cdfdata.fire.ca.gov/incidents/incidents_stats?year=2012) (last visited Apr. 6, 2013), available at <http://perma.cc/0VKTY8NoBsH>.

<sup>6</sup> See *e.g.*, UVM REPORT, *supra* note 4, at 7. The Bastrop County Complex fire of 2011 was one of several Central Texas fires thought to be caused by downed power lines. See O'Rourke & George, *supra* note 1, at A01.

<sup>7</sup> See Steven S. Kimball, *Forest Fire Damages in Transition*, 56 FED. LAW. 38, 38–39 (2009) ("The growth in the size and frequency of forest fires may have been outpaced recently by the dramatic increase in damages claimed by the United States from defendants whose negligence assertedly ignited a fire."); Karen Bradshaw Schulz, *Legal Issues in Forest Fire Cost Recovery*, CA. FORESTS, Spring 2012, at 20, 20 (noting that California has devoted a state department to cost recovery).

<sup>8</sup> See Demian Bulwa, *PG&E Settles Forest-Fire Suits for \$29.5 Million*, S.F. CHRON., Mar. 15, 2012, available at <http://www.sfgate.com/news/article/PG-E-settles-forest-fire-suits-for-29-5-million-3407791.php> and <http://perma.cc/0cfwrVuHncM>; John Ellis, *Power Firm Settles Calif. Forest Fire Lawsuit for \$14m*, FRESNO BEE, Sept. 22, 2006, available at <http://www.firerescue1.com/fire-news/238029-power-firm-settles-calif-forest-fire-lawsuit-for-14m/> and <http://perma.cc/0D0iilDgWaS> (noting that a 2006 forest fire settlement was one of the largest of its kind in American history). In 2008, a railroad company paid more than \$102 million to settle damages claims arising out of a 2000 forest fire. See *United States of America v. Union Pacific Railroad Company*, 39 TRIALS DIGEST 11th 20 (2008), 2008 WL 4287139 (Railroad settles forest fire claims for \$102 million).

<sup>9</sup> See Morgan Lee, *SDG&E Fire Recovery Plan Rejected*, SAN DIEGO UNION TRIB., Dec. 21, 2012, available at <http://www.utsandiego.com/news/2012/dec/21/tp-sdge-fire-recovery-plan-rejected> and <http://perma.cc/0nLUTVqMSVW>.

<sup>10</sup> See *id.*

<sup>11</sup> See *United States v. CB & I Constructors, Inc.*, 685 F.3d 827, 837 (9th Cir. 2012).

<sup>12</sup> Lee, *supra* note 9.

This Note addresses the legal issues surrounding utility lines and forest fires on federal land and focuses on theories of liability and recoverable damages. Courts have split on how to treat claims arising from power line fires. A line of cases in Western states, especially California, apply broad theories of liability, while a smaller line of cases limit potential causes-of-action based on narrow statutory interpretation.<sup>13</sup> California courts also treat federally owned forests differently from other types of land when calculating fire damages.<sup>14</sup> This Note argues that the best way to assign forest fire costs fairly and accurately is for courts to condition recovery upon a showing of negligence, while allowing broad cost recovery claims in cases where culpability is clear.<sup>15</sup> Broad cost-recovery, when applicable, can help fund the type of restoration efforts that are vital to rebuilding and protecting our national forests.<sup>16</sup>

Part I of this Note discusses statutory and common law liability for forest fires.<sup>17</sup> The critical issues are whether the United States can recover fire suppression costs under ambiguous state statutes, and whether the common law will impose no-fault liability for a forest fire.<sup>18</sup> Part II discusses what potential damages can be recovered after a fire strikes National Forest land. This discussion includes damage to tangible assets such as timber, as well as the intangible, environmental services that forests provide.<sup>19</sup> Finally, Part III offers a path forward based on the understanding that forest fires, though unavoidable, have enormous ecological and economic effects that the legal system should account

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<sup>13</sup> See *infra* notes 48–70 and accompanying text.

<sup>14</sup> Compare *United States v. Union Pac. R.R.*, 565 F. Supp. 2d 1136, 1143 (E.D. Cal. 2008) (noting that cases involving damage to real property have little relevance to protected government forest lands that have no market value), and *Feather River Lumber Co. v. United States*, 30 F.2d 642, 644 (9th Cir. 1929) (holding that recovery for damage to property without market value is not restricted by normal rules for calculating damages), with *Heninger v. Dunn*, 162 Cal. Rptr. 104, 106 (Ct. App. 1980) (noting that the normal rule for damage to real property is the difference in the property's value before and after the injury).

<sup>15</sup> See *infra* notes 198–267 and accompanying text. Due to the broad scope of the topic, this Note's analysis is restricted to fires started by power lines on federal land.

<sup>16</sup> See Robert B. Keiter, *The Law of Fire: Reshaping Public Land Policy in an Era of Ecology and Litigation*, 36 ENVTL. L. 301, 382 (“Restoring fire and fire-resilient ecosystems to the public lands will be both an expensive and long term process requiring adequate and secure funding.”); see also Sarah Gilman, *As Rim Fire Scorches Yosemite, Forest Service Cuts Restoration Funding*, HIGH COUNTRY NEWS, THE GOAT BLOG (Aug. 27, 2013, 4:00 AM), <http://www.hcn.org/blogs/goat/as-rim-fire-scorches-yosemite-forest-service-cuts-restoration-funding>, available at <http://perma.cc/0uZf7paiTmv> (noting that the Forest Service will withhold \$18 million for habitat and restoration work in 2013 to meet sequestration requirements).

<sup>17</sup> See *infra* notes 22–92 and accompanying text.

<sup>18</sup> See *infra* notes 22–92 and accompanying text.

<sup>19</sup> See *infra* notes 93–196 and accompanying text.

for, ideally by allowing recovery of restoration costs after a forest fire.<sup>20</sup> A legal preference for restoration would help preserve the ecological benefits that forests provide, thus protecting the environment as a whole.<sup>21</sup>

### I. LIABILITY FOR FOREST FIRES

When a forest fire starts on federal land, the government agency managing the land must determine the cause and assess any billable costs.<sup>22</sup> Generally, the agency will attempt to recover costs only when the fire occurred due to negligence.<sup>23</sup> Costs can be recovered either through an administrative process or through the Affirmative Civil Enforcement program, in which a civil lawsuit is filed against an offending party.<sup>24</sup>

If a power line causes the fire, the line owner might be liable to the government for both suppression costs and damages to resources, including the costs of rehabilitating and improving the land.<sup>25</sup> Because utility companies are almost always insured against fires, most lawsuits brought by the government against utility companies are settled.<sup>26</sup> Typical causes-of-action for power line fires can nevertheless be gleaned from disputed cases, pre-settlement motions, and agency guidance.<sup>27</sup>

<sup>20</sup> See *infra* notes 198–267 and accompanying text.

<sup>21</sup> See Keiter, *supra* note 16, at 314–15 (noting that recent fires have disrupted historical ecological patterns); John B. Loomis & Robert Richardson, *Economic Values of the U.S. Wilderness System*, INT’L J. OF WILDERNESS, Apr. 2001, at 31, 31–33 (listing several ecological benefits of forests).

<sup>22</sup> See BUREAU OF LAND MGMT., U.S. DEP’T OF THE INTERIOR, FIRE TRESPASS HANDBOOK 2 (2012) [hereinafter FIRE TRESPASS HANDBOOK].

<sup>23</sup> See *id.* at v. Parties who intentionally set forest fires are also liable for incurred costs. *Id.* at iii.

<sup>24</sup> *Id.* at v.

<sup>25</sup> See *United States v. CB & I Constructors, Inc.*, 685 F.3d 827, 837 (9th Cir. 2012); *United States v. Union Pac. R.R.*, 565 F. Supp. 2d 1136, 1139 (E.D. Cal. 2008); see also FIRE TRESPASS HANDBOOK, *supra* note 22, at iii.

<sup>26</sup> See, e.g., sources cited *supra* note 8.

<sup>27</sup> See, e.g., *State, Dep’t of Natural Res. & Conservation v. Mont. Power Co.*, 943 P.2d 1251, 1252–53 (Mont. 1997) (utility company charged with negligence and negligence per se for forest fire arising from alleged violations of electrical safety code); *Fire Insurance Exchange v. Pacific Gas & Electric Company*, 34 TRIALS DIGEST 124, 1994 WL 847690 (1994) (utility company charged with neglecting to maintain vegetation clearance near power line, which led to a fire); *Robert Thomas, Mary E. Vander Ploeg, Edward Lynch, Catana Sanchez, Lynn Gillmon, Richard J. Hodgkinson, Don W. Brown & Christina Larkin v. Pacific Gas & Electric, Hewlett Lee & Edwin Ellis*, 38 TRIALS DIGEST 12361, 1991 WL 11254030 (1991) (utility company charged with negligence in inspecting and trimming trees near a power line, which led to a fire); see also *United States v. S. Cal. Edison Co.*, 413 F. Supp. 2d 1101, 1104 (E.D. Cal. 2006) (upholding contractual indemnification clause as a valid basis for forest

These causes of action can be roughly divided into two types: statutory claims and common law claims.<sup>28</sup> Although the line between these categories is sometimes blurred, a general rule is that the costs of suppressing fires can only be recovered by statute, whereas damage to property is potentially subject to both statutory and common law.<sup>29</sup>

### A. Statutory Claims

If a fire burns national forest land and a civil lawsuit is filed, the government “stands in the shoes of any injured landowner” and may try to recover costs under applicable state law.<sup>30</sup> The government can assert any available statutory claims, as long as such claims do not conflict with federal policy or interests.<sup>31</sup> In many cases, a state statute will allow the federal government to collect suppression costs, which are typically unrecoverable under the common law.<sup>32</sup>

#### I. Applicable Statutes: A Survey

California Health and Safety Code §13009 is a typical example of a state statute that seeks to deter forest fires.<sup>33</sup> The statute provides that any person who negligently or illegally starts a fire is liable for suppres-

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fire cause of action); FIRE TRESPASS HANDBOOK, *supra* note 22, at iii (“The [Bureau of Land Management] . . . shall pursue cost recovery for human-caused fires . . . when negligence or intent has been established.”).

<sup>28</sup> See *infra* notes 30–92 and accompanying text.

<sup>29</sup> See, e.g., CAL. HEALTH & SAFETY CODE §§ 13007, 13009 (West 2006) (authorizing recovery for injuries to property caused by a fire, as well as recovery of fire suppression costs); WIS. STAT. § 26.14(9)(b) (2012) (providing that any person setting a fire that spreads into a forest fire will be responsible for suppression costs); COLO. REV. STAT. § 13–21–105 (2012) (“If any person sets fire to any woods or prairie so as to damage any other person, such person shall make satisfaction for the damage to the party injured.”); *S. Ry. Co. v. Crowe*, 366 S.E.2d 846, 847–48 (Ga. Ct. App. 1988) (deciding claim for forest fire damages under state common law).

<sup>30</sup> Norman J. Wiener, *Uncle Sam and Forest Fires: His Rights and Responsibilities*, 15 ENVTL. L. 623, 626 (1985).

<sup>31</sup> *Id.*; see *United States v. California*, 655 F.2d 914, 917 (9th Cir. 1980) (quoting *United States v. Nationwide Mut. Ins. Co.*, 499 F.2d 1355, 1356–57 (9th Cir. 1974)) (“[W]here there has been no clear federal law to apply, federal courts have referred to state law to provide the appropriate rule.”).

