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Via Email to WRNFoilandgascomments@fscomments.org

Scott Fitzwilliams, Forest Supervisor
White River National Forest – Oil and Gas Leasing DEIS
P.O. Box 1919
Sacramento, CA 95812

Re: Pitkin County Comments on WRNF Oil & Gas Leasing DEIS

Dear Scott:

Thank you for the opportunity to comment on the White River National Forest Oil and Gas Leasing Draft Environmental Impact Statement. I write on behalf of the Board of County Commissioners of Pitkin County. The following comments relate to those portions of the White River National Forest within the territorial boundaries of Pitkin County.

The County recognizes and appreciates the intensity and volume of effort that goes into an analysis like the DEIS. The County offers these comments in the spirit of further improving that analysis, and looks forward to its continuing partnership with the Forest Service—who we refer to variously as the "Service" and "USFS" herein—on this and the many other issues in which we have shared interests.

Pitkin County believes that pressures on public lands created by new hydrocarbon recovery technologies require the Service and BLM to take an especially hard look at what areas are—and are not—appropriate for oil and gas leasing. In light of the United States' vast unconventional hydrocarbon resources, the Service has the opportunity to both advance American energy independence and make intelligent siting decisions that avoid conflicts between hydrocarbon development and other economic and community values. We support the Service's proposal to close most of the WRNF in Pitkin County to future oil and gas leasing. Moreoever, like our partner jurisdictions in Gunnison and Garfield Counties, we also support the efforts of the Thompson Divide Coalition to close lands in the Divide to future leasing. Consequently, we urge the Service to provide for no future oil and gas leasing in the Thompson Divide area, and other lands in the Crystal and Roaring Fork River watersheds within Pitkin County.

The County agrees that there is, to use the Service's words, a "clear need" for an updated analysis of oil and gas leasing on the WRNF. The 1993 Oil and Gas EIS and 2002 LRMP are sorely out of date in a world of unconventional oil and gas resources, and the DEIS rightly observes that the level of oil and gas activity on the forest has surged in recent years.

The County is concerned, however, that inconsistent assumptions underlying the four alternatives give rise to a DEIS that repeatedly tells the public future oil and gas development has less environmental and community impact than no development at all. The fallacy may be most vividly illustrated on page 2-74, which indicates that prohibiting future leasing under Alternative B will generate two times more oil and gas jobs and income than allowing future leasing under Alternative C. Such a proposition answers itself. We view this as a fundamental flaw that requires further revisions to the DEIS and reissuance of a new draft that compares, in an unbiased way, future development against the absence of future development.

Alternatives C and D are predicated on the assumption that all existing leases in Pitkin County will expire at the end of their primary terms, with no suspensions or other extensions. The County supports this outcome. Indeed, the vast majority of these leases were issued in violation of both the 2001 Roadless Rule and NEPA. When confronted with this reality in the past, the BLM withdrew and canceled leases with identical deficiencies. *See* Ex. 8 (8/12/2009 BLM Withdrawal and Cancellation Letter to Encana). Thus, the County believes there are strong grounds for the assumption that Alternatives C and D propose. But the Service makes no concrete commitments regarding how that will occur. The County urges the Service and BLM to identify and implement without delay concrete steps to allow such illegal leases to expire. In that event, Alternatives C and D would in fact be predicated on reasonable assumptions. Until such concrete evidence is in hand, however, it would appear that the assumptions underlying Alternatives C and D are unrealistic, arbitrary and capricious.

The comments below highlight the serious impacts on water, air, wildlife, traffic and existing businesses that the DEIS admits are in store if future leasing proceeds. These include serious risks to water quality and quantity in a region that includes Wild & Scenic-eligible streams and serves as a recharge zone for numerous aquifers; noticeable deterioration of visibility in air surrounding our wilderness and ski areas; violations of air quality standards for ozone, a pollutant that is particularly harmful to human health; serious disruptions of elk, deer, moose, lynx, native trout and other wildlife habitat in an area that the District Manager of Colorado Parks & Wildlife believes should be closed to drilling; doubling of traffic counts on rural Pitkin County roads; and destruction of jobs in sustainable businesses like hunting and ranching. And the foregoing list is truly just a summary, for one simple reason: oil and gas development is incompatible with the high-value existing uses in this area.

What weighs against those severe impacts? According to the DEIS, the gas resource in Pitkin County is so insignificant that projected royalty revenues to Pitkin County are not even mentioned. It appears that the total annual royalties from the entirety of the WRNF to all local governments from, for example, Alternative C, would be $155,000. *See* DEIS at 3-276. The DEIS indicates that these royalties from oil and gas development on the WRNF would amount to .03 percent of Garfield and Mesa County revenues. *See* DEIS at 3-270. Apparently royalties were calculated for these two counties because more development is anticipated there than in Pitkin County, though even in those counties the DEIS indicates that there will be no effect on the local oil and gas industry. *See id.* at 3-274 (stating that "changes in the analysis area oil and gas industry . . . would not occur.") One can only assume that the percent of Pitkin County's total revenues would be far lower than the .03 percent attributable to Garfield and Mesa Counties. Indeed, given the representations in the DEIS it appears that royalty income to Pitkin County would be essentially zero. *See* DEIS at 3-284.

The DEIS leaves us with the following understanding: (1) the costs are extremely high; and (2) the benefits approach zero. This does not strike the County as a difficult choice. Pitkin County has the largest amount of land area within the Thompson Divide. For the reasons described herein, the County strongly urges the Service to close that area, and those portions of the Crystal and Roaring Fork Basins within Pitkin County, to future oil and gas leasing.

I. PITKIN COUNTY'S INTEREST IN THE DEIS

Colorado law charges Pitkin County with protecting and advancing the life, health, safety and welfare of its citizens. To do so, the County depends upon tax dollars flowing from the agricultural, recreational and resort-based businesses that form the cornerstone of the Pitkin County economy. The County dispatches its duties in both a proprietary and regulatory capacity. In its proprietary capacity, the County owns and operates a road system and an extensive portfolio of real property holdings acquired to advance agriculture, recreation, scenic enjoyment, wildlife preservation, and a myriad of other open space values. As a regulator, the County administers codes that coordinate land uses and contain requirements governing oil and gas lease development in the County, including on federal land. As the County explains in more detail below, the Service's decision on the DEIS will directly affect all of these interests.

Pitkin County is renowned for its cultural, skiing, scenic and other outdoor amenities. Aspen, the County seat, is a world-class resort that attracts leaders from the worlds of business, government and the arts to cultural events at institutions such as the Aspen Institute and Aspen Music Festival. The ski areas and high country of Pitkin County likewise attract visitors from around the globe who come to experience the natural beauty of landscapes untouched by urban or industrial-level operations and pollution. The Maroon Bells outside of Aspen are the most photographed peaks in Colorado, and the Aspen Mountain, Aspen Highlands, Buttermilk, and Snowmass Ski areas provide world-famous recreation and breathtaking views of surrounding mountains in the WRNF.

The DEIS and air quality comments attached hereto indicate that cumulative effects from oil and gas development on the WRNF and surrounding areas will significantly impair visibility in the Maroon Bells/Snowmass Wilderness, which comprises the viewshed from all four ski areas. Other air quality impacts, including winter ozone levels, as well as traffic impacts on the Highway 82 access from I-70 to the resort areas of Aspen and Snowmass Village, will also compromise the overall experience that makes our valley one of the most sought after destinations in the world. Should visitors begin to go elsewhere because oil and gas development has clogged our highways and polluted our air, the impact on Pitkin County's finances will be direct and serious. In a competitive international market, Colorado cannot be too careful about protecting the natural assets that attract our guests.

In the western, "downvalley" areas of Pitkin County surrounding the communities of Carbondale and Redstone, the impacts to our local economy will be even more serious. In this area, our recreational and tourist-based economy is supplemented by flourishing agricultural operations that provide local food products to our valley and beyond. Pitkin County has, through zoning and public acquisitions, prioritized preserving these agricultural operations for a number of reasons. First, these operations generate high-value local food and directly support the local economy. Second, preserving the agricultural way of life attracts tourists who are drawn to the pastoral landscapes and outfitting opportunities provided by these operations. Third, preserving agricultural lands advances wildlife conservation which in turn supports hunting-based economies that contribute some $23 million to the Pitkin County economy on an annual basis.

