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Using the Public Trust Doctrine to Ensure the National Forests Protect the Public from Climate Change

John Meyer

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Using the Public Trust Doctrine to Ensure the National Forests Protect the Public from Climate Change

*John Meyer**

Logging is one of the major contributors to greenhouse gas emissions. Every unnecessary timber sale by the Forest Service contributes to our climate change crisis. While President Barack Obama has stated his intention to have science guide the decision-making process, he recently allocated half a billion dollars for logging projects under a statutory framework that lacks scientific grounding. After an introduction, the article will look at the Healthy Forests Restoration Act and the American Recovery and Reinvestment Act of 2009 - a framework that encourages the Forest Service to continue polluting our atmosphere. Part III will look at the historical statutes responsible for creating the agency's institutional memory - one that has either elevated timber harvesting above conservation measures, or afforded the agency the discretion necessary to make the choice. Part IV will survey the current statutory provisions applicable to the Forest Service to demonstrate why the agency refuses to pick up the ball on climate change. Part V will look at how the public trust doctrine can be used to require the agency to do its part in fighting global warming.

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I. Introduction

Our forests store a lot of the world's carbon, and Americans are responsible for protecting that capacity.

-Forest Service Chief Gail Kimbell¹

The Forest Service manages public lands in our national forests and grasslands, which encompass 193 million acres.² The trees, plants, and soils in these forests and grasslands play a "critical role" in mitigating climate change by driving the global carbon cycle—sequestering carbon dioxide through photosynthesis and releasing it through respiration.³ America's forests currently offset about ten percent of our country's carbon emissions,⁴

1. Gail Kimbell, U.S. Forest Service Chief, Forest Management and Climate Change Response, Address at the 8th National Conference on Science, Policy and the Environment (Jan. 16, 2008) [hereinafter "*Forest Management*"] (transcript available at <http://www.fs.fed.us/news/2008/speeches/01/climate.shtml>).

2. U.S.D.A. Forest Service Home Page, www.fs.fed.us

3. Union of Concerned Scientists, *Recognizing Forests Role in Climate Change*, http://www.ucsusa.org/global_warming/solutions/forest_solutions/recognizing-forests-role-in.html (last visited Mar. 21, 2009).

4. ANN INGERSON, THE WILDERNESS SOCIETY, U.S. FOREST CARBON AND CLIMATE CHANGE: CONTROVERSIES AND WIN-WIN APPROACHES (2007); Gail Kimbell, U.S. Forest Service Chief, The Future of Forest Research in the United States, Address at IUFRO

but have the potential to sequester up to thirty-six percent of industrial emissions under different policy approaches.⁵ More carbon is stored in forests than in anything else but oceans,⁶ making the vast forest estates “globally important storehouses of carbon.”⁷

Even though the use of fossil fuels is generally considered the primary contributor to the world’s increase in atmospheric concentration of carbon dioxide,⁸ science has documented how unnecessary logging by the Forest Service is contributing to climate change.⁹ The agency’s traditional approach to forest management needs to be rethought with the challenge of global climate change upon us all.¹⁰

Despite a statutory mandate to study how the national forests can mitigate climate change impacts,¹¹ the agency has largely failed to consider its own science that suggests many logging practices are scientifically unjustified,¹² thereby contributing to global warming.¹³ Moreover, the bulk of environmental statutes governing land management were enacted decades ago and did not contemplate the disastrous climate change impacts the agency itself is predicting.¹⁴ The statutes that are applicable do

Conference: Forest Research Management in an Era of Globalization (Apr. 18, 2008) (hereinafter “*Forest Research*”) (transcript available at <http://www.fs.fed.us/news/2007/speeches/04/research.shtml>).

5. INGERSON, *supra* note 4, at 2.

6. Kimbell, *Forest Management*, *supra* note 1.

7. *Id.*; Union of Concerned Scientists, *supra*, note 3.

8. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (“IPCC”), WORKING GROUP I, CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS - SUMMARY FOR POLICYMAKERS (2007).

9. Chad Hanson, *Logging Industry Misleads on Climate and Forest Fires*, THE JOHN MUIR PROJECT OF EARTH ISLAND INSTITUTE (“[L]ogging is one of the major contributors to greenhouse gas emissions.”) (citations omitted), *available at* <http://www.johnmuirproject.org/pdf/OpEdClimateAndFireGeneralTextJune08.pdf>.

10. See Dale Bosworth, Former Forest Service Chief, *Climate Change and the Future of Forestry*, Address at the North American Forest Commission (Oct. 23, 2006) (transcript available at <http://www.fs.fed.us/news/2006/speeches/10/climate-change.shtml>) (“The bottom line is this: As foresters, we need to start thinking long-term about the most serious problems we will face in the coming century, and climate change is certainly one of them. For years, we have been trying with mixed success to manage uncharacteristically severe wildfires and outbreaks of forest pests. Now, we are coming to see that climate change is part of the underlying problem - and a common thread.”).

11. 16 U.S.C. § 1642(a)(2), (c)(1) (2006).

12. See *infra*, notes 40-41; 49-51; 56-57.

13. See Hanson, *supra* note 9.

14. Gail Kimbell, U.S. Forest Service Chief, *Managing Forests in an Era of Climate Change: Perspectives from the U.S.*, Address at the Forest Service 2008 Adaptation Conference (Aug. 25, 2008) (hereinafter *Managing Forests*) (transcript available at <http://www.fs.fed.us/news/2008/speeches/08/iufro.shtml>) (“[C]limatic disruption will have disastrous consequences in many parts of the world.”).

not require the agency to reduce its carbon footprint. A new science-based approach with specific, measurable, and enforceable standards is needed¹⁵ if the Forest Service is going to help avert the extensive and catastrophic impacts that are predicted.¹⁶

Timber in National Forests is public property, managed by the Federal Government on behalf of present and future generations.¹⁷ As trustee, the Forest Service must protect the basic value of the resource.¹⁸ Accordingly, the government not only has the ability to protect the trees and the ecosystem services they provide, it has the obligation.¹⁹ How the government manages our assets is subject to our supervision.²⁰

The public trust doctrine can be used to require the agency to manage our forests in a way that protects us from the impacts of climate change. The idea of using the public trust doctrine to influence management of public resources is not new. Forests have been treated as a public resource in England and the doctrine has made past appearances in challenges to federal land management in the United States. As such, it is not far fetched to use the public trust doctrine to require the Forest Service to use the best available science when managing our national forests for protection against

15. Steven Ruddell, et al., *The Role for Sustainably Managed Forests in Climate Change Mitigation*, J. FORESTRY 315 (2007).

16. See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), CLIMATE CHANGE 2001: SYNTHESIS REPORT SUMMARY FOR POLICYMAKERS 8-16 (2001) (describing the projected effects of climate change, including increased sea levels, increased threats to human health, changes in ecological productivity, and increases in extreme climate events); see also IPCC, CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS, SUMMARY FOR POLICYMAKERS 5 (2007), available at <http://www.ipcc.ch/SPM2feb07.pdf> (reporting that improved understanding of climate change has confirmed, with “a very high confidence,” that human activities have increased greenhouse gas levels in the atmosphere since 1750, and this increase has had a warming effect on the earth); UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, CLIMATE CHANGE—SCIENCE, TEMPERATURE CHANGES, <http://www.epa.gov/climatechange/science/recenttc.html> (last visited Nov. 18, 2007) (The eight warmest years on record (since 1850) have all occurred since 1998 and the trend is expected to continue).

