

SHIFTING PUBLIC LAND PARADIGMS: LESSONS FROM THE VALLES CALDERA NATIONAL PRESERVE

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I. INTRODUCTION.....	1
II. THE EXPERIMENT: A TRUST MODEL FOR MANAGING PUBLIC LANDS.....	6
III. THE VALLES CALDERA NATIONAL PRESERVE’S STATUTORY FRAMEWORK, GUIDING PRINCIPLES AND MANAGEMENT APPROACH	13
IV. LESSONS LEARNED.....	18
<i>A. Lesson 1: It’s Hard to be Both the Government and a Corporation.....</i>	<i>19</i>
<i>B. Lesson 2: NEPA Can be More Than a “Hard Look”—It Can Have Post-Decisional Value.....</i>	<i>26</i>
<i>C. Lesson 3: Science Can Inform Policy—It’s Called Adaptive Management.....</i>	<i>31</i>
<i>D. Lesson 4: The Old Joke about Western Ranching is True</i>	<i>35</i>
<i>E. Lesson 5: The Preserve is a Culturally Significant and Contested Landscape</i>	<i>38</i>
<i>F. Lesson 6: Making Money is Not What Public Lands Do Best.....</i>	<i>43</i>
V. CONCLUSIONS AND RECOMMENDATIONS FOR MOVING FORWARD	46

I. INTRODUCTION

One of the largest and most ambitious public land management experiments in United States history just came to an end.¹ It involved the creation and management of the Valles Caldera National Preserve

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¹ Public lands themselves are in many ways a uniquely American phenomenon. *See generally* DYAN ZASLOWSKY & TOM H. WATKINS, *THESE AMERICAN LANDS* (1994); RANDALL K. WILSON, *AMERICAS PUBLIC LANDS: FROM YELLOWSTONE TO SMOKEY BEAR AND BEYOND* (2014) (providing an overview of public land history by land type).

(“Preserve”) as a wholly owned government corporation managed *not* by a federal agency, but by a Board of Trustees. Its authorizing legislation, the Valles Caldera Preservation Act, created a new type of land management entity based on a fiduciary model—The Valles Caldera Trust (“Trust”).² The Trust was tasked with management of the Preserve, a vast and beautiful mountain landscape covering over 139 square miles in northern New Mexico, famous for its scenic beauty and unique geological features.³ Its management paradigm was also unique. In addition to the familiar requirements of multiple use and sustained yield,⁴ the Valles Caldera Preservation Act included a mandate that the Preserve become financially self-sustaining.⁵ For this reason, it was viewed by many as a key test case for a quasi-privatization approach to public land management.⁶ The experiment began in 2000, when Congress passed the Valles Caldera Preservation Act and purchased the Baca Ranch from the Dunigan family, moving the Preserve into public

² Hereinafter, the term “Preserve” will be used to describe the landscape, while the term “Trust” will be used to describe the governance structure for the Preserve.

³ See VALLES CALDERA TRUST, VALLES CALDERA NATIONAL PRESERVE: FRAMEWORK AND STRATEGIC GUIDANCE FOR COMPREHENSIVE MANAGEMENT (2005) [hereinafter FRAMEWORK AND STRATEGIC GUIDANCE]; Peter L. Gess, A Grand Experiment in Public Lands Management: Responsiveness in the National Caldera National Preserve 36 (Aug. 2006) (unpublished Ph.D. dissertation, University of Georgia) (on file with the Main Library, University of Georgia) (“One could argue that a most important factor leading to the creation of the Preserve began more than four million years ago; the Jemez Mountain region has seen volcanic activity for at least that long. The renewed volcanic activity 1.22 million years ago spewed 292 cubic kilometers of ash and material, leaving a hollowed-out crater, known as a caldera, surrounded by mountains.”); see also KURT F. ANSCHUETZ & THOMAS MERLAN, MORE THAN A SCENIC MOUNTAIN LANDSCAPE: VALLES CALDERA NATIONAL PRESERVE LAND USE HISTORY 2007 (providing a detailed summary of the cultural-historical environment of the Preserve).

⁴ See 16 U.S.C. § 531 (2012) (defining “multiple use” and “sustained yield of the several products and services”).

⁵ *Id.* § 698v (stating among the purposes of establishing the Preserve “to establish a demonstration area for an experimental management regime adapted to this unique property which incorporates elements of public and private administration in order to promote long term financial sustainability consistent with the other purposes [of the Act]”).

⁶ See Brian Yablonski, *Valles Caldera Nat'l Preserve: A New Paradigm for Public Land?*, 22 PERC REP. 4, 5 (2004) (newsletter of the Property and Environment Research Center, a conservative environmental think tank seeing market solutions to environmental problems). Early on, there was some interest among legal scholars regarding the experiment. See, e.g., Sally K. Fairfax et al., *Presidio and Valles Caldera: A Preliminary Assessment of Their Meaning for Public Resource Management*, 44 NAT. RES. J. 445 (2004); James L. Huffman, *Limited Prospects for Privatization of Public Lands: Presidio and Valles Caldera May Be as Good as It Gets*, 44 NAT. RES. J. 475 (2004). Yet there has been relatively little legal and social science scholarship over the course of the experiment. *But see* Joseph Little et al., *Uncharted Territory—the Charter Forest Experiment on the Valles Caldera National Preserve: and Initial Economic and Policy Analysis*, 45 NAT. RES. J. 33 (2005); Joseph M. Little et al., *Investigation of Stated and Revealed Preferences for an Elk Hunting Raffle*, 82 LAND ECON. 623 (2006).

ownership under a trust model.⁷ It ended in December 2014 when President Barack Obama signed legislation transferring management to the National Park Service (“NPS”).⁸

The creation of the Trust experiment, along with its subsequent unfolding over fourteen years provides a fascinating window into the challenges associated with public land management generally and a financially driven trust model specifically.⁹ Pressures to privatize are a constant in public land management in the United States. From the beginning, controversies arose regarding whether the federal government should hold back *any* lands from homesteading during what Professor Jack Wright calls the “disposal” era of Euro-American expansionism.¹⁰ While the Sagebrush Rebellion of the 1970s and 1980s is perhaps the most famous movement to transfer federal lands to state and local control,¹¹ there are continued efforts to privatize public lands¹² or at least make them subject to local jurisdictions.¹³

As the experiment comes to an end, some observers are declaring that the Trust’s corporate model was a failure.¹⁴ This Article concludes that

⁷ See U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-06-98, VALLES CALDERA TRUST HAS MADE SOME PROGRESS, BUT NEEDS TO DO MORE TO MEET STATUTORY GOALS 1 (2005) [hereinafter GAO 2005].

⁸ See Susan Montoya Bryan, *New Mexico’s Valles Caldera Looks to Future as National Park*, DENVER POST, (Jan. 1, 2015), http://www.denverpost.com/travel/ci_27241867/new-mexico-valles-caldera-looks-future-national-park.

⁹ Trust models are common for management of state lands—particularly in the American West, where states were granted ownership of 2-4 sections of every township in order to provide revenue for school and other public services upon state ratification. See Stephen M. Davis, *Preservation, Resource Extraction, and Recreation on Public Lands: A View from the States*, 48 NAT. RES. J. 303, 330 (2008) (providing a detailed analysis of state land holdings and management orientations).

¹⁰ John B. Wright, *Land Tenure: The Spatial Musculature of the American West*, in WESTERN PLACES, AMERICAN MYTHS: HOW WE THINK ABOUT THE WEST 85, 88 (Gary J. Hausladen ed., 2003).

¹¹ See generally R. MCGREGGOR CAWLEY, *FEDERAL LAND, WESTERN ANGER: THE SAGEBRUSH REBELLION AND ENVIRONMENTAL POLITICS* (1993) (providing an environmental history of the Sagebrush Rebellion).

¹² See Terry L. Anderson et al., *How and Why to Privatize Federal Lands*, 363 POL. ANALYSIS 13 (1999).

¹³ Rich Landers, *Utah Spends \$12 Million Exploring Federal Lands Takeover*, SPOKESMAN-REV., OUTDOORS BLOG (Mar. 18, 2015, 8:47 AM), <http://www.spokesman.com/blogs/outdoors/2015/mar/18/utah-spends-12-million-exploring-federal-lands-takeover/> (discussing Utah lawmakers’ approval of more than \$12 million in funding litigation designed to gain control of public lands from the federal government); Marianne Goodland, *Sagebrush Rebellion Rekindled in Colorado*, COLORADO STATESMAN (Apr. 22, 2015), <http://www.coloradostatesman.com/content/995609-sagebrush-rebellion-rekindled-colorado> (detailing a proposal to put Colorado’s public lands under concurrent jurisdiction of the state and federal governments).

¹⁴ See, e.g., Tom Ribe, *An Experiment in Privatizing Public Land Fails After 14 Years*, HIGH COUNTRY NEWS (Feb. 12, 2015), <http://www.hcn.org/articles/an-experiment-in-privatizing-public-land-fails-after-14-years>.

the Trust's management of the Preserve was not a failure. That said, it was also not the experiment many *thought* it would be. For reasons that will be explained, the Preserve did not become the test case for profit-based management of public lands. In the end, revenue from the Trust's various programs brought in approximately 28% of its budget.¹⁵ Instead, it became an experiment in collaborative process and science-based adaptive management.¹⁶ The Trust's early commitment to a science-driven management created perhaps the most interesting and successful outcome of the experiment: its management was *never* the subject of a lawsuit. This is a remarkable feat for a public land manager in the American West, where environmental groups, ranchers, and other interested parties increasingly rely on litigation to influence decisions involving public lands.¹⁷

The Trust's environmental review process under the National Environmental Policy Act ("NEPA") for its Landscape Restoration and Stewardship Program provides one example of this success. The program authorized aggressive forest thinning, wild land fire management, road closures, riparian restoration, and over 49,825 acres of prescribed fire treatment.¹⁸ During the final public comment period, the Trust received only one negative public comment.¹⁹ The process was completed and the Record of Decision was signed in September of 2014. Contrast this with a parallel proposal the Forest Service began around the same time for similar work on its lands, which has been highly controversial and slow in coming—the *draft* Environmental Impact Statement is still in review.²⁰

The Trust's relatively nimble NEPA procedures and other processes proved to be some of its greatest assets. Among the lessons learned is that a science-based approach that includes collection of baseline data and continued monitoring does not necessarily slow the pace of

¹⁵ See *infra* Part IV.G.

¹⁶ See *infra* Part IV.C.

¹⁷ See generally MARTIN NIE, THE GOVERNANCE OF WESTERN PUBLIC LANDS: MAPPING ITS PRESENT AND FUTURE (2008) (discussing how various legal processes drive conflict on public lands); Robert B. Keiter, *Law of Fire: Reshaping Public Land Policy in an Era of Ecology and Litigation*, 36 ENVTL. L. 301, 332 (2006) (noting the "escalating volume of litigation" enforcing federal environmental law).

¹⁸ VALLES CALDERA TRUST, LANDSCAPE RESTORATION & STEWARDSHIP PLAN RECORD OF DECISION 4 (2014) [hereinafter LANDSCAPE RESTORATION & STEWARDSHIP PLAN]. In 2011, the Las Conchas fire scorched approximately 30,000 acres of the Preserve. *Las Conchas Fact Sheet*, SOUTHWEST FIRE CONSORTIUM, http://swfireconsortium.org/wp-content/uploads/2012/11/Las-Conchas-Factsheet_bsw.pdf (last visited Dec. 8, 2015).

¹⁹ Interview with Jorge Silva-Bañuelos, Executive Director, Valles Caldera National Preserve (Apr. 7, 2014) [hereinafter Silva-Bañuelos interview].

²⁰ Notice of Availability of Environmental Impact Statements, 79 Fed. Reg. 11428 (Feb. 28, 2014) (Draft EIS for Southwest Jemez Mountains Landscape Restoration Project).

decision-making. In fact, these processes can allow federal agencies to act more quickly because investment in them builds trust and communication among stakeholders and reduces the chance that management actions will become embroiled in controversy. In this way, the experiment taught us less about “Trust” as a governance model than about *trust* as a characteristic of relationships—confidence that builds among stakeholders over time. Jorge Silva-Bañuelos, the Executive Director of the Trust during its last years, explains, “Managers from other agencies have asked me how we justify the amount of money we invest in our science programs. I tell them to think about all the money we save in litigation costs.”²¹

This article examines the Preserve’s experiment and associated management paradigm. It begins by telling the story of the Preserve’s creation and explaining how the Preserve became public land managed under a trust model. After providing an overview of the statutory framework governing the Preserve’s management, it attempts to answer the question, ‘what did we learn?’ First, having a corporate identity while also being required to comply with many laws pertaining to federal agencies created significant challenges. Various laws and regulations, including the Preserve’s own enabling statute, hampered its success. The second lesson involves the Trust’s use of NEPA to inform management via iterative processes. The Trust promulgated its own NEPA procedures and included monitoring and mitigation among its requirements, giving NEPA analysis substantive, post-decisional value. This closely relates to the third lesson, which involves the priority given to scientific research and successes in science-based adaptive management. The Trust invested early on in baseline data, monitoring protocols and other elements necessary for adaptive management to inform decision-making. Fourth, it highlighted the challenges of running a “working ranch” in the American West. Operation of a ranch on the Preserve was a statutory mandate, but it provided little in the way of financial gain. Fifth, the Preserve’s long and complex land-use history provided opportunities to protect cultural resources in a unique landscape.

This article concludes with some specific lessons for the NPS in its new management role. While some aspects of the Preserve’s experiment will necessarily come to an end, many others can and should be allowed to continue. Many of these recommendations have implications for other federal lands. Successful implementation of adaptive management, in particular, is an increasing priority for public land

²¹ See Silva-Bañuelos interview, *supra* note 19.

managers.²² The U.S. Department of the Interior (“DOI”) has formally embraced adaptive management²³ and the U.S. Forest Service has given it a central role in its new planning rule.²⁴

Notably absent among the many lessons is a clear answer regarding whether public lands can be made financially self-sustaining. The Preserve’s neoliberal charge was thwarted. There were many reasons for this, but the main and most interesting obstacles involve our collective cultural beliefs about what public lands *are* and role they have in American culture. The attempt to use a new, financially focused paradigm for public lands exposed many of our complex and conflicting expectations of those lands, animating both the preservationist and utilitarian ideals that created the concept of public land in the first place.

II. THE EXPERIMENT: A TRUST MODEL FOR MANAGING PUBLIC LANDS

Each type of public land has its own origin story. We are told that national parks were created to protect America’s natural beauty during the era of Manifest Destiny and territorial expansionism.²⁵ George Caitlin returned from his trip to the frontier in 1832 with tales of awe and wonder, as well as artistic renderings of Yellowstone and other amazing landscapes to back him up.²⁶ A belief was born that some places should be preserved and made available to the public rather than

²² Scholars have provided insights into attempts by federal agencies to implement adaptive management. *See, e.g.*, Robert L. Glicksman, *Ecosystem Resilience to Disruptions Linked to Global Climate Change: An Adaptive Approach to Federal Land Management*, 87 NEB. L. REV. 833, 871 (2009); J.B. Ruhl & Robert I. Fischman, *Adaptive Management in the Courts*, 95 MINN. L. REV. 424, 431–36 (Dec. 2010) (detailing the first generation of federal case law resulting from efforts by federal agencies to engage in adaptive management); Melinda Harm Benson, *Adaptive Management by Resource Management Agencies in the United States: Implications for Energy Development in the Interior West*, 28 J. ENERGY & NAT. RES. L. 87, 92–95 (2010) (adaptive management and federal oil and gas leasing).

²³ *See* 43 C.F.R. § 46.145 (2015) (“Bureaus should use adaptive management, as appropriate, particularly in circumstances where long-term impacts may be uncertain and future monitoring will be needed to make adjustments in subsequent implementation decisions.”); *see also* BYRON K. WILLIAMS & ELEANOR D. BROWN, ADAPTIVE MANAGEMENT WORKING GROUP, U.S. DEPT. OF THE INTERIOR, WASHINGTON, DC, ADAPTIVE MANAGEMENT: THE U.S. DEPT. OF THE INTERIOR APPLICATIONS GUIDE 2012. *See generally* BYRON K. WILLIAMS ET AL., ADAPTIVE MANAGEMENT: THE U.S. DEPT. OF THE INTERIOR TECHNICAL GUIDE 2009. Both of these guidance documents are products from DOI’s Adaptive Management Working Group within the Office of Policy Analysis.

