

SECURING THE FREE MOVEMENT OF WILDLIFE: LESSONS
FROM THE AMERICAN WEST'S LONGEST LAND MAMMAL
MIGRATION

BY

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*Large mammal migrations are in decline globally, despite the popularity of innovative, large-scale management tools. From an ecological perspective, the problem may appear obvious—the ever increasing number of physical barriers to wildlife movement (e.g., habitat fragmentation, increasing human population, roads, industrial development) leading to the continued disruption and loss of wildlife movements. Effective methods of addressing these barriers are often hindered by political conflict between divergent political actors. Commentators often assert that collaboration and coordination among diverse interest groups throughout the geographic confines of a migration are necessary to secure the protection of migratory species. This Article revisits the protection of the longest mammal migration of the lower forty-eight states, a 170-mile pronghorn antelope (*Antilocapra americana*) migration between Grand Teton National Park and the Upper Green River Basin in western Wyoming. This case suggests that, while collaboration among diverse stakeholders is a worthy aspiration, collaboration among all stakeholders is not necessary for the protection of all migratory species. A key to developing successful protection strategies is to correctly identify and address the problems faced by conflicting perspectives. In the case of this pronghorn migration, two different solutions addressed the problems faced by conflicting perspectives. The first was a political (symbolic) outcome that reduced political intensity between divergent stakeholders by allowing both sides to claim victory independent of one another. The second was a policy solution, disconnected from the political outcome, that significantly reduced physical barriers to the free movement of pronghorn along the migratory corridor.*

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I. INTRODUCTION

Large mammal migrations are in decline.¹ Nowhere is this more evident than at the Greater Yellowstone Ecosystem, where 58%, 78%, and 100% of the historic long-distance migrations of elk (*Cervus elaphus*), pronghorn antelope (*Antilocapra americana*), and bison (*Bison bison bison*) respectively, have been lost.² Despite the truncated movements of these species, the region is still home to the longest bison, elk, pronghorn, and mule deer (*Odocoileus hemionus*) migrations in the United States.³ A variety of conservation efforts are underway to preserve the phenomenon of migration in the Yellowstone system.⁴ These campaigns predominantly focus on securing the protection of migratory corridors through transboundary management and other large-scale migration conservation strategies.⁵

¹ See generally DAVID S. WILCOVE, NO WAY HOME: THE DECLINE OF THE WORLD'S GREAT ANIMAL MIGRATIONS (2008) (discussing the threats to migration in the air, on land, and in the water); Grant Harris et al., *Global Decline in Aggregated Migrations of Large Terrestrial Mammals*, 7 ENDANGERED SPECIES RES. 55 (2009) (studying declining migrations by evaluating conservation status of aggregations of 24 large mammals that migrate); David S. Wilcove & Martin Wikelski, *Going, Going, Gone: Is Animal Migration Disappearing?*, 6 PLOS BIOLOGY 1361 (2008) (explaining the scientific, social, and political challenges of conserving declining migration).

² Joel Berger, *The Last Mile: How to Sustain Long-Distance Migration in Mammals*, 18 CONSERVATION BIOLOGY 320, 322 tbl.1 (2004).

³ See *id.* at 320, 323 fig.2, 324.

⁴ Numerous conservation nonprofit organizations in Greater Yellowstone have programs to conserve migratory corridors. A partial, but far from complete, list includes: Greater Yellowstone Coalition's "Saving Ancient Migration Corridors," Jackson Hole Conservation Alliance's "Patagonia's Freedom to Roam," Western Governors' Association's "Wildlife Corridors Initiative," Wyoming Land Trust's "Corridor Conservation Campaign," and Wyoming Outdoor Council's "Migration Corridors." See Greater Yellowstone Coal., Pronghorn: Saving Ancient Migration Corridors, <http://greateryellowstone.org/issues/wildlife/Feature.php?id=290> (last visited Apr. 10, 2011); News Release, Jackson Hole Conservation Alliance, Conservation Alliance Obtains Grant to Advance Science-Based Planning to Protect Wildlife (Dec. 24, 2008), available at <http://www.jhalliance.org/Library/PressReleases/PatagoniaGrantPR.12-08.pdf>; W. Governors' Ass'n, Initiative on Wildlife Corridors and Crucial Habitat, http://www.westgov.org/index.php?option=com_content&view=article&id=123&Itemid=68 (last visited Apr. 10, 2011); Wyo. Land Trust, Services: Corridor Conservation Campaign, <http://wyominglandtrust.org/services-CCC.shtml> (last visited Apr. 10, 2011); Wyo. Outdoor Council, Migration Corridors, http://wyomingoutdoorcouncil.org/html/what_we_do/wildlife/migration_corridors.shtml (last visited Apr. 10, 2011).

⁵ See, e.g., Greater Yellowstone Coal., *supra* note 4; Jackson Hole Conservation Alliance, *supra* note 4; Wyo. Land Trust, *supra* note 4; see also Aaron Hohl et al., *Approaches to Large*

In the Yellowstone region, one of the highest-profile cases of migration conservation is the protection of a 340-mile (round trip) pronghorn migration from Grand Teton National Park to the Upper Green River Basin in western Wyoming. Conservationists justify the importance of this migration on three grounds. First, this movement is the longest documented terrestrial large mammal migration in North and South America (excluding barren ground caribou in Alaska and the Yukon).⁶ Second, the disruption of this migration will likely cause the localized extinction of pronghorn in Grand Teton National Park.⁷ Third, portions of the migratory corridor have been used by pronghorn for more than 6000 years.⁸

The initial conservation effort to protect this migration was plagued with controversy.⁹ Most stakeholders agreed that maintaining this migration in perpetuity is a worthwhile aspiration for the regional community.¹⁰ However, significant political conflict existed among actors on what strategies should be utilized to conserve the migration.¹¹ After five years of relative inaction, government actors and private actors separately implemented two major initiatives to conserve the migration in 2008.¹² Today, many conservationists view the protection of this migration as one of the preeminent examples of large mammal migration conservation in the world. This Article examines institutional features responsible for this qualified success story. This Article aims to identify the critical features in the conservation management creation process that allowed stakeholders to transition from political gridlock to substantive conservation of the migration.

II. PRONGHORN MIGRATION OVERVIEW

Migratory behavior in animals is difficult to distinguish from other forms of geographic dispersal.¹³ However, migrations are most easily conceived of as the seasonal movement of animals between two distinct habitats.¹⁴ This Article focuses on a seasonal migration of pronghorn

Scale Conservation: A Survey, in YALE SCH. OF FORESTRY & ENVTL. STUDIES, LARGE SCALE CONSERVATION: INTEGRATING SCIENCE, MANAGEMENT, AND POLICY IN THE COMMON INTEREST 33, 49–50 (Susan G. Clark et al. eds., 2010) (defining transboundary management).

⁶ Berger, *supra* note 2, at 323 fig.2.

⁷ Joel Berger, *Is It Acceptable to Let a Species Go Extinct in a National Park?*, 17 CONSERVATION BIOLOGY 1451, 1452 (2003).

⁸ Joel Berger, Steve L. Cain & Kim Murray Berger, *Connecting the Dots: An Invariant Migration Corridor Links the Holocene to the Present*, 2 BIOLOGY LETTERS 528, 528 (2006); see Mark E. Miller & Paul H. Saunders, *The Trappers Point Site (48SU1006): Early Archaic Adaptations and Pronghorn Procurement in the Upper Green River Basin, Wyoming*, 45 PLAINS ANTHROPOLOGIST 39, 45 (2000).