It is no overstatement to say that the future of our rural, resort and recreation-based economies depend on preserving the clean air, clean water, and non-industrial rural character that attract our visitors. Traffic, air quality, and other impacts flowing from a decision to permit oil and gas development on the WRNF will directly and adversely affect these pillars of our economy. While we recognize the importance of energy production, we strongly believe that protecting and promoting tourism, recreation, and other resort-based industries will better serve our economic future in Pitkin County. Simply put, we already have in place tremendously successful economic engines that depend upon clean air, clean water, and the rural character of our communities. We believe it is both unnecessary and shortsighted to authorize development that places those engines at risk. *See, e.g., State of New Mexico v. Bureau of Land Management*, 565 F.3d 583, 710 (10th Cir. 2009) ("Accordingly, BLM's obligation to manage for multiple use does not mean that development *must* be allowed . . . . Development is a possible use, which the BLM must weigh against other possible uses-including conservation to protect environmental values, which are best assessed through the NEPA process").

The County will address specific resource impacts in greater detail below, but a more specific summary of the County's proprietary and regulatory interests at this point is appropriate.

A. The County's Proprietary Interests

1. County Roads

Pitkin County owns and maintains roads throughout the territorial boundaries of the County. The following discussion focuses on western areas of the County where the DEIS proposes to allow future oil and gas leasing. Such future leasing will impact two road systems owned and managed by the County: (1) Coal Creek Road, and (2) Thompson Creek Road.

The attached report prepared by civil engineering firm SGM details impacts to roads that are understood to result from contemporary oil and gas development activities. *See* Ex. 1 (SGM Report). As the report demonstrates, certain areas designated for future leasing in the DEIS will be accessed along either Coal Creek Road or Thompson Creek Road, and oil and gas operations will have deleterious impacts on those roads. As discussed in more detail below, the DEIS limits its analysis of transportation impacts to USFS roads, and fails to discuss impacts on the County roads that operators must travel before they even reach USFS roads. This deficiency, particularly in the light of the impacts detailed in the SGM report, means that the Service has failed to reasonably analyze the impacts on the County from future leasing.

While Highway 133 is not itself a Pitkin County Asset, the County has partnered with the Colorado Department of Transportation, Garfield County, GOCO and others to invest some $ 3.85 million to construct a 5.2-mile pedestrian and bicycle amenity known as the Crystal Trail. The Trail lies largely within CDOT's right of way for Highway 133 and parallels the traveled surface of the roadway. Highway 133 sees relatively little heavy truck traffic; the DEIS indicates, however, that oil and gas leasing on the WRNF will result in increased heavy truck traffic on the highway. Conversion of Highway 133 into an industrial corridor will diminish the value of the Crystal Trail as a recreational amenity, as exhaust and noise from heavy industrial traffic will detract from the rural experience users currently experience on the Trail.

In addition, the County owns a number of properties that will be adversely affected by increased industrial traffic on Highway 133, which is a scenic byway. Moreover, any accident resulting in a spill of industrial chemicals would seriously harm the County's interests in these lands. Those property interests are discussed in more detail below.

2. Open Space and other Property Interests

Through conservation easements and outright property acquisitions, Pitkin County and its partners have protected more than 7,747 acres in the Crystal River Drainage. To conserve these lands, Pitkin County invested over $27 million, with the County's partners contributing over $5 million more, for a total investment of $32,334,664. These property interests protect superlative scenery along the Highway 133 Scenic Byway and in the Thompson Divide; connect and expand a vast landscape of wildlife habitat serving species from moose to fireflies; provide habitat for several rare plants and plant communities; conserve a total of approximately 7.8 miles of river corridor; promote the continuing viability of ranchlands critical to continuing agriculture in the Crystal Valley; and provide an array of public recreational access points to public lands on the WRNF. The discussion below highlights some of these significant investments that would be adversely affected—and therefore suffer a diminishment in the value of the County's property interest—by oil and gas development on WRNF lands in Pitkin County.

a. Jerome Park Conservation Easement

Pitkin County's Open Space and Trails Department invested $9,952,365 to purchase the Jerome Park conservation easement on 4,773 acres of private land immediately adjacent to the WRNF and BLM lands that comprise the eastern portion of the Thompson Divide. *See* Ex. 2 (Conservation Easement Documentation). The acquisition matched Pitkin County resources with funds from the State of Colorado's Great Outdoors Colorado Trust Fund, as well as numerous nonprofits and individual donors. To facilitate the transaction, the County also authorized through its zoning powers the creation of 13 transferable development rights, which have the effect of transferring development impacts from one area of the County to another. The total value of the conservation easement—including the nearly $ 10 million cash investment, the TDRs, and donation values—exceeded $19 million.

The Jerome Park acquisition advanced all of the following Open Space Department programmatic goals: conservation of historic agricultural lands; protection of important wildlife habitat; preserving access to federal public lands; public recreation opportunities; and protection of scenic landscapes. More specifically, the Jerome Park Conservation Easement assures the following:

- Significant rangeland will remain in the ownership and operation of the North Thompson Four Mile Mineral and Land Corporation; which is comprised of several local cattle ranching operations. This rangeland is a critical component of their operations, which also rely upon grazing allotments on adjacent federal lands.

- Public access along Marion Gulch to adjoining WRNF lands on the western boundary of the ranch. This access provides hiking, equestrian and cross country access to the Forest as well as serving as a primary portal for the Sunlight to Powderhorn snowmobile trail.

- Protection of thousands of acres of wildlife habitat, hosting a broad range of species including 16 plant or plant communities and 13 fauna species receiving special conservation designation from the Colorado Natural Heritage Program (CNHP) or other state or federal agencies. Jerome Park not only provides habitat for an abundance of wildlife, it creates a land bridge between USFS and BLM lands resulting in a landscape of protected habitat encompassing hundreds of thousands of acres. This composite of conserved lands includes several Inventoried Roadless Areas (IRAs), the CNHP Middle Thompson Creek Potential Conservation Area (located in part on Jerome Park), BLM ACEC designated lands and other conserved private lands.

- A permanent home for the Mount Sopris Nordic Counsel's Spring Gulch Ski area: 21 kilometers of Nordic trails that are free and open to the public. Spring Gulch receives annual visits in excess of 12,000. Pitkin County's ownership interest in this ski area helps ensure that it will continue to operate and attract visitors, including schoolchildren and others who train and host races at Spring Gulch. Spring Gulch ensures that the Roaring Fork Valley from Carbondale to Aspen will continue to host some of the most extensive Nordic skiing opportunities in the United States, which in turn helps attract visitors to the County.

- Protection of tremendous views of Mount Sopris and other peaks in the Elk Mountains; the sandstone fins and other features of the Thompson Creek Drainage; and the Crystal River Valley from Thompson Creek Road. These little-known views are some of the more dramatic in Colorado.

- Continuation of a lease of 240 acres to Sunlight Ski Area, which receives over 100,000 skier visits a year.

Oil and gas development on federal lands surrounding Jerome Park will negatively impact Pitkin County's interests in the Jerome Park parcel. Most obvious are impacts resulting from operator use of Thompson Creek Road, which bisects the property. Currently this road sees little use apart from passenger vehicle traffic from visitors to the Spring Gulch Ski Area. Heavy truck traffic associated with oil and gas development would transform into an industrial corridor the serene landscape that Pitkin County and others invested $10 million to protect. Such a transformation will also compromise the property's value for quiet recreation, its ecological values as shelter for wildlife, and its scenic and open space attributes.