17. See *Light v. United States*, 220 U.S. 523, 537 (1911) (“the public lands are held in trust for all the people of the United States”); see also *Arizona Ctr. For Law in the Pub. Interest v. Hassell*, 837 P.2d 158, 169 (Ariz Ct. App. 1991) (“The beneficiaries of the public trust are not just present generations but those to come.”).

18. *Knight v. United States Land Ass’n*, 142 U.S. 161, 181 (1891) (stating that the federal government is the “guardian of the people of the United States over public lands.”); Gerald Torres, *Who Owns The Sky?*, 19 PACE ENVTL. L. REV. 515, 519 (2002) (“the property is deemed not to belong to the state, but to the people for whom the state is beneficially managing the asset.”).

19. Torres, *supra* note 18, at 529-550.

20. *Id.* at 526; see also Mary Christina Wood, *Atmospheric Trust Litigation*, in CLIMATE CHANGER READER (W.H. Rodgers, Jr. & M. Robinson-Dorn eds., Carolina Academic Press) (forthcoming 2009).

climate change. Moreover, the agency should be subject to strict judicial scrutiny when it attempts to eliminate the very resources that protect us from the deleterious effects of global warming.

II. The Statutory Framework

Taken together, the Healthy Forests Restoration Act (“HFRA”) and the American Recovery and Reinvestment Act of 2009 (“ARRA”) authorize the Forest Service to log 80 million acres of “hazardous fuels.”²¹ While the ARRA only allocates the funds necessary to carry out the statutory directives under the HFRA,²² neither statute references any science used to determine the treatments which are necessary.

A. The Healthy Forests Restoration Act

This Act is doomed to failure in not protecting either small towns or big trees.

-Representative Jay Inslee²³

Global warming is arguably the most far-reaching and formidable environmental issue facing the world.²⁴ “What we do in the next two to three years will determine our future. This is the defining moment.”²⁵ And yet the Forest Service is carrying on with business as usual.²⁶ Despite global warming “catastrophes” that threaten numerous tree species,²⁷ the HFRA encourages the Forest Service to push forward with unnecessary logging sales that are contributing to the threat of all species’ survival.²⁸

21. Noelle Straub, *Key Appropriator Questions Wildfire Fund*, ENVT & ENERGY DAILY, Thursday, Apr. 2, 2009.

22. 123 Stat. 115 (Westlaw version at *170-71).

23. Molly Villamana, *House Passes Wildfire Bill After Fierce Debate*, ENVT & ENERGY DAILY, May 21, 2003 (quoting Representative Jay Inslee of Washington).

24. PEW CTR. ON GLOBAL CLIMATE CHANGE, U.S. TECHNOLOGY AND INNOVATION POLICIES, LESSONS FOR CLIMATE CHANGE (2003).

25. Elizabeth Rosenthal, *U.N. Chief Seeks More Leadership On Climate Change*, N.Y. TIMES, Nov. 18, 2007.

26. See Matthew Daly, *New Forest Service Chief Gets Rough Treatment in Congress*, ASSOCIATED PRESS, Feb. 14, 2007 (detailing Forest Service plans to double harvest levels (up to 800 million board feet in Washington, Oregon, and Northern California in fiscal year 2008)).

27. Every large, mature lodgepole pine forest in Colorado and southern Wyoming will be dead within three to five years. Todd Hartman, *Death of Trees “Catastrophic,”* ROCKY MOUNTAIN NEWS, Jan. 15, 2008; M. Martin Smith & Fiona Gow, *Unnatural Preservation*, HIGH COUNTRY NEWS, Feb. 4, 2008 (“[A] massive die-off” of pinon pine trees in the Southwest is being called a “global warming type event.”).

28. 108 Pub. L. No. 148, 117 Stat. 1887 (codified at 16 U.S.C. §§ 6501-91 (2004)).

Aggressive fire suppression in fire-adapted ecosystems has kept fires out of our forests for the last century.²⁹ The prevalent mentality for the last 100 years has been that “wildfires are bad” and burned forests are “destroyed.”³⁰ Forests that are “destroyed” have traditionally been viewed as having virtually no economic worth.³¹ Thus, the agency has expended huge amounts of money and resources to prevent wildfires so that the trees could be logged instead.³²

Many ecosystems have evolved with fire and some species’ life strategies depend on severely burned forests to provide habitat.³³ It is now clear that a century of fire suppression was probably not the best management strategy. Nonetheless, Congress did not enact a statute to encourage fire back onto the landscape. Instead, it created HFRA³⁴ - a statute specifically designed to allow even more logging³⁵ with even less oversight and participation from the public.³⁶

1. The (Lack of) Science Behind HFRA

Several key assumptions that were used to supply the rationale for HFRA are proving incorrect. First, the idea that “at risk communities” can be protected from fires by logging in areas more than a mile from the nearest structure has been disavowed by the agency’s own scientists.³⁷ Second, the

29. GEORGE WUERTHNER, *WILDFIRE: A CENTURY OF FAILED FOREST POLICY* xv (George Wuerthner ed., Island Press 2006).

30. So says Smokey the Bear. <http://www.smokeybear.com/good-bad.asp>. This website is endorsed by the Forest Service. <http://www.smokeybear.com/wildfires.asp>

31. “Salvage” logging attempts to recover what little value is left. WUERTHNER, *supra* note 29, at 7.

32. *Id.*

33. *Id.*

34. 108 Pub. L. No. 148, 117 Stat. 1887 (codified at 16 U.S.C.A. §§ 6501-91 (West Supp. 2004)).

35. Jessie B. Davis, Comment, *The Healthy Forests Initiative: Unhealthy Policy Choices in Forest and Fire Management*, 34 ENVTL. L. 1209, 1209 (2004) (“[HFRA] seems calculated not to produce healthier forests, but greater timber harvests from public lands.”).

36. *Id.* at 1243; *see* OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS, REPORT NO. OTA-F-505, *FOREST SERVICE PLANNING: ACCOMMODATING USES, PRODUCING OUTPUTS, AND SUSTAINING ECOSYSTEMS* (1992) (finding “most national forest managers still . . . believ[e] public participation is primarily an exercise in gathering information” rather than an integral part of the decision-making process); Sharon Buccino, *NEPA Under Assault: Congressional and Administrative Proposals Would Weaken Environmental Review and Public Participation*, 12 N.Y.U. ENVTL. L.J. 50 (2003).

37. Jack D. Cohen, Forest Service, What is the Wildland Fire Threat to Homes, Thompson Memorial Lecture at the School of Forestry at Northern Arizona University (Apr. 10, 2000) (hereinafter *Wildland*); U.S.D.A. FOREST SERVICE FIRE SCIENCES LABORATORY, *EXPECTATION AND EVALUATION OF FUEL MANAGEMENT OBJECTIVES*, 352, 358 (2003).

notion that “catastrophic” fires are threatening the health of ecosystems is belied by science that shows large, infrequent conflagrations have always been a part of the landscape and large buildups of understory fuels are not necessarily abnormal.³⁸ Third, the agency’s newly minted position that restoring forests will increase sequestration and lessen the amount of carbon dioxide released into the atmosphere has not been scientifically proven. Science to the contrary is being published.³⁹

a. ‘At-Risk Communities’

HFRA authorizes logging projects to help protect “at-risk communit[ies]”⁴⁰ for “which a significant threat to human life or property exists as a result of a wildland fire disturbance event.”⁴¹ The statute allows logging in areas one and half miles or more away from the community that is supposedly at risk.⁴² Despite these statutory authorizations, Forest Service researchers and other scientists have published a plethora of documents that indicate these logging projects are largely unneeded to protect homes from “catastrophic” fires.

