

LESSONS LEARNED

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A blueprint for securing our energy future while
safeguarding America's sporting heritage.





If we've learned any lessons during the past few decades, perhaps the most important is that preservation of our environment is not a partisan challenge; it's common sense. Our physical health, our social happiness, and our economic well-being will be sustained only by all of us working in partnership as thoughtful, effective stewards of our natural resources.



- Ronald Reagan

*Remarks on signing the annual report of the Council on Environmental Quality, given July 11, 1984 on Theodore Roosevelt Island

It is possible.

Can energy development and healthy fish and wildlife habitat exist on the same landscape? The answer is a qualified yes.

Energy development can coexist with healthy habitat and quality hunting and angling, but it doesn't happen by chance. Responsible energy development requires careful planning and a commitment from stakeholder groups, the public and decision makers to get it right. Only through collaboration can we strike the appropriate balance. And it is critical that our public land management agencies – the Bureau of Land Management and the U.S. Forest Service – have the right policies and procedures in place to facilitate both energy development and the conservation of healthy fish and wildlife habitat.

This report profiles three landscapes: 1) an area where energy development has not been balanced with fish and wildlife habitat, 2) an example of responsible development, and 3) a place where the right approach to development in the future can maintain quality habitat and sporting opportunities.

As our country moves forward with the development of domestic energy resources, our decision makers and public land managers have a choice between policies that support responsible energy development and other multiple uses, or decisions that prioritize energy development over all other uses, leaving our public lands fragmented and their habitat degraded with diminished sporting opportunities.

The hunting and fishing businesses and organizations that have endorsed this report are committed to the former.

Energy development and fish and wildlife habitat need not be mutually exclusive, but it will take leadership and sound policy from our decision makers to strike the right balance. We hope that this report helps to achieve this goal.

This place was once a mule deer factory.

Piceance Basin

NORTHWESTERN COLORADO



Paradise lost?

Once iconic, the Piceance Basin has fallen on hard times.

The Piceance Basin in northwestern Colorado is a near picture-perfect Western landscape: rugged, rocky cliffs, sweeping sagebrush expanses, forested mountainsides and the Colorado River flowing through the bottom lands.

Along with the picturesque setting come herds of mule deer and elk, greater sage-grouse strutting on their breeding grounds and high-elevation streams with genetically pure cutthroat trout. The home of the White River deer herd in a portion of the Piceance has been called Colorado’s “mule-deer factory” because for many years the herd was one of the country’s largest.

However, it’s not clear if the title still fits. State wildlife officials estimated the herd’s size at more than

100,000 deer in the early 1980s. But recent aerial surveys and computer modeling put the herd’s population at an estimated 30,550, less than half of Colorado Parks and Wildlife’s objective of 67,500. The drop in population has affected hunting opportunities, resulting in about 75 percent fewer licenses available to sportsmen for buck hunting during rifle seasons.

Energy development, human population growth, drought and predators have all been blamed for the declines. But energy development’s footprint is big in the Piceance Basin – and likely will grow even bigger. The U.S. Geological Survey estimates the area’s Mancos Shale Formation holds 66.3 trillion cubic feet of technically recoverable natural gas, enough to heat 15 million homes for a year. The basin also holds a massive oil-shale reserve. Companies have been trying for decades to find ways to economically mine oil shale, or kerogen, that the Government Accountability Office has said could be the world’s largest crude oil resource.

A drilling boom that began in the Piceance in the early 2000s went bust when natural gas prices plummeted due to oversupply and the Great Recession. When the dust settled, there were thousands of wells, accompanying pipelines and new roads carved into mesas and hillsides. There are 2,703 wells in the area managed by the BLM’s White River Field Office, which oversees much of the Piceance. Of those, 1,796 are on BLM lands. The updated plan for the area projects another 15,000 new wells in the next 20 years. About 61 percent of the federal minerals available for leasing in the White River area has already been leased. While the BLM has tried to minimize some of these impacts in the few remaining islands of undeveloped backcountry, the landscape has been industrialized to a point where mule deer declines are inevitable.