²⁴ National Forest System Land Management Planning Final Rule and Record of Decision, 77 Fed. Reg. 21162, 21165 (April 9, 2012) (“The framework consists of a three-part learning and planning framework to assess conditions and stressors; develop, amend, or revise land management plans based on the need for change; and monitor to test assumptions, detect changes, and evaluate whether progress is being made toward desired outcomes.”).

²⁵ *See infra* note 36 and accompanying text.

²⁶ *See* ZASLOWSKY & WATKINS *supra* note 1, at 14.

owned by any one individual.²⁷ John Muir and others championed this idea, and this part of history is rich with stories regarding efforts to create national parks and monuments to protect places of natural beauty and historic and archeological importance.²⁸

The federal forest system has a similar story in the sense that the first federal forest reserves were also established during the era of Euro-American expansionism.²⁹ As various homestead laws facilitated the rapid conversion of the public domain into privately owned farms and ranches across the landscape, deforestation took place at an unprecedented pace and scale.³⁰ American progressives recognized that the United States would soon lose valuable assets if actions were not taken to keep at least *some* timberlands under public ownership for the good of all.³¹ As the first chief of the Forest Service, Gifford Pinchot spearheaded this effort and embedded these utilitarian ideals within the agency that remain today.³²

More than any other president, Theodore Roosevelt was a supporter and architect of public land protection.³³ He was able to embrace both the preservationist ideals of Muir and the utilitarian ideals of Pinchot.³⁴ In addition to working with both Muir and Pinchot to expand national parks, monuments, and forests, Roosevelt also created the nation's first wildlife refuges, which serve to protect important habitats for migrating birds and other species threatened by rapid land development and overhunting.³⁵ In sum, each public land management type has its own origin story. Along with that story, each type has a management paradigm that is informed by its beginnings and resulting organizational culture, as well as the laws and policies guiding its management and the influences of the various stakeholders involved.

²⁷ See *id.* at 14–15. See generally, ROBERT B. KEITER, TO CONSERVE UNIMPAIRED THE EVOLUTION OF THE NATIONAL PARK IDEA (2013) (providing a comprehensive overview of the evolution of national parks).

²⁸ See Mark Squillace, *The Monumental Legacy of the Antiquities Act of 1906*, 37 GA. L. REV. 473, 476–86 (2002–2003) (detailing the early history of the Antiquities Act and its use).

²⁹ See ZASLOWSKY & WATKINS, *supra* note 1, at 64–65.

³⁰ See *id.* at 64–65; see also Wright, *supra* note 10, at 88–89 (detailing impact of various homestead laws on the American West).

³¹ See ZASLOWSKY & WATKINS, *supra* note 1, at 69.

³² See *id.*

³³ See *id.* at 69–73.

³⁴ See Squillace, *supra* note 28 (Pinchot); ZASLOWSKY & WATKINS, *supra* note 1, at 73–75 (Pinchot and Muir).

³⁵ See ZASLOWSKY & WATKINS, *supra* note 1 (detailing the seminal role Roosevelt played in establishing parks, national forests and refuges); see also Robert L. Fischman, *The Significance of National Wildlife Refuges in the Development of U.S. Conservation Policy*, 21 J. OF LAND USE & ENVTL. L. 1, 10–11 (2005).

The Preserve's origin story is closely linked with all of this history—it is grounded within the idea of public land itself. When Yosemite, Yellowstone, and the other national parks were designated, there were two competing ideas within American culture that made the concept of public land possible. The first—Manifest Destiny—has already been mentioned.³⁶ Manifest Destiny is predicated upon the moral legitimacy and inevitability of U.S. territorial acquisition and subsequent privatization of land, i.e., the *rightness* of the conversion of land to capital.³⁷ Officials made a conscious decision, for various reasons, to remove national parks and other public lands from this process and keep these lands from becoming privatized and commodified.³⁸

The second narrative animating the idea of public land comes from Transcendentalism. Transcendentalist thought is also an American phenomenon—a religious and philosophical movement that emerged during roughly the same era as Manifest Destiny but with a very different sensibility. For Ralph Waldo Emerson, Henry David Thoreau, and others in this movement, the natural world was regarded as a restorative and redemptive place of experience, not just a source of resources.³⁹ The transcendentalist view that imbued scenic beauty with a religious quality influenced the culture at large, and early descriptions of Yosemite and other national parks invoke the idea that these natural places are America's cathedrals.⁴⁰ As a new nation, the United States was conscious of its relative lack of history and culture. So it embraced what it *did* have in comparison to Europe—vast and seemingly unspoiled landscapes.⁴¹ In *These American Lands*, Dyan Zaslowsky and

³⁶ Manifest Destiny expressed the belief that it was Anglo-Saxon Americans' providential mission to expand their civilization and institutions across the breadth of North America. While its exact origins are unclear, the Manifest Destiny, scholars often point to the words of John Louis O'Sullivan, an American columnist and editor who used the term in 1845 to promote the annexation of Texas and the Oregon Country to the United States, stating it was "our manifest destiny to overspread the continent allotted by Providence for the free development of our yearly multiplying millions." See John O'Sullivan, *Annexation*, 17 U.S. MAG. & DEMOCRATIC REV. 1, 2 (1845).

³⁷ Donald Worster explains that the dust bowl was the direct result of the underlying cultural beliefs of the homestead era, which he describes as based on three main assumptions: (1) nature is seen as capital, (2) man has a right to use capital for self-advancement, and (3) social order should permit and encourage this continual increase of personal wealth. See DONALD WORSTER, *DUST BOWL: THE SOUTHERN PLAINS IN THE 1930S*, at 6 (2004).

³⁸ See Wright, *supra* note 10 at 88.

³⁹ See generally PHILIP F. GURA, *AMERICAN TRANSCENDENTALISM: A HISTORY* (2008).

⁴⁰ See ZASLOWSKY & WATKINS, *supra* note 1, at 14; see also JOSEPH SAX, *MOUNTAINS WITHOUT HANDRAILS* (1980) (making a strong case for contemplative recreation as a rarified human experience).

⁴¹ This was of course not true. As Jack Wright observes, the homestead era was predicated upon two convenient myths about the American West: that it was pristine and that it was empty.

Tom H. Watkins provide detailed accounts of the early adventures and political machinations that took place during this era to create and protect parks, monuments, forests, and refuges.⁴² This history is replete with colorful individuals who dedicated their lives to protecting wild places.⁴³

At the heart of the Preserve's origin story is an unlikely protagonist—Republican U.S. Senator Pete Domenici from New Mexico, who served six terms in the Senate from 1973 to 2009.⁴⁴ Senator Domenici chaired the powerful Senate Budget Committee and was considered an extremely influential member of Congress.⁴⁵ He was no environmentalist, however, and anyone familiar with Senator Domenici and his politics knows that he was not a fan of public lands.⁴⁶ His pivotal role in the acquisition of the Preserve explains how it ended up with a neoliberal management design.

The Preserve's origin story reverses the logic of Manifest Destiny. It begins with the *rightness* of purchasing private land—the Baca Ranch—in order to create a publicly owned Preserve.⁴⁷ Located in the Jemez

See Wright, *supra* note 10, at 86–87. All public land stories begin with the dispossession of native people from their land.

⁴² See generally ZASLOWSKY & WATKINS, *supra* note 1.

⁴³ These characters are too numerous to mention but can be generally described as white, male and rich—men with a love of nature, time on their hands and a willingness to spend family fortunes to influence Congress and protect wild places. A personal favorite of mine is Bob Marshall, who helped protect numerous wilderness areas. See *id.* at 205–07. Marshall died at the age of 38, and it was generally speculated that Marshall, who tramped all over the nation's wilderness, walked at least 30 miles in every state in the nation and once walked 62 miles in one day, simply walked himself to death. See *id.* at 205.

⁴⁴ See *Pete V. Domenici Bio*, N.M. ST. U., <http://domenici.nmsu.edu/pete-v-domenici-bio/> (last visited Oct. 10, 2015). This is the longest tenure in the state's history. *Id.*

⁴⁵ Ken Silverstein, *The Bipartisan Lobbying Center: How a Washington Think Tank Advocates for Political Unity – and its Top Donors*, HARV. U. CENTER FOR ETHICS (Oct. 10, 2015, 10:00 AM), <http://bipartisanpolicy.org/press-release/former-senate-budget-committee-chair-pete-domenici-and-former-white/>.

⁴⁶ *Id.* (stating that the grassroots organization Republicans for Environmental Protection singled out Domenici as “Worst in the Senate in 2006” on environmental issues.)

⁴⁷ The property was given to the Baca family as a part of settlement of lands claims that took place when the United States took over ownership of the territory under the 1848 Treaty of Guadalupe Hidalgo. The legitimacy of this settlement is currently under litigation in a case brought by the Jemez Pueblo, who claims aboriginal title to the land. See *infra* notes 272–81 and accompanying text. New Mexico's history of Spanish and Mexican land grants, including their subsequent and often fraudulent adjudication, is an important aspect of the state's public land history. See U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-04-59, TREATY OF GUADALUPE HIDALGO: FINDINGS AND POSSIBLE OPTIONS REGARDING LONGSTANDING COMMUNITY LAND GRANT CLAIMS IN NEW MEXICO, 40–41 (2004); Federico M. Cheever, *A New Approach to Spanish and Mexican Land Grants and the Public Trust Doctrine: Defining The Property Interest Protected by the Treaty of Guadalupe-Hidalgo*, 33 UCLA L. REV. 1364, 1383 (1986). See generally MALCOLM EBRIGHT, LAND GRANTS & LAWSUITS IN NORTHERN NEW MEXICO (1995) (detailing the history of Spanish and Mexican land grants and subsequent adjudication).

Mountains, this breathtakingly beautiful area is known for its numerous “valles,” open valleys and high altitude meadows resulting from volcanic eruptions over a million years ago.⁴⁸ Not surprisingly given its spectacular beauty and unique geological features, this area had long been considered a candidate for public ownership.⁴⁹ In *Valles Caldera: A Vision for New Mexico’s National Preserve*, Bill DeBuys describes in detail the numerous efforts over the decades to place the property under public ownership.⁵⁰ Negotiations with the Dunigan family—owners of the property from 1963 to 2000—had been held intermittently since the 1970s.⁵¹ During various iterations of the negotiations, the Forest Service and NPS were continually vying for the eventual position of land steward.⁵²

In the beginning and for many years, Senator Domenici did not support the purchase of the Baca Ranch.⁵³ New Mexico was already ranked ninth state in the nation in percentage of land owned by the federal government.⁵⁴ With almost half of the state (47%) already federal land, did it really need more? Domenici was also unhappy with federal land managers—particularly the Forest Service—over grazing issues in the southern part of the state.⁵⁵ He was even less enthusiastic, however, about the idea of the Baca Ranch as a national park managed by the NPS because of the likelihood that livestock grazing and hunting would be altogether excluded.⁵⁶

Political momentum and public support for the purchase the Baca Ranch gained steam in the late 1990s. New Mexico’s other U.S. Senator, Jeff Bingaman, had long been in favor of moving the Baca into public ownership.⁵⁷ During this period, he and his staff raised media

⁴⁸ See GAO 2005, *supra* note 7, at 5 (“About 1.2 million years ago, a volcano erupted and collapsed inward, forming the crater now known as the Valles Caldera, in north-central New Mexico. This geologically and ecologically unique area covers about 89,000 acres of meadows, pine forests, hot springs, volcanic domes, and streams that support elk herds and other wildlife and fishery resources.”).

⁴⁹ See WILLIAM DEBUYS & DON J. USNER, *VALLES CALDERA: A VISION FOR NEW MEXICO’S NATIONAL PRESERVE* (2006).

⁵⁰ See *id.* In addition to being the first board president for the Trust and one of the chief negotiators involved in its creation, Bill DuBuys is a world-renowned author and lecturer.

⁵¹ See *id.* at 19.

⁵² See *id.*

⁵³ See *id.* at 20.

⁵⁴ See *Public and Private Lands Percentages*, SUMMITPOST.ORG, <http://www.summitpost.org/public-and-private-land-percentages-by-us-states/186111> (last visited Dec. 5, 2015).

⁵⁵ See DEBUYS & USNER, *supra* note 49, at 20.

⁵⁶ See *id.*

⁵⁷ Jorge Silva-Bañuelos, the Preserve’s last executive director, was among these staffers and was working for Senator Bingaman during this period, helping to craft the Preserve’s original management design. See Silva-Bañuelos interview, *supra* note 19.

attention and introduced bills in Congress that would authorize the purchase of the ranch and its transfer to the Forest Service.⁵⁸ President Clinton came out in support of the purchase during a trip to New Mexico in 1998.⁵⁹ Yet without Senator Domenici's support, the idea remained a nonstarter.

DeBuys explains that the breakthrough came later in 1998 and took place on Air Force One.⁶⁰ President Clinton was in Albuquerque for a meeting on Social Security.⁶¹ He invited Senator Domenici to join him on the trip back to Washington to discuss several matters, including the possible purchase of the Baca Ranch.⁶² Domenici remained unenthusiastic about the Forest Service or NPS serving as land manager. During these discussions, a third option emerged.⁶³

The flight afforded Domenici a chance to present the fruits of his reflection about the proposed acquisition. He said he thought it was important to preserve the character of the Baca Ranch as a "working ranch of the highest environmental quality" and suggested that, if the government acquired it, the property might be administered under an innovative trust structure similar to that which had recently been implemented for the Presidio in San Francisco. Clinton said he had no serious objection to any of Domenici's points and he was eager to move ahead with the senator's plan as he had laid it out. The two men agreed to assign staff to an immediate drafting of a Statement of Principles capturing the elements of what they had discussed.⁶⁴

This Statement of Principles would become the basis for new legislation drafted by the White House and New Mexico's congressional staff.⁶⁵ After this bipartisan agreement, there were still many twists and turns to be navigated with regard to the actual purchase of the property—many involving its price.⁶⁶ In the end, the government acquired the property for approximately \$97 million.⁶⁷

Upon signing the Act, President Clinton invoked the now familiar idea that some places are best held by the public:

I am very pleased today to sign bipartisan legislation authorizing protection of New Mexico's Baca Ranch as the new Valles

⁵⁸ See DEBUYS & USNER, *supra* note 49, at 19.

⁵⁹ See *id.* at 20.

⁶⁰ See *id.* at 21.

⁶¹ See *id.*

⁶² See *id.*

⁶³ See *id.*

⁶⁴ *Id.*

⁶⁵ See *id.*

⁶⁶ See *id.*

⁶⁷ See GAO 2005, *supra* note 7, at 1.

Caldera National Preserve. From time to time, we are presented with an opportunity to save truly magnificent piece of America's rich natural endowment. Today we seize on one such opportunity. At the heart of the scenic Jemez Mountains west of Santa Fe, the Baca Ranch contains the remarkable Valles Caldera—the collapsed crater of an ancient volcano—and sustains one of our Nation's largest elk herds. Thanks to the careful stewardship of the Dunigan family, this extraordinary landscape appears today much as it did when the first settlers arrived. And thanks to the bipartisan efforts of the New Mexico delegation, we will ensure that it remains healthy and whole for generations to come.⁶⁸

For Senator Domenici, the Preserve presented an opportunity to fundamentally reexamine public lands management: “By entrusting the Baca Ranch to an autonomous body of experts, rather than to a myriad of planning rules and regulations, we are saying that a group of smart, caring people can make good decisions, given the opportunity.”⁶⁹

This was a commonly held view. Professor Larry Gess, who conducted his dissertation research on public administration of the Trust during its early years, found that:

The clear majority of people interviewed expressed their belief and hope that the Valles Caldera National Trust can represent something new and different. Importantly, they feel the conversation can be moved from that of environment versus economic opportunities, to one in which environmental protection, wise natural resource use, and economic progress can be accomplished. In other words, board members, staff members, and external stakeholders buy into win-win ecology.⁷⁰

By moving to a more collaborative model, there was a hope that the experiment could “circumvent some of the political deadlock, stagnation, and litigation facing the National Park and Forest Services. ‘Congress wanted to use Valles Caldera to blaze a fresh trail through the tangled politics of managing federal land in the West.’”⁷¹

⁶⁸ Statement on Signing the Valles Caldera National Preservation Act, 36 WEEKLY COMP. PRES. DOC. 1679 (July 25, 2000).