“Research shows that a home’s ignition potential during extreme wildfires is determined by the characteristics of its exterior materials and design and their response to burning objects within 100 feet (30 meters) and firebrands (burning embers) If homes do not ignite and burn during wildfires, then the W/UI fire problem largely does not exist.”⁴³ “Home ignitions and, thus, the W/UI fire loss problem, principally depend on home ignitability. The home ignition zone extends to a few tens of meters around a home not hundreds of meters or beyond. Wildland fuel reduction beyond the home ignition zone does not necessarily change home ignitability; therefore, wildland fuel reduction does not necessarily mitigate the W/UI fire loss problem.”⁴⁴

38. Randall O’Toole, *U.S. Forest Service Has Money To Burn*, CATO INSTITUTE (“Most Western forests are ecologically adapted to catastrophic fires.”) available at http://www.cato.org/pub_display.php?pub_id=8763.

39. Hanson, *supra* note 9.

40. 16 U.S.C. § 6511(a).

41. 16 U.S.C. § 6511(1)(c).

42. 16 U.S.C. § 6511(16); Remarkably, one study found that only 3% of the 44,000 fuels treatments implemented across the western United States were within the WUI. Tania Schoennagel, *Implementation of National Fire Plan Treatments Near the Wildland Urban Interface in the Western United States*, PROC. OF THE NAT’L ACAD. OF SCIENCES OF THE U.S., VOL. 106 NO. 26 10706-10711 (2009).

43. Jack Cohen, *The Wildland Urban Interface Fire Problem, A Consequence of the Fire Exclusion Paradigm*, FOREST HISTORY TODAY, 20, 22- 23 (2008).

44. Cohen, *Wildland*, *supra* note 37; U.S.D.A. Forest Serv. Fire Sciences Laboratory, *Expectation and Evaluation of Fuel Management Objectives*, 352, 358 (2003) (“Research findings indicate that a home’s characteristics and the characteristics of a

The federal government is not only finding itself being confronted by its own scientists, but it is also footing the bill for what has likely become the largest unneeded insurance policy this country has ever seen.⁴⁵

b. 'Catastrophic Fire'

Many believe that the forests are suffering from decades of aggressive fire suppression, resulting in an abnormal level of fuels on some forest floors.⁴⁶ This belief, that forests are unhealthy because of the amount of fuels on the landscape that could lead to catastrophic fires, serves as a core rationale for restoring forests under the HFRA.⁴⁷ The statute's goal of eliminating the "threats" of "catastrophic" wildfires⁴⁸ is drastically undercut by the science that says large conflagrations have always been on the landscape.⁴⁹

Some forests have a fire interval of over 200 years, which would make these types of large "catastrophic" fires a normal, albeit infrequent, event.⁵⁰ In this light, it would not be unheard of to have dense forest stands.⁵¹ The agency has largely avoided this issue by choosing to restore forest stands to a fixed, static point in time - usually right before the Forest Service began its fire suppression policy.⁵² This practice has been questioned by Forest Service scientists:

Current efforts to put management impacts into a historic context seem to focus almost exclusively on what amounts to a snapshot of vegetation history - a documentation of forest conditions near the time when European settlers first began to

home's immediate surroundings within 30 meters principally determine the potential for wildland-urban fire destruction.").

45. Cohen, *Wildland*, *supra* note 37, at 11-12.

("Instead of all pre-suppression and fire protection responsibilities residing with fire agencies, homeowners should take the principal responsibility for assuring adequately low home ignitability. The fire services become a community partner providing homeowners with the technical assistance needed for reducing home ignitability. This will require a change in the current relationship between fire agencies and homeowners from one of protector-victim to one of partners."); *see also It's the Forest Service, Not Fire Department*, MISSOULIAN, Dec. 24, 2006 (reporting that after the 2000 fires in Montana, "firefighters sheepishly conceded they'd spent more money protecting some buildings than the structures were worth.").

46. E.g., CAROLYN ALKIRE, THE WILDERNESS SOCIETY, THE FEDERAL WILDLAND FIRE BUDGET: LET'S PREPARE, NOT JUST REACT (Apr. 2004).

47. 16 U.S.C. § 6501(3).

48. *Id.*

49. O'Toole, *supra* note 38.

50. WUERTHNER, *supra* note 29, at 4.

51. *Id.*

52. *Id.*

impact forest structure . . . I do not believe that historical ecology, emphasizing static conditions in recent times, say 100 years ago, will provide the complete picture needed to place present conditions in a proper historic context. Conditions immediately prior to industrial development may have been extraordinary compared to the past 1,000 years or more. Using forest conditions in the 1800s as a baseline, then, could provide a false impression if the baseline is considered a goal to strive toward.⁵³

c. Restoration Equals Increased Sequestration

While the HFRA makes no mention of climate change, one of its purposes is to “enhanc[e] productivity and carbon sequestration.”⁵⁴ As climate change becomes more of a priority to the Obama administration, the use of this previously glossed over reason for logging will likely gain prominence. The Forest Service Chief has already indicated how the agency is going to “reduce greenhouse gas buildups - through restoration activities and forest health improvements, . . . by increasing the amount of carbon stored in wood products, and by managing to reduce forest fire emissions.”⁵⁵ In essence, this statement reveals two new positions the agency has not previously invoked - thinning out trees will increase carbon sequestration while reducing forest fire emissions; and the amount of carbon stored in wood products can be increased. These positions have superficial appeal. Taking these positions to their logical extreme, however, would allow the agency to cut down all the trees in the forest to reduce forest fire emissions and increase the amount of carbon stored in wood products.⁵⁶ The Chief has acknowledged this tension.⁵⁷

Therein lies the problem - the agency does not have the science to determine at a site-specific level how much logging (if any) is necessary to increase sequestration.⁵⁸ Some scientists are denouncing this new agency position with science that shows cutting down trees exacerbates and perpetuates the climate crisis by releasing more carbon dioxide into the

53. U.S.D.A. FOREST SERV., FLAMMULATED, BOREAL, AND GREAT GRAY OWLS IN THE U.S.: A TECHNICAL CONSERVATION ASSESSMENT 209 (G.D. Hayward & J. Verner eds., 1994).

54. 16 U.S.C. § 6501(6)(c) (2006).

55. Kimbell, *Managing Forests*, *supra* note 14.

56. *Id.*

57. Kimbell, *Forest Management*, *supra* note 1 (“[k]eeping forests in forests is key to protecting carbon stores.”).

58. Kimbell, *Managing Forests*, *supra* note 14.

atmosphere than would otherwise be released by a wildfire.⁵⁹ Moreover, “most of the carbon from a felled tree is either burned as slash or as ‘hog fuel’ from mill residue; only about 15% becomes some type of durable wood product . . . [and] the half-life of these ‘durable’ wood products is less than 40 years.”⁶⁰ Due to the shift in focus with the new administration, the agency has found itself scrambling for science to support its position.⁶¹

B. The Costs of a Statute Unmoored From Science

The agency is no longer the U.S. Forest Service, but rather the U.S. Fire Service.

-U.S. Rep. Nick Rahall⁶²

The costs of fire fighting and suppression are “out of control.”⁶³ The 2008 fire season alone cost taxpayers over 1.4 billion dollars,⁶⁴ and only half the amount of money allocated to reduce the risk of fire to communities was used in W-UI related projects.⁶⁵ To make matters worse:

These [hazardous fuels] treatments will not easily pay for themselves. Although high commercial value of large logs can fund a timber-harvest operation, vegetation removed for fuel hazard reduction is not so marketable. Small-diameter trees currently are in low demand, and the market values are low in some areas of the country. In the Interior West, the demand for small diameter trees and other material is among the lowest and the need to remove such trees is among the greatest.