Sportsmen and women want to see strong safeguards for public lands and comprehensive planning from the start, before leases and drill permits are approved, to ensure responsible energy development.

In a pattern repeated across the West, little consideration was given in the Piceance Basin to the cumulative impacts of drilling, the well pads, the roads, the increased traffic and resulting fragmentation of fish and wildlife habitat, or if and how those impacts could and would be managed. Fish and wildlife have too often been treated as afterthoughts.

“In the case of the Piceance Basin, we’re left trying to play catch-up when it comes to conserving one of the region’s most vital wildlife areas,” says Kate Zimmerman, the National Wildlife Federation’s public lands policy director. “It’s always tough to try to strengthen conservation measures after the fact and so much of the land in the basin has already been leased.”

Some of the steps the BLM can take for smart-from-the-start development are:

- Upfront assessment of natural resources and use of available science to inform decisions.
- Steps to avoid or minimize development impact on fish, wildlife and water resources.
- A comprehensive approach to planning rather than a piecemeal, lease-by-lease tactic.
- Early and regular involvement of diverse interests, including hunters, anglers, community members and recreationists.



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Striking the right balance on uses of our public lands is important for the overall economy. A 2014 state study found that outdoor recreation generated \$9.3 billion in economic benefits annually and supported 91,822 jobs in northwest Colorado.

Recent studies from the area show that deer alter their behavior patterns in ways that could have negative impacts to herd recovery. Increased drilling in the Piceance will heighten concerns about wildlife and the potential effects on hunting and fishing. An analysis by NWF found a dramatic decrease in the number of hunting licenses offered for bucks during the rifle seasons for the White River herd from 11,760 offered in 2005 to 2,895 offered in 2017.

Lifelong sportsman Kent Ingram, president of the Colorado Wildlife Federation, has noticed the changes. After hunting in the Piceance for decades, he now goes other places. “I don’t want to hunt places where the population numbers are low,” Ingram says. “I don’t want to add to an already stressed situation.”

Photo: Tom Koerner





A place for finding balance
Little Mountain
SOUTHWEST WYOMING



Little Mountain is on the precipice of doing it right.

The half-million acre Greater Little Mountain Area in Sweetwater County, Wyoming, holds a cross-section of the state’s culture. Within a two-hour drive from Rock Springs on backcountry roads, one will see ranchers moving cattle, hunters seeking trophy elk, mule deer, antelope and moose, anglers casting in narrow cutthroat trout streams, sport fisherman hauling their boats to Flaming Gorge reservoir, and oil and gas trucks driving to check wells.

The unique resources of the Greater Little Mountain Area, or GLMA, call for a balanced approach to land management planning. In addition to its oil and gas resources (less than 20 percent of the area is under oil and gas leases), the GLMA contains strongholds for Colorado River cutthroat trout in one of the driest and southernmost regions of its historic range. One of the most sought after hunting areas in Wyoming, the GLMA also represents the southern end of the longest

documented ungulate migration in the lower 48 states. According to Sweetwater County resident, angler and University of Wyoming student, Haley Powell, “Little Mountain is a one-of-a-kind place. The experiences I’ve had there have made me realize that this place has to be preserved for future generations, so that others may be affected by its wildness and beauty as I have.”

In Wyoming, and particularly in Sweetwater County, energy resources, including oil and gas, have long been the primary economic driver. However, area residents understand the importance of planning for responsible energy development to avoid unnecessary impacts to the GLMA, which adds economic, social and recreational value to their way of life. According to Sweetwater County Commissioner Wally Johnson, “oil and gas revenues drive much of our local economy, and we can balance that with protecting Little Mountain, which is the crown jewel of Sweetwater County.”