⁶⁹ Peter L. Gess, *A Grand Experiment in Public Lands Management: Responsiveness in the National Caldera National Preserve* 179 (Aug. 2006) (unpublished Ph.D. dissertation, University of Georgia) (on file with the Main Library, University of Georgia). Gess's dissertation examines whether the unique management structure for Valles Caldera leads to a higher level of responsiveness to important stakeholders than typically found under the usual bureaucratic approaches.

⁷⁰ *Id.* at 171.

⁷¹ *Id.* at 49 (quoting Cyril T. Zaneski, *Taming the West*, 35 GOV'T EXEC. 1, 17 (2003)).

It took several decades of political wrangling. In the end, the Preserve ended up as a compromise, with Senator Bingaman and President Clinton succeeding in moving the land to public ownership and Senator Domenici getting the opportunity to see if a financially driven trust model could succeed. And that is how the Preserve became an opportunity to experiment with a new paradigm for public land management.

III. THE VALLES CALDERA NATIONAL PRESERVE'S STATUTORY FRAMEWORK, GUIDING PRINCIPLES AND MANAGEMENT APPROACH

The Purpose and Need section of the statute⁷² creating the Valles Caldera National Preserve noted that its unique characteristics deserved an equally unique management regime,⁷³ echoing the ideas agreed to by Clinton and Domenici. It was intentionally designed to be a “demonstration area for an experimental management regime adapted to this unique property which incorporates elements of public and private administration in order to promote long term financial sustainability consistent with the other purposes.”⁷⁴ Management of the Preserve was statutorily required to include:

(1) operation of the Preserve as a working ranch . . . ; (2) the protection and preservation of the scientific, scenic, geologic, watershed, fish, wildlife, historic, cultural, and recreational values . . . ; (3) multiple use and sustained yield of renewable resources . . . ; (4) public use of and access to the Preserve for recreation; (5) renewable resource utilization and management alternatives . . . ; and (6) optimizing the generation of income based on existing market conditions, to the extent that it does not unreasonably diminish the long-term scenic and natural values of the area, or the multiple use and sustained yield capability of the land.⁷⁵

Along with the more familiar “multiple use and sustained yield” language are two relatively unfamiliar statutory mandates—run a ranch and make money.⁷⁶ The core idea was that “a working ranch under a unique management regime . . . would protect the land and resource

⁷² Valles Caldera Preservation Act, Pub. L. No. 106-248, 114 Stat 598 (2000) (codified as amended at 16 U.S.C. §§ 698v to 698v-10 (2012) (repealed 2014)).

⁷³ 16 U.S.C. § 698v(a)(11) (2012) (“the unique nature of the Valles Caldera and the potential uses of its resources with different resulting impacts warrants a management regime uniquely capable of developing an operational program for appropriate preservation and development of the land and resources of the Baca ranch in the interest of the public”).

⁷⁴ *Id.* § 698v(b)(4).

⁷⁵ *Id.* § 698v-6(d).

⁷⁶ *Id.* § 698v.

values of the property and surrounding ecosystem while allowing and providing for the ranch to eventually become financially self-sustaining.”⁷⁷ The statute defines “financially self-sustaining” to mean that “management and operating expenditures [are] equal to or less than proceeds derived from fees and other receipts for resource use and development and interest on invested funds.”⁷⁸

To provide governance mechanisms for this new management paradigm, the statute created the Valles Caldera National Trust and its presidentially appointed Board of Trustees.⁷⁹ The nine-member board was required to have a diversity of interests and perspectives.⁸⁰ In addition to the current Supervisor of the Santa Fe National Forest and the Superintendent of the Bandelier National Monument—both of whom manage public lands bordering the Preserve—the board included seven individuals with specific expertise representing stakeholder interests.⁸¹ The required areas of expertise were in (1) domesticated livestock management, (2) wildlife management, (3) forestry, (4) conservation, (5) financial management and (6) cultural and natural history.⁸² There was also a seventh board position for a member of state or local government.⁸³ All of the trustees were to be appointed by the president, and the statute required that at least five members be residents of the State of New Mexico.⁸⁴ While the statute also included other interesting provisions, including giving some of the acquired land to the Pueblo of Santa Clara⁸⁵ and Bandelier National Monument,⁸⁶ the final statutory section of importance for purposes of this article is the provision regarding the termination of the Trust.

The statute contained a termination clause—a twenty-year deadline for purposes of evaluating its success or failure.⁸⁷ It also contained two interim deadlines along the way. Fourteen years into the experiment, annual appropriations authorized by the statute ran out.⁸⁸ If the Trust had not yet become financially self-sustaining, the Board was

⁷⁷ *Id.* § 698v(a)(8).

⁷⁸ *Id.* § 698v-1(4).

⁷⁹ *Id.* § 698v-5.

⁸⁰ *See id.* § 698v-5(1).

⁸¹ *Id.*

⁸² *Id.* § 698v-5(1)(C)(i)–(vi).

⁸³ *Id.* § 698v-5(1)(C)(vii).

⁸⁴ *Id.* § 698v-5(2).

⁸⁵ *Id.* § 698v-2(g).

⁸⁶ *Id.* § 698v-2(b).

⁸⁷ *Id.* § 698v-8(a).

⁸⁸ T.S. Last, *Valles Caldera National Preserve Trust Board Asks Congress for Extension*, ALBUQUERQUE J. (Sept. 25, 2014), <http://www.abqjournal.com/468265/news/valles-caldera-national-preserve-trust-board-asks-congress-for-extension.html>.

authorized to request continued appropriations beyond what was provided in the statute.⁸⁹

Eighteen years into the experiment, the statute required the Board to submit to the Secretary of Agriculture a recommendation regarding whether it should continue under the trust model or call an end to the experiment.⁹⁰ Upon receipt of that recommendation, the Secretary had 120 days to “submit to the Committees of Congress the Board’s recommendation on extension or termination along with the recommendation of the Secretary with respect to the same and stating the reasons for such recommendation.”⁹¹ This never happened because Congress pulled the plug on the experiment in December 2014, well short of the 2020 statutory termination date.⁹²

The reason for its early demise can be found in the last section of the termination clause: “In the event of termination of the Trust, the Secretary shall assume all management and administrative functions over the Preserve, and it shall thereafter be managed as a part of the Santa Fe National Forest, subject to all laws applicable to the National Forest System.” The statute designated that the default manager upon termination was the U.S. Forest Service.⁹³ But many interested parties, including New Mexico’s then-current congressional delegation, did not want to see that happen. Senator Bingaman first introduced legislation designed to move management to the Parks Service in 2009, reflecting a generally held view that the NPS was a better manager for the Preserve.⁹⁴ In December of 2014, legislation ending the experiment and shifting management to the NPS passed as one of many public land bills attached to the \$500 billion defense bill signed by President Barack Obama.⁹⁵

In a sense, the controversy over who should inherit the Preserve upon termination echoes the debates over the original idea of public land. It is Muir and Pinchot all over again—with preservationist ideals competing against utilitarian notions of a “working” landscape. Once the Board’s members were in place, it developed a set of ten guiding principles for the management of the Preserve based on its statutory charge:

⁸⁹ *Id.* The Board did actually make this request in September of 2014.

⁹⁰ 16 U.S.C. § 698v-8(b)(1)(B).

⁹¹ *Id.* § 698v-8(b)(2).

⁹² See Montoya Bryan, *supra* note 8.

⁹³ 16 U.S.C. § 698v-8(c).

⁹⁴ T.S. Last, *National Park Service to Take Over Management of Valles Caldera Preserve* ALBUQUERQUE J. (Dec. 19, 2014), <http://www.abqjournal.com/514815/news/national-park-service-to-take-over-management-of-valles-caldera-preserve.html>.

⁹⁵ See Montoya Bryan, *supra* note 8.

1. Future Generations. We will administer the Preserve with the long view in mind, directing our efforts toward the benefit of future generations.
2. Protection. Recognizing that the Preserve imparts a rich sense of place and qualities not to be found anywhere else, we commit ourselves to the protection of its ecological, cultural, and aesthetic integrity.
3. Integrity. We will strive to achieve a high level of integrity in our stewardship of the lands, programs, and other assets in our care. This includes adopting an ethic of financial thrift and discipline and exercising good business sense.
4. Science and Adaptive Management. We will exercise restraint in the implementation of all programs, basing them on sound science and adjusting them consistent with the principles of adaptive management.
5. Good Neighbor. Recognizing the unique heritage of northern New Mexico's traditional cultures, we will be a good neighbor to surrounding communities, striving to avoid negative impacts from Preserve activities and to generate positive impacts.
6. Religious Significance. Recognizing the religious significance of the Preserve to Native Americans, the Trust bears a special responsibility to accommodate the religious practices of nearby tribes and pueblos, and to protect sites of special significance.
7. Open Communication. Recognizing the importance of clear and open communication, we commit ourselves to maintaining a productive dialogue with those who would advance the purposes of the Preserve and, where appropriate, to developing partnerships with them.
8. Part of a Larger Whole. Recognizing that the Preserve is part of a larger ecological whole, we will cooperate with adjacent landowners and managers to achieve a healthy regional ecosystem.
9. Learning and Inspiration. Recognizing the great potential of the Preserve for learning and inspiration, we will strive to integrate opportunities for research, reflection, and education in the programs of the Preserve.
10. Quality of Experience. In providing opportunities to the public, we will emphasize quality of experience over quantity of experiences. In so doing, while we reserve the right to limit participation or to maximize revenue in certain instances, we

commit ourselves to providing fair and affordable access for all permitted activities.⁹⁶

These principles embrace some mandates familiar to public lands, including recreational enjoyment and environmental preservation. Yet others are relatively new. Science-based adaptive management is a tool increasingly used by federal natural resource managers, but it is rarely a guiding principle.⁹⁷ Similarly, consideration of the religious significance of landscapes is a requirement for all public lands under the National Historic Preservation Act (“NHPA”),⁹⁸ but it is not generally a governing principle for land management.⁹⁹

What is perhaps most interesting about these principles is what they do *not* include. Absent is an express commitment to financial self-sustainability.¹⁰⁰ There is reference to the need to use “good business sense,” but the specific reference to maximizing revenue comes in the Quality of Experience section and includes competing elements: “while we reserve the right to limit participation or to maximize revenue in certain instances, we commit ourselves to providing fair and affordable access for all permitted activities.”¹⁰¹

Congress gave the Trust two years after assuming the Preserve’s management role¹⁰² to develop a plan for the management activities authorized by the statute.¹⁰³ To get things going, the Trust worked with

⁹⁶ FRAMEWORK AND STRATEGIC GUIDANCE, *supra* note 3, at 13. The four primary goals of the Framework and Strategic Guidance are to (1) set forth the long-term goals that Trust has adopted for its stewardship of the Preserve (2) of the sketch the range of possible programs the trust will consider implementing in pursuit of those goals the trust’s programs, (3) provide strategic guidance and set priorities for the design, development and implementation of the Trust’s program and (4) share with the interested public key information about the pre-serve and the trust in order to contribute to constructive and open dialogue about the preserve and its management. *Id.* at 11. “For National Environmental Policy Act compliance and other purposes, ‘Preserve planning begins with this document.’” *Id.* at 66.

⁹⁷ Melinda Harm Benson & Ahjond Garmestani, *Can We Manage for Resilience? The Integration of Resilience Thinking into Natural Resource Management in the United States*, 48 ENVTL. MGMT. 392 (2011).

⁹⁸ National Historic Preservation Act § 101(d)(6)(B), 54 U.S.C.A § 302706 (West Supp. 2015) (“In carrying out its responsibilities under section 306108 of this title, a Federal agency shall consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to properties described in subsection (a).”).

⁹⁹ See *infra* notes 250–71.

¹⁰⁰ It is, however, stated as a principle “goal” based on in the Framework and Strategic Guidance. See FRAMEWORK AND STRATEGIC GUIDANCE, *supra* note 3. This will be discussed *infra* Part IV.G.

¹⁰¹ FRAMEWORK AND STRATEGIC GUIDANCE, *supra* note 3, at 13.

¹⁰² It took a couple of years from the administrative elements to come together, including appointing a board of directors, hiring staff and conducting a preliminary inventory of the property and its current infrastructure. The Trust officially assumed management responsibility for the Preserve in August 2002. See GAO 2005, *supra* note 7, at 1.

¹⁰³ 16 U.S.C. § 698v–6 (2012) (repealed 2014).

the Council on Environmental Quality (“CEQ”) to develop its own NEPA procedures in 2003¹⁰⁴ and published its Framework and Strategic Guidance for Comprehensive Management in 2005.¹⁰⁵ Because NEPA requires an environmental analysis of the impact of proposed actions before they take place,¹⁰⁶ the Preserve staff recommended the concurrent development of four Environmental Impact Statements (“EIS”) under NEPA to assist in this process.¹⁰⁷ The proposed EISs would have focused on (1) grazing, (2) public access and use, (3) transportation and infrastructure and (4) forest restoration.¹⁰⁸ The idea was that all of these assessments could use the same baseline data as a common basis for research and also integrate information regarding anticipated, cumulative environmental impacts into the various EISs, recognizing the ways in which the four proposed actions would inevitably influence each other.

The board rejected this advice and instead directed the staff to proceed with one EIS at a time, starting with grazing.¹⁰⁹ This reflects the Trust’s initial emphasis on the “working ranch” mandate of the statute and also delayed other projects.¹¹⁰ Ranching did not prove to be a profitable venture, and the resulting delays impacted the Trust’s ability to make money from other sources. For example, the Trust was still in the process of conducting its NEPA analysis on public access and use when the experiment was terminated.¹¹¹

In sum, the Trust’s statutory charge was a tall order. Its authorizing legislation contained the familiar challenges of balancing preservation with multiple use, along with the new mandate to run a profitable ranch. That said, the Preservation Act provided the Trust with something many federal land managers must have envied: a fresh start.

IV. LESSONS LEARNED

A comprehensive overview of the Trust’s implementation of its statutory duties is beyond the scope of this article. Rather, this will cover some of the key lessons learned and focus on how various legal

¹⁰⁴ See *infra* notes 174–77 and accompanying text.

¹⁰⁵ See *supra* note 3 and accompanying text.

¹⁰⁶ 40 C.F.R. § 1501.2 (2015) (requiring agencies to integrate the NEPA process or proposed actions with other planning at the earliest possible time).

¹⁰⁷ See Interview with Bob Parmenter, Director Science Services Division of the Valles Caldera Trust (Apr. 14, 2005) [hereinafter Parmenter interview].

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ *Id.*

and regulatory requirements influenced the experiment's successes and failures.

A. Lesson 1: It's Hard to be Both the Government and a Corporation

While clearly not a typical federal agency, the Trust, as a government corporation, still had many compliance duties and statutory requirements that only apply to federal government entities. The statute creating the Preserve provided that “[t]he Trust shall be deemed a Federal agency for the purposes of compliance with Federal environmental laws.”¹¹² As already discussed, this included NEPA.¹¹³ In addition, the Trust was subject to laws rarely heard of, including the Government Performance and Results Act (“Results Act”)¹¹⁴ and the Government Corporation Control Act (“Control Act”).¹¹⁵ Early in the experiment, the Government Accountability Office (“GAO”) criticized the Trust for failing to comply with these laws. Under the Results Act, the Trust was required to prepare a strategic performance plan with measurable goals and objectives and to submit annual performance reports to Congress and the President.¹¹⁶ Under the Control Act, the Trust was required to obtain independent annual financial audits and report annually to Congress.¹¹⁷

The Trust's delay in complying with these laws and other responsibilities early on was in part due to board and staff turnover.¹¹⁸ The first executive director lasted only eighteen months.¹¹⁹ It took nearly seven months to find a replacement—who, in turn, lasted only ten months.¹²⁰ Over the course of the experiment, the Preserve had fourteen executive directors, with none staying more than two years.¹²¹ Similar challenges were faced with other key staff positions, including the business manager and cultural resource coordinator.¹²² Board turnover

¹¹² 16 § U.S.C. 698v-6(f)(1) (2012).

