

Holding Course

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Introduction

AS A RETIREE ONE IS USUALLY, OR PERHAPS SHOULD BE, CONTENT TO SIT IN THE BLEACHERS AND cheer on those still playing on the field. But what if your team appears confused about what the goal-line looks like, or is debating whether to change the rules because they're behind and the clock is running out? It just might be worth calling time and running out on the field with a message to focus on fundamentals, and perhaps some pages from the old playbook.

So when asked to contribute to the Centennial Essay Series I couldn't resist. Several of the most recent essays reflect deep concern over the future of the national park system and its direction in an era of rapid environmental change. Nate Stephenson (2014) reflected on his career as a scientist in a large western park. He wrote partly to dispel the gloom and discouragement he and others feel about losing the Leopold Report's "vignettes of primitive America" as a guiding principle for managing national parks (Leopold et al. 1963). My intent is similar, although my perspective and frame of reference are different.

Similarly, when William Tweed declares in his centennial essay that "the heart of the national park promise, the 'best idea America ever had,' no longer works," and asks, "Can national parks evolve successfully in a world where nearly all of their founding assumptions have been proven wrong?" (Tweed 2010: 13), it seems a good time to offer another perspective.

While coining new terms, re-defining old terms, or changing goals can exert great appeal in times of challenge, I am convinced that both the Organic Act and its evolving interpreta-

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tion as found in the National Park Service (NPS) Management Policies are sound navigation tools for an era of rapid environmental change.

It's inescapable that the National Park Service faces an enormous challenge in navigating the future—as does society at large. My message is that NPS—if it prepares well—can seize powerful opportunities to serve and significantly influence society in new ways that sustain our nation's quality of life.

Career employees have always weathered political and philosophical challenges to the national park system and its values. While neither politics nor tradition should be reasons to avoid evaluation of the performance of NPS in meeting its mission, I find myself concerned that, unless things have changed in Washington since I retired, many vested interests covet the idea that the national park system is based on myths, wrong assumptions, or impossible ideals. There have always been strong pressures for abandoning the implications of the Organic Act in favor of managing (perhaps “gardening”?) national park resources for the immediate benefits that would accrue to constituencies that favor use and consumption of park resources. The attempt to redefine the Management Policies in 2005 intended to achieve that end.

Amid the current trend to question the relevance or attainability of conservation ideals (Brower 2014), the centennial represents a chance to celebrate the achievements of one of the world's most robust efforts to conserve a nation's natural and cultural heritage, but more importantly to fortify its position for the coming age of rapid environmental change. In that light I offer some reactions to questions about the continued relevance of NPS and its mission in an era of human domination of the planet.

I can understand the angst that Nate Stephenson writes about regarding the need to move away from the Leopold Report's image of national parks as “vignettes of primitive America.” Yet I think for many of us that image was abandoned as a serious goal some while back. It is important to recognize that NPS as an organization has not been “living under a rock” in the last few decades, missing out on the advances in ecology regarding the dynamic nature of natural systems. An analysis of the evolution of the Management Policies suggests that the static vignette idea was scrapped in the 1980s in favor of “allowing the natural variation of complex natural systems” and understanding those systems well enough to detect changes of techno-human origin that bring unacceptable impacts (Dennis 1999).

My field perspective was shaped on the East Coast, largely within park units inherited “with issues.” Perhaps the diversification of the national park system to include a range of units beyond traditional big western parks has yielded unexpected dividends in the diversity of national park employee resilience and their comfort in dealing with human-induced change. Managing in Everglades National Park, George Washington Memorial Parkway, Fire Island National Seashore, and Gateway National Recreation Area—and the range of park designations in the West as well—has taught that all units can be managed toward the goal of unimpairment notwithstanding whether it is possible to fully get there. For me, the real magic of the national park idea has not rested primarily in the pursuit of Leopold's primitive vignettes but in the language and implications of the Organic Act. The journey of each park unit to preserve the nation's heritage under NPS management reveals the compelling power

and practicality of the Organic Act's intent, and its potential for even greater value in the future.