In 2008, a group of citizens, businesses and organizations that include the Southwest Labor Council, Steelworkers Union 13214, Muley Fanatic Founda-

tion, Trout Unlimited, Theodore Roosevelt Conservation Partnership, and the Wyoming Wildlife Federation formed the Greater Little Mountain Coalition (GLMC) to protect the area and its resources.

Members and partners, including the Wyoming Game and Fish Department and the Bureau of Land Management, have contributed more than \$4.5 million to complete habitat projects designed to conserve and enhance native cutthroat trout and big game habitat, improve grazing management and provide opportunities for hunting, angling and other outdoor recreation activities. These habitat improvements have increased angling and hunting activities, translating into an impressive \$12.7 million in total hunter expenditures in the GLMA in the last five years and \$48.4 million in angler expenditures in the GLMA and Sweetwater County.

The Rock Springs Field Office of the BLM is revising its Resource Management Plan and has proposed a Master Leasing Plan for the GLMA. A Master Leasing Plan, or MLP, would provide a balanced and well-planned approach to development. The approach has gained broad support from residents and local elected officials, including the Sweetwater County Commission and the Mayors of Rock Springs and Green River.

More specifically, the proposal allows for oil and gas leasing in the majority of the GLMA, but also promotes safeguards for important fish, wildlife and recreational values. (See www.greaterlittlemountain.org).



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- Sweetwater County resident, Haley Powell

Rock Springs resident Monte Morlock says, “Sportsmen and women support responsible, balanced use of public lands, including energy development. However, not every area is suitable for drilling because of its importance as a native trout fishery, big-game winter range or wildlife migration corridor. If development occurs, safeguards must be in place to maintain fish and wildlife populations and habitat.” The Sweetwater County Commission, in particular, supports the GLMC proposal because of the collaborative process used to create the proposal, generating input from more than 2,500 local residents and a broad array of interested stakeholder groups.

In a state where lawmakers have voiced concerns about what they see as a lack of consideration for local input on public land management being considered by federal agencies, the GLMA presents a real opportunity to showcase how Master Leasing Plans and other oil and gas leasing reforms can fulfill the goal of multiple use-sustained yield – striking a responsible balance of activities so the uses of the land can be sustained for generations to come. Here, the public has organized to identify resource conflicts at the front end of the leasing decision process and created a proposal to provide certainty to the oil and gas industry as well as hunters and anglers over the life of the new plan - a model for truly balancing multiple uses on public lands.