⁹ See David N. Cherney & Susan G. Clark, *The American West's Longest Large Mammal Migration: Clarifying and Securing the Common Interest*, 42 POLICY SCIS. 95, 96, 98 (2009).

¹⁰ See generally *id.* at 98–100 (explaining the attitudes of different interest groups).

¹¹ See *id.* at 101.

¹² The two initiatives are the Path of the Pronghorn and Corridor Conservation Campaign. See discussion *infra* Parts III.A–B.

¹³ See HUGH DINGLE, MIGRATION: THE BIOLOGY OF LIFE ON THE MOVE 38–39 (1996).

¹⁴ See *id.* at 38.

antelope between Grand Teton National Park and the Upper Green River Basin in western Wyoming. The pronghorn migration occurs across a heterogeneous ecological, political, and jurisdictional landscape. This Part provides a brief overview, describing critical features relevant to the conservation of the pronghorn migration.

Of Wyoming's approximately 525,000 pronghorn antelope,¹⁵ approximately 200 to 300 pronghorn summer in Grand Teton National Park.¹⁶ This population of pronghorn does not stay in Grand Teton National Park during the winter because the deep snow conditions in the park are not favorable to pronghorn survival.¹⁷ This population's migration was first documented in the 1950s,¹⁸ but concern over the future of this pronghorn population did not surface until the planning process for the Jackson Hole National Elk Refuge Environmental Impact Statement in 1999.¹⁹ During discussions over the protection of migratory elk in Teton County, Wyoming, the region's environmental community realized that this area is also home to the longest endemic land mammal migration in North America.²⁰ This migration is one of just two long-distance pronghorn migrations in the Greater Yellowstone Ecosystem.²¹

The migration begins near Jackson Hole, Wyoming, in the eastern portions of Grand Teton National Park. The terrain where pronghorn antelope reside is typified by open sagebrush habitat.²² In the fall, the pronghorn move into the Gros Ventre River Drainage in the Bridger-Teton National Forest.²³ The geography of this portion of the migratory corridor is invariant and characterized by steep rugged terrain that, at places, is no more than 100 meters wide.²⁴ Such topography is unusual for pronghorn, as they typically inhabit flat, wide-open areas where the species' exceptional eyesight and running abilities serve as a defense mechanism against predation.²⁵ The pronghorn continue their migration by entering a mix of public land owned by the Bureau of Land Management (BLM) and privately

¹⁵ WYO. GAME & FISH DEP'T, ANNUAL REPORT 2010, at A-1 (2010).

¹⁶ Berger, *supra* note 7, at 1452; Berger, Cain & Berger, *supra* note 8, at 530.

¹⁷ Berger, *supra* note 2, at 322–23.

¹⁸ See James Straley, *Western and Northwestern Wyo.*, 30 WYO. WILDLIFE 19, 19 (1966) (“The last decade has seen a major change in . . . migration patterns in the northwestern part of Wyoming.”); See also Cherney & Clark, *supra* note 9, at 97 (“In the 1950s, [the Wyoming Game and Fish Department] observed the migration's reestablishment on its own.”).

¹⁹ Cherney & Clark, *supra* note 9, at 101.

²⁰ *Id.* (quoting Interview with Anonymous Environmentalist (2004)).

²¹ P.J. White et al., *Partial Migration and Philopatry of Yellowstone Pronghorn*, 135 BIOLOGICAL CONSERVATION 502, 503 (2007).

²² *Id.* at 504.

²³ Hall Sawyer & Fred Lindzey, Wyo. Coop. Fish & Wildlife Research Unit, Jackson Hole Pronghorn Study 7 (Sept. 2000) (unpublished manuscript), available at http://www.west-inc.com/reports/jackson_prongstudy.pdf.

²⁴ *Id.* at 3; Berger, Cain & Berger, *supra* note 8, at 530. Both the migration corridor and migration are invariant. *Id.* This is the only known migratory corridor where pronghorn are physically able to migrate to Grand Teton National Park. *Id.*

²⁵ Patrick M. Lubinski, *Estimating Age and Season of Death of Pronghorn Antelope (Antilocapra americana Ord) by Means of Tooth Eruption and Wear*, 11 INT'L J. OSTEOARCHAEOLOGY 218, 220 (2001).

owned land in the Upper Green, north of Cora, Wyoming, in Sublette County.²⁶ This portion of the migratory corridor is also invariant and prone to constrictions.²⁷ At Trappers' Point National Monument near the town of Pinedale, the migratory corridor transitions to open-range and terminates in the Upper Green River Basin of Sublette and Sweetwater Counties, Wyoming.²⁸ In the basin's expansive range, the migratory pronghorn population joins 100,000 bighorn sheep, elk, mule deer, and pronghorn for the winter.²⁹

Ecological threats to the pronghorn migration fall into two major categories: obstacles and habitat destruction.³⁰ The invariant portions of the migratory corridor, where the passageways for pronghorn movement constrict, are referred to as "bottlenecks."³¹ Conservationists fear that human development within these bottlenecks could physically restrict the pronghorn migration because pronghorn antelope have trouble jumping over fences.³² The inability of pronghorn antelope to navigate past fences was documented in 1983, when several hundred migrating pronghorn died en route to their winter grounds when a newly constructed fence obstructed their migration.³³ Additionally, conservationists worry that natural gas development within the more expansive areas in the southern portion of the migratory corridor will disrupt the migration through behavioral changes.³⁴

The pronghorn summer and winter ranges provide a useful framework for understanding the socioeconomic and political landscape of this pronghorn migration. The differing socioeconomic and political perspectives are central to understanding conflict in this case. The pronghorn's summer range, Teton County, is the most liberal county in Wyoming,³⁵ and it is the

²⁶ Sawyer & Lindzey, *supra* note 23, at 20–22. Berger refers to this area as the second bottleneck. Berger, *supra* note 2, at 324.

²⁷ Berger, Cain & Berger, *supra* note 8, at 530.

²⁸ Sawyer & Lindzey, *supra* note 23, at 20, 21–22 figs.6 & 7.

²⁹ Joel Berger & Jon P. Beckmann, *Sexual Predators, Energy Development, and Conservation in Greater Yellowstone*, 24 CONSERVATION BIOLOGY 891, 893 (2010).

³⁰ See Wilcove & Wikelski, *supra* note 1, at 1361. Wilcove and Wikelski identify four general threats to migrations: habitat destruction, obstacles, overexploitation, and climate change. *Id.* There is no compelling scientific evidence that overexploitation (hunting) and climate change are major threats to the current migration.

³¹ Sawyer & Lindzey, *supra* note 23, at 20.

³² JOHN A. BYERS, BUILT FOR SPEED: A YEAR IN THE LIFE OF PRONGHORN 6 (2003); M. Douglas Scott, *Buck-and-Pole Fence Crossings by 4 Ungulate Species*, 20 WILDLIFE SOC'Y BULL. 204, 204 (1992).

³³ Dirk Johnson, *When Antelope Don't Roam Free*, N.Y. TIMES, November 18, 1988, at A16.

³⁴ JON P. BECKMANN & RENEE G. SEIDLER, WILDLIFE & ENERGY DEVELOPMENT: PRONGHORN OF THE UPPER GREEN RIVER BASIN – YEAR 4 SUMMARY 61–62 (2009); JON P. BECKMANN ET AL., WILDLIFE & ENERGY DEVELOPMENT: PRONGHORN OF THE UPPER GREEN RIVER BASIN – YEAR 3 SUMMARY 57–59 (2008).