As an extreme example, NPS has taken on Gateway not with the expectation of a vignette of primitive America, but with the goal of conserving nature (or the "wild") that remains, and working relentlessly over generations to maximize its preservation, restoration, and lessons to those who must learn to coexist with nature on the grand scale. While not a mission for the faint-hearted, learning how to protect as well as use, and restore when feasible, are lessons that future generations will value.

Are not Rock Creek Park, Padre Island National Seashore, and Shenandoah National Park—as well as Yellowstone National Park for that matter—healthier under NPS management policies that implement the Organic Act? These and other protected, restored, and evolving natural systems can be inspirations and effective case studies for the coming years.

Unimpairment has meant to me nature operating unfettered to the extent possible—a clear and valuable goal for every site in the national park system. That includes protecting systems by maximizing their ecological integrity, their resilience, and their species diversity on a landscape scale—i.e., species may come and go but at their own speed, via unrestricted paths, responding to their own needs. That vision is more complicated than Leopold's "primitive vignettes," which can still wonderfully echo in America's large western parks. However, the *Revisiting Leopold* report (Colwell et al. 2012) has provided a modern scientific framework that reinforces the Management Policies (NPS 2006) in guiding our transition into accepting change in the modern landscape where some level of techno-human impact will always be a factor.

Evolution of natural resource policy

While analyses of turning points in the history of NPS natural resource management rightfully fall to the next generation of historians, it seems useful to add to Stephenson's perspective. Stephenson offers three distinct eras: The era of spectacles, the Leopold Report era, and the post-Leopold modern era. These seem reasonable, but my experience suggests other possible delineation points for consideration when the next history is written.

Stephenson makes a case for the early years as an era of spectacles, when firefalls, bear feeding, and buffalo stampedes were held in early parks to build a constituency—parks as "rustic fun farms," in the words of former regional director Bob Barbee.

The need for spectacles seems to persist today in the recurrent call for parks to actively entice succeeding generations away from other recreational pursuits. Tweed cites the need for "ecosystem museums" as one way to attract the visitors of tomorrow. I would posit that, if NPS stays true to its mission, parks will have a strong constituency that grows across all segments of society (including younger age groups) in the coming era of nearly inescapable human dominance of the landscape.

I would rather characterize this early era, with the remarkable exception of the George Wright years, as the "naïve era"—one when the field of ecology and NPS were both coming of age. In contrast to Stephenson, I'd also argue that this era lasted well past the publication of the Leopold Report.

The Leopold Report's image of parks as primitive vignettes brought focus, order, and comfort to a fledgling agency with little understanding of the complexity of its mission—and which was reeling from mounting resource management controversies for which it had no answers. Yet the Leopold Report didn't effectively challenge or change the agency as much as would the passage of the National Environmental Policy Act (NEPA) in 1969.

The modern era of external influences

For me, the passage of NEPA was the beginning of the end of NPS's "naïve era." Until then NPS could still maintain that defending the boundary with generalist skills, and the experience and intuition of superintendents, would suffice in protecting national parks. With NEPA came the era of "Show me" and, sometimes, "Prove it!" Full disclosure required NPS, like all other federal agencies, to marshal site-specific information and present it to the public in advance of management actions.

The requirement for documenting benefits and impacts of proposed management actions exposed the general dearth of information NPS could command. It unraveled the assumption that being the environmental good guys meant you didn't really need to know much about park resources. Not only did NEPA take much of the absolute authority away from park managers, it eventually led NPS to the world of systems ecology.

Both the Leopold (1963) and the Robbins (1963) reports made important recommendations that NPS could ignore. NEPA, with its force of law, left no options. NEPA forced NPS into the public arena and into courtrooms, venues that demanded grounding in sound science. NEPA began to wrest NPS away from its default mode of focusing only on visitor services, and quickly exposed outdated concepts like managing parks as "vignettes" of static scenery.

I would offer to tomorrow's historians yet another benchmark for delineating resource management eras in NPS. The Naïve Era may well be argued to have ended not with the Leopold Report but with the *State of the Parks Report* in 1980. That rather straightforward effort asked parks to identify their major threats. The response documented for the first time the degree to which external forces were likely to determine future success in protecting park resources. That report placed mastering park operations and even optimizing resource protection within parks in their proper perspective.