Air pollution associated both with industrial traffic and oil and gas operations on the adjoining WRNF will also impair the property's value as a recreational destination. Many recreationalists—particularly the schoolchildren who train and race at Spring Gulch—could be at risk of adverse health effects as a result of breathing polluted air. Many of the outdoor recreational pursuits that the County acquired Jerome Park to protect—such as cross country skiing at Spring Gulch and hiking or running along the Marion Gulch access—demand high levels of aerobic activity that magnify the health risks of air pollution. The County provides more detail on this concern, including documented incidences of wintertime ozone violations associated with oil and gas activity, in its discussion of air quality below.

The DEIS proposes future leasing in areas of the WRNF that are directly accessed by the Marion Gulch trail access. The value of the County's investment in this recreational amenity will be diminished by drilling activities on the forest, which would introduce an industrial use into areas currently prized for, among many other things, their seclusion, wildlife viewing opportunities, and clean air and water.

The preservation of Jerome Park protected a large and continuous swath of habitat including WRNF and BLM land that currently sees very little human activity. Having invested some $10 million to protect that habitat, the County is concerned that the WRNF would propose fragmenting and disrupting that habitat with significant industrial-level activities. As the DEIS itself explains, degradation to the greater ecological system from drilling—including noise, traffic, fragmentation from roads, and air and water quality degradation—harms the wildlife community that Jerome Park helps to support. Numerous reports document the negative effects of oil and gas development on wildlife habitat and all have either shown or concluded that everything from avian species to

Mule deer and elk are affected negatively. Further detail on wildlife impacts is provided below and in the comments of others.

The livestock grazed on Jerome Park also use grazing allotments on the adjacent Forest. The ranchers operating out of Jerome Park have indicated that impairment of their federal grazing allotments would likely mean the demise of their operations. Due to its impacts on animals, including livestock, oil and gas development poses such a threat. *See* Ex. 3 (Cornell Veterinary School Study documenting, among other things, the death within 1 hour of 17 cows exposed to hydraulic fracturing fluid). This would directly affect the County's interests in the Jerome Park Parcel because the ranchers actively manage the Jerome Park parcel to ensure that it remains in good condition and does not become infested with noxious weeds. A loss of these services would require Pitkin County to provide them, which would directly and negatively impact Pitkin County's budget.

Pitkin County's interest in Jerome Park also provides for continuation of Sunlight Mountain Resort operations on the property. The 240-acre lease that is continued through our conservation easement hosts the ski area's eastern portion. Several cross-country ski trails, snowmobile trails, and horse trails originate from the resort and provide access to the forest located to the south. Oil and gas impacts to Sunlight, including impacts from traffic and air pollution, would therefore also negatively impact Pitkin County's investment in Jerome Park.

The Jerome Park Conservation Easement serves the following governmental conservation policies:

> The Farmland Protection Act, P.L. 97-98, 7 U.S.C. §§4201, *et seq.*, the purpose of which is "to minimize the extent to which Federal programs and policies contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and to assure that Federal programs are administered in a manner that, to the extent practicable, will be compatible with State, unit of local government and private programs and policies to protect farmland;"
>
> Colorado Revised Statutes §§35-3.5-101, which provides in part that "It is the declared policy of the state of Colorado to conserve, protect, and encourage the development and improvement of its agricultural land for the production of food and other agricultural products."
>
> Colorado Revised Statutes §§38-30.5-101, 102, *et seq.*, providing for the establishment of conservation easements to maintain land "in a natural, scenic or open condition, or for wildlife habitat, or for agricultural . . . or other use or

> condition consistent with the protection of open land having wholesome environmental quality or life-sustaining ecological diversity, . . ."
>
> The Colorado Wildlife and Parks and Outdoor Recreation Statutes, Colorado Revised Statutes §§33-1-101, *et seq.*, which provides that "It is the policy of the state of Colorado that the wildlife and their environment are to be protected, preserved, enhanced, and managed for the use, benefit and enjoyment of the people of this state and its visitors."
>
> The Pitkin County Land Use Code which states that the preservation of wildlife habitat, open space and agricultural operations conforms with Policies 2-120 (Scenic Quality), 2-160 (Wildlife Management) and 2-240 (Compatibility with Agricultural Lands and Operations), 2-280 (Compatibility with Public Lands), and 2-290 (Access to Public Lands).
>
> The Garfield County Lower Roaring Fork Open Land Heritage Program plan which provides that conserving agricultural lands, upland open mesas and forest and shrub covered slopes and uplands are important to the people of Garfield County.

Exhibit 20 at 13.

2. Other County Properties

In addition to the Jerome Park parcel, Pitkin County has ownership interests in several other significant properties within the Crystal River drainage that future oil and gas development on nearby areas of the WRNF will adversely affect. Pitkin County and GOCO jointly acquired a $7.5 million conservation easement on the Cold Mountain Ranch, which straddles Highway 133 south of Carbondale; Pitkin County invested $5 million to conserve the former Mautz Ranch which now includes Sustainable Settings and incorporates property on both sides of Highway 133; and Pitkin County owns interests in Elk Park and the historic Redstone Coke Ovens, which sit astride Highway 133 at its intersection with the County's Coal Creek Road. Like Jerome Park, these properties were all acquired to advance the outstanding scenic and agricultural values of the Crystal River Valley, a crown jewel of Colorado's mountain country. Heavy truck traffic, which the DEIS makes clear will increase along Highway 133 if future leasing is permitted in nearby areas of the WRNF, will degrade the conservation values underpinning the many millions of dollars invested in these acquisitions, and thus diminish the value of the County's investments.

The County has also invested significant funds, through conservation easements and its own restoration activities, in improving water quality in the Crystal River drainage, particularly the Thompson Creek sub-drainage. Conservation easements on Cold Mountain Ranch, Crystal Island Ranch and the Hawkins parcel all specifically identify preservation of riparian habitat as an important easement objective. In the case of Cold Mountain Ranch, the County actually required improvements to the riparian habitat on the property; the County has also invested in riparian habitat restoration on its Thompson Creek Open Space. The County provides public fishing access at Cold Mountain Ranch and Thompson Creek Open Space. The DEIS indicates that oil and gas development can be expected to impact water quality in Thompson Creek and the rest of the Crystal River drainage; indeed, the DEIS indicates that these streams are extremely susceptible to water quality impacts. Such impacts would undermine the substantial investments the County has made in protecting these streams.

B. The County's Regulatory Interests

Pitkin County is the instrument of government charged with administering zoning and planning codes that apply to lands within its territorial boundaries—including federal lands. Pursuant to Colorado law, the County has enacted a number of master plans and comprehensive zoning regulations to ensure that land uses in the County are compatible with each other and advance economic and other community goals. These regulations include provisions governing oil and gas development in the County. Due to partial federal and state preemption, however, the County's ability to ensure compliance with its master plans and other zoning requirements may be constrained in the context of oil and gas development. Federal approval of oil and gas development in areas that are inconsistent with master plan and zoning objectives would directly frustrate the County's ability to completely implement and enforce these duly-adopted plans and zoning regulations. Consequently, although the County does retain certain regulatory authority over oil and gas operations, *see, e.g.*, *Board of County Com'rs v. Bowen-Edwards Assoc.*, 830 P.2d 1045 (Colo. 1992), the County must rely on NEPA and other federal processes to comprehensively advance some of the objectives set forth in its ordinances.

The DEIS proposes future oil and gas leasing in areas where the local master plan discourages such development. *See* Ex. 4 (Crystal River Valley Master Plan). Likewise, the County's land use code places limits on oil and gas development in the Thompson Divide area. *See* Ex. 5 (relevant sections of Pitkin County Land Use Code). A Service decision to adopt such a plan allowing development in this area would, therefore, directly frustrate the County's ability to validly implement the goals of the master plan and zoning ordinances. *See* 40 CFR § 1508.27(b)(10).

Accordingly, the County asks the Service to respect, for the reasons set forth herein and in federal law, the County's master plan and zoning designations.

