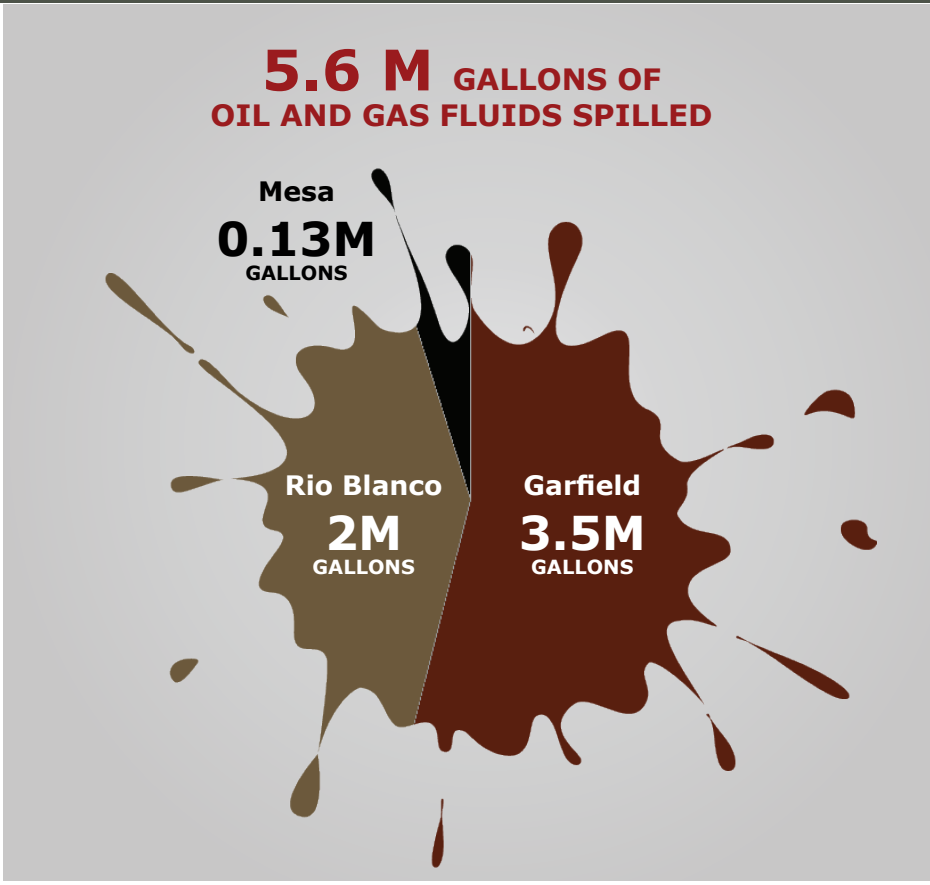
# Nearly 100 spills reported every year in Piceance Basin

## Millions of gallons of oil and gas fluids spilled in prized hunting and fishing area

Wildlife and wildlife habitat in Colorado prized by generations of hunters and anglers has been tainted by oil and gas wastewater spills, according to a new analysis by Bull Moose Sportsmen's Alliance, a national sportsmen group.

Oil and gas companies operating in Garfield, Rio Blanco and Mesa counties in northwest Colorado have reported nearly 1,000 spills, that released about 5.6 million gallons of wastewater, oil, and other fluids and chemicals from 2001 to 2010, an analysis of state oil and gas spill data reveals. Less than half of the spilled fluids during that 10-year period were ever recovered. The analysis also reveals that groundwater and surface water have been tainted in at least 77 separate spills in the three counties.

The review of Colorado oil and gas spill data, which is available online at http://cogcc.state.co.us unlike other states, comes at a time when the president has announced a renewed focus on energy development, Congress is considering legislation to open more public lands to oil and gas development, and hunters and anglers across the West are preparing summer plans to visit favorite hunting and fishing grounds.