<sup>32</sup> See *United States v. City & Cnty. of S.F.*, 446 F. Supp. 2d 1140, 1142–46 (E.D. Cal. 2008) (dismissing the United States’ federal law claims against defendant, but allowing claims based on California Health and Safety Code); *District of Columbia v. Air Fla., Inc.*, 750 F.2d 1077, 1080, (D. C. Cir. 1984) (noting general rule that emergency response costs cannot be recovered absent statutory authority); *Dep’t of Natural Res. v. Wis. Power & Light Co.*, 321 N.W.2d 286, 288 (Wis. 1982) (noting that liability for fire suppression costs must be imposed by statute, as there is no provision for recovery under common law).

<sup>33</sup> HEALTH & SAFETY § 13009.

sion costs and emergency or rescue services.<sup>34</sup> A broad range of litigants have brought claims under the statute.<sup>35</sup>

Washington State's current fire liability statute, Revised Code of Washington (RCW) § 76.04.495, allows Washington state, its municipalities, and any fire protection agency of the United States to recover reasonable suppression costs from parties whose negligence caused a forest fire.<sup>36</sup> Prior to 1986, however, the statute did not explicitly say which parties could recover costs.<sup>37</sup> RCW § 76.04.370 read in part: "If the state shall incur any expense from fire fighting made necessary [by a fire hazard], it may recover the cost thereof from the person responsible."<sup>38</sup> The Ninth Circuit affirmed denial of a federal government claim for fire suppression costs under this version of the statute, which was revised prior to the decision.<sup>39</sup>

Similarly, Utah's former statute authorizing recovery of fire suppression costs did not specify to which parties it applied.<sup>40</sup> Prior to 2012, Utah Code § 65A-3-4 read: "A person who negligently, recklessly, or intentionally causes or spreads a wildland fire shall be liable for the cost of suppressing that wildland fire."<sup>41</sup> The statute did not explicitly mention which parties could collect those costs.<sup>42</sup> Utah Code § 65A-3-4 was amended in 2012 and now explicitly applies to anyone incurring suppression costs: "A person who incurs costs to suppress a wildland fire may bring an action under this section to recover those costs."<sup>43</sup> The amendment was passed following litigation in which the United States was denied recovery of suppression costs for a fire on federal land.<sup>44</sup>

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<sup>34</sup> See *id.*

<sup>35</sup> See *City & Cnty. of S.F.*, 446 F. Supp. 2d at 1142, 1144, 1144 n.4 (United States able to bring state law claims against San Francisco for fire arising from negligent maintenance of a utility pole); *Giorgi v. Pac. Gas & Elec. Co.*, 72 Cal. Rptr. 119, 120, 123 (Ct. App. 1968) (State of California and individual firemen brought suit against utility company for forest fire arising from negligence).

<sup>36</sup> See WASH. REV. CODE § 76.04.495(1) (1994).

<sup>37</sup> See *id.* § 76.04.370 (repealed 1986).

<sup>38</sup> See *United States v. Burlington N., Inc.*, 500 F.2d 637, 639 n.1 (9th Cir. 1974) (quoting § 76.04.370).

<sup>39</sup> See *id.* at 639, 641.

<sup>40</sup> See UTAH CODE ANN. § 65A-3-4 (West 2011) (repealed and re-enacted 2012).

<sup>41</sup> *Id.*

<sup>42</sup> See *id.*; see also OKLA. STAT. ANN. tit. 2, § 16-32 (West 2011) (allowing collection of suppression costs from parties who "willfully or carelessly" cause a fire, payable to "governmental units.").

<sup>43</sup> UTAH CODE ANN. § 65A-3-4(3) (West 2012).

<sup>44</sup> See *United States v. Rocky Mountain Power*, No. 2:11-CV-00227, 2011 WL 3423383 \*1, \*3-4 (D. Utah Aug. 4, 2011).

Other areas of ambiguity include standards of liability.<sup>45</sup> For example, Wisconsin Statute § 26.14 provides in part, “Any person who sets a fire on any land [resulting in a forest fire] shall be liable for all expenses incurred in the suppression of the fire by the state.”<sup>46</sup> The litigable question for this statute is whether the phrase “sets a fire” imposes strict, no-fault liability.<sup>47</sup>

## 2. Statutory Litigation: Standing and Implied Culpability

### a. *Ambiguous Statutes and Federal Standing*

Under California Health and Safety Code §13009, the United States, the State of California, and private individuals have all been able to seek compensation for forest fires, including fires started by utility companies.<sup>48</sup> The United States however, has faced standing hurdles in other states.<sup>49</sup> In *United States v. Burlington Northern, Inc.*, decided in 1974, the Ninth Circuit denied the United States standing to sue under a Washington State statute—the precursor to RCW § 76.04.495—that allowed the State of Washington to collect suppression costs.<sup>50</sup> The court reasoned that the statute granted an express cause of action to the state only, and that a narrow reading of the statute was appropriate because it created a cause of action separate from common law.<sup>51</sup> Although the United States had actually provided the fire-fighting services under a cooperative agreement with Washington, it could not recover its costs under the statute; the court held that federal claims under the statute must be subrogated to state claims, and the cooperative agreement did not qualify as subrogation.<sup>52</sup>

*United States v. Rocky Mountain Power*, arising from a 2011 forest fire that burned 3571 acres of federal land, is a more recent example of the

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<sup>45</sup> See, e.g., WIS. STAT. § 26.14(9)(b) (2004) (providing that any person setting a fire that spreads into a forest fire will be responsible for suppression costs); COLO. REV. STAT. § 13-21-105 (“If any person sets fire to any woods or prairie so as to damage any other person, such person shall make satisfaction for the damage to the party injured.”).

<sup>46</sup> § 26.14(9)(b).

<sup>47</sup> See *Wis. Power & Light Co.*, 321 N.W.2d at 288–89.

<sup>48</sup> See cases cited *supra* note 35.

<sup>49</sup> See *Burlington*, 500 F.2d at 639; *Rocky Mountain Power*, 2011 WL 3423383 at \*3–4. *But see* *State v. Plum Creek Timber Co.*, No. CV03-297-N-EJL, 2005 WL 2415991 \*1, \*8 (D. Idaho Sept. 30, 2005) (allowing United States to recover fire suppression costs that were explicitly subrogated to costs incurred by the State of Idaho).

<sup>50</sup> 500 F.2d at 639.

<sup>51</sup> *Id.*

<sup>52</sup> *Id.* at 638–39.

federal government's standing problem under state forest fire statutes.<sup>53</sup> The United States sought fire suppression damages under Utah Code § 65A-3-4, which placed no explicit restrictions on who might bring claims under the statute.<sup>54</sup> The U.S. District Court for the District of Utah, however, held that only the State of Utah, and not non-state actors, could recover suppression costs under § 65A-3-4.<sup>55</sup> The Court's holding rested on the underlying structure of the Code, and on the absence of any mention of the federal government in the statutory text.<sup>56</sup>

Restrictive statutory interpretations of fire statutes, as in *Burlington Northern* and *Rocky Mountain Power*, are not universally applied, however.<sup>57</sup> Other District and Circuit Courts have held that the United States has authority to invoke similarly-worded forest fire statutes, even when the statute does not explicitly mention the United States.<sup>58</sup> Thus in the 1973 case *United States v. Boone*, the Tenth Circuit allowed the federal government to recover fire suppression costs under a Colorado statute that authorized "any . . . person" to collect damages from a fire-starter.<sup>59</sup>

In addition, the United States can sometimes circumvent its standing problem by entering into subrogation agreements with state agencies, in which the United States pays for costs incurred by state firefighters.<sup>60</sup> A recent case allowed the United States to collect suppression costs under a cooperation agreement with the State of Idaho, which provided fire-fighting services that were paid for by the federal government.<sup>61</sup> The cooperation agreement also included express language declaring subrogation to state claims, aiding the United States' case.<sup>62</sup>

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<sup>53</sup> 2011 WL 3423383 at \*1, \*4.

<sup>54</sup> *Id.* at \*1; see UTAH CODE ANN. §65A-3-4(1) (repealed and re-enacted 2012).

<sup>55</sup> *Rocky Mountain Power*, 2011 WL 3423383 at \*4.

<sup>56</sup> *Id.* at \*3 ("Had the Utah legislature intended to allow the federal government to recover its fire suppression costs . . . it could have easily included that language.").

<sup>57</sup> See *United States v. Boone*, 476 F.2d 276, 278 (10th Cir. 1973); *United States v. Merco Constr. Eng'rs, Inc.*, No. CV 08-3609 PA (AGRx), 2010 WL 1068413 \*1, \*2, \*4 (C.D. Cal. Jan. 25, 2010); *Plum Creek Timber Co.*, 2005 WL 2415991 at \*8.

<sup>58</sup> See *Boone*, 476 F.2d at 278 (holding that United States was a "person" under language of governing statute); *Merco Constr. Eng'rs, Inc.*, 2010 WL 1068413 at \*2 (holding that United States could recover suppression costs under statute allowing recovery for "any damages"); *Plum Creek Timber Co.*, 2005 WL 2415991 at \*8 (holding United States could recover suppression costs under statute allowing cost recovery for "the state [Idaho] or its authorized agencies.").

<sup>59</sup> *Boone*, 476 F.2d at 277 (citing COLO. REV. STAT. §41-2-5).

<sup>60</sup> See *Plum Creek Timber Co.*, 2005 WL 2415991 at \*8 (citing BLACK'S LAW DICTIONARY 1467 (8th ed. 2004)).

<sup>61</sup> *Id.*

<sup>62</sup> *Id.*

b. *Ambiguous Statutes and Implied Culpability*

Even when the United States can validly invoke a state statute to recover costs of a fire, there is an additional hurdle to overcome: the statute might require culpability on the part of the defendant.<sup>63</sup> Even if there is no specific culpability requirement, many courts are reluctant to impose strict liability on fire-setters and will read an implicit requirement of culpability into the statute.<sup>64</sup>

For instance, in *Department of Natural Resources v. Wisconsin Power & Light Company*, decided in 1982, the State of Wisconsin attempted to recover fire suppression costs from a utility company after strong winds blew a tree onto a power line, which started a forest fire.<sup>65</sup> The applicable statute stated that “Any person who sets a fire on any land [resulting in a forest fire] shall be liable for all expenses incurred in the suppression of the fire by the state.”<sup>66</sup> The Supreme Court of Wisconsin refused to hold the utility company liable for the fire because the state could not show that the fire had been negligently set.<sup>67</sup> Although the governing statute did not mention negligence, the Court was determined not to extend liability beyond what would be required by the common law.<sup>68</sup>

Most courts seem to endorse this rule, the notable exception being the Tenth Circuit.<sup>69</sup> In *Boone*, the question of whether the United States could collect fire suppression costs without showing the defendant’s negligence was deemed a matter of statutory interpretation, and left open for the trial judge on remand.<sup>70</sup>

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<sup>63</sup> See UTAH CODE ANN. § 65A-3-4 (applying only in cases where a firestarter’s behavior is negligent, reckless, or intentional); WASH. REV. CODE § 76.04.495(1)(a) (requiring negligence for statute to apply).

<sup>64</sup> See, e.g., *Wis. Power & Light Co.*, 321 N.W.2d at 289 (dismissing United States’ claim against utility where wind had blown a tree onto distribution lines, because utility did not “set” or “allow” the fire to spread under terms of the governing statute); *Rocky Mountain Power*, 2011 WL 3423383 at \*1-3 (fire caused by power line arcing was not a “prohibited act[] on state lands” under express terms of governing statute).

<sup>65</sup> 321 N.W.2d at 288.

<sup>66</sup> WIS. STAT. §26.14(9)(b).