³⁵ Teton County is the most liberal county in Wyoming as determined by voting in the 2008 presidential election. Teton County was one of only two Wyoming counties won by Democratic candidate Barack Obama. He won Teton County by the highest margin (61% Obama; 37% McCain). Teton County Precinct-by-Precinct Official Summary, Wyoming General Election – November 4, 2008, available at <http://soswy.state.wy.us/Elections/Docs/2008/08Results/General/TE-Pbp.pdf> (last

wealthiest county in the United States.³⁶ Financial investments represent the dominant form of personal income.³⁷ In contrast, the economy of the pronghorn's winter range, Sublette and Sweetwater Counties, is driven primarily by resource extraction.³⁸ Per capita income of these counties is less than half of Teton County.³⁹ Sublette and Sweetwater Counties are politically conservative⁴⁰ and ranching is central to the identity of many people in these counties. As such, the loss of ranchland is a major concern in the local politics of these counties.⁴¹ The American Farmland Trust estimates that up to 336,000 acres of ranchland in Sublette County, approximately eleven percent of the county's area, will be converted to rural housing development by 2020.⁴² The political division between the summer and winter range is also evident in the distribution of environmental nonprofit organizations along the migratory corridor. Environmental nonprofit organizations tend to lean towards Democratic ideologies.⁴³ Thirty-two environmental nonprofit organizations have an office in Teton County.⁴⁴ In contrast, only four environmental nonprofit organizations have offices in Sublette or Sweetwater Counties.⁴⁵

Despite divergences in socioeconomic status and political affiliation, consensus exists across the political spectrum that maintaining the pronghorn antelope migration in the Greater Yellowstone Ecosystem in perpetuity is a worthy goal.⁴⁶ Conflicts over conserving the migratory corridor are primarily limited to differences in defining the problem, or "problem definitions," and methods for determining which strategies are appropriate to achieve successful protection.⁴⁷ A previous study on the migration's policy process suggests that there are three major political

visited Apr. 10, 2011). This is in stark contrast to Sublette County (77% McCain; 22% Obama) and Sweetwater County (63% McCain; 35% Obama). *Id.*

³⁶ As measured by per capita income (\$132,726 in 2007). BUREAU OF ECON. ANALYSIS, LOCAL AREA PERSONAL INCOME 68 tbl.3, *available at* http://www.bea.gov/scb/pdf/2009/05%20May/0509_lapitables.pdf.

³⁷ DAVID T. TAYLOR & THOMAS FOULKE, DEP'T OF AGRIC. & APPLIED ECON., UNIV. OF WYO., TETON COUNTY, WYOMING: A SOCIO-ECONOMIC PROFILE 18 (2008).

³⁸ *Id.* at 28.

³⁹ BUREAU OF ECON. ANALYSIS, *supra* note 36, at 68 (Sublette: \$61,411; Sweetwater: \$46,195).

⁴⁰ *See Presidential Election Winner by County, supra* note 35.

⁴¹ *See* Cherney & Clark, *supra* note 9, at 100, 102.

⁴² STEVE WENGER, AM. FARMLAND TRUST, STRATEGIC RANCLAND IN THE ROCKY MOUNTAIN WEST: MAPPING THE THREATS TO PRIME RANCLAND IN SEVEN WESTERN STATES 3 (2009), *available at* <http://mmiplanning.com/bhc09/background/Docs/ag%20reports/Strategic%20Ranchland%20in%20the%20Rocky%20Mountain%20West.pdf>.

⁴³ U.S. SENATE ENV'T & PUB. WORKS COMM., POLITICAL ACTIVITY OF ENVIRONMENTAL GROUPS AND THEIR SUPPORTING FOUNDATIONS UPDATE 2008, at 23 (2008).

⁴⁴ These values were obtained by counting (by county) the number of environmental nonprofit organizations documented at The Greater Yellowstone Conservation Directory, <http://gycd.org/> (last visited Apr. 10, 2011).

⁴⁵ *Id.*

⁴⁶ Cherney & Clark, *supra* note 9, at 106.

⁴⁷ *Id.* at 98.

problem definitions asserted by stakeholders: the ecological-scientific definition, the local rights definition, and the cultural value definition.⁴⁸

The ecological-scientific definition frames the problem as a lack of formal protection for a presumed intrinsic value of migration.⁴⁹ Stakeholders who subscribe to the ecological-scientific definition suggest approaches that range from the development of a new federally protected area to a memorandum of understanding between the major federal landowners.⁵⁰ Ecological-scientific stakeholders generally advocate federal protection.⁵¹ The local rights definition frames the problem in terms of individual property rights and interests.⁵² Stakeholders representing this view assert that effective protection can occur through bottom-up informed dialogue involving landowners on the proper management of the pronghorn migration corridor.⁵³ Viewing the conservation of the pronghorn antelope migration in parallel with individual conservation management for private benefit, the local right stakeholders generally advocate the management of the pronghorn migration conservation through private individual management of private lands.⁵⁴ The cultural value definition overlaps with certain aspects of the two other definitions; the cultural value definition frames the problem as a need to maximize the conservation of the migration while concurrently imposing the least infringement on other values.⁵⁵ Similar to the ecological-scientific definition, the cultural value definition generally views the migration as having inherent value that deserves conservation. Unlike the ecological-scientific definition, the cultural value definition argues that federal action is unnecessary.⁵⁶

These differing definitions conflicted during the decision-making process, creating a decision-making bottleneck that limited the successful implementation of programs designed to conserve the migratory pronghorn population. At least three institutional factors have presented challenges for resolving political differences in this case.⁵⁷ First, there is no formal authoritative signal over which decision-making body is ultimately responsible for managing the pronghorn migration.⁵⁸ A number of governmental agencies and landowners have the ability to make controlling decisions that impact the migration.⁵⁹ For example, all landowners along the

⁴⁸ *Id.* at 98–101.

⁴⁹ *Id.* at 98.

⁵⁰ Berger, *supra* note 7, at 1452–53; see ROBERT AMENT, CTR. FOR LARGE LANDSCAPE CONSERVATION, RECENT PROGRESS ON WILDLIFE CORRIDOR AND ECOLOGICAL CONNECTIVITY POLICY IN THE UNITED STATES 2007–2010, at 4, 6, 7 (2011).

⁵¹ See Cherney & Clark, *supra* note 9, at 99; see, e.g., TOWN OF JACKSON, COMPREHENSIVE PLAN: NATURAL AND SCENIC RESOURCES 4 (Oct. 2002) (recognizing federal protection of 97% of Teton County, Wyoming).

⁵² See Cherney & Clark, *supra* note 9, at 99–100.

⁵³ See *id.* at 96, 99.

⁵⁴ See *id.* at 100.

⁵⁵ *Id.* at 100–01.

⁵⁶ *Id.*

⁵⁷ *Id.* at 103–04.

⁵⁸ See *id.* at 105.