South Park >

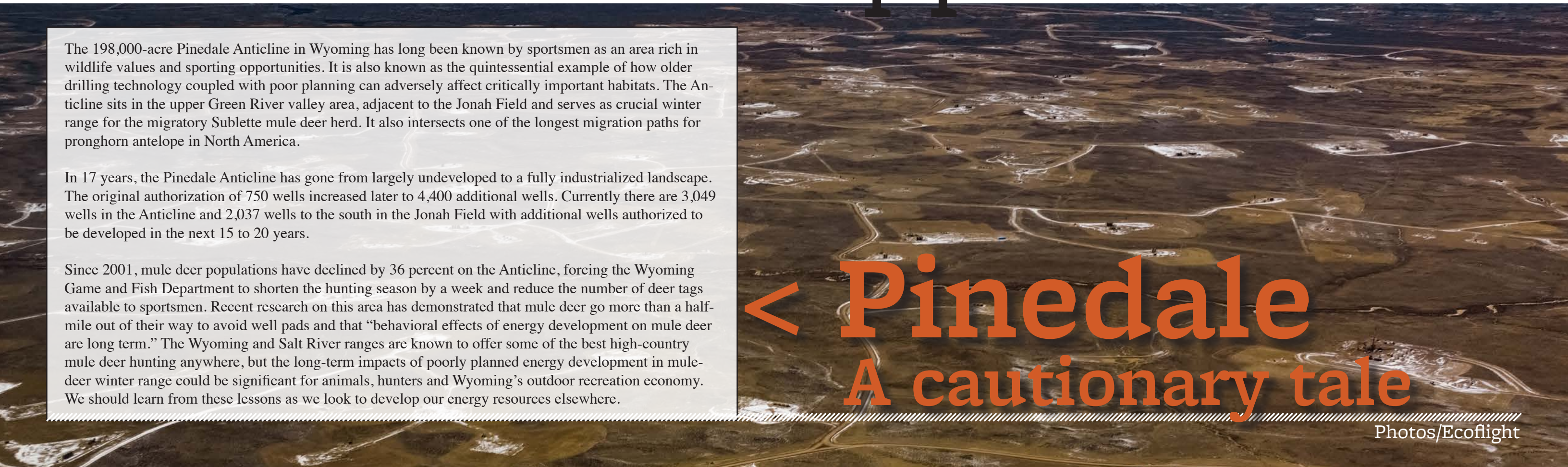
A model to follow

In the backyard of the Denver metro area lies a sportsmen's paradise of Gold Medal trout waters and high-elevation "parks" that serve as a haven for wildlife. Nestled in the headwaters of the South Platte River basin, the area known as South Park attracts visitors from around the country to fish along the "Dream Stream," known for its trophy trout and stunning Colorado scenery.

Energy development has not made inroads into this corner of Colorado — yet. But the area sits atop the Niobrara oil and gas formation and oil and gas companies have eyed South Park in the past. So, a forward-thinking group of sportsmen and women joined local government officials, businesses, water providers, and federal agency officials to plan for the future. What began as dialogue initiated by those who care deeply for the region has morphed into a collaborative planning process, bringing together diverse stakeholders to ensure energy development is done right and does not adversely affect the water and wildlife resources of the area.

The end goal is to provide certainty for all, give industry a roadmap for responsible development, increase economic opportunity and keep South Park an amazing place to fish, hunt and live. The South Park process is shaping up as a win-win solution and could serve as a model for collaborative planning.

A tale of two approaches



The 198,000-acre Pinedale Anticline in Wyoming has long been known by sportsmen as an area rich in wildlife values and sporting opportunities. It is also known as the quintessential example of how older drilling technology coupled with poor planning can adversely affect critically important habitats. The Anticline sits in the upper Green River valley area, adjacent to the Jonah Field and serves as crucial winter range for the migratory Sublette mule deer herd. It also intersects one of the longest migration paths for pronghorn antelope in North America.

In 17 years, the Pinedale Anticline has gone from largely undeveloped to a fully industrialized landscape. The original authorization of 750 wells increased later to 4,400 additional wells. Currently there are 3,049 wells in the Anticline and 2,037 wells to the south in the Jonah Field with additional wells authorized to be developed in the next 15 to 20 years.

Since 2001, mule deer populations have declined by 36 percent on the Anticline, forcing the Wyoming Game and Fish Department to shorten the hunting season by a week and reduce the number of deer tags available to sportsmen. Recent research on this area has demonstrated that mule deer go more than a half-mile out of their way to avoid well pads and that "behavioral effects of energy development on mule deer are long term." The Wyoming and Salt River ranges are known to offer some of the best high-country mule deer hunting anywhere, but the long-term impacts of poorly planned energy development in mule-deer winter range could be significant for animals, hunters and Wyoming's outdoor recreation economy. We should learn from these lessons as we look to develop our energy resources elsewhere.

< Pinedale

A cautionary tale

Photos/Ecoflight



A shared vision

Vermejo Park Ranch

NORTHERN NEW MEXICO



Photo: Amanda Johnston

This ranch provides a model for public lands.

The 585,000-acre Vermejo Park Ranch in northern New Mexico spans from the Great Plains to the Sangre de Cristo Mountains. The ranch and its surrounding landscape are known for their natural beauty, high-quality wildlife habitat, and status as a model for responsible energy development. While privately owned by Turner Enterprises, there are many lessons that lawmakers, the Bureau of Land Management, industry, other stakeholders and the public can learn from Vermejo, especially when looking to develop our energy resources responsibly on America's public lands.