<sup>67</sup> *Wis. Power & Light Co.*, 321 N.W.2d at 289.

<sup>68</sup> *Id.* at 288 (quoting *Grube v. Moths*, 202 N.W.2d 261, 267 (Wis. 1972)).

<sup>69</sup> See *Boone*, 476 F.2d at 278.

<sup>70</sup> *Id.*

### B. Common-Law Tort Claims

The federal government may raise common law theories of liability in place of or in addition to any statutory claims.<sup>71</sup> The general rule is that fire suppression costs, like other emergency services costs, cannot be recovered under the common law absent statutory authority.<sup>72</sup> The government, however, may collect for damages to its land under theories of negligence, trespass, or nuisance.<sup>73</sup> The government might have to resort to common law claims if a state forest fire statute makes no provision for property damage.<sup>74</sup> If a defendant's breach of a statutory duty results in a fire, the government may also try to invoke the doctrine of negligence per se, a separate standard of liability.<sup>75</sup>

Common law tort suits generally require fault on the part of the tortfeasor, unless the activity involved is so hazardous as to invoke strict liability.<sup>76</sup> Courts have refused to apply strict liability to forest fires, and a utility fire is especially unlikely to trigger strict liability because electricity generation is vital to the community and as such is not normally considered an ultra-hazardous activity.<sup>77</sup> Thus fires started by power lines most often involve questions of negligence.<sup>78</sup>

At common law, negligence involves either an act that a reasonable person would know creates an unreasonable risk of harm to others, or a

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<sup>71</sup> Wiener, *supra* note 30, at 626–28.

<sup>72</sup> See *Air Fla., Inc.*, 750 F.2d at 1080.

<sup>73</sup> Wiener, *supra* note 30, at 626–27.

<sup>74</sup> See *Plum Creek Timber Co.*, 2005 WL 2415991 at \*1, \*8 (holding that claim for damages to federal land from forest fire could be sought under common law theories rather than a fire suppression statute); see also *Rocky Mountain Power*, 2011 WL 3423383 at \*4 (noting that tort law generally allows recovery of costs for damage to property caused by negligence of another).

<sup>75</sup> See *Mont. Power Co.*, 943 P.2d at 1252–53 (negligence per se lawsuit against utility company, for alleged violation of electrical safety code leading to forest fire); *Sullivan v. Mountain States Power Co.*, 9 P.2d 1038, 1046–48 (Or. 1932) (holding that violation of a statute requiring reasonable efforts to extinguish a fire was negligence per se); Wiener, *supra* note 30, at 628.

<sup>76</sup> See RESTATEMENT (SECOND) OF TORTS § 519 (1977).

<sup>77</sup> See *Otte v. Dayton Power & Light Co.*, 523 N.E.2d 835, 838, 841–42 (Ohio 1988) (rejecting strict liability as a cause of action against a highly-regulated public utility); see also *Smithbower v. Sw. Cent. Rural Elec. Coop., Inc.*, 542 A.2d 140, 142–43 (Pa. Super. Ct. 1988) (holding that electrical transmission is not an abnormally dangerous activity subject to absolute liability, and noting that this is the majority rule in most states).

<sup>78</sup> See, e.g., *City & Cnty of S.F.*, 446 F. Supp. 2d at 1142 (alleging negligent maintenance of a utility pole as cause of forest fire); *Giorgi*, 72 Cal. Rptr. at 120, 123 (upholding state's recovery for forest fire arising from defendant's negligence); *Mont. Power Co.*, 943 P.2d at 1252 (upholding judgment for utility company in forest fire lawsuit, where negligence was not proven).

failure to act which breaches a duty of care toward others.<sup>79</sup> Utilities have a high duty of care to the public and must take reasonable measures to prevent power line fires.<sup>80</sup> In other contexts, a common-law duty of care is often supplemented by state statutory law, which might conceivably create a “negligence per se” cause of action.<sup>81</sup> Negligence per se is a common law action arising from a violation of a statute that imposes a specific duty upon the tortfeasor: “Where a legislative enactment imposes upon any person a specific duty for the protection of others, and his neglect to perform that duty proximately results in injury to such another, he is negligent per se or as a matter of law.”<sup>82</sup>

Negligence per se is not automatically invoked any time a statute is violated—the duty created by the statute must be specific and clear, and the violation must be proximately related to plaintiff’s injury.<sup>83</sup> In the 2002 case *Entex v. Gonzalez*, a Texas court denied plaintiff’s negligence per se claim against a gas supplier for failure to warn of dangerous water heater conditions, because the governing statute authorized but did not require the supplier to stop service to the heater.<sup>84</sup> The Court held that the statute was inadequate to support negligence per se, because it did not prescribe any specific conduct.<sup>85</sup> An additional barrier to negligence per se is the burden of proving actual violation of a statute, which has proved difficult in more than one case involving utilities.<sup>86</sup> Conversely, while proof of meeting a minimum statutory standard of

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<sup>79</sup> See RESTATEMENT (SECOND) OF TORTS § 284 (1965).

<sup>80</sup> See *Kaufman v. Pittsburgh Rys.*, 69 A.2d 90, 92 (Penn. 1949) (noting that the duty of a power line owner involves the very highest degree of care in avoiding injury to others). See also *Scally v. Pac. Gas & Elec. Co.*, 100 Cal. Rptr. 501, 509 (Ct. App. 1972) (holding that duty of electric company to maintain its right of way included preventing vegetation encroachment).

<sup>81</sup> See, e.g., *Mont. Power*, 943 P.2d at 1253 (negligence per se lawsuit brought under National Electrical Safety Code); Wis. ADMIN. CODE Pub. Serv. Comm’n § 113.0512 (2012) (“A utility not inspecting its lines or operations to [manage] hazardous trees . . . may be found negligent, and, therefore, responsible for payment of forest fire suppression costs . . .”).

<sup>82</sup> *Bede v. Dayton Power & Light Co.*, No. 18705, 2002 WL 1000400 \*1, \*3 (Ohio Ct. App. May 17, 2002) (quoting *Eisenhuth v. Moneyhun*, 119 N.E.2d 440, 440 (Ohio 1954)).

<sup>83</sup> *Id.* at \*4 (quoting *Zimmerman v. St. Peter’s Catholic Church*, 622 N.E.2d 1184, 1191 (Ohio Ct. App. 1993)); see *Mosteller v. Duke Energy Corp.*, 698 S.E.2d 424, 442 (N.C. Ct. App. 2010) (denying negligence per se claim where defendant’s conduct was not proximate cause of injury).

<sup>84</sup> 94 S.W.3d 1, 8–9 (Tex. App. 2002).

<sup>85</sup> *Id.* at 9.

<sup>86</sup> See *Mont. Power*, 943 P.2d at 1254–55 (conflicting eyewitness testimony insufficient to prove utility company’s violation of maintenance standards); *Mosteller*, 698 S.E.2d at 442 (determination of utility company’s violation must be explicitly made by state agency).

care eliminates a negligence per se charge, it is not completely dispositive of defendant's negligence.<sup>87</sup>

In common law negligence claims where negligence per se is not invoked, foreseeability is a commonly litigated factor.<sup>88</sup> Foreseeability is crucial to the doctrine of proximate cause, which requires a party to be a reasonably direct cause of injury for tort liability to attach.<sup>89</sup> In *United States v. Southern California Edison Co.*, decided in 2006, a judge relied on the doctrine of proximate cause to deny summary judgment on a fire trespass claim arising after an unfortunate squirrel wandered into a transformer.<sup>90</sup> Finally, there is a practical limitation on common-law negligence claims for forest fire damages: the difficulty of proving how a fire started.<sup>91</sup> In this regard, however, government agencies are in an advantageous position because they can conduct fire investigations and gather evidence on their own to submit to a U.S. Attorney's Office.<sup>92</sup>

## II. DAMAGES TO NATIONAL FORESTS

If a forest fire occurs in a National Forest, the federal government will generally try to recover the cost of suppressing the fire (assuming the United States incurred such costs) and, importantly, the cost of any damage to its land.<sup>93</sup> Recoverable land damages have become a conten-

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<sup>87</sup> See *Galloway v. Singing River Elec. Power Ass'n*, 152 So.2d 710, 712 (Miss. 1963).

<sup>88</sup> See, e.g., *S. Cal. Edison Co.*, 413 F. Supp. 2d at 1128 (foreseeability of squirrel running into electrical transformer and igniting a forest fire was necessary factor in determining proximate cause of fire); *Silver Falls Timber Co. v. E. & W. Lumber Co.*, 40 P.2d 703, 731–33 (Or. 1935) (holding that spread of fire in windy, dry weather was foreseeable).

<sup>89</sup> See RESTATEMENT (FIRST) OF TORTS § 431 (1934); see also *S. Cal. Edison Co.*, 413 F. Supp. 2d at 1128 (noting that questions of foreseeability and proximate cause were related in case involving a forest fire).

<sup>90</sup> See 413 F. Supp. 2d at 1128 (noting that the record was insufficient to determine foreseeability of the squirrel's contact with the transformer).

<sup>91</sup> See Thomas R. May, *Fire Pattern Analysis, Junk Science, Old Wives Tales, and Ipse Dixit: Emerging Forensic 3D Imaging Technologies to the Rescue?*, 16 RICH. J.L. & TECH., no. 4, 2010, at 1, 2 (noting that fire investigation is often subjective and unscientific).

<sup>92</sup> See FIRE TRESPASS HANDBOOK, *supra* note 22, at 2, 4, 5.

<sup>93</sup> See, e.g., *United States v. CB & I Constructors, Inc.*, 685 F.3d 827, 829–30 (9th Cir. 2012) (upholding award of fire suppression costs and intangible environmental damages to National Forest land); *United States v. Union Pac. R.R.*, 565 F. Supp. 2d 1136, 1138–39 (E.D. Cal. 2008) (allowing federal government to claim damages for fire suppression costs, timber loss, reforestation costs, and loss of habitat and environmental services). Cost recovery for fire suppression is relatively well established. Under common law, the federal government can seek fire suppression costs only if its land has been threatened or damaged, and only if said costs are "reasonably incurred." See *People ex rel. Grijalva v. Superior Court*, 72 Cal. Rptr. 3d 53, 56 (Ct. App. 2008) (quoting *People v. S. Cal. Edison Co.*, 128 Cal. Rptr. 697, 705 (1976)); Wiener, *supra* note 30, at 634.

tious issue in recent litigation.<sup>94</sup> Forest fires can present unique challenges to a determination of recoverable damages because forest land can be difficult to value.<sup>95</sup> In addition, many cases involving forest fires are settled before damages are awarded, which slows the development of legal precedent.<sup>96</sup> Cases that have been fully litigated have, however, shed light on the scope of recoverable damages from forest fires in California.<sup>97</sup> Moreover, a large body of state law has developed around recoverable damages to trees, which has obvious importance to forest fire litigation.<sup>98</sup>

This Part will first examine the law of injury to trees—the most tangible assets on forest land—and the three basic methods of recovery: diminution of property value, compensation for loss of timber, and restoration costs.<sup>99</sup> It will then turn to compensation for less tangible losses, including injury to soil, habitat, scenery, and recreational interests.<sup>100</sup> The law of these non-economic environmental injuries is still in flux, but much has been written about them from a theoretical perspective.<sup>101</sup>

### A. Recoverable Damages for Injury to Trees: Diminution of Property, Timber Compensation, and Restoration Costs

#### 1. Diminution of Property and Compensation for Lost Timber

In the absence of a clear federal standard, recoverable damages to property—including damages to trees—are generally governed by state

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<sup>94</sup> See *CB & I Constructors*, 685 F.3d at 829–30 (upholding \$28 million award for environmental injuries arising from forest fire); *Union Pac.*, 565 F. Supp. 2d at 1138–39 (allowing federal government to claim damages for burned forest land).