⁵⁹ *Id.* at 104.

migratory corridor can add fencing that may impede movement. However, they are not accountable if their actions impede the migration.⁶⁰ Second, the existing forums are inadequate for stakeholders to engage each other in productive and deliberative dialogue.⁶¹ The two major forums for discussing the conservation of the pronghorn migratory corridor are the regional news media and the planning processes for agency decision making.⁶² Third, the perspectives of most participants are relatively inflexible.⁶³ Strict adherence to conflicting stakeholder problem definitions makes for little room for democratic compromise.⁶⁴

III. POLICY RESPONSES

The term “policy” frequently connotes the enactment of rules or law through governing bodies. However, such definitions are unnecessarily narrow. Policy scholar Roger Pielke, Jr. defines “policy” as “a commitment to a particular course of action.”⁶⁵ Using this broad definition, policies are not restricted to formal lawmaking bodies. Rather, this definition is synonymous with all decisions made by private and public actors.⁶⁶ The pronghorn migration requires the use of a broad definition, as decisions made by private landowners along the migration corridor are critically important to the migration’s future. Policy responses are simply changes to status quo management.

The policy sciences framework⁶⁷ suggests three broad criteria to evaluate any policy.⁶⁸ First, is the policy rational?⁶⁹ This criterion refers to the technical feasibility of achieving a desired outcome.⁷⁰ For example, the criterion could be used to determine if removing fencing is a scientifically sound solution to facilitate the movement of pronghorn. Second, is the

⁶⁰ *Id.*

⁶¹ *Id.* at 105–06.

⁶² *Id.* at 105.

⁶³ *Id.* at 103–04.

⁶⁴ *Id.* at 106.

⁶⁵ ROGER A. PIELKE, JR., *THE HONEST BROKER: MAKING SENSE OF SCIENCE IN POLICY AND POLITICS* 22 (2008).

⁶⁶ *Id.* at 26.

⁶⁷ Harold Lasswell, Myres McDougal, and collaborators developed this comprehensive style of policy analysis as a means to move away from disciplinary fragmentation by developing a framework that is contextual, problem-oriented, and multi-method. In the public policy and political context, this framework is referred to as “policy sciences.” HAROLD D. LASSWELL, *Preface to A PRE-VIEW OF POLICY SCIENCES* xiii (1971); HAROLD D. LASSWELL & MYRES S. MCDUGAL, *1 JURISPRUDENCE FOR A FREE SOCIETY: STUDIES IN LAW, SCIENCE AND POLICY* 3 (1992).

⁶⁸ TIM W. CLARK, *THE POLICY PROCESS: A PRACTICAL GUIDE FOR NATURAL RESOURCE PROFESSIONALS* 4 (2002); Tim W. Clark, *Interdisciplinary Problem Solving in Species and Ecosystem Conservation*, in *SPECIES AND ECOSYSTEM CONSERVATION: AN INTERDISCIPLINARY APPROACH* 35, 36 (Tim W. Clark et al. eds., 2001); Timothy W. Clark, Mark Wishnie & George Gorman, *An Interdisciplinary Approach to Natural Resources Conservation*, 16 *J. SUSTAINABLE FORESTRY* 161, 161 (2003).

⁶⁹ Clark, Wishnie & Gorman, *supra* note 68, at 165.

⁷⁰ *Id.* at 165–66.

policy politically practical?⁷¹ This criterion recognizes that policy solutions that are technically elegant but politically unviable will ultimately be unsuccessful in practice.⁷² One might use this criterion to judge if it is politically supportable to create a new protected area throughout the entire length of the migratory corridor. Finally, is the policy morally justified?⁷³ This criterion recognizes that policies should be congruent with the widely held beliefs of a community.⁷⁴ For example, determining whether the regional community agrees with the goal of maintaining the migration in perpetuity. This Part uses these three criteria as a broad framework to discuss the initial and current policy responses to secure the future of the migration.

The initial attempts to conserve the pronghorn migration occurred in 2002 during the planning processes for the BLM Pinedale Region Resource Management Plan, the Pinedale Anticline Environmental Impact Statement, the Johan Infill Project Environmental Impact Statement, and the Bridger-Teton National Forest's Forest Plan Revision.⁷⁵ The environmentalist community disproportionately focused on the Pinedale Region Resource Management Plan,⁷⁶ a document which set guiding principles for mineral extraction in more than 900,000 acres in western Wyoming.⁷⁷

The Pinedale Anticline in Sublette County is the second largest known natural gas reserve in the continental United States.⁷⁸ The reserve consists of approximately 40 trillion cubic feet of natural gas.⁷⁹ The wellhead value of the 20 to 25 trillion cubic feet of extractable natural gas equates to \$68 to \$85 billion in 2009 prices.⁸⁰ Environmental groups tried to influence the BLM planning process by constructing a David and Goliath story of migrating pronghorn versus the natural gas industry.⁸¹ Simultaneously, the environmental groups began a campaign to create a permanently protected

⁷¹ CLARK, *supra* note 68, at 4.

⁷² Clark, Wishnie & Gorman, *supra* note 68, at 177.

⁷³ CLARK, *supra* note 68, at 4.

⁷⁴ Clark, Wishnie & Gorman, *supra* note 68, at 178.

⁷⁵ Cherney & Clark, *supra* note 9, at 102; 67 Fed. Reg. 8700 (Feb. 25, 2002).

⁷⁶ *See generally* Cherney & Clark, *supra* note 9, 102.

⁷⁷ U.S. BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, RECORD OF DECISION AND RESOURCE MANAGEMENT PLAN FOR THE PINEDALE RESOURCE AREA 5 (1988), *available at* <http://www.blm.gov/rmpweb/Pinedale/rmp.pdf>.

⁷⁸ Nextraction Energy Corp., The Next Round of Extraction on Known Plays, <http://www.nextraction.com/projects/pinedale/> (last visited Apr. 10, 2011).

⁷⁹ Shell Oil, Wyoming – Pinedale Anticline Project Area (PAPA) – United States, http://www.shell.us/home/content/usa/aboutshell/projects_locations/wyoming/ (last visited Apr. 10, 2011).

⁸⁰ *See* Energy Info. Admin., U.S. Natural Gas Wellhead Prices (Dollars per Thousand Cubic Feet), *available at* http://www.eia.doe.gov/dnav/ng/hist_xls/N9190US3a.xls (calculating the value of natural gas by multiplying the total recoverable cubic feet estimated by Shell Oil with the Energy Information Administration's average wellhead price for 2009). However, the price of natural gas is highly variable. Using average prices from 2008, the wellhead value of the Anticline's recoverable reserve is \$159 to \$199 billion. *Id.*

⁸¹ Cherney & Clark, *supra* note 9, at 102; *see also* Ted Williams, *For a Week's Worth of Gas*, MOTHER JONES, Sept.–Oct. 2004, at 66, 70; Meredith Taylor, *Greater Yellowstone's Long-Distance Wildlife Migration Among the World's Longest . . . and Last*, WYO. OUTDOOR COUNCIL FRONTLINE REP., Summer 2003, at 11.

migration corridor through public presentations and news media.⁸² Both strategies led to significant backlash in Sublette County, where political opponents stressed the need for a local solution on both issues.⁸³

In an attempt to reduce conflict and implement a local solution, state representative Monte Olsen established the Trapper's Point Working Group (TPWG) at the behest of Shell Oil in 2003.⁸⁴ The group's purpose was to develop a collaborative agreement among divergent stakeholders on how natural gas development should proceed near Trappers Point Historical Monument to conserve migrating pronghorn and other wildlife movements. Trappers Point is the southernmost bottleneck in the migration corridor and it is of critical concern among conservationists.⁸⁵ The geography creates a natural constriction that is approximately 1.6 km wide.⁸⁶ In addition to the natural constriction, housing and commercial development has reduced the effective corridor at Trappers Point by half.⁸⁷ All three major political perspectives—ecological-scientific, local rights, and cultural value—were represented in the working group.⁸⁸ Membership in the TPWG included BLM, environmental nonprofit organizations, the fossil fuel industry, the Sublette County Commission, the Sublette Planning and Zoning Department, the Wyoming Department of Transportation, and the Wyoming Governor's Office.⁸⁹ The TPWG met four times between October 1 and December 8, 2003.⁹⁰ However, the group collapsed on December 14, 2003, when the group failed to reach a consensus by the deadline imposed by BLM.⁹¹ The TPWG was the only formal attempt at collaboration among all political groups to secure the future of the pronghorn migratory corridor.⁹² No fully inclusive collaborative groups have formed since.