II. COMMENTS CONCERNING PURPOSE AND NEED

The County agrees that there is, to use the Service's words, a "clear need" for an updated analysis of oil and gas leasing on the WRNF. The 1993 Oil and Gas EIS and 2002 LRMP are sorely out of date in a world of unconventional oil and gas resources, and the DEIS rightly observes that the level of oil and gas activity on the forest has surged in recent years. The doubling in the amount of leased acreage on the WRNF since 1993 is indicative, but so is the increased level of leasing and production on nearby federal and private lands that the RFDS reveals. The County believes it is essential to take careful account of the cumulative impacts of all this leasing and development activity before choosing whether and where to permit future leasing. The County applauds the Service for acting to ensure that future oil and gas leasing decisions are not based on dated and inadequate analyses.

The County is concerned, however, that the DEIS does not take a sufficiently hard look at the consequences of designating lands as available for future leasing. Although the DEIS claims repeatedly that the designation of areas for leasing will have no effects in and of itself, the County believes this view ignores the reality of the federal leasing process and past agency practice. The structure of the Mineral Leasing Act, FOOGLRA and BLM's leasing regulations are such that once an area is designated as available for leasing, the administrative momentum to lease such lands can be difficult to reverse. Indeed, the DEIS itself acknowledges that "It is expected that most available lands will eventually be leased." DEIS at 3-160. Consequently, the decision to make lands available for leasing in the DEIS is the point of commitment here.

In Chapter 1 and throughout the DEIS, the Service claims that certain issues—hydraulic fracturing is one example—need not be addressed at this stage of the analysis because they will be addressed during later tiers of the NEPA process. Deferring such discussion to the site-specific phase of analysis, however, means that the Service will never take a hard look at the cumulative effects that such issues present. Hydraulic fracturing is, for example, virtually guaranteed to accompany any well developed on lands authorized for leasing by the DEIS. To ignore the gorilla in the room is inconsistent with the hard look NEPA requires.

This is especially true in light of the historical approach the Service has taken to site-specific leasing decisions. During the last decade, often all that the Service did to comply with NEPA in connection with the leasing of individual parcels was fill out a perfunctory checklist that made reference to the 1993 EIS and 2002 LRMP analyses. Little to no independent analysis accompanied these checklists. *See, e.g.*, Ex. 6 (USFS NEPA analysis accompanying example leases issued in 2003 and 2006). In light of this past agency practice of providing only skeletal NEPA compliance at the leasing stage, the

Service cannot now credibly claim that it will provide detailed analysis at a later date in connection with individual leasing decisions.

In short, if the Service intends to tier to this EIS for future leasing and development decisions, a great deal more quantitative analysis will be required to truly analyze the cumulative effects presented by oil and gas development. Indeed, the Service's own regulations require this approach. *See* 36 C.F.R. § 228.102(c)(3)-(4). The County therefore believes that this point in the process is the right time to take the hard look NEPA requires at such cumulative-level effects that will accompany any decision to designate lands for future leasing.

III. COMMENTS CONCERNING ALTERNATIVES

A. Alternative A Should Not be Considered

The DEIS acknowledges that the 1993 Oil and Gas Leasing EIS is seriously out of date and can no longer serve as an accurate basis for evaluation of environmental impacts from oil and gas development on the WRNF. In such circumstances, a supplemental environmental impacts statement is, at a minimum, necessary prior to authorizing any future leasing on the WRNF. *See, e.g.*, 40 CFR § 1502.9(c); 43 CFR § 228.102(e)(1). In other words, development solely pursuant to the 1993 EIS would at this point violate NEPA and the Service's own regulations.

While the DEIS analyzes Alternative A in light of currently available data, as the Purpose and Need section of the DEIS makes clear, development pressures on the WRNF that exist today are on a different order of magnitude from those contemplated in 1993. Consequently, Alternative A should be eliminated from further analysis, not designated as the no-action alternative.

B. Assumptions Underlying Alternatives B-D Are Inconsistent, and Result in Misleading Analysis Throughout the DEIS.

The County has concerns with the inconsistent nature of the assumptions built into Alternatives B, C and D. While undoubtedly not calculated to mislead, these inconsistent assumptions give rise to a DEIS that repeatedly tells the public future oil and gas development has less environmental and community impact than no development at all. The fallacy may be most vividly illustrated on page 2-74, which indicates that prohibiting future leasing under Alternative B will generate two times more oil and gas jobs and income than allowing future leasing under Alternative C. Such a proposition answers itself. We view this as a fundamental flaw that requires further revisions to the DEIS and reissuance of a new draft that compares, in an unbiased way, future development against the absence of future development.

Section 2.2.1.2 acknowledges the importance of ensuring a "common basis of comparison when considering cumulative effects by resource." Yet this is not what the DEIS does. Alternative B assumes development of all legacy leases—ie., federal leases on the WRNF that predate the DEIS. *See* § 2.3.1. Alternatives C and D, by contrast, assume that legacy leases not currently held by production will expire. *See, e.g.,* § 2.2.5 (discussing Alternative C). This disparity is especially troubling because it is embedded in the various alternatives without ever having been explicitly unpacked for the public. Indeed, the County re-read Chapter Two numerous times in an effort to find some explanation justifying this disparity, to no avail. Yet this inconsistency reverberates throughout the DEIS, prejudicing virtually every discussion of resource impacts in favor of Alternative C as compared to Alternative B.

For example, an accurate analysis of potential air quality impacts of Alternatives C and D should incorporate, as a baseline, potential impacts from Alternative B, since existing leases may still be developed and any development of those leases would proceed pursuant to existing stipulations rather than stipulations proposed in Alternatives C and D. The obvious effect of the inconsistent assumption relied on by the Service is a reduction in potential impacts projected from Alternatives C and D. It also prejudices the nature of the analysis the Service conducted, with modeling exercises not adequately addressing Alternative B as the least impactive alternative.

Which assumption is more reasonable—development or non-development of existing leases—is open to debate. However, the County notes that even during the DEIS comment period operators have submitted numerous development proposals on existing leases. Antero has an active APD for its Lava Boulder project, and has asked BLM to unitize 8 leases in the Thompson Divide. Meanwhile, SG Interests has submitted multiple APDs on different leases in the Thompson Divide and similarly asked BLM to unitize 18 leases in the proposed Lake Ridge Unit. All of these proposals implicate leases set to expire in 2013. In total these proposals implicate 26 of the 60 leases that the DEIS assumes will expire under Alternatives C and D. If BLM were to deny suspensions of these leases and allow the leases to expire—a result that the County advocates strongly, for reasons that are evident from these comments—the assumption embedded in Alternatives C and D may be reasonable. But as of now, the public representations of both BLM and the USFS indicate that suspensions are, in fact, likely to be granted. *See, e.g.*, Ex. 7 (Aspen Daily News articles quoting Boyd and Fitzwilliams). This indicates that Alternatives C and D are predicated on unreasonable assumptions that render analysis of these alternatives inaccurate, and therefore insufficient for purposes of NEPA.

This is a fundamental flaw in the analysis because the inconsistent assumptions built into Alternatives B-D affect virtually the entire DEIS. Chapter 3, for example, consistently presents Alternative C as having less environmental impact than Alternative B. Thus, to all but the most attentive observers, Alternative C would seem the most environmentally protective choice for the forest and surrounding communities. But it surely is not, for the reasons described above. This would be like the County informing the public that constructing a new subdivision next to an already-approved, but unbuilt, subdivision would have fewer impacts than not building the new subdivision at all. Misleading the public in this way frustrates the purposes of NEPA.

The County supports allowing all existing leases in Pitkin County to expire at the end of their primary terms, with no suspensions or other extensions. Indeed, the vast majority of these leases were issued in violation of both the 2001 Roadless Rule and NEPA. When confronted with this reality in the past, the BLM withdrew and canceled leases with identical deficiencies. *See* Ex. 8 (8/12/2009 BLM Withdrawal and Cancellation Letter to Encana). Thus, the County believes there are strong grounds for the assumption that Alternatives C and D propose. But the Service makes no concrete commitments regarding how that will occur. The County urges the Service and BLM to identify and implement without delay concrete steps to allow such illegal leases to expire. In that event, Alternatives C and D would in fact be predicated on reasonable assumptions. Until such concrete evidence is in hand, however, it would appear that the assumptions underlying Alternatives C and D are unrealistic, arbitrary and capricious.