¹¹³ See LANDSCAPE RESTORATION & STEWARDSHIP PLAN *supra* note 18.

¹¹⁴ Government Performance and Results Act of 1993, Pub. L. No. 103-62, 107 Stat. 285 (codified in scattered sections of 5 U.S.C., 31 U.S.C., & 39 U.S.C.).

¹¹⁵ 31 U.S.C. §§ 9100-9110 (2012).

¹¹⁶ See GAO 2005, *supra* note 7, at 8.

¹¹⁷ See *id.* at 7-8.

¹¹⁸ See *id.* at 28-29.

¹¹⁹ See *id.* at 28.

¹²⁰ See *id.* at 28-29.

¹²¹ See *id.* at 28-29. There were some exceptions, including Bob Parmenter, the lead scientist for the Preserve, who has been an employee since the experiment's inception. As will be discussed, the relative continuity of the science program was one factor leading to the relative success of the Preserves' science-based adaptive management program. See *infra* notes 202-06 and accompanying text.

¹²² See GAO 2005, *supra* note 7, at 29.

was also high.¹²³ Per the statute, three of the initial Board members were appointed for two-year terms, while four other Board members were appointed for four-year terms, with all subsequent appointments serving four-year terms. Because these positions involved presidential appointments, there were often delays.¹²⁴

In his research, Professor Gess found that relations between the Board and staff were strained early on due to confusion over “who does what.”¹²⁵ While there was a statutorily mandated variety of expertise on the Board, Gess pointed out, “The Valles Caldera Preservation Act does not state that board members should have expertise in how to build, organize, and manage an organization. For many of the board members, this [was] a new experience.”¹²⁶ Gess determined that this was “an incredibly steep curve for learning how to be an effective trustee and govern the complex Preserve.”¹²⁷

Public land management is always subject to political pressure, and the Trust was no exception.¹²⁸ After the initial Clinton-era appointments, President Bush “made it clear that he would not re-appoint any of the original Clinton appointees, even though the Valles Caldera Preservation Act allows for trustees to serve up to eight consecutive years.”¹²⁹ Changes in leadership and associated shifts in management direction happened just as the Trust was establishing itself. This is an important example of the challenges associated with being both a government and corporate entity. The presidential appointment process left the Preserve vulnerable to political wrangling and resulting shifts in

¹²³ See *id.* at 28.

¹²⁴ Gess, *supra* note 69, at 146. At the end of the first two-year term, for example, there was a five-month delay in replacement appointments. There was also a four-month delay before the President appointed three of the four replacements. The final replacement came in February of the following year, almost a year later. *Id.* at 146. See also GAO 2005, *supra* note 7, at 28–29.

¹²⁵ Gess, *supra* note 69, at 189–90. See also Laura Paskus, *Trouble on the Valles Caldera: Push to Keep Cows on Preserve Clashes with Mandate to Make Money*, HIGH COUNTRY NEWS (Nov. 28, 2005) (citing conflicts between board members and staff over the grazing program), <https://www.hcn.org/issues/311/15943>.

¹²⁶ Gess, *supra* note 69, at 145.

¹²⁷ *Id.* at 145.

¹²⁸ *Id.* at 140.

¹²⁹ *Id.* at 140. In September 2005, one of Gess’ interviewees stated: “The previous board made promises that are proving impossible to keep. In fact, I am not sure this board even sees the same value in what [the previous board] promised.” *Id.* at 146. Another had stated one year earlier: “There’s the weak link in this whole structure . . . this board of trustees. Like I said, because its kind of a wildcard, you could end up with a great board of trustees that does a good job by collaborative decision-making, or you could end up—it’s very personality based—you could end up with nine people, right? . . . So these nine individuals. Anything can happen. So that’s, like I said, one of the weak links of the whole trust model . . . And I do understand that there are stronger personalities than others . . .” *Id.* at 188.

management priorities, including how much to emphasize ranching as a source of revenue.¹³⁰

Public access, use, and associated liability concerns caused even greater problems. Pressure from the public to open up the Preserve for recreational and other uses was strong and immediate: “Stories abound of local residents sneaking over fences to experience the majesty of the place; however the public was virtually excluded from the almost one hundred thousand acres for nearly one hundred fifty years.”¹³¹ But when it was acquired, the Preserve was in rough shape both ecologically and in terms of infrastructure:¹³² “Shortly after the federal government assumed ownership of the Caldera, the Trust learned that the existing infrastructure—roads, buildings, fences, and water treatment facilities—was seriously degraded and would have to be rehabilitated before it could provide public access to the Caldera.”¹³³ The Preserve had been heavily logged in previous years,¹³⁴ resulting in an estimated 1,200 miles of roads and several bridges, many of which were constructed with little planning or engineering.¹³⁵ Most of the existing buildings from previous ranching operations were in various states of disrepair, and the existing water treatment facility was not functioning.¹³⁶ As a result, the Preserve did not have potable water.¹³⁷

The Trust’s status as a government corporation raised questions regarding the possible liability that might result from public use and access. It was unclear whether the Trust had the authority to purchase insurance and whether it would have access to the “judgment fund,” a

¹³⁰ See Paskus, *supra* note 125.

¹³¹ See Gess, *supra* note 69, at 24.

¹³² See VALLES CALDERA TRUST, STATE OF THE PRESERVE 2002–2007.

The *State of the Preserve* considers human impacts from the late 1800s forward, including grazing, logging, road building and fire exclusion. Grazing was the first significant extractive use – at times during the summer, as many as 100,000 sheep (1910s) and 12,000 cattle (1950s) grazed on the Preserve. Natural fires apparently ceased in the 1880s. Intensive livestock grazing and subsequent active fire suppression greatly reduced fire frequency and increased the divergence of forest structure, composition and function from the natural range of variability. Over 1,400 miles of roads were built on the Preserve in the 20th century and about 60% of the forests were harvested. Subsistence hunting, which began in pre-historic times, increased in the late 19th and early 20th centuries and decimated wildlife populations.

Id.

¹³³ GAO 2005, *supra* note 7, at 11. “In 2006, the Trust also hosted its first free open house, which drew more than 1,400 cars and nearly 4,000 people.” U.S. GOV’T ACCOUNTABILITY OFFICE, THE TRUST HAS MADE PROGRESS BUT FACES SIGNIFICANT CHALLENGES TO ACHIEVE GOALS OF THE PRESERVATION ACT 15 (2009) [hereinafter GAO 2009].

¹³⁴ See ANSCHUETZ & MERLAN, *supra* note 3, at 120–23.

¹³⁵ See GAO 2005, *supra* note 7, at 11.

¹³⁶ See *id.* at 11–13.

¹³⁷ See *id.* at 13.

source of money federal agencies can use when found liable for damages under the Federal Tort Claims Act.¹³⁸ The GAO report explains:

The Trust does not have liability coverage to protect against injuries on the Caldera because it was uncertain whether it could acquire such insurance using appropriated funds. Moreover, as a government corporation, the Trust did not believe it could access the federal judgment fund, a fund in the U.S. Treasury used for the payment of final judgments against the United States. This lack of liability coverage and uncertainty led the Trust to take a cautious approach to implementing programs and increasing public access. According to the Board, in June 2005 the Trust clarified these issues with its legal counsel, who determined that legislation might be necessary to access the judgment fund but that it could use its own funds to purchase liability insurance.¹³⁹

Eventually, it was resolved that the Trust did not have access to the judgment fund.¹⁴⁰ As a result, the Trust purchased its own liability insurance.¹⁴¹ This placed a continued and, to some extent, unpredictable stress on its resources. The Trust noted in its 2013 annual report:

As the numbers of visitors and public programs increase, the cost of insurance will continue to consume a larger portion of the trust's appropriated budget. In 2007 the cost was \$40,878 and more than doubled to \$83,800 in 2008. Premium costs

¹³⁸ See VIVIAN S. CHU & BRIAN T. YEH, THE JUDGMENT FUND: HISTORY, ADMINISTRATION, AND COMMON USAGE, CONG. RES. SERV. (Mar. 7, 2013), <https://www.fas.org/sgp/crs/misc/R42835.pdf>.

The U.S. government has sovereign immunity, meaning it cannot be sued unless it has waived immunity or consented to suit. Article III, Section 2 of the U.S. Constitution immunizes federal officials from lawsuit, disallows suits against the federal government by the states, and has been interpreted to prohibit suits against the federal government generally. Under limited circumstances, the United States has waived sovereign immunity; it has done so in a constitutional provision, by express statutory authority, or through a contract. Therefore, the United States can be sued pursuant to certain statutes, most commonly the Federal Tort Claims Act (FTCA).

Id. at 1 (citations omitted). The Preserve's enabling statute provides that trustees are not considered federal employees except for purposes of the FTCA. See 16 U.S.C. § 698v-5(f) (2012) (repealed 2014) ("Liability of trustees. Appointed trustees shall not be considered Federal employees by virtue of their membership on the Board, except for purposes of the Federal Tort Claims Act, the Ethics in Government Act, and the provisions of chapter 11 of Title 18.").

¹³⁹ See GAO 2005, *supra* note 7, at 26.

¹⁴⁰ VALLES CALDERA TRUST, FISCAL YEAR 2013 - REPORT TO CONGRESS 16 (2013) [hereinafter ANNUAL REPORT 2013].

¹⁴¹ *Id.*

continued to rise to a high of \$90,000 in FY2012 but fell slightly in 2013 to \$86,200.¹⁴²

To date, the Trust has never had a tort claim filed against it, but its annual report notes that “[s]hould the trust’s liability insurance actually sustain a valid claim, it is very likely that private liability insurance would thereafter be either unobtainable or unaffordable.”¹⁴³

Moreover, liability concerns influenced the type and extent of recreation available on the Preserve. For example, snowmobiling was never allowed because it would have increased insurance costs prohibitively.¹⁴⁴ Trail access for hiking, mountain biking, horseback riding, and other activities were limited by season, date, time, and location.¹⁴⁵ Fishing was allowed only by reservation, and hunting opportunities were available only by application and lottery.¹⁴⁶

Another constraint on the Trust was its ability to enter into contracts extending beyond the life of the Trust experiment.¹⁴⁷ The statute

¹⁴² *Id.*

¹⁴³ *Id.* The Trust asked multiple times to be allowed access to the Judgment Fund, but the Department of Justice was opposed due to concerns it would set a precedent for other government corporations. See Silva-Bañuelos interview, *supra* note 19. There were also liability concerns initially related to fire management early on. All federal agencies are required under the National Fire Plan to have a fire management plan that outlines the decision-making process for responding to naturally occurring fires. The Trust did not finalize its fire plan until 2004, and the initial plan did not address fire management to benefit resources, only the management of prescribed fires. As the GAO observed, this oversight was costly. Without a plan to manage fires for resource benefits, all naturally occurring fires on the Caldera were required to be suppressed. For example, in May 2005, a fire on the Caldera burned about 82 acres before being suppressed—at a cost of about \$338,000. See GAO 2005, *supra* note 7, at 26 (“In the opinion of the Forest Service Region 3 Fire Manager, this fire could have been left to burn because it did not threaten any key resources or public infrastructure. Extended periods of drought and high fire risk in northern New Mexico could easily deplete the Caldera’s financial resources because suppression costs are high.”).

¹⁴⁴ See Parmenter interview, *supra* note 107.

¹⁴⁵ For example, mountain biking was allowed mid-May thru September on designated trails from 8:00 AM – 6:00 PM and from another locations only on weekends. Fees were imposed of \$10 per adult. Mountain Biking Overview, VALLES CALDERA NATIONAL PRESERVE <https://web.archive.org/web/20150410000337/http://www.vallescaldera.gov/comevisit/bike> (archived Apr. 10, 2015) (accessed by searching [vallescaldera.gov](http://www.vallescaldera.gov) in the Internet Archive index because the website was taken down when the preserve transitioned to the National Park Service).

¹⁴⁶ See Fishing Overview, VALLES CALDERA NATIONAL PRESERVE <https://web.archive.org/web/20150306004923/http://www.vallescaldera.gov/comevisit/fish/> (archived Mar. 6, 2015) ; Hunting Overview, VALLES CALDERA NATIONAL PRESERVE <https://web.archive.org/web/20150321234806/http://www.vallescaldera.gov/comevisit/elk/index.aspx> (archived Mar. 21, 2015).

¹⁴⁷ 16 U.S.C. § 698v-6(c)(3) (2012) (repealed 2014) (“The Trust may not dispose of any real property in, or convey any water rights appurtenant to the Preserve. The Trust may not convey any easement, or enter into any contract, lease, or other agreement related to use and occupancy of property within the Preserve for a period greater than 10 years. The easement, contract, lease, or other agreement shall provide that, upon termination of the Trust, such easement, contract, lease or agreement is terminated.”).

prohibited the Trust from entering into leases lasting longer than ten years.¹⁴⁸ This limitation on the Trust is unlike any facing a typical corporation. For example, the Trust had the opportunity to purchase the land in Jemez Springs where its administrative offices are located, but its inability to borrow money for the purchase made that impossible.¹⁴⁹ Even more importantly, this provision had limited the Trust's ability to attract concessionaires and other long-term business partners on the Preserve.

Perhaps the most limiting aspect of the government corporation design was the Trust's relationship with the U.S. Forest Service. The Preservation Act placed the Trust within the National Forest System but kept it separate from the Forest Service's organizational structure, which divides the country into regions.¹⁵⁰ This had two ramifications that impeded the success of the experiment. First, the Preserve became a line item in the annual appropriation request to Congress, and as a result the Trust had to compete each year for resources in an already financially strapped federal agency.¹⁵¹ Early on, the Forest Service made no initial appropriation request for the Preserve and then relied on the New Mexico congressional delegation to secure funding through an earmark—a separate allocation outside the official budget request.¹⁵² As earmarks became harder to come by, the Preserve had to compete for resources within the agency on an increasingly strained federal budget.¹⁵³

Second, the Forest Service changed its policy on procurement procedures toward the end of the experiment. The Preservation Act explicitly exempted the Trust from time-consuming government procurement regulations and policies.¹⁵⁴ The Trust had the ability to issue its own purchase orders and contracts under its purchasing policies, which were approved by the Office of Management and Budget.¹⁵⁵ For this reason, while ultimately subject to the federal

¹⁴⁸ *Id.*

¹⁴⁹ See Silva-Bañuelos interview, *supra* note 19.

¹⁵⁰ 16 U.S.C. § 698v-3(a) (repealed 2014) (“Upon the date of acquisition of the Baca ranch under section 698v-2(a) of this title, there is hereby established the Valles Caldera National Preserve as a unit of the National Forest System.”).

¹⁵¹ See Silva-Bañuelos interview, *supra* note 19.

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ 16 U.S.C. § 698v-6(c)(4) (“Notwithstanding any other provision of law, Federal laws and regulations governing procurement by Federal agencies shall not apply to the Trust, with the exception of laws and regulations related to Federal Government contracts governing health and safety requirements, wage rates, and civil rights.”).

¹⁵⁵ ANNUAL REPORT 2013, *supra* note 140, at 13.

accounting system,¹⁵⁶ the Trust operated with relative autonomy and much more quickly than most federal agencies. That changed in October 2012, when the Forest Service “declared that all Trust procurements” (including contracts, purchase orders, agreements, grants, and small credit card purchases) “had to follow U.S. Forest Service procurement regulations and policies,” despite the language of the statute.¹⁵⁷ As a result, all purchases had to be documented on forms used by the U.S. Forest Service and approved by the U.S. Forest Service Region Three procurement office in Albuquerque.¹⁵⁸ Procurements that used to take twenty-four to forty-eight hours took weeks or months to be processed, and contracts that were once processed within a matter of weeks now took up to a year.¹⁵⁹

In sum, the Trust had some difficulties early on as board and staff adjusted to an unfamiliar management structure and statutory charge. Its status as a government corporation came with many limitations, including the requirement of compliance with the Control Act and Results Act. The Trust faced many time-consuming legal and regulatory requirements unique to federal agencies, as well as a presidential appointment process that limited its ability to maintain continuity and momentum in achieving its stated goals. Even more challenging were concerns over liability, which limited public access and use. The Trust was also hampered by its inability to enter into long-term contracts. In short, the Trust was deprived of some protections enjoyed by federal agencies and freedoms provided to corporations. One of the lessons to be learned from the experiment is that it is challenging to be both the government *and* a corporation at the same time—especially in this context, where there is a general expectation of public access and use.¹⁶⁰

¹⁵⁶ See 16 U.S.C. § 698v-6(c)(4).