<sup>95</sup> See *Feather River Lumber Co. v. United States*, 30 F.2d 642, 644 (9th Cir. 1929) (holding that recovery for damage to forest land, which has no market value, is not restricted by normal rules for calculating damages); *Union Pac.*, 565 F. Supp. 2d at 1143 (noting that no real estate market exists for government forest land).

<sup>96</sup> See, e.g., *Bulwa*, *supra* note 8; *Ellis*, *supra* note 8.

<sup>97</sup> See *CB & I Constructors*, 685 F.3d at 830 (upholding award for intangible harm to the environment arising from forest fire); *Union Pac.*, 565 F. Supp. 2d at 1139 (“Plaintiff may recover damages for its separate injuries to the trees, to the soil and pre-merchantable timber, and its loss of use of habitat and environmental services during the period of forest regrowth.”).

<sup>98</sup> See, e.g., *Heninger v. Dunn*, 162 Cal. Rptr. 104, 106–09 (Ct. App. 1980); *Evenson v. Liley*, 228 P.3d 420, 422–24 (Kan. App. 2010); *Keitges v. VanDermeulen*, 483 N.W.2d 137, 140–43 (Neb. 1992); *Slappo v. J’s Dev. Assocs., Inc.*, 791 A.2d 409, 419 (Pa. Super. Ct. 2002).

<sup>99</sup> See *infra* notes 102–141 and accompanying text.

<sup>100</sup> See *infra* notes 142–167 and accompanying text.

<sup>101</sup> See *infra* notes 168–197 and accompanying text.

law.<sup>102</sup> Some states enact statutes to govern damages;<sup>103</sup> other states govern damages via the common law.<sup>104</sup> Whether statutory or judicial, the unifying purpose of damages law is making an injured party whole.<sup>105</sup> Compensation should place the injured party in the position that he or she would have occupied had the injury not occurred.<sup>106</sup> Thus, several states have adopted a general rule that damages for injury to trees are determined by the diminution in value of the land on which the trees stand—the difference in fair market value before and after the injury.<sup>107</sup>

When burned or damaged trees themselves have calculable market value, this value may serve as an alternative basis for compensation.<sup>108</sup>

<sup>102</sup> See *United States v. California*, 655 F.2d 914, 917–18 (9th Cir. 1980); *United States v. City & Cnty. of S.F.*, 446 F. Supp. 2d 1140, 1144 (E.D. Cal. 2006). This is true even when the United States brings suit in federal court. 655 F.2d at 917.

<sup>103</sup> See, e.g., ME. REV. STAT. tit. 14, § 7552 (2003) (“When agricultural or forest products have been destroyed or carried away, the owner may recover as damages either the value of the lost products themselves or the diminution in value of the real estate as a whole resulting from the violation, whichever is greater.”); CAL. CIV. CODE § 3333 (West 1997) (“For the breach of an obligation not arising from contract, the measure of damages . . . is the amount which will compensate for all the detriment proximately caused thereby.”).

<sup>104</sup> See *Keitges*, 483 N.W.2d at 140–42 (giving an overview of damages law for injury to trees in various jurisdictions).

<sup>105</sup> See *Evenson*, 228 P.3d 420 at 422 (“The underlying purpose of any measure of damages in a tort action is to make the injured party whole again.”)

<sup>106</sup> See *Keitges*, 483 N.W.2d at 142 (quoting “L” Investments, Ltd. v. Lynch, 322 N.W.2d 651, 656 (Neb. 1982)) (“[T]he principle underlying allowance of damages is to place the injured party in the same position, so far as money can do it, as he would have been had there been no injury or breach of duty.”); *Henderson v. Nielsen*, 871 P.2d 495, 500 (Or. Ct. App. 1994) (“As a general rule, the function of tort damages is to compensate the injured party for its loss.”).

<sup>107</sup> See, e.g., *Union Pac.*, 565 F. Supp. 2d at 1142 (noting that as a general rule, diminution in property value is the measure of damages for injury to productive trees); *Hassoldt v. Patrick Media Grp.*, 100 Cal. Rptr. 2d 662, 672 (Ct. App. 2000) (“The usual measure of damages in a case involving damage to a tree is the difference between the value of the real property before and after the injury.”); *Slappo*, 791 A.2d at 419 (“Generally, the measure of damage for removal of standing timber is the diminution in the market value of the land.”); *Pehrson v. Saderup*, 498 P.2d 648, 649–51 (Utah 1972) (upholding diminution of property value as basis for damages from loss of lilac bushes).

<sup>108</sup> See, e.g., *Union Pac.*, 565 F. Supp. 2d at 1147 (allowing damages claim for market value of burned timber); *Jones v. Sanitary Dist. of Chi.*, 97 N.E. 211, 214 (Ill. 1911) (holding that measure of damages for lost forest trees was value of trees as timber); *Slappo*, 791 A.2d at 419 (noting that when injured trees have market value, damages may be awarded based on that value). Some jurisdictions will not account for appreciation when calculating the market value of timber. *Compare Knox Enters. v. Timbermen, Inc.*, 450 S.E.2d 834, 836 (Ga. Ct. App. 1994) (holding that plaintiff could not recover for future growth of harvested trees), and *Terry v. Butler*, 123 So. 2d 865, 871 (holding that young, unmaturing timber is not a “growing crop” for the purpose of calculating damages), with *Nielsen*, 871 P.2d at

In the 2008 case *United States v. Union Pacific Railroad*, a California court allowed the federal government to seek damages for the market value of lost timber burned in a forest fire, rather than limiting damages to diminution of value in the land.<sup>109</sup> Defendant railroad was charged with negligently causing the 2000 “Storrie Fire,” which burned more than fifty thousand acres of nationally owned forest.<sup>110</sup> The governing statute, California Health and Safety Code § 13007, provides that persons who willfully or negligently allow fire to affect the property of another are “liable to the owner of such property for any damages to the property caused by the fire.”<sup>111</sup> The court interpreted the clause allowing *any* damages broadly and allowed the plaintiff to seek the full market value of the burned timber, assessed at \$121,916,774 by the plaintiff’s experts.<sup>112</sup> The court based its holding in part on the fact that no real estate market value exists for National Forests, making the diminution in value standard inappropriate.<sup>113</sup>

The court also addressed the question of whether the government could recover the market value of burnt timber that could not be sold under federal law.<sup>114</sup> Part of the land burnt in *Union Pacific* was designated as a wilderness area, on which commercial logging was prohibited.<sup>115</sup> Defendants argued that the recoverable damages for that area should be limited because the land’s timber could not be sold.<sup>116</sup> Instead, the Court reasoned that the protected status of the land was evidence of *greater* value.<sup>117</sup> In lieu of a quantified market value for the Wilderness area, the court allowed the United States to seek the full market value of the burnt timber.<sup>118</sup>

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501 (interpreting a prior decision as favoring a measure of damages that allowed for foreseeable appreciation of young trees).

<sup>109</sup> 565 F. Supp. 2d at 1139.

<sup>110</sup> *Id.*

<sup>111</sup> CAL. HEALTH & SAFETY CODE § 13007 (West 2012).

<sup>112</sup> *Union Pac.*, 565 F. Supp. 2d at 1143, 1146.

<sup>113</sup> *Id.* In justifying the unique treatment of national forest land, the court referenced a 1929 Ninth Circuit ruling in which the United States was allowed to recover the market value of burned timber, as well as restoration costs for young trees, after a forest fire. *Id.* at 1144; see *Feather Lumber*, 30 F.2d at 644.

<sup>114</sup> *Union Pac.*, 565 F. Supp. 2d at 1146–47.

<sup>115</sup> *Id.* at 1146.

<sup>116</sup> *Id.* at 1146–47.

<sup>117</sup> *Id.* at 1147 (“Congress has elected to preserve certain NFS [National Forest Service] lands in an unharvested state. . . . These decisions reflect federal policy that such NFS lands have a higher public worth than simply the present value of their timber.”)

<sup>118</sup> *Id.*

## 2. Restoration Costs

The *Restatement (Second) of Torts* provides a different method of calculating damages: In appropriate cases, an injured party may claim the actual cost of restoring property to its previous condition.<sup>119</sup> In some jurisdictions, restoration costs can be used to compensate for injuries to trees that have little or no market value.<sup>120</sup> Restoration damages for trees are, however, subject to a number of limitations.<sup>121</sup> Some courts will not allow restoration damages to exceed diminution in value of the property.<sup>122</sup> In addition, restoration damages are sometimes allowed only to the extent that the costs are “reasonable.”<sup>123</sup> Finally, restoration damages may be precluded in certain jurisdictions absent sufficient evidence showing the value of the damaged trees.<sup>124</sup>

Restoration damages are sometimes utilized to capture non-marketable qualities of trees, including their aesthetic or personal value.<sup>125</sup> In *Keitges v. VanDermeulen*, decided in 1992, plaintiffs sought restoration costs for roughly one hundred trees that defendant had bulldozed in an attempt to build a fence.<sup>126</sup> Plaintiffs used these trees for family “nature hikes” and “nature study.”<sup>127</sup> The Supreme Court of Nebraska held that plaintiffs could seek restoration costs, even though the trees had been used solely for recreational purposes.<sup>128</sup> The court re-

<sup>119</sup> RESTATEMENT (SECOND) OF TORTS § 929 (1979) (stating that damages may consist of restoration costs in appropriate circumstances).

<sup>120</sup> See *S. Ry. Co. v. Crowe*, 366 S.E.2d 846, 848 (Ga. Ct. App. 1988) (allowing landowner to collect replanting costs for young trees with little commercial value).

<sup>121</sup> See *Heninger*, 162 Cal. Rptr. at 106–09; *Evenson*, 228 P.3d at 424; *Keitges*, 483 N.W.2d at 143; *Pehrson*, 498 P.2d at 650.

<sup>122</sup> See *Heninger*, 162 Cal. Rptr. at 107; *Keitges*, 483 N.W.2d at 143.

<sup>123</sup> *Heninger*, 162 Cal. Rptr. at 108; see also *Evenson*, 228 P.3d at 424 (holding restoration costs unreasonable where they exceeded twice the highest estimate of the property prior to injury); *Pehrson*, 498 P.2d at 650 (finding claimed restoration costs for damage to lilac bushes to be unreasonable).

<sup>124</sup> See *Evenson*, 228 P.3d at 423 (holding that restoration damages require competent evidence as to value of trees); see also *Slappo*, 791 A.2d at 419 (denying restoration costs after evidence of the value of damaged trees was excluded).

<sup>125</sup> See *Heninger*, 162 Cal. Rptr. at 108 (“In recent years, ‘courts throughout the country have placed a greater emphasis on the rights of a property owner to enjoy the aesthetic value of trees and shrubbery . . . .’”) (quoting *Rector v. C.S. McCrossan*, 235 N.W.2d 609, 610 (Minn. 1975)); *Keitges*, 483 N.W.2d at 143 (“[T]he landowner’s attempted recovery for [damaged trees] should not be entirely frustrated by the fact that the market does not reflect his personal loss.”). But see *Pehrson*, 498 P.2d at 649–51 (denying restoration damages for aesthetic value of lilac bushes on rental property).

<sup>126</sup> 483 N.W.2d at 139.

<sup>127</sup> *Id.* at 143.