If concrete steps to ensure lease expiration are identified, however, the analysis cannot be complete without also analyzing an alternative that marries the no-new-leasing assumption of Alternative B with the no-development-of-existing-leases assumption of Alternatives C and D. The County supports such an alternative, and believes that a great weight of evidence requires implementing it in all areas of the WRNF within Pitkin County.

C. Stipulations on Development Are Insufficient to Protect the Resource Values of the Thompson Divide.

The County appreciates the effort and thought the Service has dedicated to developing NSO and other stipulations designed to minimize the impacts of oil and gas development. The County commends the Service in particular for proposing in Alternative C that all inventoried roadless areas, regardless of tier, shall be subject to NSO. The County strongly supports protection of both inventoried and non-inventoried roadless areas.

The County believes, however, that the NSO and other stipulations proposed in Alternatives C and D are still incapable of protecting especially high-value areas like the Thompson Divide and the larger Crystal River Valley. As the resource-specific discussion below demonstrates, other values in this area are simply of too high a value, and too great a susceptibility to oil and gas development, to place them at risk.

IV. COMMENTS CONCERNING SPECIFIC RESOURCES

The discrepancy in assumptions underlying Alternatives B-D skews analysis of virtually every resource discussion contained in the DEIS. Consequently, the discussion below is preliminary. The County reserves the right to submit additional resource-specific comments once an accurate analysis based on consistent assumptions is available.

A. Water

Because the DEIS discusses surface and groundwater separately, these comments track that organization. Colorado water law recognizes, however, that the two systems are often connected. Groundwater contaminated with natural gas, for example, has been observed bubbling to the surface of West Divide Creek in Garfield County. *See* Ex. 9 at 3 (Study describing, among other things, how an estimated 100 million cubic feet of gas and associated hydrocarbons from Encana Schwartz 2-15B well contaminated creek). The hydraulic connection between ground and surface water means that impacts to groundwater may also lead to impacts to surface water, and vice versa.

With regard to both ground and surface water, the County incorporates by reference the comments of the Roaring Fork Conservancy, which are attached hereto as Exhibit 10.

1. Surface Water

Oil and gas drilling poses risks to surface water in a number of different ways. *See* DEIS § 3.2.1.1. Well operations can impair streams through contamination of tributary groundwater with hydrocarbons, fracking fluids and other industrial wastes; more detail on this vector is contained in the groundwater discussion below. But surface water impairment can result as well from wastewater disposal pits, well pad and site runoff, construction of new roads, and vehicle mishaps. While mitigation measures included in stipulations may aspire to control these risks, realities are much messier: accidents happen, some operators cut corners, and underfunded federal, state and local agencies are entirely unable to provide meaningful oversight and enforcement. A Service study and powerpoint from the Fernow National Forest emphasizes the fact that accidents will happen, that pits leak, and that agencies should expect the unexpected when it comes to oil and gas development. *See* Exs. 11-12 (Study and Powerpoint from Fernow National Forest). The study points out that the unexpected impacts are likely to be the most problematic.

Oil and gas development also affects surface waters in light of the large amounts of waters required to stimulate unconventional wells. The DEIS notably fails to address this issue.

Meanwhile, bond amounts required by federal law—which allows an operator to post a single $150,000 bond to cover all of its operations nationwide—are laughably inadequate to protect the public from the risks of unexpected contamination. *See* 43 C.F.R. § 3104.3. And the remote nature of areas like the Thompson Divide means that emergency response services to address accidents may be unable to arrive in time to prevent mishaps from seriously contaminating vulnerable surface waters. All of this emphasizes the need to make extremely cautious siting decisions when high-value resources are at risk.

The County believes that future oil and gas leasing should not be allowed in the Pitkin County portions of the Crystal and Roaring Fork River basins. Both basins have extremely high wildland resource values, and the County has, as detailed above, gone to great lengths to protect both the Crystal and Roaring Fork River watersheds. For example, the Colorado Division of Wildlife noted in comments dated June 30, 2010 that maintenance of water quality in the Crystal River and its tributaries is "essential" to the health of native cutthroat trout. *See* Ex. 13 at 6. The DEIS rates the Crystal as having Moderate-High Watershed Sensitivity. The Crystal flows through one of the most scenic valleys in the mountain west, and Pitkin County has invested tens of millions of dollars in property acquisitions and restoration activities to protect that valley from inconsistent development and degradation. The Crystal watershed provides drinking water to at least 7,000 people and agricultural water to local farms and ranchland. The river provides recreational opportunities for fishermen, kayakers, and sightseers, and habitat for cutthroat trout, bighorn sheep, bald eagles, Lewis's Woodpeckers, and rare plant species such as the stream orchid (Epipactis gigantea). The Service has found the Crystal eligible for federal Wild and Scenic River designation; thus the Wild & Scenic Rivers Act requires analysis of impacts from this action on a potential designation of the Crystal (as well as Thompson Creek).

Tributaries of the Crystal also require protection from future development. Coal Creek already suffers from degraded water quality due to historic coal mining and unstable soils. *See* DEIS at 3-88. Its sediment loads in turn degrade water quality in the Crystal. Development in this watershed would introduce new impacts from erosion and contamination, and contravene longstanding efforts to restore Coal Creek and reduce downstream impacts on the Crystal River.

Thompson Creek, including North, Middle, and South branches, is a pristine watershed with usable groundwater, good stream health, and the most favorable conditions for aquatic life in the broader area. The DEIS indicates that Outlet Roaring

Fork River, which includes Thompson Creek, has High Watershed Sensitivity, meaning it is among those watersheds most susceptible to degradation from oil and gas development. *See* DEIS at 3-90; *see also* DEIS Table 17 at 3-91. Thompson Creek provides habitat for Colorado River cutthroat trout, lynx, and elk. It is eligible for Wild and Scenic designation, flows through a BLM designated Area of Critical Environmental Concern and boasts striking sandstone fins and stunning views. It also includes a CNHP identified Potential Conservation Area because of exceptional biodiversity. The Thompson Creek watershed is prized by recreationalists, naturalists, and hunters. Like Gunnison and Garfield Counties, we believe that this watershed, like the rest of the Thompson Divide, should be protected from future oil and gas leasing.

2. Ground Water

The science concerning risks to groundwater from unconventional hydrocarbon recovery is in its infancy. Though many in the industry offer assurances that hydraulic fracturing and other resource recovery techniques are entirely safe, a number of studies in existence as of this writing indicate that fracking and other practices do in fact pose a serious threat to groundwater in certain circumstances. Groundwater contamination can take many years to make itself known, and even longer to reverse. If ever there were a resource to justify the "look before you leap" purposes of NEPA, groundwater is that resource.

As the Roaring Fork Conservancy's comments note, preliminary data from an EPA study in Pavillion, Wyoming document groundwater contamination from nearby natural gas operations. *See* Ex. 14 (EPA Pavillion Draft Report). The study documents groundwater contamination both in shallow aquifers, which the Draft report attributes to leakage from waste disposal pits, as well as in deeper aquifers. As the Draft Report's Extended Abstract notes, data from deeper monitoring wells drilled to more than 200 meters deep "indicates likely impact to ground water that can be explained by hydraulic fracturing." *See id.* at xiii. The Draft Report noted that the geology in the area was such that contamination was capable of migrating upwards through different subsurface strata, as well as through pre-existing wells. A larger EPA study of hydraulic fracturing is expected to produce a progress report in December 2013.

A Duke University team has also concluded that hydraulic fracturing fluids and hydrocarbons themselves may, following operator exploration and stimulation activities, migrate into subsurface drinking water sources both through natural faults and through pre-existing historical wells. *See* Ex. 15 (Duke Study). Studies in Garfield County similarly document increasing hydrocarbon and contaminant incidence in groundwater connected with nearby oil and gas drilling. *See, e.g.*, Ex. 16 (Thyne, 2008). These studies indicate that it is imperative to have a thorough understanding of subsurface geology and pre-existing well incidence prior to authorizing unconventional hydrocarbon extraction.