¹⁵⁷ ANNUAL REPORT 2013, *supra* note 140, at 13.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

¹⁶⁰ While there are several other government corporations including, the Government National Mortgage Association and the U.S. Postal Service, federal government has taken the corporate approach to only two other properties: the Presidio of San Francisco, and the Oklahoma City National Memorial Trust. See Fairfax et al., *supra* note 6, at 466 (detailing the other federal corporations governed by the Government Corporation Control Act, 31 U.S.C. §§ 9101–9110 (2000), including the Commodity Credit Corporation, the Export Import Bank of the United States, the Government National Mortgage Association, the Saint Lawrence Seaway Development Corporation, the Tennessee Valley Authority, the U.S. Postal Service, the Panama Canal Commission, the Pennsylvania Avenue Development Commission, and the Oklahoma City National Memorial Trust). Neither of these properties compares with the Preserve in terms of land management size and complexity, particularly with regard to challenges associated with public use and capacity for revenue generation. See generally Fairfax et al., *supra* note 6, at 466, and Huffman, *supra* note 6, for details comparing engagement of the corporate model for federally owned properties.

B. Lesson 2: NEPA Can be More Than a “Hard Look”—It Can Have Post-Decisional Value

Perhaps the most significant federal statute influencing the Preserve experiment was NEPA.¹⁶¹ In this respect the Preserve is not unique—NEPA is generally regarded as one of the most influential environmental laws in the United States.¹⁶² Passed by Congress in 1969 and signed into law by President Nixon in 1970, NEPA was enacted at a time of environmental concern and optimism.¹⁶³ NEPA’s broad, sweeping influence on environmental regulatory regimes in the United States prompted Professor Karkkainen to observe that NEPA has “assumed quasi-constitutional status as one of the foundational laws of the modern administrative state.”¹⁶⁴

NEPA established a national policy “to encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation.¹⁶⁵ Section 101 of NEPA declared that the Federal Government should “use all practicable means and measures . . . 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.”¹⁶⁶

This provision is sometimes referred to as the “substantive provision” of NEPA, and it was intended to require agencies to make not only well informed but also environmentally sound decisions.¹⁶⁷ Early court interpretations of this provision, however, rendered NEPA’s substantive provision ineffective. In *Stryker’s Bay Neighborhood Council, Inc. v. Karlen*,¹⁶⁸ the Supreme Court held that NEPA, “while establishing ‘significant substantive goals for the Nation,’ imposes upon agencies duties that are essentially procedural . . . NEPA was designed to insure a fully informed and well-considered decision.”¹⁶⁹

¹⁶¹ National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. §§ 4331–4370h (2012).

¹⁶² See generally Sam Kalen, *Ecology Comes of Age: NEPA’s Lost Mandate*, 21 DUKE ENVTL. L. & POL’Y F. 113 (2010).

¹⁶³ *Id.*

¹⁶⁴ See Bradley C. Karkkainen, *Whither NEPA?*, 12 N.Y.U. ENVTL L.J. 333, 363 (2004).

¹⁶⁵ 42 U.S.C. § 4321.

¹⁶⁶ *Id.*

¹⁶⁷ See generally Kalen, *supra* note 162.

¹⁶⁸ 444 U.S. 223 (1980).

¹⁶⁹ *Id.* at 227.

As a result of this and subsequent court interpretations, NEPA essentially became a series of procedural steps requiring federal agencies to take a “hard look” at the potential environmental consequences of their actions, but not requiring any specific action to protect the environment or balance competing concerns.¹⁷⁰ This “hard look” involves the development of a “detailed statement” (an EIS) regarding the environmental effects of a proposed action, along with a list of possible alternatives and an identification of any irreversible and irretrievable commitments of resources which would be involved should the action be taken.¹⁷¹

All federal agencies are required to comply with NEPA.¹⁷² What is unique about the Trust’s relationship to NEPA was its approach to compliance. Rather than viewing it as yet another administrative burden, the Trust looked at NEPA as an opportunity to establish mechanisms that would implement its guiding principles for management. They worked closely with the CEQ¹⁷³ to develop internal NEPA procedures.¹⁷⁴ These procedures not only outlined the development of EISs, as required by NEPA, but also articulated a commitment to have this information guide the management of the Preserve.¹⁷⁵ The regulations state that, “The procedures are intended to integrate NEPA with the planning and decision making of the Trust, make NEPA more useful to decision makers and the public, and ensure that environmental information is readily available before, during, and after decisions are made.”¹⁷⁶ To achieve this, the Trust embraced adaptive management as the means by which it would “adjust[. . .] stewardship actions or strategic guidance based on knowledge gained from new information, experience, experimentation, and monitoring results.”¹⁷⁷

Moreover, it explicitly embraced adaptive management as “the preferred method for managing complex natural systems.”¹⁷⁸ Dinah

¹⁷⁰ See generally Kalen, *supra* note 162.

¹⁷¹ 42 U.S.C. § 4332.

¹⁷² NEPA applies to “all federal actions significantly impacting the quality of the human environment.” *Id.*

¹⁷³ The Council on Environmental Quality is an agency within the executive branch established by NEPA to assist in the law’s implementation. *Id.* § 4342.

¹⁷⁴ National Environmental Policy Act (NEPA) Procedures of the Valles Caldera Trust for the Valles Caldera National Preserve, 68 Fed. Reg. 42,460 (July 17, 2003).

¹⁷⁵ *Id.* at 42,460.

¹⁷⁶ *Id.* at 42,462.

¹⁷⁷ *Id.*

¹⁷⁸ Dinah Bear, *Some Modest Suggestions for Improving Implementation of the National Environmental Policy Act*, 42 NAT. RES. J. 931, 948 (2002).

Bear, former general counsel at the CEQ who guided the Trust in its promulgation of NEPA regulations explains:

The Board has set about their work determined to make learning about the land they administer the major touchstone of its management. Shortly after establishment, the Board committed to building an organizational culture and structure that would fully support adaptive management. The Trust has invested heavily in the kinds of inventory and monitoring work needed to provide baseline information for the comparative evaluation of future resource conditions. It has also designed a framework for long-term monitoring that is intended to result in periodic, viable assessments of the cumulative effects of preserve activity. In its effort to integrate a vigorous ongoing program of experimental field science with day-to-day management, the Valles Caldera Trust is unique.¹⁷⁹

This innovative move by the Trust is a marked departure from the traditional federal agency relationship to NEPA generally and the role of adaptive management within the context of NEPA implementation specifically.¹⁸⁰ NEPA, as described by many scholars, is a frustrating process reflecting an unfortunate “front end approach” that assumes resource managers have the capacity to predict the environmental impact of a proposed action.¹⁸¹ Then, disappointingly, NEPA fails to require management adjustments to reflect what is learned.

NEPA’s general failure to require the monitoring and mitigation necessary for adaptive management has also been widely recognized.¹⁸² The Preserve’s NEPA regulations, however, integrate both monitoring and learning into its process: “Monitoring and evaluation of stewardship actions, research, and detailed studies provide the public and the Trust with the basis for adapting ongoing and future stewardship actions to

¹⁷⁹ *Id.*

¹⁸⁰ See J.B. Ruhl, *The Disconnect Between Environmental Assessment and Adaptive Management*, 36 TRENDS 1, 14 (July/August 2005).

¹⁸¹ *Id.* See also Julie Thrower, *Adaptive Management and NEPA: How a Nonequilibrium View of Ecosystems Mandates Flexible Regulation*, 33 ECOL. L.Q. 871 (2006); Melinda Harm Benson & Ahjond Garmestani, *Embracing Panarchy, Building Resilience and Integrating Adaptive Management Through a Rebirth of the National Environmental Policy Act*, 92 J. ENVTL. MGMT. 1410 (2011).

¹⁸² Ruhl, *supra* note 180, at 14. See also K. Jack Haugrud, *Perspectives on NEPA: Let’s Bring a Bit of Substance to NEPA by Making Mitigation Mandatory*, 39 ENVTL. L. REP. 10638 (2009); Daniel R. Mandelker, *Thoughts on NEPA at 4*, 39 ENVTL. L. REP. 10640 (2009). In 2009, the Environmental Law Institute sponsored a special issue of the Environmental Law Reporter on “NEPA at 40,” which contained many helpful insights and suggestions on this and other aspects of NEPA.

achieve the goals of the Trust and the requirements of NEPA.”¹⁸³ The regulations further state that:

If, based on monitoring conclusions or other new information available . . . the observed outcomes of stewardship actions described in one or more stewardship registers as amended differ significantly from those anticipated or if new information has a meaningful bearing on the anticipated consequences of one or more stewardship actions, the Responsible Official must consider such information and: (1) Consider the preparation or supplementation of an environmental document . . . (2) If appropriate, propose a stewardship action and/or continue, modify, or terminate one or more stewardship actions . . . and (3) Appropriately, amend the stewardship register to incorporate the new information and/or change to the stewardship action or description of consequences in the relevant environmental document.¹⁸⁴

This process, depicted in the Trust’s outline of the procedure in Figure 1,¹⁸⁵ gives NEPA the post-decisional value originally envisioned by Congress. It has received significant praise from the CEQ¹⁸⁶ as well as from many of those involved in the Preserve’s NEPA implementation.¹⁸⁷ By specifically tying the Trust’s NEPA procedures to its Guiding Principles and investing in a process that includes monitoring and subsequent action based on that information, the Trust revived some of NEPA Section 101’s potential. Rather than proving more cumbersome, the Trust’s investment in its NEPA implementation

¹⁸³ See National Environmental Policy Act (NEPA) Procedures of the Valles Caldera Trust for the Valles Caldera National Preserve, 68 Fed. Reg. 42,460, 42,468 (July 17, 2003).

¹⁸⁴ *Id.* at 42,472.

¹⁸⁵ *Infra* p. 51.

¹⁸⁶ See Bear, *supra* note 178 at 949 (noting the Trusts efforts are “very much applauded by CEQ”).

¹⁸⁷ In his interviews, Professor Gess found:

By all accounts, board members and stakeholders list the Trust’s National Environmental Policy Act procedures as a success. One senior staff member stated: “. . . to me the biggest [success] was to develop a decision-making process that is fairly efficient, that really takes . . . that focuses back on the intent of the laws that are there. [National Environmental Policy Act (NEPA)], for example. I think the NEPA process is becoming so convoluted in a lot of the other agencies because of a lot of different things. Some of the agencies have misinterpretations and in some cases case law . . . court decisions have forced things on the agencies that in my view don’t really get back to the initial purpose of what NEPA is really all about. So that’s one: getting back to the basics on NEPA and the decision-making process. (Interview, September 2004).”

Gess, *supra* note 69, at 158–59.

resulted in a relatively streamlined process.¹⁸⁸ As already noted, the Trust's NEPA processes have proceeded at a relatively rapid pace.¹⁸⁹

The Trust achieved part of the streamlining by investing in baseline data that could then serve as a starting point for multiple NEPA analyses.¹⁹⁰ For example, it mapped the existing vegetative composition of the Preserve to a three meter pixel resolution, then, using aerial photography, delineated the natural vegetation into over 2000 "stands" to which were attributed over thirty characteristics that described composition and structure.¹⁹¹ The end product was a powerful spatial geodatabase that allowed the Trust to quantitatively analyze the existing condition of the Preserve and model fire behavior and forest succession under a variety of climate and forest management scenarios.¹⁹² This information was then provided to stakeholders in an easy to understand format, who then worked with land managers to propose goals and strategies that resulted in the Landscape Restoration and Stewardship Plan.¹⁹³ In 2014, the National Association of Environmental Professionals gave its "Excellence in NEPA" award to the Trust in recognition of its NEPA process for the Landscape Restoration and Stewardship Plan, which received only one negative public comment, despite its aggressive program for forest thinning, prescribed fire, and other often controversial forest restoration programs.¹⁹⁴

The Trust's approach demonstrates that NEPA can be more than a "hard look." It provides an example to other agencies of how NEPA can be a benefit rather than a burden. Dinah Bear observed "[i]f the Trust succeeds in its goals of integrating science, decision making, and the accountability to and involvement by the public, it could make a

¹⁸⁸ See Bear, *supra* note 178, at 949 ("[W]hile 'streamlining' has become a value-laden term in the context of NEPA, the acquisition of on-the-ground information could certainly reduce the need to engage in the type of costly, lengthy modeling exercises that some agencies feel obliged to undertake because of lack of empirical information."). The relative efficiency of the Trust's NEPA process was confirmed by Professor Gess's interviews ("... [a] high-level Forest Service employee told me, 'I drool over their NEPA process, their ability to move certain things a little bit faster than we do because our own regulations require certain things, and the Caldera's NEPA process is much more streamlined.'"). Gess, *supra* note 69, at 158.

¹⁸⁹ See *supra* notes 18–21 and accompanying text.

¹⁹⁰ Interview with Marie Rodriguez, Director Stewardship Division, Valles Caldera Trust (April 14, 2015) [hereinafter Rodriguez interview].

¹⁹¹ *Id.* The structure and composition information was stratified for field sampling and 20-30 plots were sampled for each forest strata. *Id.* Typically forest inventory is completed at the project level, with 20-30 plots per stand. "By completing the assessment and inventory on a Preserve-wide basis rather than project level, we were able to reduce the cost and time for completing a forest inventory by 90%." *Id.*

¹⁹² *Id.*

¹⁹³ LANDSCAPE RESTORATION & STEWARDSHIP PLAN, *supra* note 18, at 4.

¹⁹⁴ See Rodriguez interview, *supra* note 190.

difference in how troubled land management agencies think about NEPA – in no small measure just by demonstrating that NEPA is not a barrier but rather a framework for implementing adaptive management.”¹⁹⁵ Based on her years of experience, she argues that NEPA implementation and associated land practices will not change until NEPA has post-decisional value and receives the necessary institutional funding and commitment.¹⁹⁶ The Preserve’s approach to NEPA provides an example of how post-decisional value for NEPA is possible.

C. Lesson 3: Science Can Inform Policy—It’s Called Adaptive Management

The Trust’s approach to NEPA is inextricably linked to its commitment to scientific research and adaptive management. The Trust defined an adaptive management approach as one in which:

Stewardship actions or strategic guidance are adjusted based on knowledge gained from new information, experience, experimentation, and monitoring results. Adaptive management is the preferred method for managing complex natural systems. Science-based research, inventory, and monitoring that includes not only the natural sciences but also social sciences such as economics, political science or sociology.¹⁹⁷

This view is reflective of the National Resource Council’s definition, which has been incorporated by many federal agencies:

Adaptive management [is a decision process that] promotes flexible decision-making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps adjust policies or operations as part of an iterative learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. It is not a ‘trial and error’ process, but rather emphasizes learning while doing. Adaptive management does not represent an end in itself, but rather a means to more effective decisions and enhanced benefits. Its true measure is in how well it helps meet environmental, social, and economic

¹⁹⁵ Bear, *supra* note 178, at 949.

¹⁹⁶ *Id.*

¹⁹⁷ FRAMEWORK AND STRATEGIC GUIDANCE, *supra* note 3, at Glossary.

goals, increases scientific knowledge, and reduces tensions among stakeholders.¹⁹⁸

“Learning by doing” seems straightforward, but has proven quite difficult to accomplish in practice.¹⁹⁹ In their survey of the first generation of case law related to adaptive management implementation by federal agencies, Professors Ruhl and Fischman found that what most agencies practice cannot be accurately called “adaptive management” but instead use what they term “a/m-lite”—a “watered-down version of the theory that resembles ad hoc contingency planning more than it does planned ‘learning while doing.’”²⁰⁰

In its Framework and Strategic Guidance document, the Trust acknowledges its unique opportunity to make science-based adaptive management a core element of its management paradigm:

The Valles Caldera Trust has an opportunity to begin afresh. As it develops as an institution, every effort is being made to build an organizational culture and structure that will fully support adaptive management. Moreover, from its earliest days the trust has invested heavily in the kinds of inventory and monitoring work needed to provide baseline information for the comparative evaluation of future resource conditions. These investigations have included surveys of water quality, range condition and composition, forest stand structure, riparian and aquatic habitat, various wildlife populations, and many other features of the preserve. They have also been carefully designed to provide a dependable framework for long-term monitoring.²⁰¹

Scientific research flourished once the Trust assumed management control of the Preserve. This is in part due to its institutional structure, which placed the Trust’s Director of Scientific Services directly under the executive director and kept the position independent from the

¹⁹⁸ See WILLIAMS ET AL., *supra* note 23, at 4 (citing NATL. RES. COUNCIL, ADAPTIVE MGMT. FOR WATER RESOURCES PLANNING (2004)).