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## Other key statistics the Bull Moose Sportsmen's Alliance found in its review of online records available from the Colorado Oil and Gas Conservation Commission include:

- Oil and gas companies reported 992 oil and gas spills from 2001 to 2010. Those spills released at least 5.6 million gallons of wastewater, oil and other chemicals and fluids.
- Operators in Garfield County – the epicenter of a natural gas drilling boom in the last decade – reported 535 spills reported to state regulators from 2001 to 2010. Those releases spilled about 3.5 million gallons of oil and gas fluids. Nearly 2 million gallons were unrecovered and remain on the landscapes of the county.
- Garfield County also recorded the highest amount of oil and gas spills and releases that tainted surface and groundwater. In 10 years, incidents have infiltrated surface water at least 45 times and groundwater 11 times.
- Wastewater from oil and gas operations accounts for the vast majority of spilled fluids in the three counties. About 91 percent of the oil and gas fluids spilled in the three counties from 2001 to 2010 was wastewater, which is also known as produced water. That water can contain salt, oil and grease, along with naturally occurring radioactive material and inorganic and organic compounds.
- Equipment failure was the leading cause for spills in Garfield, Rio Blanco and Mesa counties with at least 49 percent of the 992 spills were caused by faulty equipment. Human error caused at least 23 percent of the spills, according to the analysis.

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## Public lands provide critical areas for hunting, fishing

In the West, outdoor and wildlife recreation is a way of life, and our outdoor heritage is dependent on thriving populations of wildlife and the habitat that supports them. Hunting, angling, and wildlife related recreation accounts for the second largest tourism industry in the state of Colorado representing over $3 million annually and 34,100 full time jobs (source: Colorado Division of Wildlife). Annual spending by Colorado sportsmen is 2.5 times more than the combined revenues of the Colorado Rockies, the Denver Broncos and the Denver Nuggets ($1.2 billion vs. $463 million), according to a study conducted by the Congressional Sportsmen's Foundation.

In Garfield, Rio Blanco and Mesa counties, hunting and angling activity generates nearly $40 million each year and provides full-time employment for 1,800 people (source: Colorado Division of Wildlife).

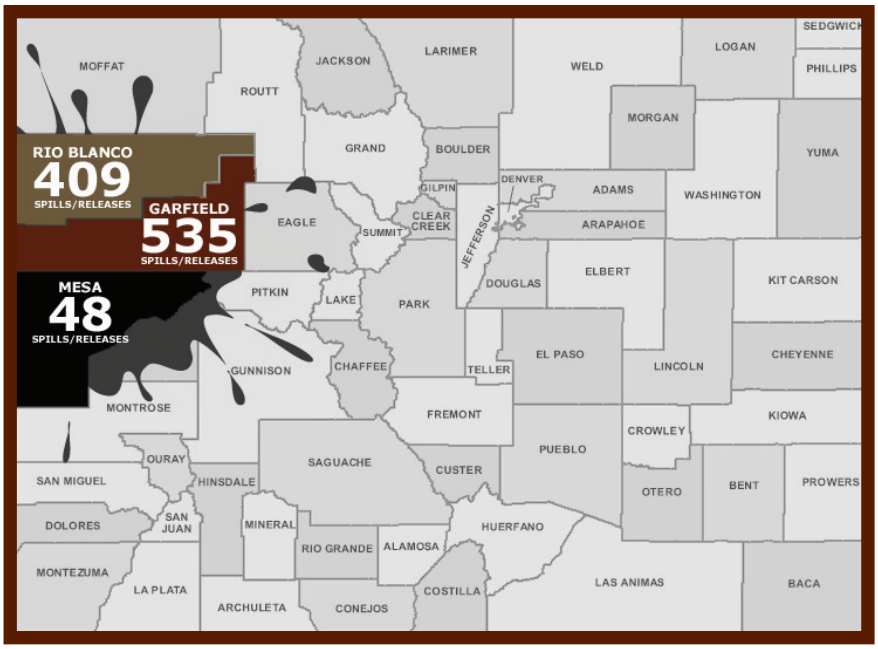
### Estimated Hunting and Fishing Economic Impacts by County

| County | Direct Expenditures | Total Impact | Jobs |
|---|---|---|---|
| Garfield | $30M | $53.1M | 690 |
| Rio Blanco | $32.6M | $58.1M | 750 |
| Mesa | $16.3M | $28.4 | 360 |

The concern about energy development impacts to hunting and angling is that some of the most target rich environments for natural resource extraction also happen to contain some of the richest wildlife populations. If the number of locations and the quality of wildlife recreation experiences decline, so does the number of hunters and anglers. A decline in hunting and angling spells trouble for the economy and wildlife management.