Currently the technologies and the economic incentive for using these small diameter trees are minimal, and often the cost of

59. Hanson, *supra* note 9 (“Whatever carbon emissions occur from combustion during wildland fire and subsequent decay of fire-killed trees is more than balanced by forest growth across the landscape over time.”) (citations omitted).

60. *Id.* (citation omitted).

61. Kimbell, *Managing Forests*, *supra* note 14; U.S.D.A. FOREST SERVICE, FOREST SERVICE STRATEGIC FRAMEWORK FOR RESPONDING TO CLIMATE CHANGE (Oct. 2, 2008).

62. Noelle Straub, *Key Appropriator Questions Wildfire Fund*, ENVT. & ENERGY DAILY, Thursday, Apr. 2, 2009 (quoting Rep. Nick Rahall, D-W.Va., chairman of the House Natural Resources Committee).

63. *Id.* (quoting Norm Dicks); Matthew Daly, *House Approves Special Funding to Fight Wildfires*, ASSOCIATED PRESS, Mar. 26, 2009 (according to Rep. Nick Rahall, D-W.Va., chairman of the House Natural Resources Committee, “about half of the Forest Service budget is now devoted to fire suppression and prevention”).

64. Bettina Boxall, *Spending to Fight California Wildfires Tops 1 Billion*, LOS ANGELES TIMES, Dec. 31, 2008.

65. ALKIRE, *supra* note 46.

transportation exceeds the market value of the material.⁶⁶

Moreover, Obama's quarter billion dollar allocation to reduce hazardous fuels on private lands should be seen for what it is - a caving in to a very small number of private property owners⁶⁷ that refuse to take responsibility for their own actions.⁶⁸ The HFRA disregards all the science that says logging is largely not necessary in the W-UI and invokes private property rights rhetoric that triggers a "politics of fear [that] shift[s] our attention toward the personal losses we might sustain rather than collective losses we are all enduring."⁶⁹ It is simply inequitable to force taxpayers to bestow a dubious benefit upon a small group when a true benefit could accrue to the public as a whole.⁷⁰ If the taxpayers are going to subsidize logging projects to benefit private homeowners, the projects should only take place where they are scientifically justified - within thirty meters of the landowners' homes.

C. The American Recovery and Reinvestment Act of 2009: Change We Can Believe In, Or More of The Same?

President Barack Obama has repeatedly emphasized the importance of using sound science to guide policy:

Science and the scientific process must inform and guide decisions of my Administration on a wide range of issues, including . . . protection of the environment, and . . . mitigation of the threat of climate change . . . The public must be able to trust the science and scientific process informing public policy decisions.⁷¹

To ensure science guides the decision-making process, President

66. U.S. FOREST SERVICE, FIRE AND FUELS BUILDUP, 3 (Position Paper) available at <http://www.fs.fed.us/publications/>

67. "Only 14 percent of private land adjacent to forests has homes on it." Ray Rasker, *Now's the Time to Tackle Forest Fire Fighting Costs*, NEW WEST, Apr. 9, 2009.

68. To be fair, the problem isn't confined to the west. Coastal inhabitants expect taxpayers to provide federal flood insurance (levees), and then file takings claims when they can't build in areas that are prone to flooding. See Christine A. Klein, *Mississippi River Stories: Lessons From a Century of Unnatural Disasters*, 60 SMU L. REV. 1471 (2007).

69. See Zach Welcker, *Welcome Speech to the 25th Annual Public Interest Environmental Law Conference: Cultivating Corridors for the People: The Next Twenty-Five Years*, 22 J. ENVTL L. & LITIG. 197, 197 (2007)

70. See Christine A. Klein, *The New Nuisance: An Antidote to Wetlands Loss, Sprawl, and Global Warming*, 48 B.C. L. REV. 1155, 1197 (2007).

71. Exec. Mem., *Scientific Integrity*, Mar. 9, 2009 available at http://www.whitehouse.gov/the_press_office/Memorandum-for-the-Heads-of-Executive-Departments-and-Agencies-3-9-09/.

Obama has directed the various federal agencies to use peer-reviewed science in decision-making and to make the science available to the public.⁷²

The American Recovery and Reinvestment Act of 2009 allocates 250 million dollars to the Forest Service for hazardous fuels reduction, forest health protection, rehabilitation and hazard mitigation activities on Federal lands.⁷³ Another quarter billion dollars was allocated for state and private forestry activities targeting the same.⁷⁴ Despite the President's strong rhetoric on placing science above politics, it appears he will stay the course with former President George W. Bush's policies on hazardous fuels treatments.

An Obama campaign flyer admitted that "[r]educing the dangers of wildfires cannot be addressed through federal action alone," but failed to address the agency's own science that indicates hazardous fuels treatments on federal lands in the W-UI are mostly damaging ecosystems and further degrading the atmosphere.⁷⁵ On a positive note, money was authorized to take care of land within the thirty meters next to private landowners homes.⁷⁶ Unfortunately, the large allocation of money geared towards federal lands projects, coupled with the absence of any new Congressional or Executive oversight, signals the likely continuance of an expensive and flawed policy divorced from science.

III. Historical Agency Directives

The Forest Service has failed to take on its share of the responsibility for fighting global warming.⁷⁷ This shouldn't come as a surprise. After all, the agency has a statutory mandate to provide for "timber,"⁷⁸ and a long

72. *Id.*

73. 123 Stat. 115 (Westlaw version at *170-71).

74. *Id.*

75. OBAMA-BIDEN: COMMITTED TO WILDFIRE MANAGEMENT & COMMUNITY PROTECTION, www.barackobama.com/pdf/issues/Fact_Sheet_Wildfire.pdf.

76. *Supra*, note 67.

77. GENERAL ACCOUNTING OFFICE, CLIMATE CHANGE: AGENCIES SHOULD DEVELOP GUIDANCE FOR ADDRESSING THE EFFECTS OF FEDERAL LAND AND WATER RESOURCES (Aug.2007) ("[R]esource managers have limited guidance about whether or how to address climate change and, therefore, are uncertain about what actions, if any, they should take. In general, resource managers lack specific guidance for incorporating climate change into their management actions and planning efforts. Without such guidance, their ability to address climate change and effectively manage resources is constrained."); *Bosworth, supra* note 10 ("At the Forest Service, we owe it to the people we serve to become more carbon-neutral.")

78. 16 U.S.C. § 528 ("It is the policy of the Congress that the National Forests are established and shall be administered for outdoor recreation, range, *timber*, watershed, and wildlife and fish purposes.") (emphasis added).

history of elevating that mandate over most others.⁷⁹

According to early U.S. mentality, forests were a negative resource,⁸⁰ and an impediment to agriculture and home to wild animals and savage natives.⁸¹ As Eastern U.S. cities began to burgeon and timber became increasingly scarce, many began to view timber as a positive resource.⁸² Forest reserves were created in response to a timber industry that ravaged immense tracts of virgin timber.⁸³ The Forest Service was created in 1905 and was charged with managing the forest reserves.⁸⁴ Early scientific forestry, sought to place forests under the control of official bodies with the principal aim of ensuring sustained supplies of timber to strategic industries.⁸⁵ The prevailing belief was that industrial forestry was justifiable in the public interest, as it would generate jobs, wealth and development that would promote general prosperity.⁸⁶ For over sixty years the Forest Service operated under the Organic Act's⁸⁷ mandate of providing timber and water.⁸⁸ The Act provided relatively little substantive guidance and thus offered the Forest Service a large amount of discretion in managing the nation's forests.⁸⁹

Congress passed the Multiple Use Sustained Yield Act of 1960 (MUSY)

79. DAINA DRAVNIKES APPLE, U.S.D.A. FOREST SERVICE, CHANGING SOCIAL AND LEGAL FORCES AFFECTING THE MANAGEMENT OF NATIONAL FORESTS (1997) (citations omitted) (available at <http://www.fs.fed.us/publications/>).

