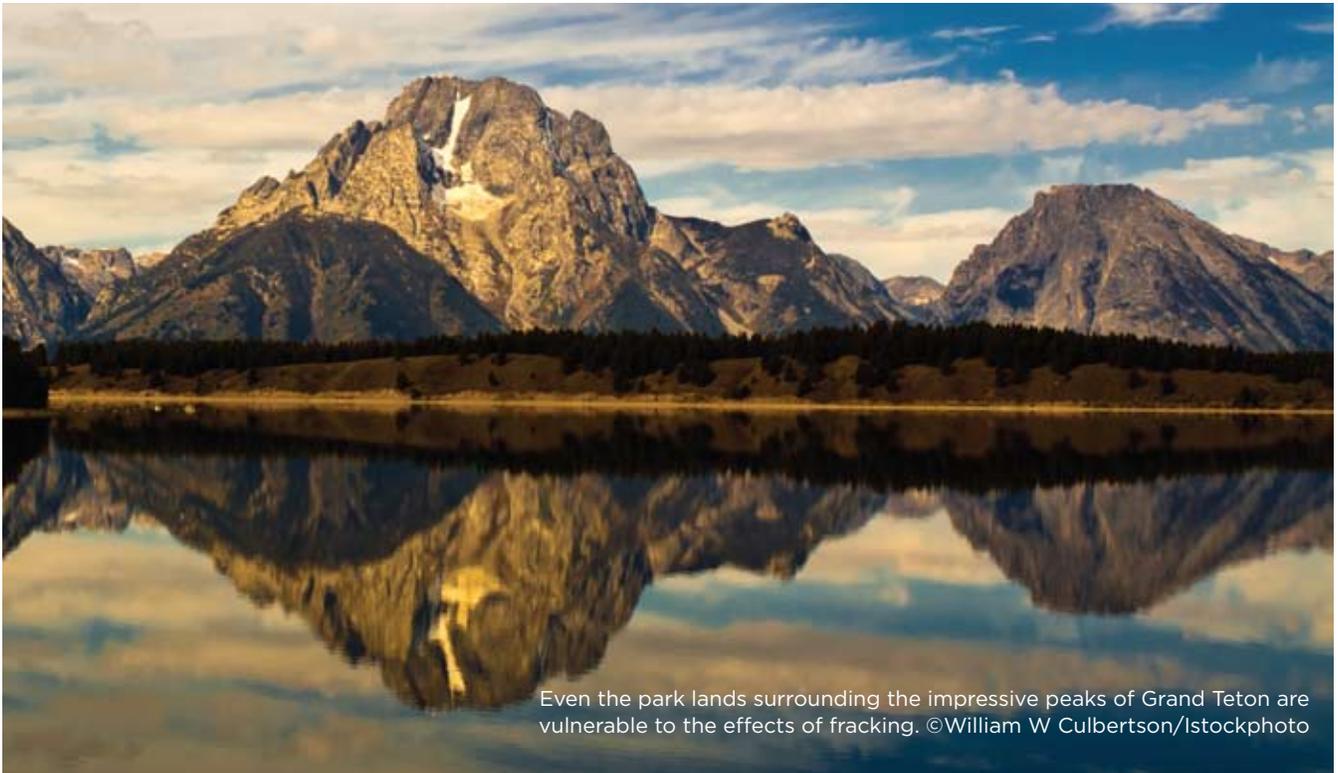


National Parks and Hydraulic Fracturing

BALANCING ENERGY NEEDS, NATURE, AND AMERICA'S NATIONAL HERITAGE



Grand Teton National Park, Wyoming



Even the park lands surrounding the impressive peaks of Grand Teton are vulnerable to the effects of fracking. ©William W Culbertson/Istockphoto

Grand Teton National Park may seem removed from ongoing energy development. After all, natural gas extraction using hydraulic fracturing is currently taking place 50 to 100 miles from the park. However, it's possible that these activities could encroach onto lands located closer to Grand Teton. And because some of the effects of concentrated drilling (whether by conventional methods or by fracking) are regional rather than local, impacts from existing projects could compromise the park's air quality and wildlife migration patterns.