¹⁹⁹ See generally Ruhl & Fischman, *supra* note 22, at 484 (observing that most efforts by federal agencies to engage in adaptive management fail to engage all aspects of the methodology). Case studies in adaptive management have also revealed the challenges of placing this approach into practice. See, e.g., Melinda Harm Benson, *Integrating Adaptive Management and Oil and Gas Development: Existing Obstacles and Opportunities for Reform*, 39 ENVTL. L. REP. 10962 (2009); Lawrence Susskind et al., *Collaborative Planning and Adaptive Management in Glen Canyon: A Cautionary Tale*, 35 COLUM. J. ENVTL. L. 2 (2010); Sandy Zellmer & Lance Gunderson, *Why Resilience May Not Always Be a Good Thing: Lessons in Ecosystem Restoration From Glen Canyon and the Everglades*, 87 NEB. L. REV. 894 (2009).

²⁰⁰ Ruhl & Fischman *supra* note 22, at 426 (defining “a/m-lite” as a stripped-down version of adaptive management that often fails due to management, implementation, and planning problems).

²⁰¹ FRAMEWORK AND STRATEGIC GUIDANCE, *supra* note 3, at 61–62.

operational program.²⁰² Dr. Bob Parmenter directed the science program from the beginning—he was the longest serving member of the Preserve’s staff.²⁰³ Prior to taking the job as director of scientific services for the Preserve, Dr. Parmenter ran the Sevilleta Long Term Ecological Research Station located about fifty miles south of Albuquerque, New Mexico at the Sevilleta National Wildlife Refuge.²⁰⁴ At the same time, Dr. Parmenter served as research faculty in the Department of Biology at the University of New Mexico.

Under his leadership, the science program was established concurrently with the other operational programs of the Preserve. This allowed for the establishment of monitoring sites for ecological conditions from the outset. The science program has three components: (1) inventorying natural resources, (2) monitoring environmental changes resulting from the Trust’s programs and (3) conducting research that will help manage the preserve’s resources.²⁰⁵ In its 2009 report, the GAO noted that this work began in 2003 and that by 2008, “the Trust had assessed or was assessing most of the preserve’s natural resources, such as its forests, biodiversity, watershed and stream health, fish habitats, ground water quality, and geology and soils.”²⁰⁶

This investment in baseline data and monitoring protocols early on is of paramount significance. Adaptive management requires a commitment to these processes and the subsequent development of a conceptual model of the ecological system.²⁰⁷ Appropriate monitoring protocols and establishment of baseline data are often absent from other adaptive management approaches. A recent survey of adaptive management practitioners found that effective monitoring was often inadequately funded or designed and therefore a major impediment to effective administration.²⁰⁸ By investing in monitoring early and

²⁰² See Parmenter interview, *supra* note 107.

²⁰³ See *id.*

²⁰⁴ See SEVILLETA LTER PROJECT OVERVIEW, <http://sev.lternet.edu/about> (last visited Nov. 7, 2015) (It is part of the Long Term Ecological Research (LTER) Network, one of 26 sites across the United States created by the National Science Foundation (NSF) in 1980 to conduct research on ecological issues that can last decades and span huge geographical areas.).

²⁰⁵ See GAO 2009, *supra* note 133, at 11.

²⁰⁶ *Id.* at 12.

²⁰⁷ See WILLIAMS ET AL., *supra* note 23, at 4 (“[A]daptive management is not a random trial-and-error process. Instead, it involves formulating the resource problem, developing conceptual models based on specific assumptions about the structure and function of the resource system, and identifying actions that might be used to resolve the problem.”).

²⁰⁸ See Melinda Harm Benson & Asako B. Stone, *Practitioner’s perceptions of adaptive management implementation in the United States*, 18 *ECOLOGY & SOC’Y* 32 (2013) (The survey found that practitioners do feel hampered by legal and institutional constraints: well over 70% not only believed that constraints exist and could specifically name one or more example of a legal

committing to its use in decision-making process and NEPA analysis, the Trust went beyond what most federal agencies have been able to accomplish. Professor Gess's research early in the Preserve's experiment confirms the commitment and enthusiasm for this process:

But what makes the Valles Caldera experiment so different? For many, it is the real chance to integrate adaptive management, complete with scientific monitoring and feedback, into the daily operations. Bob Parmenter, Preserve scientist, has stated, "There is no more exciting opportunity for science to inform management in the United States today." There is of course the hope that the scientific data can be used to make good, sound judgments, which avoid some of the deadlock and confrontation affecting other natural resources. For others, it is simply the chance to "get outside the box," to experiment with new and innovative ideas, to be creative. Many board and staff members understand the opportunity created by less bureaucracy and land management rules than the national parks and forests face.²⁰⁹

Another factor contributing to the Preserve's success was the amount of scientific research conducted by universities and other research institutions. Scientific inventory and monitoring from outside funding and collaborating institutions totaled over \$4.8 million in 2013.²¹⁰ Researchers at the University of Arizona received funding from the National Science Foundation to contribute to the understanding of hydrologic systems overall.²¹¹ Similarly, the University of New Mexico has several projects relating to climate change, including the ecological impacts of wildfire on stream flow and water quality.²¹² The documentary film *Valles Caldera: The Science* is part of a three part series on the Preserve and won two Emmy awards for its depiction of the work being conducted on the Preserve to understand climate change and subsequent changes to the ecological system.²¹³

The Preserve's relatively limited public access made it an ideal location for researchers who have expensive instrumentation that must remain in one location over long periods of time. The streamlined

constraint on their work implementing adaptive management. At the same time, it found practitioners generally optimistic about potential for institutional reform).

²⁰⁹ Gess, *supra* note 69, at 176 (citations omitted).

²¹⁰ See ANNUAL REPORT 2013, *supra* note 140, at 3.

²¹¹ See GAO 2005, *supra* note 7, at 12; GAO 2009, *supra* note 133, at 15.

²¹² Steve Carr, *UNM Researchers Featured in Documentary Titled 'Valles Caldera: The Science'*, UNM NEWS (Apr. 18, 2013), <http://news.unm.edu/news/unm-researchers-featured-in-documentary-titled-valles-caldera-the-science>.

²¹³ VALLES CALDERA: THE SCIENCE (Tim Aydelott & Ylonda Viola 2012); see *Part One: The Science*, VALLESCALDERADOCUMENTARY.COM, <http://vallescalderadocumentary.com/part-one-the-science/> (last visited Dec. 8, 2015).

NEPA process also allowed research access to be granted far more quickly and with less effort than on public lands.²¹⁴ The Preserve's cattle grazing operations are one example of its science-based adaptive management in action.

D. Lesson 4: The Old Joke about Western Ranching is True

“You want to know how to make a small fortune in ranching? Start with a large fortune.”

This joke (most often told by ranchers themselves) strikes at an unfortunate truth. While cattle ranching is undeniably an iconic element of the American West, the financial realities of running a “working ranch” are tough—especially where efforts are being made to mitigate its associated environmental damage.²¹⁵ Both Forest Service and Bureau of Land Management lands allow grazing on a permit basis for a fee, and the Public Rangelands Improvement Act of 1978 defines the current grazing fee formula and establishes rangeland monitoring and inventory procedures.²¹⁶ The federal grazing fee for 2014 was \$1.35 per animal unit month (“AUM”).²¹⁷ This is well below the market value of these rangelands,²¹⁸ and federal revenues from grazing fees do not cover the administrative costs.²¹⁹ In 2005, the GAO determined that the federal government spends at least \$144 million annually managing private livestock grazing on federal public lands, but collects only \$21 million in grazing fees—a net loss of at least \$123 million per year.²²⁰ The GAO estimated that the Bureau of Land Management would need to charge

²¹⁴ See Parmenter interview, *supra* note 107.

²¹⁵ For an assessment of the environmental impacts of public lands grazing in the American West, see DEBRA DONAHUE, *THE WESTERN RANGE REVISITED: REMOVING LIVESTOCK FROM PUBLIC LANDS TO CONSERVE NATIVE BIODIVERSITY* 6 (1999) (arguing public land ranching is inappropriate on lands that receive less than 12 inches of average precipitation per year).

²¹⁶ 43 U.S.C. § 1901 (2012).

²¹⁷ Press Release, U.S. Dep't. of Interior, Bureau of Land Mgmt., BLM and Forest Service Announce 2014 Grazing Fee (Jan. 31, 2014), http://www.blm.gov/wo/st/en/info/newsroom/2014/january/NR_01_31_2014.html. An “AUM” is the “use of public lands by one cow and her calf, one horse, or five sheep or goats for a month.” *Id.* This fee applies to nearly 18,000 grazing permits and leases administered by the BLM and more than 8,000 permits administered by the Forest Service. *Id.*

²¹⁸ A specific number is difficult to calculate given variations among states. By way of example, Arizona estimated the 2012 private grazing fee for private lands to be \$16.80. See NAT'L AGRIC. STATISTICS SERV., U.S. DEPT. OF AGRIC., 2011 ARIZONA AGRIC. STATISTICS BULLETIN 42 (2012).

²¹⁹ U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-05-869, *LIVESTOCK GRAZING: FEDERAL EXPENDITURES AND RECEIPTS VARY, DEPENDING ON THE AGENCY AND THE PURPOSE OF THE FEE CHARGED* (2005).

²²⁰ *Id.* at 5–6.

\$7.64 per AUM to recoup its program costs, while the Forest Service would need to charge \$12.26 per AUM to cover its expenditures.²²¹ Even with this government subsidy, many ranch operations in the West are economically marginal.²²²

For its own purposes, the Trust defined “working ranch” as “an operation that places its primary emphasis on stewardship of resources as the foundation for both ecological and economic sustainability.”²²³ Like other public lands, the grazing program for the Preserve has been a continuous source of controversy.²²⁴ As the GAO observed in 2009, “the grazing program’s objectives, scope, and size have changed repeatedly, in response to annual scientific assessments of forage availability, as well as shifting directives from the Board.”²²⁵

Attempts to make grazing a primary source of income were unsuccessful.²²⁶ The Preserve’s current grazing program has a strong educational and environmental component.²²⁷ In recent years, the Trust has granted two grazing permits, one permit was issued to Jemez Pueblo and the other to New Mexico State University.²²⁸ Stocking rates are much lower than what was allowed historically. In 2012, for example, permit holders were annually allowed 773 cattle for grazing—a far cry from the 5,000 allowed when the land was privately owned.²²⁹

For these permits, the Trust received \$30,920 in grazing fee revenue.²³⁰ Expenditures estimated for administering the program, however, were \$26,196.²³¹ This resulted in a net income of only \$4,724. As with its other programs, the Trust has not always made financial gain the top priority. In 2009, the Trust chose to renew the permits of the current holders despite the fact that WildEarth Guardians, a Santa Fe based environmental group, offered to pay \$50,000 for the right to graze

²²¹ *Id.* at 7.

²²² See generally THOMAS MICHAEL POWER & RICHARD BARRETT, POST-COWBOY ECONOMICS: PAY AND PROSPERITY IN THE NEW AMERICAN WEST (2001).

²²³ FRAMEWORK AND STRATEGIC GUIDANCE, *supra* note 3, at 49.

²²⁴ See Paskus, *supra* note 125; see also Gess, *supra* note 69, at 123.

²²⁵ See GAO 2009, *supra* note 133, at 13.

²²⁶ See Paskus, *supra* note 125.

²²⁷ VALLES CALDERA TRUST, 2012 LIVESTOCK GRAZING REPORT 20 (2012), available at https://web.archive.org/web/20130304024919/http://www.vallescaldera.gov/ranching/grazing/ranching_GrazingReport2012.pdf (archived Dec. 21, 2014) [hereinafter 2012 LIVESTOCK REPORT].

²²⁸ *Id.* at 3. NMSU has a number of research and educational programs associated with this permit, including the “Top of the Valle” Bull Development Program, a Heifer Development and Artificial Insemination Program, and a Regional Cow/Calf Outreach and Grazing Program. *Id.* at 7.

²²⁹ See *id.* at 3; Paskus, *supra* note 125. For a comprehensive history of ranching on the Preserve, see generally ANSCHUETZ & MERLAN, *supra* note 3.

²³⁰ 2012 LIVESTOCK REPORT, *supra* note 227, at 19.

²³¹ *Id.*

fewer than a dozen cattle.²³² This decision reflects the larger goals of the program and provides an example of the Trust's relegation of financial self-sufficiency as one of many management goals. It also reflects a general unwillingness to require public land ranchers to pay fair market value.

Perhaps the most significant contribution of the grazing program in terms of "lessons" is its use of science-based adaptive management and volunteer programs to mitigate resulting environmental harm. As the expenditure number suggests, the Preserve took a comprehensive approach to its grazing program.²³³ It estimated not only the impact of cattle but also the amount of available forage for the resident population of approximately 3,000 elk with a goal of leaving 60% of forage vegetation for ecosystem services, including soil erosion prevention and carbon sequestration.²³⁴ Each year, the Preserve used extensive monitoring data from the previous years, projected climate forecasts, and other factors to estimate stocking rates.²³⁵ In 2006, for example, after a dry winter and in the face of projected continued drought, the Trust opted to forgo grazing altogether.²³⁶ Based on environmental monitoring results in 2009, the Trust began moving cattle away from riparian areas.²³⁷ Another decision was made in 2015 to allow grazing only in upland pastures on the Preserve in order to minimize environmental impacts.²³⁸ Information learned during each grazing season informed future management actions.

In sum, the Trust's statutory charge to run a "working ranch" did not promote financial self-sustainability. Instead, it confirmed that public land grazing, even at fee rates more closely approximating fair market value, is not profitable when there is a corresponding effort to mitigate environmental damage. The decision to use a science-based adaptive management provided the Trust with a basis in decision-making and demonstrated that even controversial decisions like stocking rates can be made in ways that reduce conflict and build trust.²³⁹

²³² See Daniel Cusick, *Valles Caldera Awards Grazing Contract to University-Led Consortium*, ENV'T & ENERGY NEWS (May 14, 2009), <http://www.eenews.net/landletter/stories/78023/search>.

²³³ See 2012 LIVESTOCK REPORT, *supra* note 227, at 4.

²³⁴ *Id.*

²³⁵ See Parmenter interview, *supra* note 107.

²³⁶ *Id.*

²³⁷ *Id.*

²³⁸ *Id.*

²³⁹ The fact that WildEarth Guardians, a relatively litigious environmental group, did not legally challenge the Trust's decision to deny its own bid to graze only a few cattle is a testament to overall support and respect for the program. See Press Release, WildEarth Guardians, Feds

E. Lesson 5: The Preserve is a Culturally Significant and Contested Landscape

Humans have been a part of the Preserve's land use history for thousands of years, with archeological sites dating to the late Pleistocene and the early Holocene eras.²⁴⁰ Today, the Preserve is a neighbor to several pueblos and native nations.²⁴¹ This long history of human use, combined with early Spanish settlement in the 1500s, makes the Preserve as rich in cultural history as it is in natural resources.

While New Mexico is generally known for its cultural history and diversity, archeological evidence of the cultural resources of the Preserve are particularly plentiful because the land was privately held until 2000, leaving cultural features and surface artifacts relatively undisturbed.²⁴² For this reason, the NHPA is another federal law that has influenced management of the Preserve.²⁴³ The NHPA was passed into law in 1966, acknowledging that "the preservation of this irreplaceable heritage is in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, economic, and energy benefits will be maintained and enriched for future generations of Americans."²⁴⁴ It is generally recognized as the most important source of preservation and protection for cultural and historic resources in the United States.²⁴⁵

The NHPA requires an evaluation of the impact of all federally funded or permitted projects on historic properties²⁴⁶ through a process known as Section 106 review.²⁴⁷ This review requires federal agencies

Refuse \$35,000 Offer to Keep Cows off Valles Caldera Preserve (Jan. 13, 2012), <http://www.wildearthguardians.org/site/News2?page=NewsArticle&id=7421#.VZ6qV2BHOM4>.