<sup>128</sup> *Id.* The court added that the restoration costs could not exceed the market value of plaintiffs’ land prior to the injury. *Id.*

jected defendant's argument that damages should be limited to the diminution in value to the land.<sup>129</sup> Other jurisdictions have likewise allowed recovery for non-commercial value of trees, either through restoration, or, if that is impractical, through monetary compensation.<sup>130</sup> To avoid excessive damage awards, however, recovery for non-commercial uses is often limited by a reasonableness requirement.<sup>131</sup>

Restoration costs for non-marketable trees have been sought by the government after fires in National Forests.<sup>132</sup> The case of *Union Pacific* exemplifies this approach.<sup>133</sup> In *Union Pacific*, the U.S. District Court for the Eastern District of California allowed the federal government to seek broad damages in forest fire litigation—not just compensation for lost timber, but restoration costs for seedlings with no market value.<sup>134</sup> The court reasoned that the damage to the young and mature trees included separate, identifiable injuries, each of which fell under the language of California's general tort statute.<sup>135</sup> The court also considered it significant that plaintiffs were not asking to restore old growth forests, but seedlings only, which would be substantially less expensive.<sup>136</sup>

Landowners may recover restoration costs after a forest fire even in the absence of statutory authority.<sup>137</sup> In *Southern Railway Co. v. Crowe*, the Court of Appeals of Georgia in 1988 allowed a landowner to recover the restoration costs of twenty thousand two-year-old seedlings damaged by a forest fire, in addition to diminution in the value of her en-

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<sup>129</sup> *Id.*

<sup>130</sup> See *Heninger*, 162 Cal. Rptr. at 108–09 (listing several cases granting recovery of restoration costs for aesthetic value of trees); *Samson Constr. Co. v. Brusowankin*, 147 A.2d 430, 435 (Md. 1958).

<sup>131</sup> See *Heninger*, 162 Cal. Rptr. at 109 (holding cost of restoring trees to be unreasonably high, and remanding to determine whether cost of restoring vegetative undergrowth would be reasonable); *Pehrson*, 498 P.2d at 650 (holding that reasonableness requirement limits restoration damages based on personal value). But see *Kelly v. CB & I Constructors, Inc.*, 102 Cal. Rptr. 3d 32, 40–41 (Ct. App. 2009) (upholding jury award of substantial restoration damages for burned property, where property had no market value).

<sup>132</sup> See, e.g., *Feather Lumber*, 30 F.2d at 644 (upholding award of restoration costs for young trees after a forest fire); *Union Pac.*, 565 F. Supp. 2d at 1138–39 (allowing damage claims for lost value of marketable timber plus reforestation costs for immature, non-commercial trees).

<sup>133</sup> 565 F. Supp. 2d at 1138–39.

<sup>134</sup> *Id.* at 1150.

<sup>135</sup> *Id.* at 1145. (“[T]o fully compensate the government for injury to such protected forest lands, it must be permitted to recover for its separate and identifiable injuries.”); see CAL. CIV. CODE § 3333.

<sup>136</sup> See *Union Pac.*, 565 F. Supp. 2d at 1150–51 (holding that reforestation costs were not unreasonable as a matter of law).

<sup>137</sup> See *Crowe*, 366 S.E.2d at 847–48.

tire forest parcel, which also contained mature timber.<sup>138</sup> The court noted the trial judge's care in allowing restoration costs only for seedlings, and not for the mature, marketable trees on plaintiff's land, which were folded into the overall value of the property, their loss factoring into the diminution of the property's value.<sup>139</sup> An additional award of restoration costs for the marketable trees would have represented impermissible double recovery, as plaintiff would have needed to replant after any sale regardless of whether or not there had been a fire.<sup>140</sup> The same court had previously reversed an award of damages that included both the market value of unlawfully cut timber and the cost of replanting it.<sup>141</sup>

### B. *Environmental Damages: Soil, Scenery, Habitat, and Other Non-Economic Injury*

Forest fires in National Forests harm more than just timber.<sup>142</sup> Fires can destroy vegetation that is needed to prevent erosion, decimate animal habitats, and ruin the scenic beauty of wilderness.<sup>143</sup> Sometimes these injuries are even more significant than tree loss.<sup>144</sup> Placing an economic value on such environmental harm, however, is challenging.<sup>145</sup> One method is to quantify the environmental benefits that socie-

<sup>138</sup> *Id.*

<sup>139</sup> *See id.* at 848.

<sup>140</sup> *See id.* (“[T]he costs of replanting after timber has been removed is part of normal business costs which are borne by the landowner.”).

<sup>141</sup> *See Henderson v. Easters*, 345 S.E.2d 42, 44 (Ga. Ct. App. 1986); *see also Knox Enters.*, 450 S.E.2d at 837 (holding that plaintiff could not recover for future growth of harvested trees, and distinguishing *Crowe* as involving two types of injury, to marketable and non-marketable timber respectively).

<sup>142</sup> For example, the Copper Fire of 2002 burned eighteen thousand acres of National Forest, destroyed 90% of the endangered California Red-Legged Frog habitat, and damaged a historically significant mining site. *CB & I Constructors*, 685 F.3d at 831–32.

<sup>143</sup> *See id.*

<sup>144</sup> *See id.* at 832, 837 (upholding a jury award that was largely devoted to remedy of intangible environmental damages).

<sup>145</sup> *See* Brian R. Binger et al., *The Use of Contingent Valuation Methodology in Natural Resource Damage Assessments: Legal Fact and Economic Fiction*, 89 Nw. U. L. REV. 1029, 1030 (1995) (“The subtle relationship between environmental systems and the uses provided by those systems . . . is not readily grasped by the relative crudeness of the legal system. . . . As such, natural resource damage valuation is not always an easy task.”); Frank B. Cross, *Natural Resource Damage Valuation*, 42 VAND. L. REV. 269, 280 (1989) [hereinafter Cross, *Damage Valuation*] (examining difficulty of determining compensable value of natural resources); Christopher D. Stone, *Should Trees Have Standing? Revisited: How Far Will Law and Morals Reach? A Pluralist Perspective*, 59 S. CAL. L. REV. 1, 6 (1985) (evaluating damage to the environment is problematic); Dale B. Thompson, *Valuing the Environment: Courts’ Struggles with*

ty gains from environmental resources, such as active forests.<sup>146</sup> A looser approach has recently emerged in case law: In 2012, the Ninth Circuit upheld an award of intangible, non-economic environmental damages from a jury that had not been provided with explicit quantification of forest benefits, but instead took into account the “nature and character” of the damaged forest.<sup>147</sup> The breadth of allowable damages for forest fires is obviously important to public utilities, which filed an *amicus* brief supporting defendant’s appeal in the Ninth Circuit.<sup>148</sup> Outside of the courtroom, the problem of evaluating environmental damages has been contentious, and a body of literature has developed around the issue.<sup>149</sup>

### 1. Environmental Damages: Recent Rulings in California and the Ninth Circuit

In *Union Pacific*, discussed in Part II-A, the federal government sought compensation for injuries arising after a forest fire burned more than fifty thousand acres of National Forest.<sup>150</sup> In addition to damages for lost timber, the government sought recovery for loss of forest ser-

*Natural Resource Damages*, 32 ENVTL. L. 57, 60 (2002) (noting that natural resource damages are problematic due to lack of evidentiary certainty).

<sup>146</sup> See Kimball, *supra* note 7, at 43–44 (analyzing Habitat Equivalency Analysis (HEA) as a method of quantifying environmental damage to forests). The United States made use of HEA in litigation following the Storrie Fire of 2000. See *Union Pac.*, 565 F. Supp. 2d at 1151–52. Contingent Valuation, the process of surveying people in an attempt to monetize environmental benefits, has also been used in litigation. See Binger et al., *supra* note 145 at 1034; Sameer H. Doshi, *Making the Sale on Contingent Valuation*, 21 TUL. ENVTL. L.J. 295, 296–97 (2008).

<sup>147</sup> *CB & I Constructors*, 685 F.3d at 837–38 (“[T]he government in this case did not ‘elicit any testimony that put a dollar amount on the intangible environmental damages’ . . . Evidence about the ‘nature and character’ of the damaged National Forest environment provided a rational way for the jury to calculate the award.”).

<sup>148</sup> See Brief for S. Cal. Edison Co. et al. as Amici Curiae Supporting Appellant at \*I, \*25–26, *CB & I Constructors*, 685 F.3d 827 (No. 10–55371), 2010 WL 6791269. Tree-trimming companies also provided *amicus* briefs. See *CB & I Constructors*, 685 F.3d at 833.

<sup>149</sup> See EDWARD J. YANG ET AL., THE USE OF ECONOMIC ANALYSIS IN VALUING NATURAL RESOURCE DAMAGES 71–77 (1984) (analyzing government’s legal responsibilities for natural resources held in trust, and ramifications for damages); Cross, *Damage Valuation*, *supra* note 145 at 280–81 (listing three types of natural resource values, both economic and non-economic, that could be compensable); Stone, *supra* note 145 at 23–33 (assessing possibility of granting legal interests to natural resources); Thompson, *supra* note 145, at 88 (arguing that restoration costs for lost natural resource services would be an effective way to calculate natural resource damages); see also Kimball, *supra* note 7, at 44 (“[C]hanging public values may signal a need to modify the traditional evaluation of damages caused by forest fires.”).

<sup>150</sup> 565 F. Supp. 2d at 1139.

vices such as scenic use, recreational use, and wildlife habitat.<sup>151</sup> To quantify this loss, the government utilized a method called Habitat Equivalency Analysis (HEA).<sup>152</sup> HEA is a multi-step process, the core idea of which is to compensate for loss in one location by quantifying an “equivalent service” that would make up for the loss in a different location.<sup>153</sup> In *Union Pacific*, the government’s expert conducted the analysis by calculating losses based on the diameter of full-grown tree trunks, and then using the cost of brush clearing as an equivalent service.<sup>154</sup> The trial court permitted the government to seek damages based on this method.<sup>155</sup>

The Ninth Circuit further expanded the potential cost recovery from forest fires in the 2012 case *United States v. CB&I Constructors, Inc.*<sup>156</sup> In 2002, defendant CB&I negligently sparked a fire that burned roughly eighteen thousand acres of the Angeles National Forest.<sup>157</sup> The fire destroyed a large swath of land serving as the habitat of the endangered California Red-Legged Frog.<sup>158</sup> It also caused severe damage to a historic mining camp, which subsequently had to be de-listed from the National Register of Historic Places.<sup>159</sup> A jury awarded the United States substantial costs for environmental, “non-economic” damage in addition to resource, restoration, and fire suppression costs.<sup>160</sup> The District Court sustained the award despite multiple challenges,<sup>161</sup> and the case was appealed to the Ninth Circuit.<sup>162</sup> The Ninth Circuit then upheld the award of environmental costs, despite their “intangible,” “non-economic” nature.<sup>163</sup>

Non-economic environmental damages have been seen in contexts outside of forest fire litigation, most notably under statutory causes of

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<sup>151</sup> *Id.* at 1151–52.

<sup>152</sup> *Id.* at 1151 n.26.

<sup>153</sup> See Kimball, *supra* note 7, at 43.

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

<sup>155</sup> See *Union Pac.*, 565 F. Supp. 2d at 1152. The government had also utilized HEA in litigating an earlier forest fire; that litigation was settled prior to trial. See Kimball, *supra* note 7, at 38–39, 43.

<sup>156</sup> 685 F.3d at 837.

<sup>157</sup> *Id.* at 829.

<sup>158</sup> *Id.* at 831.

<sup>159</sup> *Id.* at 831–32.