When BLM unveiled its new management plan in the spring of 2007, protection of the pronghorn migration corridor appeared unlikely.

⁸² *E.g.*, Rebecca Huntington, *Migration Route Key to Teton Antelope*, JACKSON HOLE NEWS & GUIDE, Mar. 19, 2003, at 16A.

⁸³ *E.g.*, Rob Shaul, Editorial, *Greens Using Wildlife Corridors to Raise Money*, PINEDALE ROUNDUP, Oct. 9, 2003, at 4A; Noah Brenner, *Johnston Votes Against Latest Subdivision*, PINEDALE ROUNDUP, May 20, 2004, at 1A; Rhonda Swain, *Antelope Corridor Main Topic at Pinedale Council Meeting*, SUBLETTE EXAMINER, May 13, 2004, at 7A; Cherney & Clark, *supra* note 9, at 102.

⁸⁴ Rebecca Huntington, *Environmentalists: Olsen Excluded Us*, JACKSON HOLE NEWS & GUIDE, Jan. 14, 2004, at 11A; Jeff Gearino, *New Group Works to Protect Migration Corridor*, CASPER STAR TRIBUNE, Nov. 12, 2003, available at http://trib.com/news/state-and-regional/article_25c73e53-96ca-5bf0-bee5-a80bc9d0d2d2.html.

⁸⁵ Berger, *supra* note 2, at 324.

⁸⁶ Hall Sawyer, Fred Lindzey & Doug McWhirter, *Mule Deer and Pronghorn Migration in Western Wyoming*, 33 WILDLIFE SOC'Y BULL. 1266, 1271 (2005).

⁸⁷ *Id.* at 1271–72.

⁸⁸ Cherney & Clark, *supra* note 9, at 103.

⁸⁹ Wyo. Game & Fish Dep't, Trappers Point Bottleneck Conservation: Daniel Schoolhouse (Oct. 1, 2003) (unpublished meeting notes) (on file with author).

⁹⁰ Cherney & Clark, *supra* note 9, at 103.

⁹¹ *Id.*

⁹² See Letter from Monte Olsen, Representative, Wyo. House of Representatives, to Pricilla "Prill" Mecham, Field Manager, U.S. Bureau of Land Mgmt. 3 (Dec. 14, 2003) (on file with author).

Environmental groups were still pushing for the development of a permanently protected migration corridor. While this proposal was a technically proficient means for maintaining the morally justified common regional goal of securing the pronghorn migration in perpetuity, the political viability of the nonprofit organizations' strategy was failing. Contrasting natural gas development with migrating pronghorn in BLM's planning process created a narrative of wildlife versus livelihoods, alienating the cultural value community. Similarly, suggestions to create a new protected area met resistance by the local rights community.⁹³

A turn of events occurred in 2008, when two major policy responses created substantial protection for the migrating pronghorn population. These were the Path of the Pronghorn, created by a change to the forest management plan of the Bridger-Teton National Forest, and the Corridor Conservation Campaign, created by the community of Sublette County. The following Subparts discuss these innovations.

A. Path of the Pronghorn

The original vision articulated by conservationists for the Path of the Pronghorn⁹⁴ was to create a new protected area—the first ever national migration corridor—as a comprehensive means to secure the long-term viability of the migrating pronghorn population.⁹⁵ This proposal, in its most complete form, included all public and private land along the migratory corridor.⁹⁶ The major ecological threats to the migratory corridor are human development in the form of rural housing, fencing, and natural gas development.⁹⁷ From a technical standpoint there is no doubt that the most effective means of securing the migration corridor's future is by protecting the entire corridor from all forms of human development. However, the acceptability of the political criterion for the original proposal was on more tenuous grounds. The proposal was highly supported by individuals from the ecological-scientific perspective, but it was vehemently opposed by stakeholders with the local rights perspective.⁹⁸

⁹³ Cherney & Clark, *supra* note 9, at 102.

⁹⁴ The reader must keep in mind the term *Path of the Pronghorn* is used in two ways by participants involved in the migration's conservation. *Path of the Pronghorn* is used, and was originally conceived, as an expression referring to the migration in its entirety. Previously, no symbol existed beyond calling it "the migration from Grand Teton National Park to the Upper Green." However, the *Path of the Pronghorn* is also used by people in the region to describe the federal lands component of the corridor now protected by the Forest Service. The following Part uses the latter definition as a matter of expediency to differentiate federal protection from private lands conservation.

⁹⁵ See Berger, *supra* note 7, at 1452–53; Associated Press, *Antelope Migration Route Endangered by People*, BILLINGS GAZETTE, Aug. 9, 2005.

⁹⁶ See Berger, *supra* note 7, at 1452–53.

⁹⁷ Dennis Feeney et al., *Big Game Migration Corridors in Wyoming*, WYO. OPEN SPACES, April 2004, at 2, available at <http://gf.state.wy.us/downloads/pdf/habitat/BigGameMigrationCorridorsinWY.pdf>.

⁹⁸ See Daniel Glick, *End of the Road?*, SMITHSONIAN FEATURES, Jan. 2007, at 53, 56–58, available at <http://www.smithsonianmag.com/science-nature/pronghorn.html?c=y&page=3>.

On May 31, 2008, the Bridger-Teton National Forest Supervisor Kniffy Hamilton amended the forest's management plan to require that "all projects, activities, and infrastructure authorized in the designated Pronghorn Migration Corridor will be designed, timed and/or located to allow continued successful migration of the pronghorn that summer in Jackson Hole and winter in the Green River basin."⁹⁹ Additionally, Hamilton signed an agreement with the superintendent of Grand Teton National Park and the refuge manager of the Jackson Hole National Elk Refuge, which signified the importance of the migration corridor.¹⁰⁰ The local conservation community heralded this development as a major success. This policy response is now celebrated every spring at a major event in Jackson Hole, Wyoming, called the "Party for the Pronghorn."¹⁰¹ Regional citizens began referring to this change to the forest management plan as the Path of the Pronghorn.

The Path of the Pronghorn, in its current state, is widely supported by the citizens of the region.¹⁰² However, when compared to the original vision, tradeoffs are clearly evident in the policy sciences criteria. In exchange for developing a politically viable solution, the technical viability of the original proposal was diminished. The Path of the Pronghorn only applies to the portion of the corridor on the Bridger-Teton National Forest.¹⁰³ This is particularly troubling since the majority of perceived threats to the migration—rural housing and natural gas development—do not occur within the Bridger-Teton National Forest.¹⁰⁴ Additionally, Supervisor Hamilton notes:

[A]ctivities currently authorized by the Forest Service within the corridor coexist with successful migration, so changes to current activities will not be required by this amendment.

....