While industry may urge that the circumstances examined in these studies did not involve best management practices and therefore are not indicative of future risk, the County is reminded of the admonition in the USFS Fernow study: expect the unexpected. Again, risk must be understood in the context of available oversight resources, as certain operators may well cut corners. To this point, the Service need look no further than a current APD submitted by SG Interests to drill in the Thompson Divide. According to BLM, SG's plans failed to properly characterize subsurface water in violation of Onshore Order # 1, and contained a number of deficiencies in casing protocol, including impermissibly shallow casing in violation of COGCC standards. *See* Ex. 17 (10/26/2012 letter from BLM to SG Interests I, Ltd.) This experience shows that it is one thing to identify BMPs in an EIS or other decision document; it is an altogether different matter to assure that these BMPs are in fact implemented on the ground—particularly when minuscule bond amounts provide operators with little incentive to themselves assure compliance, and federal, state and local agency funds to assure compliance are severely limited.

The DEIS's DRASTIC model indicates that groundwater in the Thompson Creek area is characterized by high hydraulic conductivities and is among the most likely to experience adverse effects from future oil and gas development. *See* DEIS at 3-111. Thompson Creek also has favorable ratings for usable groundwater. *See id.* at 3-106. The BLM letter to SG Interests documents that the Grand Hogback in this area is a recharge zone for numerous aquifers. *See* Ex. 17 at 2. Thus, as with surface water and so many other high-risk resources in the Thompson Divide, groundwater protection points strongly towards closing this area to oil and gas development. Should the USFS choose to disregard the community's clear preference for closing this area to future drilling—which the County strongly urges it not to do—a comprehensive characterization of the following must first be completed: (1) historic wells; (2) hydrologic flow and other hydrodynamics; (3) baseline water quality; (4) faulting, confinement, and other geologic characteristics; and (5) effects of hydraulic fracturing on geology and hydrodynamics. This characterization must demonstrate an absence of any potential for contamination of surface water or usable groundwater, and information must be open to peer review, thorough public inspection, and comment before any leasing proceeds.

B. Air

The County retained Megan Williams, an expert in the field of air quality analysis, to prepare comments concerning this section of the DEIS. *See* Ex. 18 (Williams Comments). The County incorporates her comments in their entirety by reference, and includes here certain excerpts. Refer to her comments for citations associated with this discussion. Notable with regard to the prior BLM analysis on which the WRNF analysis relies is the fact that both industry and environmentalists agree it underestimated likely total well buildout, and therefore air impacts. *See* Ex. 19 (GJ Sentinel Article). As both the DEIS and Ms. Williams' comments make clear, oil and gas development on the WRNF and other federal lands will have serious impacts on air quality in Pitkin County. *See, e.g.*, DEIS at 3-114 ("[F]uture development of oil and gas leases on the WRNF could adversely affect air quality in Wilderness areas, important scenic vistas, and local communities.")

The Service modeled impacts from Alternative C on the assumption that existing leases would go undeveloped. This assumption is, as discussed above, counterfactual in the absence of commitments from the USFS and BLM. Consequently, the analysis of impacts flowing from Alternative C would seem to be understated. This compounds the underestimation baked into the underlying BLM analysis, and the fact that the DEIS's modeling did not properly account for background sources of air pollution. Meanwhile, the DEIS provides no modeling of impacts flowing from Alternative B. Consequently, there is no modeling to provide a true comparison of how the different alternatives (except, perhaps, Alternative A) will actually affect air quality. All of this heightens the concern that air quality impacts are likely to be even greater than those represented in the DEIS.

1. Visibility

Anthropogenic sources have already significantly impaired visibility in the Maroon Bells-Snowmass Wilderness. *See* DEIS at 3-117. That wilderness area is both adjacent to Pitkin County's four alpine ski areas, and a substantial attraction to our visitors in its own right. As the DEIS acknowledges, the Service has an affirmative obligation to protect visibility and other air quality related values in this Class I airshed. *See id.*

Future leasing in the WRNF, however—particularly when considered in tandem with future oil and gas development on nearby lands—threatens to further diminish visibility in this and other areas of Pitkin County. The DEIS's far-field modeling indicates that direct impacts from Alternative A will result in 198 days above a .5 DV change at Maroon Bells-Snowmass Wilderness and 131 days at the Mt. Sopris viewpoint. Although the modeling for Alternative C indicates that it alone—without considering cumulative effects, which the DEIS itself acknowledges is necessary—would not result in such changes, the flaws in assumptions built into Alternative C undermine this conclusion significantly.

The importance of maintaining good visibility in Pitkin County cannot be overstated. People do not travel long distances to come here and view mountains shrouded in haze. They come here for the crisp, breathtaking views for which Colorado is famous. As the DEIS shows, widespread oil and gas development places these values at risk.

2. Ozone and Other Contaminants

a. Ozone

It is now well settled that oil and gas development in the western United States can lead to ozone levels that violate air quality standards. Indeed, winter ozone levels in rural areas of Wyoming and Utah have registered at levels comparable to those in the Los Angeles basin in California. *See, e.g.*, Ex. 18 (Megan Williams Comments) at 3-5. As Ms. Williams notes, exposure to ozone is a serious concern as it can cause or exacerbate respiratory health problems, including shortness of breath, asthma, chest pain and coughing, decreased lung function and even long-term lung damage. Indeed, even "short-term exposure to current levels of ozone in many areas is likely to contribute to premature deaths." *See id.* at 5 (citing EPA and the National Research Council). This is especially troubling in light of the fact that wintertime visitors come to Pitkin County to enjoy outdoor pursuits that often involve aerobic and anaerobic activities that heighten one's intake of air pollutants.

As Ms. Williams comments detail, recent data from ozone monitoring in Pitkin County indicate that ozone levels are already exceeding the NAAQS of 75 ppb on some days by a considerable margin. The DEIS includes a summary of ozone data from 2003 to 2009 at various locations within and near the WRNF, including several concentrations that exceed the NAAQS and a 4th highest maximum daily average ozone concentration as high as 87 ppb at the Aspen Mountain monitor in 2009. And these are not wintertime data, when the problem can be even more severe. Ms. Williams' report also indicates NAAQS violations at Sunlight Mountain, which is located partly within the Jerome Park parcel and near the Spring Gulch Nordic Ski Area on the Jerome Park parcel. Given the regional nature of ozone formation, the County's many property interests in the broader Crystal River Valley are therefore also at risk.

In fact, the DEIS's modeling results (which do not account for winter, when levels would likely be even higher) show ozone concentrations for certain days consistently above the NAAQS throughout western Pitkin County. The modeled event would impact the following Pitkin County properties: Thompson Creek Open Space, Venner Open Space, Rubin Open Space, Red Wind Point Open Space, Penny Hot Springs Open Space, Sawmill Hill Open Space, Emma Open Space and Jerome Park, East Mesa/John Nieslanik, Cold Mountain Ranch, Thompson Creek Ranch, Crystal Island Ranch, Crown Mountain Ranch and Middle Ranch. Results from this modeling event show maximum daily average ozone concentrations above the NAAQS throughout the entirety of Pitkin

County with concentrations as high as 85 ppb in a large area of eastern Pitkin County. And, as stated above and in even more detail in Ms. Williams' comments, the DEIS's assumptions likely understate the values that may actually occur.