All this notwithstanding, the naïve notion that park operations within the boundary alone will ensure NPS success is still reflected in National Leadership Council meetings and NPS budget priorities, and in congressional interest and allocations—a self-reinforcing loop that does not address the realities of managing 84 million acres of complex systems in the modern era. The *Call to Action* (2011) reinforces the need for parks to "scale up" their work outside their boundaries, and the agency must retool to make this a reality in the modern era.

Transitioning to the post-modern era

Nearly everyone can agree that we now face environmental changes in scale and speed that is something entirely new. Thanks to technology, humans are increasingly responsible for change on a global scale. Technology has provided the fulcrum, and the expanding human

population provides the lever, which are now moving the earth. Climate change is perhaps the most pervasive example. In the midst of this uncontrolled experiment stands the Organic Act's requirement that park resources remain unimpaired. All this means we have now entered a third era of national park science and resource management: the post-modern era.

What's a small agency to do?

Rather than seek comfort in redefining "conservation," or "wilderness," or "unimpaired," or the NPS responsibility to steadfastly oppose and limit human-caused impacts in national parks to the very utmost extent, NPS must simply up its game. On its 100th anniversary, I contend that NPS has the foundation to proceed confidently and decisively into its next century, with one important proviso: it must invest in becoming what it has to be to carry out its mission successfully.

Important discussions on how NPS could position itself to face the uncertain future occurred at the turn of the millennium. Those discussions led to the Natural Resource Challenge. The Challenge programs were developed with parks and supported by the entire senior leadership as steps towards becoming a competent natural heritage steward in a land- and seascape fraught with human-induced impact.

Future success starts with in-depth knowledge. If we don't understand park systems, then there is little basis for discussing ecosystem integrity, health, stability, multiple stressors, resilience, or resistance—much less active management options—in an era of rapid environmental change. There is no substitute for long-term observation in national parks if we are to understand them. Without a gradually accumulating data base, constant analysis, modeling, and testing, it is foolish to think that managers can lead and act decisively when facing tomorrow's challenges.

Revisiting Leopold reiterates the need for greater knowledge. With complex systems, long-term observations and data sets have inestimable value. Perhaps it is here that we should applaud Nate Stephenson's career-long devotion to research in a national park.

In parks that have had a continuous science presence, there is a foundation for prudent management. Such foundations have been laid by those NPS, US Geological Survey (USGS), and academic scientists who have devoted their careers, often over decades, to work within a single park. I believe historians will note a remarkable record of national park leadership in natural system science (in fire ecology, air quality modeling, predator-prey interactions and predator restoration, serial depletions of marine species and marine reserve design, barrier island dynamics, mine reclamation, All Taxa Biodiversity Inventories, and more) from such a small budget and band of scientists.

The fidelity of an individual scientist to a single park, an important element in understanding the complex systems of national parks, is all too rare. My favorite examples of those with tenacious site fidelity are Bill Robertson and Bob Johnson at Everglades National Park, Jan van Wagtenonk at Yosemite National Park, Gary Davis at Channel Islands National Park, Herb Meyer at Florissant Fossil Beds National Monument, and John Portnoy at Cape Cod National Seashore. All knew their park's resources intimately, and enabled NPS to be authoritative and prudent stewards. With the loss of park-based scientists to the National

Biological Survey (and thence to USGS) there isn't a new generation to take their place unless NPS moves to restore in-park expertise. While the Inventory and Monitoring Program has added scientists at the network level (i.e., vital "scale up" capacity), parks need resident scientists that integrate information and work with resource managers to develop the authoritative local knowledge necessary for navigating the uncertain future.

Get help from friends

As the *State of the Parks Report* foretold, the mission is too vast for NPS alone. NPS needs to seek, value, and live up to strong partnerships. With a few changes in mindset, there are strong alliances that can help.