⁹⁹ CAROLE "KNIFFY" HAMILTON, BRIDGER-TETON NAT'L FOREST, U.S. FOREST SERV., DEP'T OF AGRIC., DECISION NOTICE & FINDING OF NO SIGNIFICANT IMPACT: PRONGHORN MIGRATION CORRIDOR FOREST PLAN AMENDMENT 1 (2008), available at http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev3_063055.pdf.

¹⁰⁰ Cory Hatch, *Preserving the Pronghorn Corridor*, JACKSON HOLE NEWS & GUIDE, Feb. 6, 2008, available at http://www.jhnewsandguide.com/print.php?art_id=2711&pid=news.

¹⁰¹ Press Release, Jackson Hole Conservation Alliance, Mandatory Air Headlines Third Annual Party for the Pronghorn 1 (May 22, 2008), available at <http://www.jhalliance.org/Library/PressReleases/PartyforPronghorn08PR.pdf>.

¹⁰² HAMILTON, *supra* note 99, at 2 (explaining that the Forest Service received 19,400 letters in support of their action, with virtually no opposition).

¹⁰³ *Id.*

¹⁰⁴ See Abby Mellinger et al., *Improving Big Game Migration Corridors in Southwest Wyoming*, WYO. OPEN SPACES, June 2010, at 1, available at <http://www.uwyo.edu/openspaces/docs/Ruckelshaus%20Institute%20Open%20Spaces.pdf> (describing the detrimental effect of expanding rural residential development and energy production on pronghorn herds in some Wyoming counties); Jordan Vana, Green River Valley Land Trust, Remarks at the 24th Biennial Pronghorn Workshop: Partnering for Pronghorns 17 (May 18–21, 2010), available at http://gf.state.wy.us/downloads/pdf/RegionalNews/BL-PHWorkProgFinal_052510.pdf (explaining that developments outside the national forest "like subdivision, fencing, roads, and commercial centers cause eight of the thirteen major threats to wildlife identified by the Wyoming Game and Fish Department").

Some conservation organizations wanted specific restrictions added to the amendment such as a decision that no oil and gas leasing be authorized in the corridor. This amendment makes no decisions about the compatibility of specific future uses with the pronghorn migration, but requires that all future uses allow continued migration.¹⁰⁵

Given that current activities within the forest boundary do not impact the migration, and no major future developments are currently planned, the development of the Path of the Pronghorn is mostly a symbolic endeavor signifying that the pronghorn migration is important to the region.¹⁰⁶ Considered in isolation from other strategies, the path is a positive, but incomplete, response to ensure the migration's future.

B. Private Lands Conservation

Since 2006, there have been several attempts to address the private lands component of this migration in the land south of the Bridger-Teton National Forest. The most organized and effective endeavor is the Corridor Conservation Campaign (CCC) initiated by the Upper Green River Valley Land Trust in 2008.¹⁰⁷ This initiative is a concerted effort by nearly thirty partner organizations to protect migratory corridors in Sublette County.¹⁰⁸ The CCC includes only two of the thirty-five environmental nonprofit organizations with an office in Teton County. The CCC is a community based initiative to secure the future of the pronghorn migration by the people of Sublette County.

Fencing on private land is a major barrier to migrating pronghorn. Woven wire and dense barbwire fences traditionally used by the livestock industry are the most hazardous obstacles.¹⁰⁹ As a means to alleviate this type of barrier, the CCC developed a goal "to create 500 miles of wildlife-friendly fencing in Sublette County by 2012."¹¹⁰ This goal is ambitious, as the average cost of re-fencing projects is \$12,000 to \$16,000 per mile.¹¹¹ Since the CCC provides this service at no cost to landowners, these projects will cost the CCC \$6 to \$8 million.¹¹² After surveying all fencing within the pronghorn corridor, the CCC converted 80 miles of fence in 2009.¹¹³ This included virtually all of the fencing on private lands between the National Forest

¹⁰⁵ HAMILTON, *supra* note 99, at 2-3.

¹⁰⁶ Hatch, *supra* note 100.

¹⁰⁷ See Wyo. Land Trust, *Wyoming Land Trust - Corridor Conservation Campaign*, <http://wyominglandtrust.org/services-CCC.shtml> (last visited Apr. 10, 2011); Vana, *supra* note 104, at 17.

¹⁰⁸ Mellinger et al., *supra* note 104, at 1, 5.

¹⁰⁹ Justin L. Harrington & Michael R. Conover, *Characteristics of Ungulate Behavior and Mortality Associated with Wire Fences*, 34 WILDLIFE SOC'Y BULL. 1295, 1301, 1304 (2006).

¹¹⁰ Mellinger et al., *supra* note 104, at 4.

¹¹¹ Wyo. Land Trust, *supra* note 107.

¹¹² Mellinger et al., *supra* note 104, at 6 (noting that the funding from CCC partners allows for the service to be provided at no cost to landowners).

¹¹³ Wyo. Land Trust, *supra* note 107.

boundary and Trappers Point Historical Monument.¹¹⁴ This action should significantly alleviate barriers to pronghorn migration caused by fencing.

Just as the Path of the Pronghorn only addresses threats on the National Forest, the private lands component only addresses a portion of the migration's total land area. In this sense, private lands conservation is also an incomplete solution. However, the CCC managed to address one of the most significant current threats to the migration. The ability of the CCC to convince private landowners to voluntarily modify nearly all fencing in the migratory corridor speaks to the political viability of this policy response. However, one significant piece is missing from the long-term technical viability. Sublette County is the fastest growing county in the state.¹¹⁵ While current fencing threats were mitigated, further land development and newly erected non-wildlife-friendly fencing may still occur on private lands. Unlike the Path of the Pronghorn, there is no formal authoritative signal requiring protection of the pronghorn migration or compliance with this goal.

IV. LESSONS FOR MIGRATION POLICY

The original proposal asserted by environmentalists—to create the world's first national migration corridor¹¹⁶—is consistent with the growing trend of conservation efforts to focus on large-scale, comprehensive protection of migratory and dispersal corridors, such as the Yellowstone to Yukon Initiative and the Wildlands Project.¹¹⁷ These types of proposals tend to focus on formal changes to bureaucratic structures, lawmaking, and scientific management; often times, they ignore contextual political and social factors necessary for long-term conservation success.¹¹⁸ Focusing on why a comprehensive solution was unattainable is a distraction from understanding the successful aspects of this case. The key question is: what were the conditioning factors that allowed for the transition between the initial efforts to conserve this migration (2002–2007) and the successful

¹¹⁴ See WYO. LAND TRUST, PHASE 1 PROGRESS MAP, available at <http://wyominglandtrust.org/documents/wltPhase1.Progress.pdf> (providing a comparative map detailing completed re-fencing projects from traditional fences to wildlife friendly within the migration corridor).

¹¹⁵ Scott Lieske & David T. Taylor, *Population Change in Wyoming: 2000–2005*, WYO. OPEN SPACES, Aug. 2007, at 1, available at http://www.uwyo.edu/openspaces/docs/WyoPopChange2000_2005.pdf.

¹¹⁶ See Berger, *supra* note 7, at 1452–53 (explaining a pronghorn migration corridor concept that would span the migratory range of the species).