Given current violations and the lack of winter ozone modeling in the DEIS, the County can only conclude that there is no room for growth in emissions that contribute to harmful levels of ozone, particularly in areas proximate to the recreational mecca in the Thompson Divide.

b. Particulate Matter

The County is also concerned with particulate matter emissions. Aspen has long faced air quality impacts from PM sources and continues to implement mitigation measures to control PM emissions. Any threat to the attainment of the PM NAAQS in the Aspen maintenance area would have direct consequences on the local citizens and governments of Pitkin County. Aspen was designated a "moderate" PM_{10} nonattainment area in 1990 pursuant to § 107(d)(4)(B) of the Clean Air Act. The EPA approved an attainment/maintenance plan for Aspen in 2003 and is in the process of reviewing a revised maintenance plan for the area. The latest version of the plan includes the following control measures designed to ensure attainment of the NAAQS through 2023: (1) woodburning and restaurant emissions controls; (2) street sanding controls; (3) street sweeping requirements; (4) paid parking requirements to reduce traffic; and (5) transit measures (e.g., expansion of the bus fleet by 14 buses, establishment of a 400 space Park & Ride lot and a 250 space intercept parking lot, and establishment of cross-town and intercept lot shuttle services). As part of the approved maintenance plan, the following contingency measures can be recommended to local officials and the Air Quality Control Commission for consideration, if needed. Section 175(A)(d) of the Clean Air Act requires that the maintenance plan contain contingency provisions to assure that the state will promptly correct any violation of the PM_{10} NAAQS that may occur after the redesignation of the area to attainment/maintenance. Contingency measures are designed to quickly bring the area back into compliance with the PM_{10} NAAQS. According to the maintenance plan revision approved by the Air Quality Control Commission:

> It is likely that no federal or state monies will be available to fund the implementation of the selected contingency measure(s). Most, if not all, of the costs will be borne by local citizens and governments, local businesses, and state government agencies.

The contingency measures approved for the revised maintenance plan include: (1) Increased street sweeping requirements; (2) More stringent street sand specifications; (3) Reducing the use of street sanding materials only to key areas selected by the City of Aspen for safety reasons; (4) Re-implementing the following measures (but only if they are not being implemented at the time the contingency measures are triggered): expansion of the bus fleet; establishment of additional Park 'n Ride lot spaces and intercept parking lots; and cross-town shuttle services; (5) Transportation control measures designed to reduce vehicle miles traveled; and (6) "Other emission control measures appropriate for the area based on the consideration of cost-effectiveness, PM_{10} emission reduction potential, economic and social considerations, or other factors that the state deems appropriate". The USFS proposal to allow leasing for further oil and gas development in the area should fully consider the impact of emissions from that development on maintenance of the PM_{10} NAAQS in Aspen.

3. Lack of Near-Field Analysis

Of particular concern to the County is the DEIS's failure to contain any discussion of near-field impacts from oil and gas development. It is critical to undertake such an analysis before designating lands as open for leasing because of the substantial likelihood of near-field impacts on human health and properties in which the County and GOCO have invested tens of millions of dollars. It is also necessary because the DEIS itself acknowledges that "It is expected that most available lands will eventually be leased." DEIS at 3-160. Consequently, the decision to make lands available for leasing in the DEIS is the point of commitment. As discussed above, the County owns a number of properties that are proximate—in some cases immediately adjacent—to lands the DEIS contemplates for future leasing. In the case of Jerome Park in particular, both Nordic and Alpine ski areas operate on the property. At both ski areas, children and others regularly engage in aerobic and even anaerobic exercise, which increases one's intake of air pollutants. Both the DEIS and Ms. Williams' comments indicate risks to human health from near-field contaminants; a study conducted by the University of Colorado School of Public Health similarly discusses the health risks associated from air pollution linked to oil and gas development. *See* Ex. 20 (CU Health Study). To simply ignore or postpone addressing these risks fails to take the required hard look that NEPA requires. Assessing cumulative impacts is no less important in this context, and there is no apparent reason why the RFDS cannot be used as a basis for doing so.

4. Future Monitoring

The DEIS shows a scarcity of reliable monitoring data for air quality within the planning area. *See, e.g.*, DEIS at 3-122; *see also* DEIS Table 21 at 3-123 ("Note that most sites do not have sufficient annual data to determine trends in ozone levels.") As noted above, the lack of wintertime ozone monitoring data is especially troubling since it appears likely that winter is when ozone concentrations are at their highest in our region. Any future development should be accompanied by a long-term monitoring and mitigation plan that ensures mechanisms to curtail development as necessary to protect air quality.

C. Geology and Minerals

In order for the assumptions underlying Alternatives C and D to be valid, the Service must work with the BLM to ensure that presently undeveloped existing leases are allowed to expire. The Service should also undertake a thorough assessment of existing leases to determine which of these leases were issued illegally and must be withdrawn. The Service and BLM have already cooperated to cancel or contract invalid leases that included portions of Sunlight Ski Area, and leases that were issued in violation of NEPA. *See* Ex. 8 (BLM Withdrawal and Cancellation letter). A number of other leases issued from 2003 to 2007 similarly violate NEPA and should similarly be withdrawn and canceled. Indeed, most of the existing leases in the Thompson Divide fit this same profile and should be canceled on this basis.

In conducting the characterization of geologic and water resources called for above in connection with the discussion of hydraulic fracturing, the Service should also address the documented potential for earthquakes associated with this practice. Earthquake potential should be evaluated with specific reference to the geology of the area in question.

D. Wildlife

Pitkin County, GOCO and other agencies have invested tens of millions of dollars in preserving private lands in the Crystal Valley and Thompson Divide areas, in large measure to promote the health of wildlife populations in our region. Given the extent to which the County has put its money where its mouth is on this issue, the County has serious concerns about the impairment of wildlife habitat on nearby federal lands.

The DEIS contains a suitable description of impacts to wildlife from oil and gas development, and the County will not reiterate that list of impacts here. *See* DEIS at 3-209 to 3-214. Others have similarly documented such impacts. *See, e.g.*, Ex. 3 (Cornell Veterinary School Study). The length of the DEIS section discussing impacts to wildlife is, however, telling—it literally goes on and on. It comes as little surprise that introducing an industrial use into pristine habitat threatens serious adverse effects like those the DEIS details. The focus on road impacts is particularly telling; a recent USFS map prepared to depict road improvements associated with existing leases held by SG Interests demonstrates the extent to which new roads will accompany oil and gas development, even in areas where road networks already exist. *See* Ex. 21 (USFS Map of SG Proposed Wellsites).

The Colorado Division of Wildlife—now known as Colorado Parks and Wildlife—has long emphasized the importance of wildlife habitat in the Thompson Divide. The area serves as significant habitat for moose, bear, lynx, and numerous other terrestrial wildlife species. In its comment letter of June 30, 2010, CPW described the Thompson Divide as "without question the 'elk factory' of this area," and stated that "[i]t is crucial to maintain the undisturbed qualities of this area in order to maintain elk production and health." *See* Ex. 13 at 4 (June 30, 2010 CDOW Comment Letter). CPW noted that the area is well defined summer range that provides security for both elk and mule deer. DPW also noted in comments dated June 30, 2010 that maintenance of water quality in the Crystal River and its tributaries is "essential" to the health of native cutthroat trout, *see id*. at 6, which are prevalent in the Divide.

Similarly, in a Wildlife Summary that CPW prepared for the Thompson Divide Coalition in 2009, it characterized the Thompson Divide as containing high quality habitat for all of the above-referenced species, including areas of extreme importance for elk and mule deer. It notes that lynx have been documented in the area and are likely to use it more frequently as their populations increase. The 2009 Summary also characterizes the streams of the Thompson Divide as containing "great fisheries habitat and recreational opportunities." *See* Ex. 22, *passim.* Presumably for these reasons, CPW District Wildlife Manager John Groves recently stated his opinion that oil and gas drilling should be kept out of the Divide. *See* Ex. 23 at 7 (10-28-2012 Grand Junction Sentinel Article). The County shares that view.

E. Socioeconomics

Roughly 90 % of Pitkin County is comprised of federal lands, mostly in the WRNF. Our economy is centrally based on the use of those lands as a recreational resource which serves local, state, national and even international populations. A recent study by Headwaters Economics documents how federal lands support above-average economic growth in western communities close to those lands. *See* Ex. 24. We certainly believe that principle is amply demonstrated in Pitkin County.

Of Pitkin County's small population of approximately 16,000 people, over 46 % are employed in the tourism business. Additionally, approximately 50 % of Pitkin County's land ownership is in the hands of part-time residents attracted to the activities and lifestyle of a rural mountain area. This portion of our population earns its income elsewhere and brings those dollars to our economy precisely because of its high quality of life. This enhances the favorability of our local business environment considerably. *See* Ex. 25 at 69 (2011 NWCCOG Study). Their investment in our local economy with second home and other activities substantially funds non-tourism industries such as construction and the public sector in a manner that tips the balance of our economy to one that depends on tourists and second home owners for well over 50% of economic activity.