Critics of NPS believe it suffers from a siege mentality; if that has been true, the siege can best be broken from within. The siege can be broken by building programs that both invite partners in (Research Learning Centers, Cooperative Ecosystem Studies Units, Sabbaticals-in-the Park, Park Flight, Canon Scholars, etc.) and those that sally forth (programs such as Rivers, Trails, and Conservation Assistance, Wild and Scenic Rivers, National Natural Landmarks, Man and the Biosphere, etc.) to effectively share the 100 years of NPS experience in balancing use while minimizing impacts and preventing heritage impairment.

There's so much more that can be gained by welcoming academe into the best system of natural laboratories in the world. There are many academics who love the national park idea and having their research applied for direct public good. Examples can be seen among the recipients of the annual NPS Natural Resource Awards for Research, which acknowledge the contributions of this extended (and expandable) national park science family. Some spend their entire careers studying a park or parks, and directing students towards the study of the resources, ideals, and practices of national parks. There are untold numbers of students waiting to imprint on the mission and challenges of park science. Encouragement is all that is needed.

The Research Learning Center (RLC) network was conceived to point the way. One way to lift the siege is for every park (or at least where adaptively reusable facilities permit) to develop a highly functioning RLC. RLCs position parks as leaders in spreading, on a park, regional, and eventually national scale, a conservation ethic compatible with nature, biodiversity, and heritage protection.

By providing direct access for the public to science and scientists in parks, traditional park interpretation will offer a more fulfilling menu than often available from superficially trained temporary employees. RLCs can deepen inch-deep citizen support (and appreciation for natural and social science) through contact with scientists and hands-on engagement in citizen science.

RLCs that function with strong park support are proving that new leadership roles which enhance long-term protection of national parks at larger scales are possible. RLCs can forge alliances with state and federal and professional educators, and with CESU member universities (including Native American, Historically Black, and Predominantly Hispanic colleges and universities) that can benefit from inexpensive field stations. At a time of great societal need for STEM (science, technology, engineering, and mathematics) education and renewed

interest in nature, RLCs can reach children and even influence local and state education programs (e.g., the Appalachian Highlands Science Learning Center’s impact on North Carolina state curricula standards; see NPS 2013). If a majority of national parks develop RLCs, there can be a new dimension to NPS outreach for public good. Yet, symptomatically, some of the original 12 Challenge-funded RLC education and science coordinator positions have disappeared or remain unfilled.

NPS must not let the multi-agency Cooperative Ecosystem Studies Unit Network falter through failing to fill CESU coordinator positions on host campuses. Nor should it give up on the original CESU vision of multiple federal agencies working together on CESU university host campuses to forge coordinated science projects and a common vision of a landscape that works for all.

The Natural Resource Challenge programs were but a basic platform on which to build and should not be allowed to lapse and wither. RLC positions must be filled if they are to build new constituencies on a regional scale; CESU coordinator positions must be filled and duty stationed on the host campus if they are to attract academic interest and resources into national park science, education, and technical support—and consequently scale up park protection.

Get help from sister agencies

Protection of the significant portion of our nation’s natural and cultural heritage found in national parks should not be asked of NPS alone. Presidents ought to direct their cabinet agencies to contribute towards the larger goal of protecting national heritage as a working corollary to their specific missions. It may take many presidents and many executive orders to overcome traditional stove-pipe and territorial tendencies, but the stakes are becoming high enough to make that happen.

Since federal lands constitute 70% of the West, better coordination and shared responsibility for national natural and cultural heritage stewardship could provide a broad range of plausible management options. Movement of many species is a less serious issue if we are managing at the landscape scale and not for static “primitive vignettes” within fixed boundaries. Fungible or cooperative boundaries among federal properties are an entirely reasonable solution if national heritage is as valuable as we think it is.

Ally with private landowners

There is an untapped reservoir of support and good will residing in the private landowner.