¹¹⁷ See Susan G. Clark, Catherine Picard & Aaron Hohl, *Large Scale Conservation in the Common Interest: An Overview*, in LARGE SCALE CONSERVATION: INTEGRATING SCIENCE, MANAGEMENT, AND POLICY IN THE COMMON INTEREST, *supra* note 5, at 3, 4 (highlighting the Yellowstone to Yukon Initiative as an example of large scale project implementation); Aaron Hohl et al., *supra* note 5, at 33, 46 (offering the Wildlands Project as an example of eco-regional planning); see generally Susan G. Clark, Aaron Hohl & Catherine Picard, *Pursuing Large Scale Conservation in the Common Interest: A Perspective*, in LARGE SCALE CONSERVATION: INTEGRATING SCIENCE, MANAGEMENT, AND POLICY IN THE COMMON INTEREST, *supra* note 5, at 17, 18–19 (noting that large scale conservation efforts require consideration of larger spatial, temporal, and social contexts so as to plan eco-regionally).

¹¹⁸ See Hohl et al., *supra* note 5, at 42.

implementation of the Path of the Pronghorn and CCC (2008–2010)? This Part discusses two key features: symbolic politics and multiple solutions.

A. Symbolic Politics

Of Greater Yellowstone's megafauna, pronghorn antelope are among the least controversial. Large carnivores such as bears, cougars, and wolves deplete livestock and cause financial impacts to the ranching community.¹¹⁹ Similarly, non-endemic large ungulates such as elk and bison carry brucellosis, a disease that is transmissible to cattle.¹²⁰ However, these carnivore and ungulate species are charismatic and prized in the eyes of environmentalists. As a result, most large carnivores and ungulates enjoy the status of being highly-charged and controversial political symbols.¹²¹ In contrast, pronghorn antelope do not carry diseases transmissible to cattle nor are they a predator species.¹²² In Wyoming, pronghorn are a strong positive symbol for wildlife across all political perspectives.

One might ask: if pronghorn are such an uncontroversial species, then why did this case escalate to divisive political conflict and gridlock during the initial attempts to conserve its migration? The answer lies in the conflation of two issues: natural gas development and pronghorn migration conservation. As previously discussed, the initial attempts to secure the future of the pronghorn migration occurred in the context of BLM's planning processes for natural gas development.¹²³ Environmentalists pursued at least two independent goals during the planning processes: stopping natural gas development (or at least minimizing its impacts) and maintaining the pronghorn migration in perpetuity.¹²⁴ Environmentalists who were primarily concerned with the first goal developed the David and Goliath narrative of "pronghorn versus the natural gas industry" as a tool to halt natural gas

¹¹⁹ See Murray B. Rutherford & Tim W. Clark, *Coexisting with Large Carnivores: Lessons from Greater Yellowstone*, in COEXISTING WITH LARGE CARNIVORES: LESSONS FROM GREATER YELLOWSTONE 254, 256, 259–260 (Tim W. Clark, Murray B. Rutherford & Denise Casey eds., 2005).

¹²⁰ GREATER YELLOWSTONE INTERAGENCY BRUCELLOSIS COMM., WILDLIFE AND BRUCELLOSIS IN THE GREATER YELLOWSTONE AREA: AN EDUCATIONAL GUIDE FOR HUNTERS 1, available at <http://gf.state.wy.us/downloads/pdf/RegionalNews/ES-Bruc.pdf>.

¹²¹ Rutherford & Clark, *supra* note 119, at 260 (noting that predation by these large carnivores is a source of politicization); see Dylan Taylor & Tim W. Clark, *Management Context: People, Animals, and Institutions*, in COEXISTING WITH LARGE CARNIVORES: LESSONS FROM GREATER YELLOWSTONE, *supra* note 119, at 28, 34 (noting that environmentalists view large carnivores favorably, and often in very different ways than do local interests); Kurt Repanshek, *Montana Governor Asked to "Provide Leadership" in Yellowstone Bison Controversy*, NAT'L PARKS TRAVELER, May 15, 2008, available at <http://www.nationalparkstraveler.com/2008/05/montana-governor-asked-provide-leadership-yellowstone-bison-controversy> (noting the management controversies surrounding bison and environmentalist fervor in supporting bison).

¹²² KLAUS NIELSEN & J. ROBERT DUNCAN, ANIMAL BRUCELLOSIS 325 (1990) (noting that pronghorn do not carry brucellosis).

¹²³ See *supra* text accompanying notes 75–82.

¹²⁴ Cherney & Clark, *supra* note 9, at 101–02.

development, not to secure the migration route in perpetuity.¹²⁵ This narrative blurred the lines between the two issues. As a result, when the intensity of conflict over natural gas escalated, so did conflict over the pronghorn migration.¹²⁶ By tying the fate of the pronghorn migration to BLM's planning process for natural gas development in the Upper Green, the symbolic controversy over this migration escalated to the point of paralysis. The turning point occurred in 2007 when the BLM released their Draft Resource Management Plan and Pinedale Anticline Environmental Impact Statement.¹²⁷ Political conflict over natural gas development temporarily subsided as the arenas created for agency planning were terminated. With political intensity over natural gas development reduced, the Path of the Pronghorn and Corridor Conservation Campaign were implemented early the following year.¹²⁸

A second lesson to learn is the value of a positive political symbol among all stakeholders. While the Path of the Pronghorn is an important step in protecting the corridor on the Bridger-Teton National Forest, the creation of a powerful authoritative symbol is of greater value.¹²⁹ Prior to the amendments to the Bridger-Teton National Forest forest management plan, land managers were able to shirk responsibility for the migration by deferring responsibility to another jurisdiction. For example, Grand Teton National Park was initially hesitant to address the pronghorn migration due to the perceived threat of natural gas development in the pronghorn winter

¹²⁵ *Id.* at 102. Rob Shaul summarizes the attitude of many people in Sublette County when he says, "[T]he green groups didn't discover Sublette's wildlife corridors until this spring[, 2003] The environmental groups have always fought oil and gas development here. . . . They knew they needed a better argument to fight . . . and found the wildlife corridor issue." Shaul, *supra* note 83, at 4A.

¹²⁶ *E.g.*, JACKSON HOLE CONSERVATION ALLIANCE, IS IT ACCEPTABLE TO LET A SPECIES GO EXTINCT IN A NATIONAL PARK? ENERGY DEVELOPMENT IN WYOMING'S UPPER GREEN RIVER VALLEY AND HOW IT RELATES TO JACKSON HOLE 2 (2004); JANICE L. THOMSON ET AL., THE WILDERNESS SOC'Y, WILDLIFE AT A CROSSROADS: ENERGY DEVELOPMENT IN WESTERN WYOMING 20 (2005); Linda Baker & Lauren McKeever, Letter to the Editor, *How to Do It Right*, PINEDALE ROUNDUP, May 13, 2004, at 5A; Brian Maffly, *Putting the Squeeze on Pronghorn*, NAT'L WILDLIFE, April/May 2004, at 56, 58; Brian Maffly, *Where the Antelope (and the Oil Companies) Play*, HIGH COUNTRY NEWS, Aug. 18, 2003, at 6, 6; Cat Urbigkit, *Upper Green Used in Political Ploy*, SUBLETTE EXAMINER, Aug. 5, 2004, available at <http://sublette.com/examiner/v4n19/v4n19s2.htm>; Todd Wilkinson, *Drilling Where Antelope Play*, CHRISTIAN SCI. MONITOR, Apr. 13, 2005, at 1, 4; Williams, *supra* note 81, at 70.

¹²⁷ *See* Notice of Availability of a Revised Draft Supplemental Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration Development Project, Sublette County, WY, 72 Fed. Reg. 73,877, 73,877-78 (Dec. 28, 2007); U.S. BUREAU OF LAND MGMT., DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT: PINEDALE ANTICLINE OIL AND GAS EXPLORATION DEVELOPMENT PROJECT: SUBLETTE COUNTY, WYOMING at i, iii (2006).