Vermejo is situated in some of the finest elk country in North America, near the southern terminus of the Rocky Mountains, with the Carson National Forest to the west and private land to the east. Between 8,000

and 10,000 elk live on the ranch, as do mule deer, pronghorn, bighorn sheep, and Rio Grande cutthroat trout. The property is primarily managed as a guest ranch where hunting, fishing, hiking, biking, Nordic skiing, horseback riding, and other activities are the primary uses. The ranch is known for trophy bulls and scenic vistas, and its business model depends on the area's world-class natural amenities.

Vermejo is also rich with natural gas—972 producing coalbed methane wells are scattered across the ranch. To preserve the land's character, wildlife habitat, and guest services, park managers and Atlas Resource Partners, L.P., the energy company that owns the oil and gas rights, have established a Mineral Extraction Agreement.

“We have established a shared vision with an energy company that is focused on developing energy resources while protecting the world-class wildlife habitat and natural amenities of Vermejo,” says Gus Holm, Vermejo Park Ranch manager. “I hope that the lessons learned and examples set here can be applied

to public lands where similar opportunities for responsible development exist.”

The goal is to develop and implement an approach for energy development on the ranch that both enables extraction and protects the ranch's natural resources and amenities. This shared vision has shaped the model energy development project since 1998. Among the stipulations in the agreement and development plan between Atlas Resource Partners and Vermejo are:

- About one-third of the property is closed to development to protect areas of special sensitivity.
- There is a limit on the total number of wells and pads that can be producing at any one time, limiting the overall footprint for development.
- Well spacing is limited to one well per 160 acres.
- Impacts to the scenic views are minimized by siting wells carefully.
- At the conclusion of the project, all surface features, wells, and compressors will be removed from the property.
- A reclamation bond is required for an amount equal to 125 percent of Atlas Resource Partners' total reclamation responsibilities.

Although privately-owned, lessons from this project can be applied across the West. Many areas of BLM land in states like Wyoming, Colorado, and Utah possess similarly important scenic and wildlife values, and they also hold rich reserves of oil and natural gas.

If oil and gas development is proposed for landscapes where the wildlife and recreation values are high, sportsmen and women expect federal land management agencies to work closely with stakeholders to find a shared vision. For this to happen, the BLM must do thorough upfront planning that plots a clear path for development to be balanced with other resources that are equally important for the American public.



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- Gus Holm, Vermejo Park Ranch manager.



Responsible Energy Development GUIDELINES

Hunters and anglers recognize that our country needs energy and we know it is possible to develop resources and protect vital fish and wildlife habitat at the same time. These principles will help to facilitate responsible energy development and ensure that quality opportunities to hunt and fish on public lands are sustained long into the future.

1. The public lands that hunters and anglers depend upon shall remain in the public domain for the use of future generations.
2. Hunters and anglers must have a voice in decisions affecting energy development on public lands.
3. Public lands should be managed for multiple uses, including high-quality habitat and hunting and fishing.
4. Energy development shall not adversely affect water resources that are essential to human health and vital to fish and wildlife.
5. Responsible energy development must include assessment and planning to avoid or minimize potential adverse impacts to fish, wildlife, and water resources.
6. Lands not suitable for energy development should be off limits – this includes essential fish and wildlife habitat and sensitive backcountry lands.
7. Energy development must comply with standards, guidelines, best management practices, and applicable laws and regulations put in place to minimize potential for adverse impacts of development on fish, wildlife, and people.
8. Energy developers must mitigate unavoidable or unforeseen impacts to fish and wildlife habitat associated with energy development on public lands.
9. All sectors of the energy industry shall pay their fair share for habitat mitigation and restoration on public lands that are impacted by development.
10. Federal land management agencies should have adequate funding to ensure the long-term health of fish and wildlife habitat and water resources in the face of energy development.