The DEIS indicates that a total of two jobs and $164,000 in labor income on an average annual basis can be attributed to oil and gas production from the WRNF's 82 existing wells. *See* DEIS at 3-269. This appears to reflect the long-term, sustainable employment benefits that flow from oil and gas production, as opposed to the short-term boom in employment that may accompany a period of intense drilling activity. Although the DEIS lists higher *average* annual employment numbers flowing from potential future oil and gas activities, it does not explain the basis for such figures in light of this two-job figure connected to all existing wells. If the assumption is predicated on steady drilling that takes place over an extended period of time, the County finds that assumption at odds with the documented boom-bust cycle of development that is evident most recently right here in the Piceance. What seems more credible is to assume that there will be isolated large booms followed by long periods of time involving very little employment and revenue generation. While the County understands that such a cycle is not inconsistent with the *average* figures presented in the DEIS, the cycle itself is of great socioeconomic consequence and should be disclosed and analyzed. The County believes that focusing on the long-term effects better serves the future of our community. We prefer to avoid boom-bust cycles in favor of a more sustainable economy.

Despite the fact that the DEIS contemplates future oil and gas development in Pitkin County, it does not contain projected royalty revenues to Pitkin County, and essentially disregards impacts to Pitkin County altogether. It appears that the total royalties to all local governments from, for example, Alternative C would be $155,000. *See* DEIS at 3-276. The DEIS indicates that these royalties from oil and gas development on the WRNF would amount to .03 percent of Garfield and Mesa County revenues. *See* DEIS at 3-270. Apparently royalties were calculated for these two counties because more development is anticipated there than in Pitkin County. One can only assume, therefore, that the percent of Pitkin County's total revenues would be even lower than the .03 percent attributable to Garfield and Mesa Counties. Indeed, given the representations in the DEIS it appears one can assume that royalty income to Pitkin County would be very close to zero. *See* DEIS at 3-284.

When one weighs the advantages of these job and revenue generation numbers against the impacts our communities will sustain from oil and gas development, the answer that emerges is clear. Oil and gas development threatens impacts that far outweigh the benefits on offer. The analysis in the DEIS is limited, and in the County's view incomplete, particularly with regard to Pitkin County. But even on the basis of the limited industries that the DEIS does analyze—hunting at 6 jobs and $258,000 in labor income on an average annual basis, and grazing at 141 jobs and $1.7 million in labor income on an average annual basis—on a sustainable basis these industries dwarf the economic impact of oil and gas development. The DEIS acknowledges that impacts to these economic drivers from oil and gas activity are of concern. *See* DEIS at 3-275 to 3-276. The assumption that oil and gas development would have no economic impacts on grazing is unexplained, and at odds with what grazers themselves have to say on the subject. *See, e.g.*, Comments of Thompson Divide Coalition. To the extent that the economic impacts on grazing may vary from county to county, that should be disclosed and analyzed.

But the biggest impacts may be to resources the DEIS fails to quantify altogether in terms of economic impact—including, significantly, our ski areas and recreational activities other than hunting. Were these economic drivers considered, the asymmetry between high costs and low benefits to our community would be even more obvious. For the reasons discussed herein, especially with regard to air quality and traffic, these impacts are likely to occur and they could have profound impacts on our local economy.

The DEIS falsely asserts that oil and gas development will have no serious consequences for local governments. *See, e.g.,* DEIS at 3-284. Even if one leaves to the side law enforcement, emergency response and social services expenses associated with boom-bust development patterns and innately hazardous activities, this assessment ignores the serious impacts of oil and gas development on local transportation systems. The County addresses these transportation impacts in more detail herein.

Finally, it is worth highlighting the relatively small nature of the gas resource present on the WRNF. The DEIS indicates that oil and gas development on the WRNF would constitute a tiny proportion of the local oil and gas industry, at less than 1 percent of oil and gas activity in Garfield, Mesa and Rio Blanco Counties. *See* DEIS at 3-274. The DEIS portrays the significance of drilling on the WRNF as so small that it will have no effect on the local oil and gas industry. *See id.* (stating that "changes in the analysis area oil and gas industry . . . would not occur.") And that less-than-1% figure is for the entirety of the WRNF. Limit the analysis to the Thompson Divide—where the resource is both unproven and undeveloped—and the impact on the industry of closing the area to future leasing will be vanishingly small. The County does not believe that such a small fraction of the available local gas resource justifies placing at risk large areas of pristine habitat upon which significant measures of the local economy so deeply depend. Colorado requires a diverse economy for its present and future success. There is no need to place successful existing economies at risk for such a trivial fraction of even the local—let alone state or national—oil and gas resource.

F. Transportation

The County and the USFS cooperate regularly in the administration and maintenance of their respective road systems. For many years, the County has maintained WRNF roads within its territorial boundaries pursuant to agreement with the USFS. The County values its relationship with the Service in this regard.

The County notes that the analysis area in the DEIS is limited to USFS roads. While the County certainly has an interest in effects on USFS roads that it maintains for the Service, the County is equally concerned with impacts from oil and gas development on its own roads. The attached report of SGM, a civil engineering firm, documents the well-understood impacts that oil and gas development traffic has on road infrastructure. *See* Ex. 1 (SGM Report). Meanwhile, the costs of road reconstruction and maintenance are extremely high. The DEIS fails to address such impacts, and high costs of reconstruction, altogether.

Even with regard to USFS roads, the DEIS assumes that there will be no direct impacts to the WRNF transportation system, and so indicates that no additional protections in the form of lease stipulations were necessary in connection with the transportation resource. This appears to be unsupported thinking because, as noted above, the DEIS indicates that most lands designated for leasing will in fact be leased and developed. *See* DEIS at 3-160. Thus, impacts to both USFS and County roads leading into the WRNF will almost certainly occur, and are likely to be significant. *See* Ex. 1 (SGM Report); Ex. 11-12 (USFS Fernow documents). Concern regarding these impacts is exacerbated by the inadequate bonds required in connection with oil and gas development on federal lands, and the complicated corporate structures of many operators.

The DEIS also fails to provide any detailed discussion of traffic generation on County roads. It is difficult to imagine an issue of greater importance to the public; as the County knows well from its zoning work, traffic generation is often the single most important thing motivating those who appear at our public hearings. By failing to even address the traffic generation in local communities that can be expected from committing tens of thousands of acres to oil and gas development, the DEIS fails to meaningfully inform the public of the consequences they can expect from such a commitment. By overlooking this critical issue, the Service has not taken the hard look that NEPA requires. Again, this is not an analysis that is properly postponed to site-specific reviews, because what the public wants to know is how the decision made in the DEIS is going to change their community in the long run. The DEIS, with its analysis of cumulative effects, is the time to make that disclosure to the public.

Moreover, the analysis presented should be an independent analysis informed by multiple sources, not just figures provided by industry. It must consider not only the impacts of traffic generation on travel time and infrastructure, but also impacts to public safety that may result from increased accidents occasioned by the industrial traffic at issue. Finally, the County questions the assumption in the DEIS that only 7 wells will be drilled per pad. As the state of the drilling art advances, wells drilled per pad have increased tremendously. Today, it is not uncommon to see more than 20 wells drilled per pad. *See* Ex. 26 (CU). While the County supports consolidating wells and reducing pad numbers, traffic generation is related to well numbers rather than pad numbers. It is important that the Service base its traffic generation figures on the most up-to-date figures concerning well incidence, and the DEIS is unclear concerning the extent to which wells in excess of 7 per pad may in fact result. If that were the case, traffic generation figures could triple or more from what the DEIS assumes.

V. CONCLUSION

Thank you for this opportunity to submit comments. We look forward to working with the Service on this critical issue.

Very Truly Yours,

Christopher G. Seldin
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cc (with attachments):

David Francomb, USFS

cc: (without attachments):

Pitkin County Commissioners
Scott Fitzwilliams, USFS
Steve Bennett, BLM