What's At Stake

The Teton Range of western Wyoming is as impressive as it is surprising. Driving west through Wyoming's high plains, the terrain is relatively flat, save for an occasional butte. Suddenly, the Teton Range erupts from the landscape, and the visitor's response is a mixture of shock ("where did those mountains

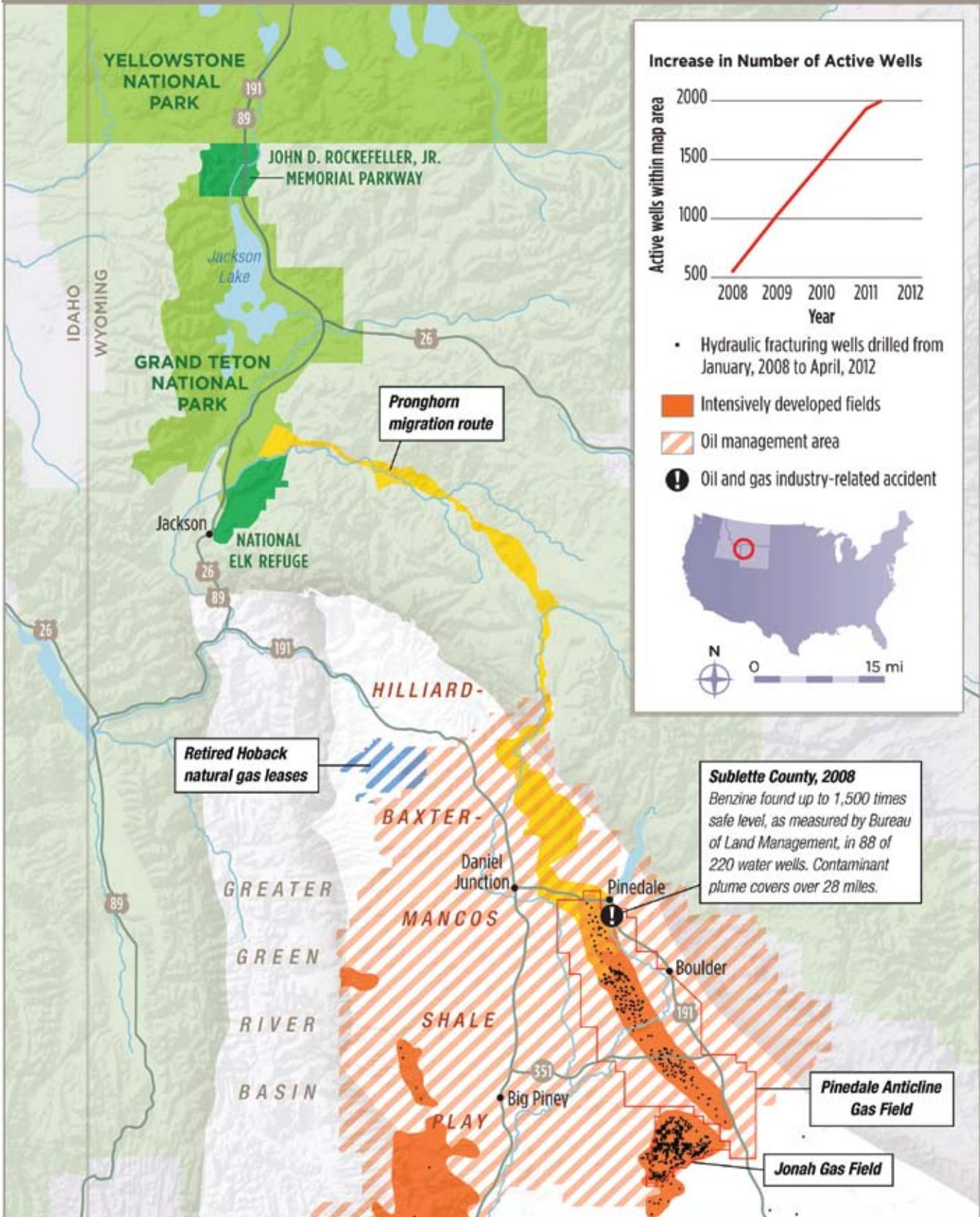
come from?") and awe ("how amazing!").

Grand Teton National Park ranges from the sagebrush valley floor at 6,320 feet above sea level to the tip of Grand Teton at 13,770 feet. These mountains (which are snow-capped for much of the year) drain into the icy rivers and alpine lakes to the east, and then give way to

the alluvial plain of the Snake River and its tributaries. Federally managed national forest and wilderness lands surround most of the park.

Human settlement here dates back to the paleo-Indians.¹ John Colter may have been the first Euro-American to visit this place, but following him were

Fracking Near Grand Teton National Park (WY)



Sources: BLM; EIA; NPS; WY Oil and Gas Conservation Commission

the “mountain men” who came looking for wealth through the fur trade.² The animal pelts they sought offer evidence of the rich diversity of animal life—something Grand Teton is still known for today.