80. Marion Clawson, *Forests in the Long Sweep of American History*, 204 SCIENCE 4398, 1168-74 (June 15, 1979).

81. *Van Ness v. Pacard*, 27 U.S. (2 Pet.) 137, 145 (1829) ("The country was a wilderness, and the universal policy was to procure its cultivation and improvement."); David N. Bengston, et al., *Shifting Forest Value Orientations in the United States, 1980–2001: A Computer Content Analysis*, 13 ENVTL. VALUES 373, 374 (2004).

82. Bengston, *supra* note 81, at 374.

83. Jack Tuholske & Beth Brennan; *The National Forest Management Act: Judicial Interpretation of a Substantive Environmental Statute*, 15 PUB. LAND L. REV. 53, 57 (1994).

84. *Id.* at 57.

85. MARCUS COLCHESTER ET AL., CENTER FOR INTERNATIONAL FORESTRY RESEARCH BRIDGING THE GAP: COMMUNITIES, FORESTS AND INTERNATIONAL NETWORKS (2003).

86. *Id.*

87. The Forest Reserve Act of 1891 and the Organic Administration Act of 1897 state that "No national forest reservations shall be established except to improve and protect the forest within the reservation, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States . . ." 30 Stat. 35 (1897) (codified as 16 U.S.C. § 475 (1994)).

88. Act of Mar. 6, 1891, 26 Stat. 1103, repealed by 90 Stat. 2792 (1976).

89. Tuholske, *supra* note 77 at 59-60.

to direct the Forest Service to manage for other resources.⁹⁰ Despite the new multiple use mandate, MUSY arguably did little to change forest management direction.⁹¹ As the west continued to experience explosive growth, conflicting demands upon the various resources of the national forests grew, and commodity production has increasingly collided with resource protection and recreational use.⁹²

IV. Current Statutory Directives

Our environmental statutes have largely failed to protect the public from global warming.⁹³ The situation is especially dire in the public land management context. There is a statutory framework devoid of science that is encouraging the agency to contribute to carbon dioxide emissions. There is also a total lack of substantive statutory authority addressing climate change.

A. The National Forest Management Act of 1976

The National Forest Management Act of 1976 (“NFMA”)⁹⁴ was passed in response to a controversy over Forest Service clear-cutting and other industrial logging practices.⁹⁵ At one point, the NFMA was deemed to be “the most complete forestry legislation ever passed.”⁹⁶ While it is still an impressive piece of legislation, it lacks enforceable standards that would require the agency to stop its unnecessary contributions to climate change.⁹⁷

The NFMA requires the agency to prepare a Renewable Resource Assessment (“RPA”).⁹⁸ The RPA is designed to gather the information necessary to properly manage those resources and make informed policy

90. Multiple Use Sustained Yield Act of 1960, 16 U.S.C. §§ 528-531 (1998) (adding recreation, wildlife, fish, and range resources to the list of resources to be managed.).

91. See *Perkins v. Bergland*, 608 F.2d 803, 807 (9th Cir. 1979) (“[MUSY] breathes discretion at every pore.”).

92. Tuholske, *supra* note 83, at 54.

93. See Wood, *supra* note 20, at 21 (observing that while “the vast body of statutory law was designed to safeguard natural resources for the American Public, the law itself has become a major engine of environmental destruction.”).

94. 16 U.S.C. §§ 1600-1614 (1988) (amending Forest and Rangeland Renewable Resources Planning Act of 1974).

95. See Tuholske, *supra* note 83 for an in-depth analysis of the events that catalyzed enactment of the statutes that have governed the Forest Service since the agency’s inception.

96. Arnold W. Bolle, *The Bitterroot Re-visited: A University Re-View of the Forest Service*, 10 PUB. LAND L. REV. 1, 15 (1989).

97. 16 U.S.C. §§ 1600-1614 (1988).

98. 16 U.S.C. §1601(a).

decisions.⁹⁹ The emphasis has broadened over time, from a solely economic concern with supply and demand to concern about resource conditions, ecosystem health, and sustainability.¹⁰⁰

The report must contain an analysis of the present and potential future uses of the forests,¹⁰¹ potential effects of global climate change on the forests,¹⁰² and an analysis of the opportunities to “mitigate the buildup of atmospheric carbon dioxide and reduce the risk of global climate change.”¹⁰³ A 1988 amendment to the act entitled the “Forest Ecosystems and Atmospheric Pollution Research Act of 1988” requires the Service to “study the relationship between atmospheric pollution and other factors that affect forest health”¹⁰⁴ and to develop recommendations for mitigating the effects of atmospheric pollution on the health of the forests.¹⁰⁵ Nonetheless, the amendment and the outcomes of the studies do not require the agency to act in any particular way.

An RPA addressing climate change is expected to be released in 2010.¹⁰⁶ Given the Forest Service’s timber production mandate and its seeming propensity to solve its problems by cutting down more trees, the agency report and resulting orientation towards climate change will likely be business as usual. In short, NFMA’s requirement to study the climate change problem and make recommendations for how the agency can help solve the problem is not going to require the Forest Service to curtail its pollution problem.¹⁰⁷

B. The National Environmental Policy Act

If a person were to read the National Environmental Policy Act (“NEPA”) for the first time without knowing anything about its subsequent case law, they might say the statue has the potential to stop global warming.

99. U.S.D.A. Forest Service, *The RPA Assessment: Past, Present, and Future*, available at <http://www.fs.fed.us/research/rpa/what.shtml>.

100. *Id.*

101. 16 U.S.C. § 1601(a)(1).

102. 16 U.S.C. § 1601(a)(5).

103. 16 U.S.C. § 1601(a)(6).

104. 16 U.S.C. § 1642(c)(1)(D).

105. 16 U.S.C. § 1642(c)(1)(E).

106. RPA *Assessment*, *supra* note 99.

107. Despite requiring climate change research, the findings section of the Forest and Rangeland Renewable Resources Research Act substantiates claims that the agency is more concerned with increasing timber production than doing its part to curb global warming. See 16 U.S.C. §§ 1641(a)(5-6) (“Increasing regulatory burdens . . . is causing the domestic wood and paper producers to move outside the United States . . . Wood and Paper producers are being challenged . . . by shifts in Federal Government policy . . . Wood production per acre will need to quadruple from 1996 levels for the United States forestry sector to remain internationally competitive.”).

The language is progressive: It recognizes the impacts humans are having on the environment and charges the Federal Government with trustee duties so that future generations can exist:

The Congress, recognizing the profound impact of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, . . . resource exploitation, . . . recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man, declares that it is the continuing policy of the Federal Government . . . to use all practicable means and measures . . . in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.¹⁰⁸

[I]t is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may¹⁰⁹ . . . *fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.*¹¹⁰

To be sure, courts have concluded that climate change is a legitimate environmental issue that must be addressed with NEPA analysis and failure to discuss the impacts of climate change open the agency up to litigation.¹¹¹ Nonetheless, requiring a discussion of impacts does not require the agency to reduce carbon dioxide emissions from the proposed project.¹¹² The

108. 42 U.S.C. § 4331(a) (1969).

109. 42 U.S.C. § 4331(b)

110. 42 U.S.C. § 4331(b)(1)

111. *Border Power Plant Working Group v. DOE* involved a challenge to a proposal to construct transmission lines that would transport electricity from Mexican power plants to the California Grid. 260 F. Supp. 2d 997 (S.D. Cal. 2003). Plaintiffs challenged the Department of Energy and the Bureau of Land Management for inadequate NEPA analysis regarding the agencies' failure to evaluate the impacts of emissions from the Mexican power plants. The court held that failure to "disclose and analyze" the impacts of carbon dioxide emissions is "counter to NEPA." *Id.* at 1028-29.