¹²⁸ Mellinger et al., *supra* note 104, at 4.

¹²⁹ Hatch, *supra* note 100. This finding is not in contradiction with Professor Jamison Colburn's concern about creating an overarching legislated vision of the Kittatinny. *See* Jamison Colburn, 41 ENVTL. L. 619, 625-27 (2011). Rather, the pronghorn case suggests that there is high value in creating a symbolic victory (an authoritative signal) that people can rally around and that legislation is not enough to secure the conservation of animal migrations.

range.¹³⁰ The formal designation by the Bridger-Teton National Forest and informal letter of agreement between the Bridger-Teton National Forest, Grand Teton National Forest, and the Jackson Hole Elk Refuge created a sense of shared responsibility and accountability for the migration's future. These actions did not add significant substantive protection to the migration, but they created social connectivity among federal stakeholders that the conservation of the migration is important. This lesson is particularly important, since most long-distance mammal migrations transect multiple jurisdictions.

B. Parallel (Contextual) Solutions

From 2003 to 2007, political conflict centered on determining the most appropriate strategy to maintain the pronghorn migration in perpetuity: top-down legislation through the creation of a new protected area or bottom-up collaboration through informal agreements between land owners.¹³¹ When the symbolic politics deflated in 2007, a surprising political result emerged. Rather than a single solution for the migration, the two political camps pursued parallel solutions that met their interests. The Path of the Pronghorn on the Bridger-Teton National Forest created a political win for individuals who view protection as the creation of a newly protected area. The private lands conservation strategy formed a similar political win for those individuals who defined the problem in terms of local rights and cultural values. Of course, overlap existed between organizations and individuals that worked on both initiatives. However, political gridlock over which initiative should take precedent virtually disappeared.

While the previous Part treats the two solutions as individual policy alternatives, it should be evident that Path of the Pronghorn and private lands conservation strongly complement each other. From a technical standpoint, the Path of the Pronghorn halts future development within the Bridger-Teton National Forest, and the Corridor Conservation Campaign removed the major ecological threat concerning private lands. Both solutions are politically viable and highly supported by all major political groups. In contrast to finding a silver bullet to conserve migratory corridors, this case suggests that when multiple authoritative actors control land along the migration corridor, successful protection can be achieved by a portfolio of contextual solutions within each landowner's jurisdiction.

This lesson is particularly striking in reference to the Trapper's Point Working Group. The working group attempted to involve and find a single solution that met the needs of all stakeholders along the migration route for the Trappers Point bottleneck. The working group's outcome was not a

¹³⁰ *E.g.*, Whitney Royster, *Grand Teton Bites Lip on Antelope Migration*, JACKSON HOLE NEWS & GUIDE, Oct. 16, 2003, at 7A; Cherney & Clark, *supra* note 9, at 104.

¹³¹ *See* Cherney & Clark, *supra* note 9, at 101–03 (discussing “migration politics” and the conflicts among environmental advocates, natural gas developers, and agencies during the development of a migration strategy); *id.* at 107–08 (discussing top-down and bottom-up management strategies).

viable solution and it increased conflict between working group members.¹³² Rather than finding consensus on a comprehensive strategy, the Path of the Pronghorn and the Corridor Conservation Campaign demonstrate coalitions of willing participants addressing threats to the migration through solutions to which they were predisposed. Consensus among all stakeholders was not necessary.

While the parallel solutions are encouraging, it should be noted that natural gas development in the southern portion of the corridor and winter range has not been effectively addressed. In a multi-year ecological study, the Wildlife Conservation Society found “increasing pronghorn avoidance [of natural gas development] in each subsequent winter” within the migratory corridor and winter range.¹³³ Natural gas development potentially presents a major challenge to the continued conservation of pronghorn migration. Currently, no significant proposals are on the table on how to effectively address this challenge. The Wildlife Conservation Society continues to study these potential impacts in the southern portions of the migratory corridor. Finding a solution will likely require a fix that allows both the migration and natural gas development to continue.¹³⁴

V. CONCLUSION

The most technically elegant—and often inspiring—form of migratory conservation is to permanently protect corridors through comprehensive legislation. While this type of design is elegant, such efforts are unlikely to be both comprehensive and politically viable in complex political landscapes. Alternative approaches often suggest fully inclusive collaboration among diverse stakeholders to find mutually agreeable solutions.¹³⁵ While equally noble in principle, finding consensus among divergent political perspectives is no easy task. Conservationists in Greater Yellowstone herald the conservation of the pronghorn migration as a major success story, yet neither of these strategies proved successful in this case.

¹³² See Letter from Tom Darin, Jackson Hole Conservation Alliance; Lloyd Dorsey, Greater Yellowstone Coalition; Meredith Taylor, Wyoming Outdoor Council; & Linda Baker, Upper Green River Valley Coalition, to Prill Meham, Field Manager, Bureau of Land Mgmt. 1, 2 (Dec. 22, 2003) (on file with author).

¹³³ BECKMANN & SEIDLER, *supra* note 34, at 55.

¹³⁴ Roger Pielke, Jr. argues that an iron “law of climate policy” exists in the climate change politics: “when policies focused on economic growth confront policies focused on emission reduction, it is economic growth that will win out every time.” ROGER PIELKE, JR., *THE CLIMATE FIX: WHAT SCIENTISTS AND POLITICIANS WON’T TELL YOU ABOUT GLOBAL WARMING* 46 (2010).

¹³⁵ This is not an argument against collaboration. As Professor Steven Yaffee notes, most places find it “necessary to promote cooperation and collaboration.” Steven L. Yaffee, 41 *ENVTL. L.* 655, 661 (2011). Indeed, collaboration proved invaluable in conserving this pronghorn migration. However, the most effective collaborations in this case resulted from alliances among individuals who were in favor of the same solution rather than find a collaborative agreement on the best solution for all stakeholders. This was particularly effective in this case, as the parallel solutions were mutually reinforcing.

Migration conservation, at the most basic level, is about securing the free movement of wildlife. The ultimate test for any policy is action.¹³⁶ In other words, how well the policy alternative works in practice to solve the perceived problem. There is no universal method for conserving migratory species. The fact that comprehensive legislation and consensus-based collaboration did not work in this case does not invalidate these strategies in other contexts. Rather, the successful protection of this migration demonstrates that another set of tools are available for conservationists interested in the protection of animal migrations.

While actors in this migration's policy process all shared a common goal of seeing this migration occur in perpetuity, significant institutional pressures prevented the realization of this goal. On the surface, differences in philosophical orientations prevented reaching an acceptable solution. However, at least two contextual factors were critically important in allowing participants to create successful outcomes. Deflating symbolic politics of natural gas development and the creation of a universal symbol for the migration allowed stakeholders to focus on conserving the migration versus allowing the issue to be subsumed by the more controversial subject of natural gas development. Conservationists should be cautious of conflating migratory conservation with other highly controversial conservation issues. Additionally, institutional pressures reduced the scope of choice to singular policy responses (e.g., permanent top-down protection versus ad hoc bottom-up local responses). In this case, successful conservation was achieved by expanding the scope of choice to include multiple policy alternatives. Rather than focus on selecting the optimal policy response, migration conservationists would benefit by hedging through multiple policy options.

¹³⁶ See Ronald Brunner, *A Paradigm for Practice*, 39 POL'Y SCI. 135, 147 (2006).