# 992 SPILLS

**REPORTED TO STATE REGULATORS**

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## Economic impact of hunting and fishing more consistent, sustainable than oil and gas drilling

Garfield, Rio Blanco, and Mesa counties are home to the largest populations of migratory elk and mule deer herds in North America[1]. The Piceance Basin is also home to the native Colorado cutthroat trout, an indigenous species of trout found only in clean and cold water streams and revered by anglers across the nation.

As increasing demand for energy production leads to further development of our natural resources, additional pressure is put on our wildlife and their habitat. As development continues, sportsmen and women across Colorado want adequate regulations and best management practices to protect wildlife habitat, our outdoor heritage, and the economies that depend on them.

Studies by Trout Unlimited, the Theodore Roosevelt Conservation Partnership, and others have indicated that energy production associated with the extraction of our natural resources could pose irreparable harm to wildlife and habitat if not done responsibly.

Fragmentation of the migration corridors of migratory deer and elk herds associated with active energy production can reduce the ability of deer and elk to reach critical winter breeding grounds. In the case of cold water fisheries, the development of wells and the construction of roads associated with energy production can lead to increased sedimentation buildup in streams and impact critical spawning areas. Development can also lead to increases in water temperatures which impacts trout populations.

[1]The White River elk herd (E6) migrates from Flattops Wilderness Area to the Piceance Basin and is the largest migratory elk heard in the nation. Following closely behind as the second largest migratory elk hear in the nation is the Bears Ears heard (E2) migrating from Bears Ears to Maybell.

# MORE FACTS

### TOTAL FLUIDS SPILLED AND RECOVERED

| County | Spilled (gallons) | Recovered | Unrecovered |
|---|---|---|---|
| Garfield | 3,484,950 | 1,512,420 | 1,972,530 |
| Rio Blanco | 2,003,106 | 1,436,484 | 566,622 |
| Mesa | 130,200 | 113,736 | 16,464 |

### SPILLS TAINTING SURFACE AND GROUNDWATER

| County | Spills Tainting Surface Water | Spills Tainting Ground Water |
|---|---|---|
| Garfield | 45 | 11 |
| Rio Blanco | 10 | 2 |
| Mesa | 5 | 4 |

### WHAT SPILLED AND HOW MUCH OF IT WAS RELEASED?

| County | Oil Spilled | Water Spilled | Other Spilled | Total |
|---|---|---|---|---|
| Garfield | 213,738 | 3,147,942 | 123,270 | 3,484,950 |
| Rio Blanco | 135,282 | 1,865,892 | 1,932 | 2,003,106 |
| Mesa | 4,368 | 113,652 | 12,180 | 130,200 |

### WHAT WERE THE MAJOR CAUSES OF THE SPILLS?

| County | Equipment Failure | % Of All Spills | Human Error | % Of All Spills |
|---|---|---|---|---|
| Garfield | 208 | 38.8 % | 189 | 35.3 % |
| Rio Blanco | 270 | 66 % | 33 | 8 % |
| Mesa | 14 | 28 % | 11 | 22.2 % |

## Methodology

Bull Moose conducted its analysis by reviewing oil and gas spill and release reports that companies submitted to the Colorado Oil and Gas Conservation Commission and are accessible to the public online[1]. The analysis included spill reports from Garfield, Rio Blanco and Mesa counties from 2001 to 2010. Data collected from each spill report includes: total amount of oil, wastewater and other fluids spilled, amounts recovered, and cause of the spill (all spills reported measurements in barrels, which were converted to gallons).

In many instances, the state database contained duplicates and every effort was made to remove duplicate data. It should be noted this analysis looked broadly oil and gas spills and that addditional analysis will be needed to understand the cumulative impacts on wildlife, wildlife habitat and local communities of the hundreds of oil and gas spills that are occurring annually in Garfield, Rio Blanco and Mesa counties.

[1] *The Denver Post* and the *Oil and Gas Accountability Project* have conducted similar analyses of oil and gas spills in Colorado. The *Post's* report is here and the *Oil and Gas Accountability Project's* analysis is here.

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