112. *Mid States Coalition for Progress v. Surface Transportation Board* concerned a challenge to a proposed 280-mile railroad line that would have hauled coal from Wyoming to coal-fired power plants in the Midwest. 472 F.3d 545 (8th Cir. 2006). Petitioners challenged the agency for failing to analyze the possibility that an increase of coal into the market would result in increases in the amount of carbon dioxide released into the atmosphere. While the judge sided with environmentalists and remanded back to the agency, the 8th Circuit sided with the railroad's

procedural statute merely requires the Forest Service to adequately tell us how approving its next logging sale will further pollute the environment and lead to “disastrous consequences in many parts of the world.”¹¹³

No, that isn’t a typo.¹¹⁴ In sum, NEPA is “ineffective” at reducing our carbon footprint.¹¹⁵

V. The Public Trust Doctrine

The public trust doctrine has been a consistent piece of fodder amongst environmental intellectuals for decades.¹¹⁶ Thus, the tiny proportion of attention devoted to the doctrine in judicial forums is notable. Some attribute the dearth of litigation to the federal statutory scheme,¹¹⁷ but this criticism is quickly becoming outdated with the lack of statutory climate change directives aimed at the various land management agencies.

In American jurisprudence, the public trust doctrine emerged as a method for states to protect limited environmental interests, such as coastal waterways and fishing areas, which were reserved for the benefit of the public and distinguished from grants of private ownership.¹¹⁸ As the doctrine has evolved, modern scholars have increasingly begun to cite changing public needs such as improved air and water quality along with the conservation of the natural landscape, as a basis for expanding the public trust doctrine.¹¹⁹

A. Forests As a Trust Resource in England

The roots of the public trust doctrine run deep. Most scholars trace them to a 1500-year-old Roman textbook known as the Institutes of

Supplemental Environmental Impact Statement in the second round of litigation - which did not involve mitigation. *Mayo Found. v. Surface Transp. Bd.*, 472 F.3d 545, 556 (8th Cir. 2006).

113. Kimbell, *Managing Forests*, *supra* note 14.

114. E.g., *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 353 n.16 (1989) (stating that NEPA imposes no substantive requirement that mitigation measures actually be taken).

115. Kevin T. Haroff & Katherine Kirwan Moore, *The Domestic Response to Global Climate Change: Federal, State, and Litigation Initiatives*, 42 U.S.F. L. REV. 155, 169 (2007).

116. E.g., Joseph L. Sax, *The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 474 (1970).

117. Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 701 (1986) (declaring the “doctrine simply has no place in this emerging scheme.”); J.B. Ruhl, *Ecosystem Services and the Common Law of “The Fragile Land System,”* 20 NAT. RESOURCES & ENV’T 3, 6 (2005).

118. George Smith, *The Public Trust Doctrine and Natural Law: Emanations Within a Penumbra*, 33 B.C. ENVTL. AFF. L. REV. 307, 307 (2006).

119. *Id.*

Justinian.¹²⁰ Taken together, the core principals assert that certain natural resources cannot pass into private ownership.¹²¹

This principle came to England with the Romans and was adopted into the Magna Carta.¹²² The Magna Carta, which King John of England was forced to sign in 1215, established forests and fisheries as *res communes*.¹²³ Clause 20 in the 1217 text of the Magna Carta makes it clear that the Magna Carta was drafted after a decision had been taken to make a separate charter for forests.¹²⁴ This is important not only because the Charter of the Forest both complements and supplements the Magna Carta, but also for the explicit weight it places on forests and the resources they provided citizens. Moreover, the Charter of the Forest was issued again in 1225, alongside a reissue of the Magna Carta.¹²⁵

In comparison with the Magna Carta, the Charter of the Forest provided real rights, privileges, and protections for the common man against abuses of encroaching aristocracy.¹²⁶ The Charter came at a time when the Royal Forests were the most important potential source of fuel for cooking, heating and industries such as charcoal burning.¹²⁷ The charter was unique in providing a degree of economic protection for serfs and vassals.¹²⁸ While most U.S. Citizens no longer rely on the forests for the same reasons as our medieval British counterparts, the forests are still being relied upon for survival.¹²⁹

B. The Public Trust Doctrine in Federal Land Management

“[T]he public lands are held in trust for all the people of the United

120. E.g., J.B. Ruhl & James Salzman, *Ecosystem Services and the Public Trust Doctrine: Working Change From Within*, 15 SOUTHEASTERN ENVTL. L. J. 223, 224 (2006).

121. Joseph L. Sax, *Liberating the Public Trust Doctrine From its Historical Shackles*, 14 U.C. DAVIS L. REV. 186 (1980).

122. Ruhl, *supra* note 117, at 224.

123. Peter Barnes, *Capitalism 3.0: A Guide to Reclaiming the Commons* 1, 15-16 (2006).

124. John Langton, *The Charter of the Forest of King Henry III*, <http://info.sjc.ox.ac.uk/forests/Carta.htm>, (last visited Oct. 19, 2008).

125. *Id.*

126. *Forest Laws*, Encyclopedia Britannica, (11th ed. 1911), http://www.1911encyclopedia.org/Forest_laws.

127. Sources of English Constitutional History, King Henry III: Charter of the Forest (1217), http://www.constitution.org/sech/sech_045.htm, (last visited Oct. 19, 2008).

128. *Id.*

129. See Kimbell, *Forest Management*, *supra* note (“America’s forests offset about 10 percent of our country’s carbon emissions.”); INGERSON, *supra* note 4 (“Given the right policies that proportion could reach as high as 36%.”).

States¹³⁰ and the “Forest Service is the custodian and protector of the forests.”¹³¹ If federal agencies have a trustee duty in administering public lands, it follows that the duty can be breached.

Sierra Club v. Department of the Interior, commonly known as *Redwoods II*, is most likely the high water mark to date for such a theory.¹³² The litigation involved logging operations on private lands adjacent to Redwood National Park.¹³³ The Sierra Club filed suit and took the position that the National Park Service should take various actions to protect the parklands from the effects of logging.¹³⁴ The court found the Park Service to be a trustee on behalf of the public and ordered the Park Service to use all of its powers to protect the area in question from adjacent logging, to attempt to negotiate contracts with private loggers and to consider acquiring private lands.¹³⁵ The court even ordered the Park Service to lobby Congress for funds to buy out adjacent private landowners.

While *Redwoods II* can be characterized as a vigorous application of the trust doctrine, the case can be read in a more limited way.¹³⁶ The court relied on both the National Park Service Organic Act and the Redwood National Park Act.¹³⁷ Both statutes contained language that could be read as imposing an express trust, rather than an implied trust that is typically associated with public lands.¹³⁸ Additionally, the preservation mandate placed on the Park Service to maintain parks in an “unimpaired” state for future generations lends itself well to applying the public trust doctrine to constrain agency action compared to an agency like the Forest Service. In other words, the Park Service has a much purer mandate that is more

130. *Light v. United States*, 220 U.S. 523, 537 (1911); *Knight v. United States Land Ass’n*, 142 U.S. 161, 181 (1891) (stating the federal government is the “guardian of the people of the United States over public lands.”).