<sup>160</sup> *Id.* at 832. The intangible, non-economic costs sought by the United States ended up comprising the lion’s share of the award: The jury awarded more than \$28 million in environmental costs versus \$7.6 million in suppression costs. *Id.*

<sup>161</sup> *Id.* at 832–33 (quoting the trial court’s denial of CB & I’s Motion for Judgment as a Matter of Law and Motion for New Trial or Remittitur).

<sup>162</sup> *CB & I Constructors*, 685 F.3d at 833.

<sup>163</sup> *Id.* at 837.

action.<sup>164</sup> In the seminal case of *Ohio v. U.S. Dep't of the Interior*, decided in 1989, the D.C. Circuit held that recovery of natural resource losses under a federal statute included non-market losses.<sup>165</sup> The court also endorsed contingent valuation—the practice of surveying the public to generate monetary estimates of resource values—as a reasonable way to assess non-use damages.<sup>166</sup> State laws may also provide a basis for recovery of environmental damages, but are inconsistent across jurisdictions, and often apply only to certain categories of injuries, such as oil spills.<sup>167</sup>

## 2. A Theoretical Basis for Environmental Damages

Many scholars have identified the need for a comprehensive theory of environmental damages, as economic recovery cannot capture the full value of natural resources.<sup>168</sup> Frank L. Cross provides a useful framework in his 1989 article *Natural Resource Damage Valuation*, dividing the value of natural resources into three categories: use value, existence value, and intrinsic value.<sup>169</sup> Use value reflects the worth of natural resources to humans, from both consumption (e.g., fishing), and non-consumptive uses (e.g. birdwatching or hiking).<sup>170</sup> Existence value and intrinsic value ascribe non-use worth to natural resources, whether for their symbolic importance to humans (existence value, e.g., the value of the Grand Canyon or of endangered species), or simply for their inherent worth independent of human sensibilities (intrinsic value).<sup>171</sup>

The concept of the intrinsic value of resources was given embryonic form by Christopher D. Stone of the University of Southern California.<sup>172</sup> In a 1985 article, Stone explored the possibility of granting legal interests—most notably, a legal right of intactness—to natural resources

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<sup>164</sup> See, e.g., 42 U.S.C. §§ 9601, 9607(a) (2006) (providing liability for damages arising from loss of natural resources); *Ohio v. U.S. Dep't of the Interior*, 880 F.2d 432, 438 (D.C. Cir. 1989) (holding that natural resource damages recovered under statute cannot be limited to economic use value).

<sup>165</sup> See *Ohio v. U.S. Dep't of the Interior*, 880 F.2d at 463–64 (“Neither the statute nor its legislative history evinces any congressional intent to limit use values to market prices. . . . Market valuation can of course serve as one factor to be considered, but by itself it will necessarily be incomplete.”).

<sup>166</sup> *Id.* at 474–81.

<sup>167</sup> See Cross, *Damage Valuation*, *supra* note 145, at 279–80.

<sup>168</sup> See sources cited *supra* note 149.

<sup>169</sup> See Cross, *Damage Valuation*, *supra* note 145 at 280–81.

<sup>170</sup> See *id.* at 281.

<sup>171</sup> See *id.* at 285–93.

<sup>172</sup> See Stone, *supra* note 145, at 26–34.

such as rivers and trees.<sup>173</sup> Stone concluded that granting absolute legal interests to natural resources would be too inflexible, and that the concept could be implemented only if flexible legal boundaries were developed and enforced.<sup>174</sup> As an example, mandatory restoration costs for pollution might be justifiable if such costs were subject to a statutory cap.<sup>175</sup>

Stone, Cross, and other advocates for recovery for environmental damages have recognized the need for an economic valuation method even in cases where the legal system ascribes intrinsic worth to natural resources.<sup>176</sup> Nevertheless, the attempt to quantify non-economic environmental damages has proved to be controversial regardless of the method used.<sup>177</sup> For example, the federal government's use of HEA in *Union Pacific* was criticized by commentators, who pointed out the numerous problems with applying HEA to forest fires.<sup>178</sup> HEA is heavily dependent on input values—the initial selection of a metric for loss and an equivalent service greatly affects the final calculation of damages.<sup>179</sup> Because of this, HEA can be arbitrary in practice.<sup>180</sup> HEA also works best when applied to relatively simple injuries; forest fires, which result in the loss of multiple services, may be too complicated to analyze.<sup>181</sup> Finally, combining HEA with damages for loss of merchantable timber might result in double recovery, as any sale of timber could result in the same type of damage to scenery sought under HEA.<sup>182</sup>

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<sup>173</sup> *Id.*

<sup>174</sup> *See id.* at 31–32.

<sup>175</sup> *See id.*

<sup>176</sup> *See* Cross, *Damage Valuation*, *supra* note 145, at 331–32; Stone, *supra* note 145, at 31–32; Thompson, *supra* note 145, at 87–88.

<sup>177</sup> *See* Binger et al., *supra* note 145, at 1032–34 (listing general drawbacks of contingent valuation); Frank B. Cross, *Restoring Restoration for Natural Resource Damages*, 24 U. Tol. L. Rev. 319, 328–32 (1993) [hereinafter Cross, *Restoration*] (listing drawbacks of contingent valuation, and concluding it is not reliable enough for legal use); Kimball, *supra* note 7, at 44 (examining drawbacks of using HEA after forest fires).

<sup>178</sup> *See* Kimball, *supra* note 7, at 44; *see also* Richard Dunford et al., *The Use of Habitat Equivalency Analysis in Natural Resource Damage Assessments*, 48 *ECOLOGICAL ECON.* 61, 68 (2004).

<sup>179</sup> *See* Kimball, *supra* note 7, at 44.

<sup>180</sup> *See id.* (comparing divergent HEA analysis of two forest fires by same analyst).

<sup>181</sup> *See id.* (citing Dr. Richard Dunford's opinion that HEA works best when there is only one affected service).

<sup>182</sup> *Id.* at 44–45.

Contingent valuation (CV), an alternative method of calculating environmental damages, has also been subject to criticism.<sup>183</sup> CV relies on survey data, but the subjects of the survey might not have detailed knowledge of natural resources systems.<sup>184</sup> In addition, because the survey questions are hypothetical, respondents will not have a tangible commitment to their answers.<sup>185</sup> Critics charge that CV leads to irrationally high valuation of resources.<sup>186</sup> In practice, courts have sometimes chosen to exclude CV surveys as uncertain and unscientific.<sup>187</sup>

Some scholars have suggested that restoration costs should represent the value of environmental damages.<sup>188</sup> Restoration costs have been more widely accepted by courts than other methods of evaluating environmental damage.<sup>189</sup> Restoration is also subject to limitation by judicial discretion—in some cases, “restoration” to a new condition is a more cost-effective option than restoration to a previous environmental baseline.<sup>190</sup> Finally, courts have found restoration costs to complement the government’s role as a public trustee for federal land.<sup>191</sup>

Other methods of quantifying forest value have developed outside of the legal arena.<sup>192</sup> Researchers have identified several categories of

<sup>183</sup> See Binger et al., *supra* note 145, at 1032–34 (listing general drawbacks of contingent valuation); Cross, *Restoration*, *supra* note 177, at 328–32 (listing drawbacks of contingent valuation, and concluding it is not reliable enough for legal use).

<sup>184</sup> See Binger et al., *supra* note 145, at 1032; Cross, *Restoration*, *supra* note 177, at 329.

<sup>185</sup> See Binger et al., *supra* note 145, at 1032–33.

<sup>186</sup> See *id.*; Thompson, *supra* note 145, at 85 (CV survey produced an estimate of \$305 million for harm to fish population, where millions of fish still existed further along the California coast).

<sup>187</sup> See Thompson, *supra* note 145, at 78–84 (examining two cases in which CV studies were excluded as evidence).

<sup>188</sup> See Cross, *Restoration*, *supra* note 177, at 321; Thompson, *supra* note 145, at 87–88 (“Experience with [natural resource damages] cases offers support for the first principle . . . that damages should be based on the costs of restoration.”).

<sup>189</sup> See Thompson, *supra* note 145, at 60 (comparing judicial acceptance of restoration costs to controversy over CV).

<sup>190</sup> See Cross, *Restoration*, *supra* note 177, at 333–34; *cf.* *Union Pac.*, 565 F. Supp. 2d at 1150–51 (granting restoration costs after forest fire for seedlings only, rather than for all injured trees, and relying on HEA to recover a portion of non-restoration costs); *Heninger*, 162 Cal. Rptr. at 109 (remanding to determine whether restoration of shrubs and underbrush, rather than full restoration of damaged trees, would be reasonable).

<sup>191</sup> See YANG ET AL., *supra* note 149, at 75–77.

<sup>192</sup> See ROBERT N. STAVINS & KENNETH R. RICHARDS, *THE COST OF U.S. FOREST-BASED CARBON SEQUESTRATION* at ii, 24–33 (2005); Michael C. Blumm & Tim Wigington, *The Oregon & California Railroad Grant Lands’ Sordid Past, Contentious Present, and Uncertain Future: A Century of Conflict*, 40 B.C. ENVTL. AFF. L. REV. 1, 67–69 (2013); Loomis & Richardson, *supra* note 21, at 31–33.

economic value arising out of wilderness areas, including vast forests.<sup>193</sup> These categories include recreation value, scientific value, and ecological value.<sup>194</sup> Forests are particularly beneficial from an ecological standpoint: Wilderness forests are estimated to yield \$1 billion in annual benefits from climate regulation, and can also generate value from watershed protection and nutrient cycling.<sup>195</sup> Additionally, the estimated cost of using forests for carbon sequestration is comparable to other climate change mitigation options.<sup>196</sup> Because forests have so many tangible ecological benefits, scholars have identified restoration as an important aspect of any environmental protection plan.<sup>197</sup>

### III. RESOLVING UTILITY-BASED FOREST FIRES: THE PATH FORWARD

Because forest fire litigation is primarily a matter of state law, it is unsurprising that a rift has developed regarding the type and amount of costs that the United States can recover after a fire.<sup>198</sup> Two main points of contention are: (1) Whether the federal government can recover fire suppression costs under state statutes that do not explicitly list the United States as a party; and (2) how damages to federal forest land should be calculated.<sup>199</sup> This Note first argues that the United States should be able to recover fire suppression costs under ambiguous statutes, and that negligence is the appropriate standard of liability for forest fires under these statutes and under common law.<sup>200</sup> It then argues that the U.S. District Court for the Eastern District of California and the U.S. Court of Appeals for the Ninth Circuit are correct to allow broad damages for forest fires in National Forests, and that restoration

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<sup>193</sup> See Blumm & Wigington, *supra* note 192, at 67–69; Loomis & Richardson, *supra* note 21, at 31–33.

<sup>194</sup> Loomis & Richardson, *supra* note 21, at 32. Five other value categories are Community, Passive Use, Biodiversity, Off-Site Use, and Education. *Id.* at 31.

<sup>195</sup> *Id.* at 33; see also Blumm & Wigington, *supra* note 192, at 68 (noting that the City of Portland has benefited economically from forest watershed protection).

<sup>196</sup> See STAVINS & RICHARDS, *supra* note 192, at ii, 24–33 (summarizing and synthesizing previous studies on the potential cost of carbon sequestration in forests); see also Blumm & Wigington, *supra* note 192, at 69 (noting that forest systems provide carbon sequestration value). Using forests for future carbon sequestration would cost between \$30 and \$90 per ton. STAVINS & RICHARDS, *supra*.

<sup>197</sup> See Keiter, *supra* note 16, at 320–21 (noting that the need for restoration efforts is not controversial); Kimball, *supra* note 7, at 45 (noting that restoration of damaged forests is a key objective of the U.S. Forest Service).