Black bears, grizzly bears, mountain lions, and even the occasional gray wolf are hallmarks of the park’s fauna, and large-bodied herbivores such as bison, elk, moose, and pronghorn antelope also inhabit the park.³ The diverse fauna indicate a relatively intact ecosystem, one known for its plant diversity (more than 1,000 species of vascular plants are found here)⁴ and vibrant ecosystems: Glacial moraines, alpine lakes, sheer mountain cliffs and valley-floor wetlands make Grand Teton one of the most dramatic landscapes in the American West.⁵ So it’s hardly surprising that Grand Teton National Park averages 2.5 million recreational visitors each year.⁶

Fracking and Park Resources

Wyoming is currently witnessing a boom in natural gas development, centered in the Hilliard-Baxter-Mancos shale play of the Greater Green River Basin. Here, on the Pinedale Anticline, an explosion of natural gas activity has resulted in 992 current wells located between 50 and 100 miles from Grand Teton National Park, with 4,399 additional wells approved and not yet drilled.

But other areas located closer to the park could soon attract energy develop-

ment. One such area is a 58,000-acre tract of land in the Hoback Basin of the Wyoming Range.⁷ A recent arrangement brokered by the Trust for Public Land will purchase—and ultimately retire—the oil and gas leases from Plains Exploration & Production Company. This negotiation would preclude drilling on lands adjacent to the Gros Ventre Wilderness (managed by the U.S. Forest Service) and drained by the Hoback River, a tributary of the Snake River, the primary waterway that runs through Grand Teton National Park. So although much of Wyoming’s current natural gas development is relatively far from Grand Teton, efforts to protect the park from advancing exploration and cumulative air quality degradation are crucial.

Oil and gas development has already destroyed or fragmented much of the scrub sagebrush habitat that once covered large swaths of Wyoming. The wildlife that uses these habitats, such as the greater sage-grouse and the mule deer, have experienced sharp population declines as a result of the habitat loss, fragmentation, and disruption to migration corridors. Many migratory herbivores, such as pronghorn, travel through the southwestern part of Wyoming, moving from summer ranges in the park to winter ranges and back again,⁸ and gas development (like the kind now occurring in the Pinedale Anticline area) has interfered with migrations and been detrimental to herbivore populations. The pronghorns’

path from the Upper Green River Valley has been blocked by bottlenecks created by energy field development, roads that service oil and gas pads, and residential and commercial development linked to the natural gas boom. These bottlenecks threaten the pronghorns’ migration into Grand Teton National Park.

Furthermore, evidence suggests that pollution from the concentrated gas drilling operations in the Pinedale area is associated with regional ozone problems during the winter, including spikes in ozone observed in Jackson,



Wyoming (Grand Teton’s gateway town). While the exact cause of these ozone problems is undetermined, the growing air quality problems raise a concern for Grand Teton. Increased ozone pollution from concentrated gas fields is known to have damaged sensitive plant species in and around national parks, and could cause acute respiratory problems for employees and visitors at Grand Teton.

Above: Abundant wildlife, including top predators like the gray wolf, are a testament to the park’s current healthy ecosystem. ©Nathan Hobbs/ISTOCKPHOTO

1. <http://www.nps.gov/grte/historyculture/cultural.htm>, accessed 10/19/2012

2. Ibid.

3. <http://www.nps.gov/grte/naturescience/upload/mammal.pdf>, accessed 10/19/2012

4. <http://www.nps.gov/grte/naturescience/plants.htm>, accessed 10/19/2012

5. <http://www.nps.gov/grte/naturescience/naturalfeaturesandecosystems.htm>, accessed 10/19/2012

6. [https://irma.nps.gov/Stats/SSRSReports/Park%20Specific%207%20Reports/Annual%20Park%20Visitation%20\(All%20Years\)?Park=GRTE](https://irma.nps.gov/Stats/SSRSReports/Park%20Specific%207%20Reports/Annual%20Park%20Visitation%20(All%20Years)?Park=GRTE), accessed 9/10/2012

7. PR Newswire, “Agreement reached to prevent drilling in Hoback Basin,” Oct 5, 2012.

8. WLCI researchers employ new approaches to help managers conserve deer migrations. USGS. http://pubs.usgs.gov/wlci/fs/2/WLCI_fs_2.pdf, accessed 10/19/2012



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