131. *West Virginia Div. of Izaak Walton League of America v. Butz*, 522 F.2d 945, 955 (4th Cir. 1975) (“[T]he Forest Service regarded itself as a custodian and protector of the forests rather than a prime producer, and consistent with this role the Service faithfully carried out the provisions of the Organic Act with respect to selective timber cutting.”); see also *Dred Scott v. Sanford*, 60 U.S. 393, 448 (1856). (“[Land] was acquired by the General Government, as the representative and trustee of the people of the United States, and it must therefore be held in that character for their common and equal benefit[.]”). Despite the obvious toxicity of this case, it offers positive support for the propositions here.

132. *Sierra Club v. Department of the Interior*, 398 F. Supp. 284 (1975).

133. *Id.*

134. *Id.*

135. *Id.* at 293.

136. Charles Wilkinson, *The Public Trust Doctrine in Public Land Law*, 14 U.C. DAVIS L. REV. 269, 310-13 (1980).

137. 398 F. Supp. at 311.

138. Charles F. Wilkinson, *The Field of Public Land Law: Some Connecting Threads and Future Direction*, 1 PUB. LAND L. REV. 1, 25 (1980).

hospitable to the public trust doctrine.

C. New Approaches For Using the Doctrine to Combat Climate Change

While federal courts have had no problem applying the public trust doctrine against the federal government in the submerged lands context,¹³⁹ some consider the doctrine to be the proverbial sword in the stone in the public land management context.¹⁴⁰ Applying the doctrine against the federal government can generally occur at either the legislative or administrative levels, with application of the doctrine against the Forest Service being the more realistic approach.

1. Invalidating Legislation That is Not Scientifically Grounded

Mention of applying the public trust doctrine against the federal government frequently stops with the U.S. Supreme Court case *Light v. United States*:

It is not for the courts to say how that trust shall be administered. That is for Congress to determine. The courts cannot compel it to set aside the lands for settlement, or to suffer them to be used for agricultural or grazing purposes, nor interfere when, in the exercise of its discretion, Congress establishes a forest reserve for what it decides to be national and public purposes. In the same way and in the exercise of the same trust it may disestablish a reserve, and devote the property to some other national and public purpose.¹⁴¹

The key to this paragraph is that the court will not interfere when the property is devoted to some other “national and public purpose.” Timber sales that would not occur but for private homes should not be considered a benefit to the public. Nonetheless, the Supreme Court has deferred wildly to Congress when determining what is a public purpose.¹⁴² The courts’

139. E.g., *United States v. 1.58 Acres of Land*, 523 F. Supp. 120 (D. Mass. 1981) (holding the federal government cannot abdicate trust resources.); *Lake Michigan Federation v. U.S. Army Corps of Engineers*, 742 F. Supp. 446 (D. Ill. 1990) (“The very purpose of the public trust doctrine is to police the legislature’s disposition of public lands.”).

140. E.g., Eric Person, *The Public Trust Doctrine in Federal Law*, 24 J. LAND RESOURCES & ENVTL. L. 173, 176-77 (2004).

141. *Light*, 220 U.S. at 537.

142. *Id.*

major hang-up appears to be when the Property Clause¹⁴³ meets the public trust doctrine.¹⁴⁴ Some have argued that the public trust doctrine has an implicit home in the Constitution.¹⁴⁵ Still, at least one prominent scholar does not believe a constitutionally based trust doctrine would be enforceable against Congress.¹⁴⁶ In spite of the fact that the drafters of the HFRA did not cite to any science to determine that “catastrophic” forest fires are “threat” to forests and communities, the Supreme Court’s interpretation of the Property Clause will likely pose a substantial barrier to success.

2. Using The Public Trust to Guide Agency Decision-Making

The application of the public trust doctrine to state and federal public lands is consistent with its creation in the Charter of the Forest - both provide a check on power. The King’s rule in England or contemporary agency actions in the U.S. Courts have held that the Forest Service is the trustee for the people of the United States.¹⁴⁷ The principles of the public trust doctrine can help inform the limits of the agency’s discretion in managing our trust assets. Two main principles are applicable here: (1) the agency should use the best available science when determining how best to manage the public’s resources, and (2) an agency’s attempts to dispose of trust resources to benefit a small group of private individuals is susceptible to judicial review.¹⁴⁸

a. Requiring the Use of the Best Available Science

Some have suggested that the public trust doctrine be applied when

143. Congress’ ability to manage federal lands and its resources arises from the Property Clause of the Constitution. U.S. Const. art. 4, § 3. (“Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States.”). The Supreme Court in *Kleppe v. New Mexico* had occasion to interpret the clause: “[W]hile the furthest reaches of the property clause have not yet been definitely resolved, we have repeatedly observed that ‘[t]he power over the public lands thus entrusted to Congress is without limitations.’” 426 U.S. 529 (1976).

144. See Wilkinson, *supra* note 136 (“It is possible that courts today would find that the property clause includes some general trust notions.”).

145. Douglas L. Grant, *Underpinnings of the Public Trust Doctrine: Lessons From Illinois Central Railroad*, 33 ARIZ. ST. L.J. 849 (2001) (surveying Supreme Court decisions regarding the doctrine and arguing that the Court invoked the Ninth Amendment by implication in *Illinois Central*).

146. E.g., Wilkinson, *supra* note 136 at 306.

147. *Light*, 220 U.S. at 537.

148. Torres, *supra* note 18; Professor Sax has asked whether Congress could sell a National Park to a private individual. Joseph L. Sax, *The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 480 (1970).

legislature has not passed legislation regarding the resource in question.¹⁴⁹ In essence, those advocating for such a position are trying to use the public trust doctrine to act as a regulatory gap filler - thus creating a cornerstone of environmental common law. As Joseph Sax has pointed out:

A conceptual vacuum exists because individual rights in public land other than those specifically created by acts of the legislative body do not exist in English or American law. As a consequence, the only reliable way to challenge agency actions pertaining to land management is through a statute that applies to the particular problem. If there is not a specific statute that covers the point in question, relief will be difficult to obtain.¹⁵⁰

Even though Joseph Sax's seminal work on the public trust doctrine spoke to state development of the trust doctrine, he posited that the doctrine could fill in the conceptual common law vacuum described above when he stated:

Of all the concepts known to American law, only the public trust doctrine seems to have the breadth and substantive content which might make it useful as a tool of general application for citizens seeking to develop a comprehensive legal approach to resource management problems.¹⁵¹

In the climate change context, there is a regulatory gap in the science underlying the decision-making process. Requiring the agency to use the best available science to inform and guide decisions when using statutes that are not clearly based on science is a value-neutral approach that would create a judicially enforceable standard to ensure the agency is acting as a responsible trustee of our resources when determining what projects to undertake. For example, the Forest Service would be required to produce science that shows structures would be at risk from wildfires if the contemplated logging project did not occur. The agency would not be permitted to undertake a logging project if it could not support its decision with verifiable science. This approach would ensure the agency is protecting the public from climate change by only undertaking logging projects that are necessary.

149. E.g., John E. Montgomery, *The Public Trust Doctrine in Public Land Law: Its Application in the Judicial Review of Land Classification Decisions*, 8 WILLAMETTE L. REV. 135, 177 (1972).