The Second Century Commission’s Natural Resource Committee recommended drafting a new law that mimics the National Historic Preservation Act of 1966 (NPCA 2009). The act has changed the face of historic preservation in America by giving NPS a “servant leadership” role in providing standards, skills training, and incentives for historic preservation activities and projects on nonfederal lands (Jerry Rogers, pers. comm.). A comparable combination of incentives and technical assistance for landowners wanting to conserve nature on their land can have similarly game-changing benefits in providing functional corridors for park species that move routinely, seasonally, and in response to global warming and other

long-term changes. Introducing such a bill in 2016 can have elements that appeal to both sides of the aisle in Congress as a way to protect the nation's heritage without relying on federal land ownership. Filing during the centennial and offering the concept for incorporation into campaign platforms would be valuable.

Mark a new era with 2016

The 2016 centennial celebrates 100 years of visionary contribution to America; it can also be a turning point of substance. The year 2016 can be both a time of satisfaction in how far NPS has traveled and re-dedication to positioning itself to address the future. On its 100th anniversary the National Park Service now benefits from the realization that much of its business is systems ecology, and it will be judged on how it incorporates that realization into its management priorities.

The best preparation for the future of our system of national parks is to power up programs that improve mission-critical performance in an era of change. Building an authoritative understanding of park resources, their stressors, and thresholds must eclipse priorities that will not be factors in future success in stewardship of the nation's heritage.

Essentially the best preparation for the coming era is for NPS to ensure its current mission is fully executed. That's where active management must begin—ensuring that park resources are understood and in the very best condition to meet future change. In short, it must first execute the current playbook by building on its experience, relevant programs, partnerships, and institutional passion. If this can be done, the best is yet to come.

To paraphrase Old Testament wisdom: If the trumpet sounds uncertain, who will answer? Confusion over goals and terminology does not make for a certain trumpet. Because national parks are a commitment between and across generations, discussions of changing goals and mission in the coming era of increasing human-induced global impact must be approached carefully—and with evolution, not revolution, in mind.

Climate change is amplifying the uncertainty and angst among heritage managers. Yet the traditional role of NPS is pre-adapted to be of value in this coming age of challenge. Experience with protecting, managing for unimpairment and compatible use, restoring ecosystem elements and condition—and thereby integrity and resilience—positions national parks as unparalleled sentinels and beacons in a time of rapid change.

Perfecting environmental stewardship in national parks is a matter of building on strengths, building new areas of strength, and harnessing the goodwill and resources of the many others who will want to help meet the ideals of the Organic Act. National parks can be central in understanding what is at risk and being lost, to minimizing biodiversity loss, and to galvanizing a new generation of advocates—not only for park integrity but for the general benefit to humankind. The National Park Service must hold to a true course in an uncertain era.

References

- Brower, Kenneth. 2014. Leave wilderness alone. *Outside Online*. October 13.
- Colwell, R., et al. 2012. *Revisiting Leopold: Resource Stewardship in the National Parks*. Washington, DC: National Park System Advisory Board Science Committee.

- Dennis, John G. 1999. National Park Service management policies for the national park system. *The George Wright Forum* (16:3), 7–18.
- Leopold, A. Starker, et al. 1963. Wildlife management in the national parks. *Transactions of the 28th North American Wildlife and Natural Resources Conference*, 28–45.
- NPCA [National Parks Conservation Association]. 2009. Science and Natural Resource Committee Report. In *Second Century Commission Report: Advancing the National Park Idea*, R. Colwell and S. Earle (co-chairs). Washington, DC: NPCA.
- NPS [National Park Service]. 2011. *A Call to Action*. Washington, DC: NPS.
- . 2013. Appalachian Highland Science Learning Center receives award. Great Smoky Mountains National Park news release, September 26.
- . 2006. *Management Policies*. Washington, DC: NPS.
- Robbins, William J., et al. 1963. *A Report by the Advisory Committee to the National Park Service on Research*. Washington, DC: National Academy of Sciences, National Research Council.
- Sellers, R.W. 1997. *Preserving Nature in the National Parks: A History*. New Haven, CT: Yale University Press.
- Stephenson, Nathan L. 2014. Making the transition to the third era of natural resources management. *The George Wright Forum* (31:3), 227–235.
- Tweed, William C. 2010. An idea in trouble: Thoughts about the future of traditional national parks in the United States. *The George Wright Forum* (27:1), 6–13.

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