<sup>198</sup> See *supra* notes 22–196 and accompanying text.

<sup>199</sup> See *supra* notes 22–196 and accompanying text.

<sup>200</sup> See *infra* notes 202–222 and accompanying text.

damages can be a useful future tool to evaluate loss of environmental assets and services.<sup>201</sup>

A. *Statutory Cost Recovery and Common-Law Liability: Adopting a Universal Negligence Standard for Forest Fires*

Interpretation of state statutes governing recovery of fire suppression costs varies by jurisdiction, even when statutes contain similar language.<sup>202</sup> Thus the U.S. Court of Appeals for the Tenth Circuit allowed the United States to recover suppression costs under a statute that granted recovery to “any person,”<sup>203</sup> but the U.S. District Court for the District of Utah held that a statute ordering payment of suppression costs did not apply to the United States, despite similar ambiguous language.<sup>204</sup>

For both legal and policy reasons, the United States should be able to recover suppression costs under state fire-recovery statutes.<sup>205</sup> Such statutes often include broad language allowing recovery by “any person,”<sup>206</sup> or requiring payment of any suppression costs.<sup>207</sup> A general rule of statutory construction, which the Supreme Court articulated in 1917, is that the plain meaning of a statute represents *prima facie* evidence of legislative intent.<sup>208</sup> Under the “plain meaning” rule, then, the normal, broad meaning of “any” in fire suppression statutes should prevail unless it leads to an absurd result.<sup>209</sup> Allowing the United States to collect suppression costs is not absurd, but rational: If the United States is unable

<sup>201</sup> See *infra* notes 223–267 and accompanying text.

<sup>202</sup> Compare *United States v. Burlington N., Inc.*, 500 F.2d 637, 638 n.1, 639 (9th Cir. 1974), and *United States v. Rocky Mountain Power*, No. 2:11-CV-00227, 2011 WL 3423383 at \*1–4 (D. Utah Aug. 4, 2011), with *United States v. Boone*, 476 F.2d 276, 277–78 (10th Cir. 1973), and *State v. Plum Creek Timber Co.*, No. CV03–297-N-EJL, 2005 WL 2415991 \*1, \*7–8 (D. Idaho Sept. 30, 2005).

<sup>203</sup> *Boone*, 476 F.2d at 277–78 (holding that United States was a “person” under language of governing statute).

<sup>204</sup> *Rocky Mountain Power*, 2011 WL 3423383 at \*1–4.

<sup>205</sup> See, e.g., *Boone*, 476 F.2d at 278.

<sup>206</sup> E.g., CAL. HEALTH & SAFETY CODE § 13007 (West 2012).

<sup>207</sup> See, e.g., UTAH CODE ANN. § 65A-3-4 (West 2011) (repealed and re-enacted 2012).

<sup>208</sup> See *Caminetti v. United States*, 242 U.S. 470, 490 (1917) (“[T]he language being plain, and not leading to absurd or wholly impracticable consequences, it is the sole evidence of the ultimate legislative intent.”)

<sup>209</sup> See *id.* (noting that the plain meaning rule might not apply if it leads to absurd consequences). It is easier to justify federal exclusion from statutes that define a narrow class of litigants. See *Burlington*, 500 F.2d at 639 (excluding United States from collecting under Washington statute naming the State of Washington as payee of suppression costs).

to collect suppression costs, the loss shifts away from the tortfeasor and onto the public at large, which is poor public policy.<sup>210</sup>

Courts that have excluded the federal government from state cost recovery statutes have generally done so in cases where the United States sought to impose liability without fault.<sup>211</sup> Their reluctance is understandable. It is true, as scholars have noted, that at some level forest fires will inevitably arise from normal business operations on forest land, despite precautions.<sup>212</sup> Yet no-fault liability is typically reserved only for activities that are ultra-hazardous.<sup>213</sup> Courts have repeatedly refused to hold that public utilities engage in ultra-hazardous activities, and this common law rule should not be overturned in the context of fire suppression costs.<sup>214</sup>

Similarly, attempts to establish a separate standard of liability via negligence per se claims should be met with skepticism.<sup>215</sup> Negligence per se requires a nexus between breach of a statutory duty and injury.<sup>216</sup> Courts have not found an explicit statutory duty imposed on public utilities that would result in a forest fire if breached.<sup>217</sup>

<sup>210</sup> It is telling that the statutes considered in *Burlington Northern* and *Rocky Mountain Power*, which were interpreted to deny the United States the ability to collect suppression costs under state law, were both amended to allow broader recovery. See WASH. REV. CODE § 76.04.495(1) (2012) (allowing any fire protection agency of the United States to recover reasonable suppression costs from negligent parties); UTAH CODE ANN. § 65A-3-4(3) (West 2012) (“A person who incurs costs to suppress a wildland fire may bring an action under this section to recover those costs.”); *supra* notes 50–56 and accompanying text.

<sup>211</sup> See *Burlington*, 500 F.2d at 640 (Refusing to impose strict liability for alleged negligence per se violation); *Rocky Mountain Power*, 2011 WL 3423383 at \*4–5 (holding that ambiguously-worded statute does not imply strict liability).

<sup>212</sup> See *Kimball*, *supra* note 7, at 42; *Schulz*, *supra* note 7, at 21.

<sup>213</sup> Strict liability generally attaches to abnormally dangerous activities. See RESTATEMENT (SECOND) OF TORTS § 519 (1977).

<sup>214</sup> See, e.g., sources cited at note 77, *supra*.

<sup>215</sup> See *State, Dep’t of Natural Res. & Conservation v. Mont. Power Co.*, 943 P.2d 1251, 1252, 1254–55 (Mont. 1997) (upholding judgment for utility company in forest fire lawsuit where there was insufficient evidence of statutory violation); see also *Mosteller v. Duke Energy Corp.*, 698 S.E.2d 424, 442–43 (N.C. Ct. App. 2010) (denying negligence per se claim where state agency had not held defendant utility in violation of statute, and defendant’s conduct was not proximate cause of injury); *Entex v. Gonzalez*, 94 S.W.3d 1, 9 (Tex. App. 2002) (denying negligence per se claim where governing statute did not prescribe specific duty for gas supplier).

<sup>216</sup> See *Bede v. Dayton Power & Light Co.*, 2002 WL 1000400 \*1, \*3 (Ohio Ct. App. 2002) (quoting *Eisenhuth v. Moneyhun*, 119 N.E.2d 440 (Ohio 1954)); *Mosteller*, 698 S.E.2d at 442.

<sup>217</sup> See *Mont. Power*, 943 P.2d at 1252–53. Under current federal standards, utilities are not required to take affirmative action to remove encroaching vegetation unless a power outage occurs. See N. AM. ELEC. RELIABILITY CORP., FACILITIES DESIGN, CONNECTIONS, AND MAINTENANCE STANDARDS 003–1 (2006), available at <http://www.nerc.com/files/fac-003-1.pdf> and <http://perma.cc/0VB34HdVo34>.

Instead, the threshold for forest fire liability should be negligence—if a company breaches a duty of care, then it is appropriate to assign costs related to that breach rather than allocate costs to the public. Courts have typically adopted a negligence standard where statutory language is ambiguous.<sup>218</sup> This is consistent with the standard of liability in most jurisdictions,<sup>219</sup> and avoids imposing costs for disasters that can occur even if reasonable precautions are taken.<sup>220</sup> The duty of care imposed on public utilities is high, reducing the necessity for relaxed standards of liability.<sup>221</sup> This high duty of care puts pressure on tortious utilities to settle cases when they are even slightly at fault, which avoids costly litigation.<sup>222</sup>

### B. *Injury to National Forests: Accounting for Both Economic and Environmental Damages*

Forest fires in National Forests cause both economic and ecological harm: the former from the loss of forest assets (mainly timber), and the latter from the loss of forest services (habitat, recreation, scenery, etc.).<sup>223</sup> Courts recognize that damage awards must encompass both types of harms.<sup>224</sup> Market valuation is a useful tool for evaluating economic loss, but it captures neither the value of non-commercial assets, nor the value of environmental services.<sup>225</sup>

<sup>218</sup> See *Dep't of Natural Res. v. Wis. Power & Light Co.*, 321 N.W.2d 286, 289 (Wis. 1982); see also *Rocky Mountain Power*, 2011 WL 3423383 at \*4–5.

<sup>219</sup> See, e.g., *United States v. City & Cnty. of S.F.*, 446 F. Supp. 2d 1140, 1142, 1144 (E.D. Cal. 2008) (United States able to bring state law claims against San Francisco for fire arising out of negligent maintenance of a utility pole); *Giorgi v. Pac. Gas & Elec. Co.*, 72 Cal. Rptr. 119, 120, 123 (Ct. App. 1968) (State of California and individual firemen bring suit against utility company for forest fire arising from negligence); see also *S. Cal. Edison Co. v. United States*, 415 F.2d 758, 759 (9th Cir. 1969) (noting that the United States Forest Service commonly includes liability provisions in right-of-way agreements with public utilities, which impose liability for negligent operation of power lines).

<sup>220</sup> See Schulz, *supra* note 7, at 21.

<sup>221</sup> See *Kaufman v. Pittsburgh Rys.*, 69 A.2d 90, 92 (Penn. 1949) (noting that the duty of a power line owner involves the very highest degree of care in avoiding injury to others); RESTATEMENT (SECOND) OF TORTS § 284 (1965) (stating that negligence includes failure to act in accordance with duty to others).

<sup>222</sup> See Kimball, *supra* note 7, at 39 (“These cases [involving clear fault] can (and perhaps should) be settled without significant litigation.”).

<sup>223</sup> See *supra* notes 93–197.

<sup>224</sup> See, e.g., *United States v. Union Pac. R.R.*, 565 F. Supp. 2d 1136, 1139 (E.D. Cal. 2008) (allowing United States to seek damages for loss of timber, habitat, and environmental services after forest fire).

<sup>225</sup> See *Ohio v. U.S. Dep't of the Interior*, 880 F.2d 432, 463–64 (D.C. Cir. 1989) (“Market valuation can of course serve as one factor to be considered, but by itself it will necessarily be incomplete.”).

Where market valuation is inapplicable, restoration damages should be used.<sup>226</sup> Restoration damages have a broad foundation in common law when applied to non-marketable assets.<sup>227</sup> The idea of using restoration to account for intangible environmental value has strong scholarly support.<sup>228</sup> Finally, restoring a forest to its pre-injured condition—or a close approximation thereof—will renew forest services and benefit the environment.<sup>229</sup>

## 1. Economic Damages

Because a National Forest has no real estate market value, it is sensible to use the market value of any commercial timber as a substitute for calculating economic damages.<sup>230</sup> The Eastern District of California's approach in *United States v. Union Pacific Railroad Co.* is exemplary: The cost of lost timber was itemized as its own category of damages, separate from other environmental harms.<sup>231</sup> This approach makes sense, given that timber represents the most easily quantifiable "use value" of forests.<sup>232</sup> The court's award of damages for lost timber in Wilderness areas is also logical.<sup>233</sup> In a sense, defendants had forced the court's hand; quantifying the value of non-commercial trees as zero, as defendants had requested, would ignore their use in recreation, tour-

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<sup>226</sup> See Cross, *Restoration*, *supra* note 177, at 333.