150. Sax, *supra* note 116.

151. *Id.* at 474; see also J.B. Ruhl, *Ecosystem Services and the Common Law of "The Fragile Land System,"* 20 NAT. RESOURCES & ENV'T 3, (2005) (arguing that nuisance can fill the regulatory gaps.).

b. Scrutiny Before Destruction of a Trust Resource

Courts have expanded the trust doctrine far beyond its original reaches.¹⁵² Nonetheless, the fact that air is an enumerated trust resource¹⁵³ has been largely overlooked for the last 1500 years.¹⁵⁴ To be sure, air is a trust resource¹⁵⁵ and important for our survival.¹⁵⁶ Courts have held that the public trust doctrine constrains activities that would otherwise degrade a resource covered by the doctrine.¹⁵⁷ Because trees are a trust resource and also produce a trust resource, it is not far-fetched to think the doctrine could apply to land management agencies.¹⁵⁸ By prohibiting an agency from cutting down trees that contain and produce a trust resource, ancillary benefits are gained - carbon stays stored in trees.¹⁵⁹

It has been posited that the public trust doctrine should grant equitable relief when governmental agencies attempt to shift or divert a trust resource from one specific public use to a new and inappropriate one, and where a course of agency action is being pursued in derogation of the trust use which has the effect of either destroying the resource or giving rise to its pollution.¹⁶⁰ These principles are applicable and overlap in the public

152. *Marks v. Whitney*, 6 Cal. 3d 251 (1971) (ecological values); *Caminiti v. Boyle*, 732 P.2d 989, 994 (Wash. 1987) (swimming, water skiing); *In re Water Permit Applications*, 9 P.3d 409 (Haw. 2000) (doctrine covers groundwater); *Pullen v. Ulmer*, 923 P.2d 54 (Alaska 1996) (doctrine covers fish in their natural state); *Vander Bloemen v. Wisc. Dep't of Nat. Resources*, 1996 WL 346266 (Wis. Ct. App. 1996) (doctrine protects lakeside ecology); *Aspen Wilderness Workshop, Inc. v. Colo. Water Conservation Bd.*, 901 P.2d 1251 (Colo. 1995) (state must avoid injury to creek from ski resort's water request).

153. J. Inst. 2.1.1 in Thomas Cooper, *The Institutes of Justinian* 67, 67 (3d ed. J.S. Voorhies 1852).

154. Indeed, what may have been a one word rhetorical flourish 15 centuries ago is acting as an anchor today for multiple attempts to put the entire atmosphere into a world-wide trust. E.g., Torres, *supra* note 18; Wood, *supra* note 20.

155. *Nat'l Audubon Soc'y v. Super. Ct.*, 33 Cal. 3d 419, 437 (1983) ("The purity of the air . . . is among the purposes of the public trust.") (citing *Marks v. Whitney*, 6 Cal. 3d 251, 259-260) (1971) (linking the "climate of the area" to the preservation of tidelands).

156. Indeed, there is an entire statutory scheme designed to protect air and our atmosphere in general. Clean Air Act, 42 U.S.C. § 7401 *et seq.*

157. *Nat'l Audubon Soc'y*, 33 Cal. 3d at 437.

158. See *Selkirk-Priest Basin Ass'n, Inc. v. Idaho ex rel. Andrus*, 899 P.2d 949, 952-54 (Idaho 1995) (doctrine allows challenge to timber sales on ground that sedimentation could injure fish spawning grounds); see also *id.*

159. See Richard Birdsey, Ralph Allg & Darlus Adams, *Mitigation Activities in the Forest Sector to Reduce Emissions and Enhance Sinks of Greenhouse Gases*, in *The Impact of Climate Change on America's Forests: A Technical Document Supporting the 2000 USDA Forest Service RPA Assessment* 113-15 (Linda A. Joyce & Richard Birdsey eds. 2000).

160. Sax, *supra* note 116, at 477.

lands context, but are necessarily constrained by the notion that the doctrine cannot serve as an inflexible bar to all dispositions.¹⁶¹ Thus, a narrowing of the application that allows the agency discretion to manage the resource by using the best available science, while providing the public a judicial check when the agency seeks to abdicate a trust resource is appropriate.¹⁶²

Under HFRA, the Forest Service can log in the “Wildland Urban Interface,” an amorphous definition that sometimes encompasses an area over a mile and a half away from the nearest home or structure.¹⁶³ Logging in the Wildland Urban Interface to save structures that are not in danger of fires is a diversion of the trees that were storing air, resulting in an impermissible abdication of a trust resource. In this instance it would be appropriate to apply the doctrine against the government to maintain the use of the resource for the public. When the agency acts to alienate the resource to the detriment of other rightful claimants, it should have a high burden of justification that it must meet, akin to strict scrutiny.¹⁶⁴

VI. Conclusion

“Air pollution . . . has resulted in mounting dangers to the public health and welfare.”¹⁶⁵ The Forest Service has acknowledged that global warming underlies many problems with forest management,¹⁶⁶ and that it can manage for increased carbon sequestration to combat global warming.¹⁶⁷ The agency can and must do some belt-tightening to control the amount of air pollution it is contributing to the atmosphere.¹⁶⁸ Unfortunately, it has taken a back-seat approach to the climate catastrophe and has failed to make any commitments or set any targets for lowering its carbon footprint.

161. Joseph Sax has cautioned against such inflexibility: “[I]t is inconceivable that the trust doctrine should be viewed as a rigid prohibition, preventing all dispositions of trust property or utterly freezing as of a given moment the uses to which those properties have traditionally been put.” Joseph L. Sax, *Liberating the Public Trust Doctrine from Its Historical Shackles*, 14 U.C. DAVIS L. REV. 185, 186 (1980).

162. *See id.*

163. 16 U.S.C. § 6511(16).

164. Torres, *supra* note 18, at 573.

165. Clean Air Act, 42 U.S.C. § 7401(a)(2).

166. Bosworth, *supra* note 10 (“[W]e are coming to see that climate change is part of the underlying problem - and a common thread.”).

167. U.S.D.A. FOREST SERVICE, FOREST SERVICE STRATEGIC FRAMEWORK FOR RESPONDING TO CLIMATE CHANGE 10 (OCT. 2, 2008); Kimbell, *Managing Forests*, *supra* note 14 (“America’s forests offset about 10 percent of our country’s carbon emissions. It could be more, depending on how we manage forests in the future.”).

168. As Professor Wood Points out: “the hopeful aspect of a society built upon waste is that we can make some major cuts without compromising our basic needs.” Wood, *supra* note 20.

It appears the Forest Service would rather maintain its discretion to destroy our atmosphere and stick to the same empty rhetoric,¹⁶⁹ flawed policies,¹⁷⁰ and non-existent science that provide unnecessary benefits for private land owners at the expense of the public.¹⁷¹

“The mission of the Forest Service is to sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations.”¹⁷² If the agency wants to stay true to its mission, it can longer afford to approve unneeded logging projects that are adding air pollution to our atmosphere. The Forest Service must take further steps to protect the public from climate change.

The current environmental statutes governing public land management cannot be relied upon to curb the looming climate catastrophe. The public trust doctrine may be able to slow down the rate at which the Forest Service is polluting by requiring the agency to use the best available science when planning logging projects and subjecting the agency to substantive judicial review when it seeks to destroy trust resources for a private purpose.

To be sure, the federal public lands are at the outer limits of the public trust doctrine.¹⁷³ But as Justice Oliver Wendell Holmes once said: the law is “[t]he felt necessities of the times.”¹⁷⁴ As we increasingly find ourselves in a carbon constrained world, new avenues must be explored to require the federal government to re-examine its role in degrading our atmosphere.

169. Jessie B. Davis, Comment, *The Healthy Forests Initiative: Unhealthy Policy Choices in Forest And Fire Management*, 34 ENVTL. L. 1209, 1242-45 (2004). HFRA’s policies are based on “the dubious - if not false - premise[s]: that: (1) public participation in forest management issues has only limited value, and (2) NEPA is the “enemy of forest health and public safety.”

170. *Id.*

171. *Id.*

172. Kimbell, *Forest Research*, *supra* note 4.

173. Wilkinson, *supra* note 136, at 273.

174. O.W. HOLMES, *THE COMMON LAW* (1881).

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