²⁴⁰ ANSCHUETZ & MERLAN, *supra* note 3, at 1.

²⁴¹ *Id.* at 138. Human occupation of this landscape includes well-known prehistoric groups such as the Anasazi. *Id.*

²⁴² See FRAMEWORK AND STRATEGIC GUIDANCE, *supra* note 3, at 33.

²⁴³ National Historic Preservation Act, 54 U.S.C.A. §§ 300101–320301 (West Supp. 2015).

²⁴⁴ Section 1 of the National Historic Preservation Act, Pub. L. No. 89-665, 80 Stat. 915 (1966), as amended by Pub. L. No. 96-515, 94 Stat. 2987 (1980).

²⁴⁵ Sharon Milholland, *In the Eyes of the Beholder: Understanding and Resolving Incompatible Ideologies and Languages in U.S. Environmental and Cultural Laws in Relationship to Navajo Sacred Lands*, 34 AM. INDIAN CULTURE & RES. J. 103, 114 (2010).

²⁴⁶ This includes sites listed on, or eligible for listing on, the National Register of Historic Places. National Historic Preservation Act § 301(5), 54 U.S.C.A. § 300308.

²⁴⁷ Section 106 of the Act states:

The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, shall take into account the effect of the undertaking on any historic property. The head of the Federal agency shall afford the Council a reasonable opportunity to comment with regard to the undertaking.

Id. § 106, 54 U.S.C.A. § 306108.

to identify any potential conflicts between their actions and historic preservation, resolve any conflicts in favor of the public interest and “seek ways to avoid, minimize or mitigate” any adverse effects on historic properties.²⁴⁸ This work is usually conducted in concert with a proposed action’s NEPA analysis, and historic and cultural resources are expressly included among the factors to be considered in a NEPA impact analysis.²⁴⁹

Early in the process, the cultural resources staff took the Trust’s management principle of “learning and inspiration”²⁵⁰ seriously and viewed the Preserve experiment as an opportunity to integrate Section 106 compliance with its duties under Section 110 of the law.²⁵¹ Section 110 of NHPA also governs federal agency programs and requires a broader consideration of historic preservation in the management of properties under Federal ownership or control.²⁵² It states that “[e]ach Federal agency shall establish . . . a preservation program for the identification, evaluation, and nomination to the National Register of Historic Places, and protection of historic properties.”²⁵³ Under this section, “agencies must assume responsibility for the preservation of historic properties under their jurisdiction and, to the maximum extent feasible, use historic properties available to the agency.”²⁵⁴ This language does not capture fully the importance federal archaeologists assign to Section 110.²⁵⁵ The review required is considered similar to that required under Section 106 “but involves a higher standard of care” that goes beyond assessing the impact of proposed actions—it also considers the educational value and knowledge generating capacity of historic properties.²⁵⁶

The Preserve staff worked with Sections 106 and 110 simultaneously and used its NHPA review processes to generate knowledge and foster educational opportunities.²⁵⁷ Due to its relatively high elevation, the

²⁴⁸ 36 C.F.R. § 800.1 (2015); see generally Elizabeth G. Pianca, *Protecting American Indian Sacred Sites on Federal Lands*, 45 SANTA CLARA L. REV. 461 (2005).

²⁴⁹ 40 C.F.R. §§ 1502.16, 1502.25 (2015).

²⁵⁰ See FRAMEWORK AND STRATEGIC GUIDANCE, *supra* note 3, at 13.

²⁵¹ Interview with Ana Steffen, Cultural Res. Coordinator, Valles Caldera National Preserve. (Apr. 7, 2015) [hereinafter Steffen interview].

²⁵² *Federal Historic Preservation Case Law, 1966–1996*, ADVISORY COUNCIL ON HIST. PRES., <http://www.achp.gov/book/sectionII.html#IIC2> (last visited September 25, 2015).

²⁵³ National Historic Preservation Act § 110(2), 54 U.S.C.A. § 306102 (West Supp. 2015).

²⁵⁴ ADVISORY COUNCIL ON HIST. PRES., *supra* note 252.

²⁵⁵ See Steffen interview, *supra* note 251. (noting that the DOI’s guidance for implementation of section 110 comes closer, stating that “an agency manages and maintains historic properties under its jurisdiction or control in a manner that considers the preservation of their historic, architectural, archeological, and cultural values”).

²⁵⁶ Advisory Council on HIST. PRES., *supra* note 252.

²⁵⁷ See Steffen interview, *supra* note 251.

Preserve has a qualitatively different landscape than adjacent lands, which include Bandelier National Monument, one of the country's first national monuments.²⁵⁸ The Preserve was a “big unknown in the middle of the most studied archeological region in the United States. It is a knowledge frontier—a unique landscape different from everything around it.”²⁵⁹ Because the cultural resources of the Preserve were relatively unknown, the staff utilized non-site based field methods referred to as “unbiased observation” that allowed for the fewest assumptions about what cultural properties they might find. While cultural resource investigations were most often conducted pursuant to Section 106 to address specific projects on the Preserve, such as construction of the Visitor's Center or larger scale landscape projects such as forest restoration, attempts were made to integrate Section 110 benefits.²⁶⁰ The Trust was able to employ GIS technology from the outset, creating a detailed cultural resources map of the Preserve that compiles multi-year data in several layers for various types of artifacts and features.²⁶¹ Less than three percent of the Preserve was surveyed prior to federal acquisition.²⁶² As the experiment came to a close, approximately twenty-five percent of the Preserve had been inventoried for cultural resources.²⁶³

Similar to NEPA, Section 106 reviews and associated cultural resource inventories are required before a federal agency can act.²⁶⁴ For this reason, NHPA compliance had a significant impact on the pace at which projects occur on the Preserve, particularly with regard to public access.²⁶⁵ To date, the Trust has documented over 680 historic and archaeological sites.

The NHPA also requires federal agencies to consult with affected tribes and work with them to protect places of cultural significance for native communities.²⁶⁶ The Trust took this role seriously and recognized early on that it “bears a special responsibility to respect and honor these

²⁵⁸ Bandelier National Monument was designated in 1916 and named after Adolph Bandelier, a Swiss anthropologist who researched the site and surrounding areas. It is home to a number of ancestral Pueblo homes, kivas and petroglyphs. For more information, see *Bandelier National Monument, New Mexico*, NAT'L PARK SERV., <http://www.nps.gov/band/index.htm> (last visited Nov. 7, 2015).

²⁵⁹ See Steffen interview, *supra* note 251. Extensive archeological surveys on the Preserve since 2001 have demonstrated early Puebloan agricultural production in the area was limited to around 8,400 vertical feet, with crops grown on the south-facing slopes and mesa tops. *Id.*

²⁶⁰ *Id.*

²⁶¹ *Id.*

²⁶² *Id.*

²⁶³ *Id.*

²⁶⁴ *Id.*

²⁶⁵ See ANNUAL REPORT 2013, *supra* note 140, at 42; Steffen interview, *supra* note 252.

²⁶⁶ See *supra* note 98 and accompanying text.

living relationships between culturally affiliated tribes and the Caldera.”²⁶⁷ The Trust regularly consulted with thirty-four native communities, five of which were active in making comments on proposed actions that might impact cultural resources: the Santa Clara, Zia, Cocti and Jemez Pueblos and the Hopi Tribe.²⁶⁸ The Jemez Pueblo, in particular, has an important relationship to the Preserve, especially its highest mountain, Redondo Peak. Redondo Peak is a sacred mountain to the Jemez, called “*Wav e ma*” in their native language, and it drew them to their current homeland during their migration to the area over eight hundred years ago.²⁶⁹ As part of the Tribal Access and Use Policy established in 2004, the Trust “recognizes that the religious practices of the Pueblos and Tribes are an integral part of their Indian culture, tradition, and heritage.”²⁷⁰ Like other tribes under the policy, Jemez Pueblo members have access to Redondo Peak and other sacred sites on the Preserve, including access that temporarily excludes non-members from sites as needed to conduct ceremonies and engage in other religious activities.²⁷¹

In 2012, the Jemez Pueblo sued the United States under the Quiet Title Act²⁷² claiming ownership of the Preserve.²⁷³ The Jemez Pueblo argues that its members have the exclusive right to use, occupy, and possess the lands of the Valles Caldera National Preserve because it never relinquished its aboriginal title to the land.²⁷⁴ The U.S. District Court dismissed the claim, persuaded by the federal government’s argument that the suit lacked subject matter jurisdiction because the Jemez Pueblo’s title claim against the United States accrued in 1860 when the United States granted the lands in question to the Baca family; therefore, it fell within the exclusive jurisdiction of the Indian Claims Commission Act (“ICCA”).²⁷⁵ The ICAA waived sovereign immunity and provided a cause of action to all Indian claims against the

²⁶⁷ FRAMEWORK AND STRATEGIC GUIDANCE, *supra* note 3, at 37–38.

²⁶⁸ See Steffen interview, *supra* note 251.

²⁶⁹ See Complaint at 5, Pueblo of Jemez v. United States, No. CIV 12-0800 RB/RHS (D.N.M. July 20, 2012).

²⁷⁰ See VALLES CALDERA TRUST, TRIBAL ACCESS AND USE POLICY 2 (May 14, 2004).

²⁷¹ *Id.* at 3.

²⁷² 28 U.S.C. § 2409A (2012).

²⁷³ See Pueblo of Jemez v. United States, No. CIV 12-0800 RB/RHS, at 1 (D.N.M. Sept. 24, 2013). The Indigenous Law and Policy Center Blog hosted by the Michigan State University College of Law contains detailed information on the case, including court holdings, briefs and new coverage. Matthew L. M. Fletcher, *Federal Court Dismisses Jemez Pueblo Claim to Aboriginal Title Rights Against U.S.A.*, TURTLE TALK (Sept. 27, 2013), <https://turtletalk.wordpress.com/2013/09/27/federal-court-dismisses-jemez-pueblo-claim-to-aboriginal-title-rights-against-usa/>.

²⁷⁴ *Pueblo of Jemez*, No. CIV 12-0800 RB/RHS, at 1.

²⁷⁵ *Id.*

government that accrued before 1946 so long as they were filed within a five-year statute of limitations period.²⁷⁶ Because the claim was not filed, the District Court determined the claim to be barred by sovereign immunity.²⁷⁷

That ruling was reversed by the Court of Appeals for the Tenth Circuit in June of 2015. The appellate court ruled that, as a matter of law, the transfer of title to the Baca family did not trigger the five-year statute of limitations under the ICCA.²⁷⁸ The case will now go back to the district court and, on remand, the Jemez “will have the burden to establish, as a matter of fact, it has aboriginal title. In so doing, it will also necessarily be establishing that it did not have a pre-1946 claim against the United States for permitting interference with its aboriginal title.”²⁷⁹ The Jemez will also have to establish that the Trust’s access and use policies interfered with their aboriginal title.²⁸⁰ In short, this case is far from over. The aboriginal claim of the Jemez Pueblo will be a continued source of controversy. As the jurisdictional hurdle has been overcome, the NPS will have to field the legal challenge.²⁸¹

In sum, both the current and historical cultural significance of the Preserve are important parts of its character. The integration of Section 106 reviews with Section 110 learning opportunities is indicative of the ethic that informed the management of the Preserve—not rote

²⁷⁶ Indian Claims Commission Act of 1946, ch. 949, 60 Stat. 1049 (formerly codified at 25 U.S.C. §§ 70–70v).

²⁷⁷ *Pueblo of Jemez*, No. CIV 12-0800 RB/RHS, at 1.

²⁷⁸ *See Pueblo of Jemez v. United States*, 790 F.3d 1143, 1147 (10th Cir. 2015).

²⁷⁹ *Id.*

²⁸⁰ *Id.*

²⁸¹ There is a question regarding whether the 2014 transfer of the Preserve to the NPS extinguishes aboriginal title. The United States made a similar argument before the transfer to the NPS in its motion for summary judgment, before the land was transferred to the NPS. However, the relevant case law may now be more on point now that the transfer has occurred:

The designation of land as a forest reserve or unit of the National NPS is itself effective to extinguish a tribe’s aboriginal title. *See Pueblo of San Ildefonso*, 513 F.2d at 1391–92; *Genmill*, 535 F.2d at 1149; *Confederated Salish & Kootenai Tribes v. United States*, 401 F.2d 785, 787–89 (Ct. Cl. 1968), *cert. denied*, 393 U.S. 1055 (1969); *Tlingit and Haida Indians of Alaska v. United States*, 177 F. Supp. 452, 467–68 (Ct. Cl. 1959); *Pai ‘Ohana v. United States*, 875 F. Supp. 680, 696 (D. Haw. 1995), *aff’d*, 76 F.3d 280 (9th Cir. 1996). Indeed, the Court of Claims concluded in *Zia IV* that the Jemez Forest Reserve—which overlapped Pueblo lands subject to aboriginal title—effectively deprived the Pueblos of the land and extinguished title. *Zia IV*, 474 F.2d at 641. Thus, much like the creation of the Jemez Forest Reserve in 1905, passage of the Preservation Act in 2000, which established the National Preserve as a unit of the National Forest System, effected an extinguishment of any aboriginal title potentially held by Jemez Pueblo or any other tribe.

Response Brief for the United States at 48–49, *Pueblo of Jemez v. United States*, 790 F.3d 1143 (10th Cir. 2015) (No. 13-2181). As the NPS assumes its management responsibility toward the end of 2015, it has an opportunity to continue some aspects of the experiment.

obedience to laws like NHPA and NEPA, but an effort to honor the intention behind these statutes: cultural and environmental resource protection.

F. Lesson 6: Making Money is Not What Public Lands Do Best

As already noted, the Trust did not truly embrace the goal of financial sustainability.²⁸² For this reason, it never was the “test case” for a quasi-privatized, profit-based model some hoped it would be.²⁸³ The GAO provided statutorily mandated assessments of the Trust’s progress toward its goals in 2005 and 2009.²⁸⁴ In both reports, the GAO concluded that the Trust was not progressing toward financial self-sufficiency.²⁸⁵ In 2005, it observed:

While the Trust has made some progress in achieving its mandated goals, its further progress is in doubt because it has not developed a well-defined management control program, which is collectively encompassed in the mandates governing the Caldera’s operations. Such a program would include strategic and performance plans, measurable goals and objectives and monitoring plans, annual performance reports, and a strategy for achieving financial self-sustainability.²⁸⁶

In response, the Board issued formal comments to the GAO, noting that it is keenly aware of the financial self-sufficiency mandate but that addressing “costs stemming from compliance with federal laws and statutes will be a key component in successfully attaining that goal.”²⁸⁷ It also noted the need for major capital investments in infrastructure. The Board asserted that financial sustainability is not the primary goal for the Trust but instead one of many management challenges “on par with all of the other provisions of the Act.”²⁸⁸ From the GAO’s perspective, however, the success of the experiment could not be separated from its financial self sufficiency: “Achieving financial self-sustainability by 2015 is only one of many goals and objectives set forth

²⁸² See *supra* notes 101–02 and accompanying text.

²⁸³ See Huffman, *supra* note 6; Yablonski, *supra* note 6.

²⁸⁴ See 16 U.S.C. § 698v-10 (2012) (repealed 2014) (“required the Government Accountability Office to conduct two reports on the Trust’s progress toward meeting its statutory goals after three years and again seven years after assuming control of the Preserve”).

²⁸⁵ See GAO 2005, *supra* note 7; GAO 2009, *supra* note 133.

²⁸⁶ GAO 2005, *supra* note 7, at 30.

²⁸⁷ *Id.* at 38.