<sup>227</sup> See, e.g., *Union Pac.*, 565 F. Supp. 2d at 1139 (allowing United States to seek restoration costs for non-merchantable trees); *S. Ry. Co. v. Crowe*, 366 S.E.2d 846, 848 (Ga. Ct. App. 1988) (awarding restoration costs for seedlings after a forest fire); *Keitges v. VanDermeulen*, 483 N.W.2d 137, 140–43 (Neb. 1992) (awarding restoration costs when owner's personal use of trees is not measurable by commercial standards, and listing cases from several jurisdictions making similar awards).

<sup>228</sup> See Cross, *Restoration*, *supra* note 177, at 333 ("Properly performed, restoration is a limited, thoughtful response to the destruction of natural resources."); see also Thompson, *supra* note 145, at 88 (arguing that restoration costs for lost natural resource services would be an effective way to calculate natural resource damages).

<sup>229</sup> See Blumm & Wigington, *supra* note 192, at 67–69; Loomis & Richardson, *supra* note 21, at 31–33; see also Kimball, *supra* note 7, at 45 (suggesting that restoration costs best capture the United States' role as steward of National Forests).

<sup>230</sup> See *Union Pac.*, 565 F. Supp. 2d at 1143, 1147 (allowing United States to seek damages for burnt timber in the absence of market valuation for the land.)

<sup>231</sup> *Id.* at 1139.

<sup>232</sup> See Cross, *Damage Valuation*, *supra* note 145, at 281 ("use value" includes consumptive uses).

<sup>233</sup> See *Union Pac.*, 565 F. Supp. 2d at 1146–47.

ism, and wildlife protection,<sup>234</sup> as well as providing a perverse incentive to future litigants.<sup>235</sup>

The Eastern District of California was also on point in awarding restoration costs for young, non-marketable trees destroyed by the Storie fire.<sup>236</sup> The broad language of California's Health and Safety Code, providing liability for any damages caused by a fire, supported the restoration award.<sup>237</sup> But non-statutory law also supports restoration damages for young trees and should be applied in nearly all cases involving damage to National Forests.<sup>238</sup>

Many jurisdictions support the proposition that restoration costs can capture the aesthetic or personal value of trees.<sup>239</sup> The federal government has an analogous interest in preserving young trees in National Forests, which it holds in trust for future generations.<sup>240</sup> In other contexts, the United States has been allowed to recover restoration costs for damage to resources held in the public trust.<sup>241</sup> After forest fires, the United States should be allowed to assert its institutional interest as a trustee under the common law.<sup>242</sup>

Courts, however, should not award *full* restoration costs indiscriminately.<sup>243</sup> If compensation is granted for timber loss, restoration costs should not be awarded for marketable timber.<sup>244</sup> This would represent impermissible double recovery, as replanting is a natural consequence of any sale.<sup>245</sup> In many situations, moreover, it may be reasonable to re-

<sup>234</sup> *Id.* (citing 16 U.S.C. §2104 (2012)).

<sup>235</sup> *Id.* at 1147 (“[U]nder [defendant’s] view, [defendant] essentially had a free pass to burn this land.”).

<sup>236</sup> *Id.* at 1150–51.

<sup>237</sup> CAL. HEALTH & SAFETY CODE § 13007 (2012).

<sup>238</sup> *See Crowe*, 366 S.E.2d at 848 (awarding restoration costs for seedlings after a forest fire).

<sup>239</sup> *See, e.g., Keitges*, 483 N.W.2d at 140–43 (awarding restoration costs when owner’s personal use of trees is not measurable by commercial standards); *see also Heninger v. Dunn*, 162 Cal. Rptr. 104, 108 (Ct. App. 1980) (citing general proposition that restoration costs can be granted for aesthetic or personal value).

<sup>240</sup> *See Union Pac.*, 565 F. Supp. 2d at 1147.

<sup>241</sup> *See YANG ET AL.*, *supra* note 149, at 75–76 (CERCLA statute authorizes government to recover restoration costs for certain use damages).

<sup>242</sup> *Cf. Union Pacific*, 565 F. Supp. 2d at 1147 (finding significance in the fact that National Forest was held in trust by United States).

<sup>243</sup> *See, e.g., Heninger*, 162 Cal. Rptr. at 109 (holding cost of restoring trees and undergrowth to be unreasonably excessive despite substantial evidence of plaintiff’s aesthetic interest).

<sup>244</sup> *See Crowe*, 366 S.E.2d at 848 (noting that restoration costs after forest fire were properly limited to seedlings).

<sup>245</sup> *See Kimball*, *supra* note 7, at 41.

store forest land partially rather than restoring it to a wilderness state.<sup>246</sup> This would comport with the general common law requirement of reasonableness for restoration costs,<sup>247</sup> and would avoid tying damages jurisprudence to an unrealistic ideal of an unchanging natural world.<sup>248</sup>

## 2. Intangible Environmental Damages

*Union Pacific* addressed intangible environmental damages—to soil, scenery, and recreation—by allowing the United States to present a valuation based on Habitat Equivalency Analysis (HEA).<sup>249</sup> This was an imperfect solution.<sup>250</sup> HEA is ill-suited for evaluating forest fire damages and has reached wildly divergent results in practice.<sup>251</sup> It is not clear whether HEA will survive admissibility tests in future cases.<sup>252</sup>

The problems with HEA are a microcosm of the difficulties inherent in quantifying environmental damages.<sup>253</sup> The ecological benefits of forests certainly have value—as outside studies have shown<sup>254</sup>—but it is difficult to put a precise monetary figure on the value of a single forest.<sup>255</sup> Even if ecological benefits could be perfectly quantified, the resulting figure would value the forest only with respect to human use, ignoring its intrinsic value.<sup>256</sup>

The United States abandoned the quest for precise quantification after the Copper Fire of 2002, and instead left it to a jury to determine

<sup>246</sup> See Cross, *Restoration*, *supra* note 177, at 333–34.

<sup>247</sup> See, e.g., *Heninger*, 162 Cal. Rptr. at 108–09; *Evenson v. Lilley*, 228 P.3d 420, 422–24 (Kan. Ct. App. 2010) (holding restoration costs unreasonable where they exceeded twice the highest estimate of the property prior to injury).

<sup>248</sup> See Cross, *Restoration*, *supra* note 177, at 334.

<sup>249</sup> See Kimball, *supra* note 7, at 43–44.

<sup>250</sup> See *id.*

<sup>251</sup> See *id.*

<sup>252</sup> Cf. Thompson, *supra* note 145, at 78–84 (analyzing two cases in which a similar quantification method failed to meet evidentiary standards).

<sup>253</sup> See *id.*; Binger et al., *supra* note 145, at 1032–33 (listing general drawbacks of contingent valuation); Cross, *Restoration*, *supra* note 175, at 328–34 (detailing problems with contingent valuation and with full restoration awards).

<sup>254</sup> See STAVINS AND RICHARDS, *supra* note 193, at ii, 24–33; Loomis & Richardson, *supra* note 21, at 31–33; see also Blumm & Wigington, *supra* note 192, at 67–69.

<sup>255</sup> See *United States v. Merco Constr. Eng'rs., Inc.*, No. CV 08–3609 PA (AGRx), 2010 WL 1068413 \*1, \*3 (C.D. Cal. Jan. 25, 2010) (noting that United States had provided evidence of environmental harm from forest fire, but could not quantify the damage); see also sources cited *supra* note 145 and accompanying text.

<sup>256</sup> See Cross, *Damage Valuation*, *supra* note 145, at 281.

the value of environmental harms suffered after a forest fire.<sup>257</sup> The Ninth Circuit upheld the jury's award of environmental damages and found that the award was rational and not grossly excessive.<sup>258</sup> Utility companies have questioned the basis of this award and argue that the jury imposed punishment rather than compensation.<sup>259</sup> If true, this would undermine the rationality of the decision—as one commentator has noted, lawsuits are ineffective deterrents against forest fires.<sup>260</sup>

The Ninth Circuit's decision was a step forward for recovery of environmental damages after forest fires.<sup>261</sup> But in order to reduce subjectivity, a better approach might be to use restoration costs as a basis for evaluating environmental harms.<sup>262</sup> Restoration damages could potentially be tailored to the severity of the fire—in cases where soil damage prevents new growth, high restoration costs would be appropriate, while in cases where fire simply clears brush, a lower award could be given.<sup>263</sup> Partial restoration costs could be given at a judge's discretion, lending flexibility to environmental valuation.<sup>264</sup> Again, the big danger for courts applying or allowing restoration damages is potential double recovery for costs related to loss of timber.<sup>265</sup> For example, restoration of scenery would be necessary after a timber sale, regardless of a fire starter's tortious conduct.<sup>266</sup> A careful court, however, should be able to work around this problem.<sup>267</sup>

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<sup>257</sup> *United States v. CB & I Constructors, Inc.*, 685 F.3d 827, 832 (9th Cir. 2012). Attorneys for the United States had suggested to the jury that environmental damages could be calculated by applying a multiplier to economic damages. *Id.* at 839.

<sup>258</sup> *Id.* at 830.

<sup>259</sup> See Brief for S. Cal. Edison Co. *supra* note 148, at \*25–26.

<sup>260</sup> See Schulz, *supra* note 7, at 21 (“[A]re [public utilities] likely to act responsibly in protecting against fire starts if they face charges when fires to [sic] occur? Probably not. . . . [I]t is difficult if not impossible to guard against and monitor fire starts along thousands of miles of power lines.”).

<sup>261</sup> See *CB & I Constructors*, 685 F.3d at 829–30 (upholding award of \$28 million in environmental damages, compared to \$7 million in other costs).

<sup>262</sup> See Cross, *Restoration*, *supra* note 177, at 333; see also Thompson, *supra* note 145, at 88.

<sup>263</sup> See Cross, *Restoration*, *supra* note 177, at 340.

<sup>264</sup> See *Heninger*, 162 Cal. Rptr. at 109 (holding cost of restoring trees to be unreasonably high, and remanding to determine whether cost of restoring vegetative undergrowth would be reasonable); see also Cross, *Restoration*, *supra* note 177, at 340. The National Oceanic and Atmospheric Association has provided helpful standards for evaluating the restoration of ecological services. *Id.* (quoting *Hearing on Oil Spill Response Technology Before the Subcomm. on Oceanography, Great Lakes and the Outer Continental Shelf of the H. Comm. on Merchant Marine and Fisheries*, 102d Cong. 126 (1991) (answers to follow-up questions for David Kennedy, Acting Chief, Hazardous Materials Response Branch, NOAA)).

<sup>265</sup> See Kimball, *supra* note 7, at 44–45.

<sup>266</sup> *Id.* at 45.

<sup>267</sup> See *Crowe*, 366 S.E.2d at 848.

## CONCLUSION

Forest fire litigation has grown increasingly contentious in recent years. Public utilities, which serve valuable public ends but present unavoidable fire risks, are in the crosshairs. Because forest fire litigation is generally governed by state law, there is no consistent doctrine in place to govern this growing problem.

Courts have understandably shied away from imposing liability for forest fires absent a showing of fault. Some courts, moreover, have gone further by forbidding the federal government from recovering the costs of fighting fires on its own land *regardless* of how the fires start. This course of action could potentially pass the costs of negligent corporate behavior onto taxpayers. A better path is to read a liability requirement into broad, ambiguously worded statutes, without dismissing the United States as a party.

Forest fires can have numerous long-term effects on National Forests, and any calculation of damages that ignores these effects is incomplete. Damages jurisprudence should take into account the intrinsic value of National Forests, which are held in trust for present and future generations. Economic value, while useful and relatively easy to calculate, does not adequately capture a forest's worth. One possible solution is to allow recovery of restoration damages for injury to National Forests. This approach has a solid foundation in case law and would best ensure a renewal of the incalculable environmental benefits that forests provide.