

# TOURISM AND RECREATION AND COALBED METHANE (CBM) PRODUCED WATER IN LAS ANIMAS COUNTY

## RECREATION SNAPSHOT

Las Animas County is home to numerous public and private properties that support recreational activities:

- Trinidad Lake State Park
- Bosque del Oso, Spanish Peaks, North Lake and other State Wildlife Areas
- North Lake and the Purgatoire River
- Forest Service land
- Hill Ranch, Tercio Ranch, Twin Peaks Ranch and other private properties

Recreational activity within the County includes:

- Over 100,000 fishing days
- Over 22,000 big game hunting days
- Over 58,000 wildlife watching days

*Trinidad Lake State Park* - More than 120,000 people visit and recreate at Trinidad Lake State Park each year, with over 84,000 people participating in water-based activities (fishing, boating, and water-skiing). Others enjoying water-side picnicking and hiking.

*Fishing* - The Purgatoire River, including the North and South Forks, provide suitable aquatic habitat for a variety of small and large fish species, including trout, bass, perch, chub, sunfish and minnows, among others. Fishing also occurs in local ponds and lakes throughout the area, including Trinidad Lake, North Lake and Monument Lake.

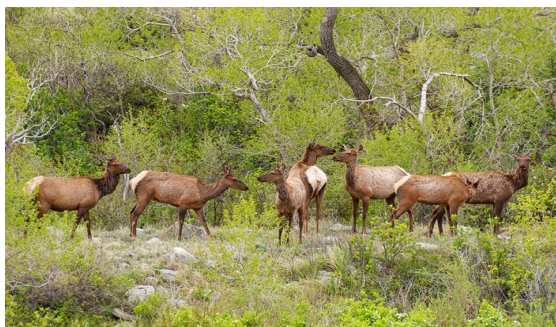
*Hunting* - The watershed is home to 18,000 elk, the second largest herd in Colorado. This resource is managed for high quality hunting by the Division of Wildlife. Other important game species include bear, deer, turkey and mountain lion.



*Wildlife watching* - Numerous large and small game, waterfowl and bird species, including quail, dove and pheasant reside in Las Animas County.

### *Economic Benefits*

Tourism and recreational activity created more than 700 direct jobs in Las Animas County in 2011 (about 9% of total county employment) and is responsible for more than \$9.6 million in direct personal income (about 5% of total countywide wages). The County reported over \$30 million in recreation-related retail sales in 2011, which accounted for about 10% of the county's total retail sales.



Recreational Spending		
Activity	Per Person Per Day	Total Contribution to the Las Animas County Economy
Fishing	\$74	\$13.3 million
Hunting	\$140	\$8.0 million
Wildlife Watching	\$80	\$8.1 million
<b>Total</b>		<b>\$29.4 million</b>

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## *CBM Water Production*

Between 7,000 and 8,000 acre-feet of CBM produced water is discharged into Purgatoire River tributaries each year, resulting in about 4,000 acre-feet of water contributed to the mainstem of the Purgatoire River (about 8% of total annual flow). Discharge points provide many otherwise dry Purgatoire River tributaries with high quality CBM water.



## *CBM Water Benefits Wildlife and Hunting*

CBM produced water creates wildlife watering holes and helps disperse elk and other wildlife species throughout the area. As a year-round water source, available CBM water affects the type, density and location of various wildlife species as well as the quality of the available wildlife habitat, especially during drought years. According to some outfitters, **the availability of CBM water in the western portion of the Purgatoire watershed results in better quality hunting experiences**, in terms of the availability and distribution of game species, as well as the health and quality of the animals. **CBM water supports up to \$3.7 million of hunting activity in Las Animas County annually.**

## *Other Recreational Benefits of Produced Water*

CBM water adds to the visual aesthetic of the area and creates year round wildlife and aquatic habitat, all of which support a wide variety of touristic and recreational activity. These

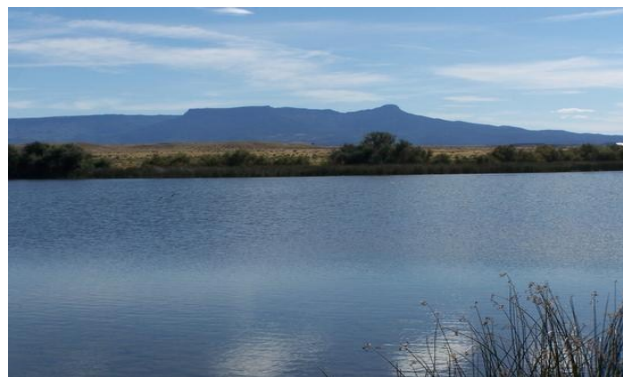
activities generate retail sales revenue and sales tax receipts for Las Animas County businesses, municipalities and county government. There is also a direct correlation between water levels in Trinidad Lake and park visitation. **The addition of CBM water in Trinidad Lake contributes about \$730,000 in total local visitor spending to the County's economy.**

## *Future of CBM Produced Water*

The Raton Basin has an estimated 20 to 40 years of productive life remaining. The pace and amount of annual CBM extraction and water production depends on:

- ◆ Gas prices – natural gas prices are volatile
- ◆ Production costs, including drilling, materials and transportation costs
- ◆ Costs of produced water treatment and injection

Regulation of produced water impacts disposal costs and affects the scale of gas and water production. Changes in permit limits or other regulations could result in re-injection of all CBM produced water in the County or the shutting in of some wells.



Sources: Harvey Economics obtained data and information from federal and state agencies, CBM operators and interviews with local groups and landowners.