²⁸⁸ *Id.* at 38. Professor Gess observed in 2006: “At least to date the Valles Caldera National Preserve is not a good test case of the financial self-dependency requirement. A lack of clear understanding of the requirement as well as a question of both its achievability and worthiness has relegated economic self-sustainability to something less than a motivating factor.” See Gess, *supra* note 69, at 210.

in the Preservation Act, but it is key to the Trust's success in managing and operating the Caldera without federal funds."²⁸⁹

As the years went on, the Trust continued to hold this view and managed with financial gain in mind, but not as the top priority. During its second review in 2009, the GAO again argued:

[N]early halfway through the 20-year public-private land management experiment and about 6 years before the authorization for Trust appropriations expires—the Trust had only begun to focus on the goal of becoming financially self-sustaining. A number of issues—such as its remaining life expectancy, activities capable of providing sufficient revenues, funds for needed key capital investments, and legal issues—present significant challenges to achievement of this goal.²⁹⁰

The year 2009 was a turning point for the Trust on this issue, and it recommended to Congress a modification of the goal of financial self-sustainability to a more modest goal of “cost recovery for public programs.”²⁹¹

The financial goal was never statutorily changed, but by the end of the experiment, the Trust's formal interpretation of its financial sustainability goal was to “[e]stablish a public-private model of administration to optimize revenues and develop philanthropy to support the preservation, enhancement, and operation of the Valles Caldera National Preserve.”²⁹² Cost recovery for its non-federal compliance programs (e.g., operational programs like recreation and grazing) became the goal.

From the beginning, the Preserve's most lucrative programs were hunting and fishing, which generated about half of its income in fiscal year 2013 (\$370,366 of its \$746,272 in program revenue).²⁹³ Other programs, including facility rentals (\$88,140) and store sales (\$104,731), also contributed significantly.²⁹⁴ Recreational fees for activities such as hiking, skiing, and horseback riding were relatively modest (\$15,050),²⁹⁵ but during its last months of operations, the Trust

²⁸⁹ GAO 2005, *supra* note 7, at 30.

²⁹⁰ See GAO 2009, *supra* note 133, at 28. The GAO pulled no punches in its last report, concluding that “. . . the Trust's financial management has been weak. Consequently, it has been difficult for Congress and the public to understand the Trust's long-term goals and objectives, annual plans and performance, or progress.” *Id.* at 20.

²⁹¹ See ANNUAL REPORT 2013, *supra* note 140, at 12 (“The post-recession economic environment, coupled with two major wildfires during the summer tourist seasons of 2011 and 2013, has impacted visitation revenue, management progress and the trust's overall budget.”).

²⁹² *Id.* at 42.

²⁹³ *Id.* at 15.

²⁹⁴ *Id.*

²⁹⁵ *Id.*

adopted a new fee system that had the potential to greatly increase public access to and use of the Preserve, along with associated revenue.²⁹⁶

While the number of visitors increased substantially over the years, the public's use of the Preserve for these activities was relatively limited.²⁹⁷ As noted above, the reasons for this include both concerns over liability given the need for road and other infrastructure improvements on the Preserve²⁹⁸ and the desire to provide a "high quality" experience.²⁹⁹ Quality over quantity was continually emphasized, as was the effort to keep access affordable to the general public. The Preserve's fiscal year budget for 2015 projected that the goal of cost recovery for its operational programs would be achieved.³⁰⁰ Congress's decision to cut the experiment short in December 2014 means we will never know how successful the Trust might have been in recovering its costs.

In the larger picture, the Trust's approach to its financial self-sufficiency mandate reflects an unwillingness to make the Preserve a playground for the wealthy. The success of its fishing and hunting programs indicates that the "real money" to be made on the Preserve may have been through an exclusive hunting and fishing resort with a lodge and other amenities—but this was never seriously considered. The fact that the public owned the land gave rise to an expectation that the general public should be able to affordably use and enjoy it.

The Trust's approach to public use and access and its related reluctance to prioritize profitmaking reflects the progressive and utilitarian ideas that created public land in the first place. These ideals undermined the Trust's ability to make money, which has never really

²⁹⁶ VALLES CALDERA TRUST, PROPOSED FEE SCHEDULE MODIFICATIONS (BEGINNING SPRING 2015) (2014); *New Fee Schedule Proposed at VCNP*, LOS ALAMOS MONITOR ONLINE (Dec. 6, 2014, 8:00 PM) <http://www.lamonitor.com/content/new-fee-schedule-proposed-vcnp>.

²⁹⁷ The Preserve hosted a total of 98,605 visitors in 2013. ANNUAL REPORT 2013, *supra* note 140, at 3. This was slightly lower than the previous year due to the Thompson Ridge fire that required closures on the Preserve. *Id.* That compares favorably with the 126,682 visitors to adjoining Bandelier National Monument in 2013 and experienced the same difficulties. *See* NAT'L PARK SERV., BANDELIER NM (BAND) REPORTS, ANNUAL PARK RECREATION VISITATION (1904 - LAST CALENDAR YEAR) [https://irma.nps.gov/Stats/SSRSReports/Park%20Specific%20Reports/Annual%20Park%20Recreation%20Visitation%20\(1904%20-%20Last%20Calendar%20Year\)?Park=BAND](https://irma.nps.gov/Stats/SSRSReports/Park%20Specific%20Reports/Annual%20Park%20Recreation%20Visitation%20(1904%20-%20Last%20Calendar%20Year)?Park=BAND) (last visited Nov. 7, 2015). This reflected a trending increase in the Preserve's final years. The GAO reported there were 15,200 visitors from 2002–2004 and 43,091 visitors from 2005–2008. *See* GAO 2005, *supra* note 7, at 15; GAO 2009, *supra* note 133, at 15.

²⁹⁸ *See supra* notes 131–137 and accompanying text.

²⁹⁹ *See supra* note 96 and accompanying text.

³⁰⁰ *See* Silva-Bañuelos interview, *supra* note 19.

been what public lands do best.³⁰¹ The values and benefits of these lands are intangible and difficult to quantify.³⁰² Americans tend to view these lands as a public good, even when actual land use policies might suggest otherwise. The Trust's explicit financial mandate was not strong enough to counter the expectation that, as public land, it would be many things to many people. And the resulting management paradigm reflects this broader conception of the role of public land.

V. CONCLUSIONS AND RECOMMENDATIONS FOR MOVING FORWARD

The Valles Caldera National Preserve was an interesting experiment in public land management, but did not provide the results most assumed it would. Instead of pursuing profit, the Trust viewed financial self-sustainability as but one of many goals for management. The first "lesson" from the Preserve experiment is that, should Congress try a similar model in the future, it should avoid the challenges associated with the management design for the Preserve. The Trust's management efforts were hampered for many reasons, including obligations under the Results Act and Control Act, and other bureaucratic requirements. The statute also limited the Trust's ability to act in ways common to corporations.³⁰³ For example, it limited the Trust's ability to make long-term contracts.³⁰⁴ At the same time, the enacting legislation limited the Trust's ability to act in ways common to federal agencies by failing to provide access to the judgment fund and address liability concerns. Placement of the Preserve within the Forest Service but outside its organizational structure limited the Trust's ability to act independently. It was forced to compete for annual appropriations in the Forest Service budget, and, in its final years, the Forest Service's procurement procedures limited the Trust's ability to act efficiently. Any future experiments in public land management should address these and other limitations that impaired the Trust's ability to succeed. This includes a better appointment process for the Trust's board that avoids both the political and procedural delays associated with presidential appointments.

As the NPS assumes its management responsibility at the end of 2015, it has an opportunity to continue some aspects of the experiment.

³⁰¹ See generally DOUGLAS S. KENNEY ET AL., VALUES OF FEDERAL PUBLIC LANDS (1998); Michael C. Blumm, *Public Choice Theory and the Public Lands: Why Multiple Use Failed*, 18 HARV. ENVTL. L. REV. 405 (1994).

³⁰² See J.B. Ruhl, *Ecosystem Services and Federal Public Lands: Start-Up Policy Questions and Research Needs*, 20 DUKE ENVTL. L. & POL'Y F. 275 (2010).

³⁰³ See *supra* Section IV.A.

³⁰⁴ See *supra* note 147 and accompanying text.

At a public meeting during the summer of 2015 about the transfer of the Preserve to the NPS, a member of the NPS staff stated that the Valles Caldera National Preserve would be the sixtieth “National Preserve” under NPS management.³⁰⁵ But to view the Valles Caldera as just “another Preserve” would be a mistake. The Valles Caldera National Preserve comes to the NPS with a unique origin story. During its first fourteen years, it engaged in a management paradigm that resulted in many lessons that can guide its management for years to come. Chief among these are the lessons that science-based adaptive management can work and can be effectively and efficiently integrated into NEPA processes. This gives NEPA post-decisional value and provides managers with the tools needed to address climate change and other challenges facing our public lands.

NEPA processes can also be used to provide substantive environmental protections. The Trust’s investment in its own NEPA procedures and its inclusion of mitigation and monitoring requirements into those procedures revived NEPA’s original purpose and intent—to help agencies make *better* decisions, not just *better informed* decisions.³⁰⁶ By integrating science-based adaptive management into its decision-making process, the Trust also demonstrated NEPA’s potential to provide a regulatory home for adaptive management.³⁰⁷ This would allow agencies to adopt enforceable standards associated with adaptive management protocols and approaches.³⁰⁸ By allowing courts to weigh in on the use of adaptive management, enforceable standards ensure that commitments to adaptive management are kept.³⁰⁹ This is important because adaptive management is becoming a primary strategy for federal agencies, and judicial review will be needed to ensure its success.³¹⁰

This is closely related to the third lesson: adaptive management can play a valuable and effective role in public land management. To date, attempts by federal agencies to engage in adaptive management have tended to fall short of its methodological requirements—this is why Professors Ruhl and Fischman suggest that most of what is currently

³⁰⁵ This statement was made at a public “listening session” the author attended on May 11, 2015 in Albuquerque, New Mexico.

³⁰⁶ See Kalen, *supra* note 162 and accompanying text.

³⁰⁷ See Benson & Garmestani, *supra* note 97 (arguing that, while existing management mandates are in many instances sufficiently vague to encompass adaptive management approaches, they do not provide a much needed regulatory home).

³⁰⁸ See Ruhl & Fischman, *supra* note 22 and accompanying text.

³⁰⁹ See generally Martin Nie, *The Underappreciated Role of Regulatory Enforcement in Natural Resource Conservation*, 41 POL’Y SCI. 139 (2008) (explaining why litigation is often necessary to promote conservation).

³¹⁰ *Id.*

going on within federal agencies cannot properly be called adaptive management.³¹¹ With its new paradigm, the Trust was able to use adaptive management from the very beginning and integrate its principles rather than simply adding to an already existing list of obligations and priorities. The Trust's investment in baseline data, GIS mapping, ongoing monitoring, and public process made its decisions better informed and correspondingly more acceptable to the public. In turn, this made decisions more efficient because they avoided costly and time-consuming litigation.

While the Trust effectively used adaptive management for its grazing program, the true success or failure of its approach may never be known. All adaptive management processes take time, and Preserve management would need to learn and demonstrate a willingness to change strategies over time before declaring "success." With the experiment cut short, it is unclear whether the NPS will continue to invest in the science program and use adaptive management for the Preserve. But it should. As discussed above, the DOI's regulations for NEPA implementation state that agencies should engage in adaptive management "when appropriate."³¹² It is difficult to imagine a situation where adaptive management would be *more* appropriate. Management challenges stemming from global climate change create a great deal of uncertainty.³¹³ Fortunately, the NPS will be operating under the Trust's existing planning documents for the first few years after assuming management of the Preserve while it develops its own management plan and associated NEPA documents.³¹⁴ These years will provide the NPS with an opportunity to work within the Trust's framework.

Given the Trust's substantial investment in baseline data, monitoring protocols, and other infrastructure, the NPS should continue and even expand the investment in the scientific research that supports adaptive management. This includes the continuation of the role of a science director in the administrative hierarchy. Placing the science program on par with operational programs was critical to the Trust's use of adaptive management. The fact that the Trust's decisions were never legally

³¹¹ See Ruhl & Fischman *supra* note 22, at 426.

³¹² See 43 C.F.R. § 46.145 (2015); see also Tony Prato, *Adaptive Management of National Park Ecosystems*, 23 GEORGE WRIGHT F. 74 (2006) (outlining opportunities for use of adaptive management in national parks).

³¹³ Temperatures in the Jemez Springs area are increasing at rates predicted by the Intergovernmental Panel on Climate Change in their climate change reports. See Parmenter interview, *supra* note 107.

³¹⁴ See VALLES CALDERA TRUST, TRANSITIONING THE VALLES CALDERA NATIONAL PRESERVE TO THE NATIONAL PARK SERVICE (2015).

challenged in court is a testament to the fact science-based adaptive management is worth the investment.

Lessons regarding the relatively low economic value of cattle grazing are not unique to the Preserve. The experiment did demonstrate that, even when grazing fees are raised to rates more closely approximating fair market value, it is still difficult to make any money if there is a corresponding attempt to address its environmental impacts. While the Trust's efforts in implementing science-based adaptive management for grazing are laudable, it is difficult to imagine this level of commitment extending to other public lands without significant reform of the current fee formula for Forest Service and BLM lands. As for the future of grazing on the Preserve, the 2014 legislation transferring its operation to the NPS states that grazing "shall" occur as appropriate for scientific and educational purposes.³¹⁵ Continued use of adaptive management for the Preserve's already modest grazing program would serve both. Hunting and fishing, which *are* profitable, will also continue on the Preserve under the 2014 legislation, though it is unclear to what extent and in what form the elk lottery system will continue.³¹⁶

Similar to grazing, the Preserve's historic preservation lessons are not unique. The "knowledge frontier" of the Preserve, however, is unique, and there is still much work to be done in terms of documenting its historic and cultural value and features.³¹⁷ The NPS will also inherit the controversy regarding whether the Jemez Pueblo currently holds aboriginal title to the Preserve.³¹⁸ The NPS might benefit from examining legal settlements involving similar claims that employ co-management strategies, including the Sandia Pueblo's claim to almost 10,000 acres of land on the west side of the Sandia Mountains near Albuquerque, New Mexico and the subsequent creation of the T'uf Shur Bien Preservation Trust Area.³¹⁹

³¹⁵ Carl Levin and Howerd P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113-291, § 3043(b)(6), 128 Stat 3292, 3794 (2014) ("The Secretary shall allow the grazing of livestock within the Preserve to continue— (A) at levels and locations determined by the Secretary to be appropriate, consistent with this section; and (B) to the extent the use furthers scientific research or interpretation of the ranching history of the Preserve.").

³¹⁶ Pub. L. No. 113-291, § 3043(b)(7)(A), 128 Stat. 3292, 3794 ("[T]he Secretary shall permit hunting, fishing, and trapping on land and water within the Preserve in accordance with applicable Federal and State law.").

³¹⁷ See *supra* notes 246–256 and accompanying text.

³¹⁸ See *supra* notes 272–281 and accompanying text.

³¹⁹ 16 U.S.C. § 539m-2 (2012) (establishing the T'uf Shur Bien Preservation Trust Area). See also Martin Nie, *The Use of Co-Management and Protected Land-Use Designations to Protect Tribal Cultural Resources and Reserved Treaty Rights on Federal Lands*, 48 NAT. RES. J. 586 (2008) (assessing approaches that can be used to protect tribal cultural values and rights using of cooperative management models).

Finally, lessons regarding financial self-sufficiency are hard to come by. The Trust never made it a top priority. And perhaps therein lies the lesson. Senator Domenici cut the deal with Bill Clinton to try a financially-driven approach, but, once the experiment was up and running, Preserve management could not help but be influenced by our deeply held beliefs about public land. These include beliefs embraced by the Trust early on to provide fair and affordable access to the Preserve.

Public lands hold a special place in the American imagination. From the beginning, public land has embodied the cultural values of the nation. Among these values are two competing and even paradoxical ideas. The first is preservation—the idea that some lands are too special to be owned by any one individual. As much as anything, this is the cultural belief that precipitated the original purchase of the Baca Ranch in order to make it public land. The second idea is conservation—the progressive notion that public lands should be used for multiple purposes in order to meet the needs of society. These ideals are clearly reflected in the Trust’s guiding principles for management of the Preserve. Even with a new management paradigm, the Preserve became subject to these beliefs and ideas about what public land is. These beliefs proved to be every bit as important as statutory language or bureaucratic procedures. The American imagination infused the Preserve with the ideals that created *public land* in the first place. As the experiment comes to a close, the need to respect the complexity of our values and expectations for public land may be the greatest lesson of all.

Figure 1: The Trust’s NEPA Process

