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Citizens for Balanced Use

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Regarding the Custer Gallatin Forest Plan Revision *December 21, 2016*

To whom it may concern:

Please accept the following comments from Citizens for Balanced Use (CBU), a non-profit 501(c)3 organization representing over 6000 members and 100,000 supporters in Montana. CBU advocates for multiple use recreation, active forest management, and responsible resource development on our federally managed public lands. Include these comments and specific requests in the administrative record of the Custer Gallatin National Forest Plan Revision currently in progress.

Kerry White is the executive director of CBU and is submitting these comments on behalf of CBU. Kerry serves as a member of the Custer Gallatin Working Group and these comments in no way represent the Custer Gallatin Working Group or any of their members.

Page 7 of the Existing Condition report concludes temperature maximum has increased just 1 degree in the last 120 years and your prediction is an increase of 4 degrees more in the next 30 years. Please provide me with the Best Available Science and documentation used in your predictions. It does not seem reasonable or accurate to predict such an accelerated temperature rise. Conflicting science on both climate change and global warming reflect the basic uncertainty of any valid predictions and as such should not be stated in your Existing Conditions report. A better way to present unsettled science would be for the agency to acknowledge both sides of the science and admit there is no true science available that can accurately predict future temperature increases or decreases over time.

climate - Scott

Page 9:

"Rising temperatures have already contributed to environmental, economic and social changes across the Custer Gallatin, including the spread of invasive species, increased wildfire frequency and severity, and increased demand for water and energy. This pattern is expected to continue. As with the whitefish die-off, continued environmental changes may result in Custer Gallatin management decisions that are unpopular but necessary, such as access restrictions. Continued monitoring of climate and environmental changes will help Custer Gallatin planners and managers adjust to new and changing conditions and to work with the public to balance sustainability with economic and social needs."

The above statement on page 9 is false and should be revised to better reflect existing conditions and future actions. Rising temperatures of 1 degree is not responsible for increased fires. Fuel load buildup and excessive tree counts per acre are responsible for increased fires. A healthy forest of 500 to 600 trees per acre has become populated with between 2000 to 2500 trees per acre. Unhealthy forest due to lack of proper management has allowed our forest to become stressed and susceptible to bigger and

more destructive fires. It is irresponsible to state an increase of 1 degree maximum temperature over the last 120 years is the cause.

Spread of invasive species again should not be contributed to an increase of 1 degree in maximum temperature increase over the last 120 years. Please provide me with the data and science used in making this determination. The Forest Service has failed to acknowledge the amount of water trees consume in this forest. Lower stream flows are directly related to the population of trees per acre being 5 times what a healthy forest condition would be. Your statement that "access restrictions" is the answer seems counterproductive to active forest management in reducing tree per acre populations. Please provide me with your science and analysis of how reduced access would improve forest health, reduce fire risk, and increase stream flows. Please provide me with your analysis on how invasive species would be controlled more efficiently with reduced access. Again I believe your current analysis and statement of reducing access is flawed.

Please consider the act of transpiration in yours needs assessment. Over population of trees per acre has increased transpiration and evaporation with precipitation amounts to the soil reduced resulting in less absorption rates decreasing water storage in ground water. Over population of trees per acre have contributed to reduced ground water and reduced stream flows. These 2 factors seem to ignored in your analysis and you seem to move towards reduced access in order address current forest conditions. I believe your actions of reduced access will further reduce forest health, contribute to continued stream flow reductions, increase fire risk polluting our air and water, destroy wildlife and wildlife habitat, reduce economic opportunities, and adversely affect social wellbeing and communities. Please provide me with your science and analysis which supports your belief that reduced access will benefit our environment. Please include science which directly relates to those issues I have raised.

I also see in the Climate Specialist Report a prediction of 12 degree temperature increase by 2100. This paper does not seem to be a peer reviewed document and as such should not be used in any science based temperature predictions but only for discussion only. The Climate predictions are flawed in their assumptions and the Forest Service must seek true peer reviewed science reports in formulating a decision document on the Custer Gallatin National Forest Plan revision.

The Whitefish die off in the Yellowstone River has not been documented to be associated with any increase of climate temperature or water temperature. The connection between climate change and the White Fish die off by the Forest Service in the Draft Assessment Report is not supported by any evidence and is purely speculation not based on science.

The soil analysis on page 10-13 is based on unsubstantiated opinions verses know facts. The Forest Service acknowledges the fact they have limited, outdated or no data but have decided to insert their opinion on impacts from grazing, off road use, etc. The 2001 3 State OHV rule required off highway vehicles to be restricted to trails. The Todd Orr Forest Service report in 2004 on trails and impacts showed few user created routes caused by off road motorized users and in fact the most user created routes were contributed to horses. Please use this report in your formulation of the Custer Gallatin

National Forest Plan revision. This study will greatly improve your knowledge of existing conditions related to trail impacts.

Without true knowledge and information on soils, the Forest Service should not insert opinions on grazing. Grazing in fact increases soil productivity, reduces fuel loads of grass, increases big game habitat by reducing tall dry grasses, and is vital to social and economic community wellbeing. Your analysis on page 10-13 does not address any positive benefits of recreation, agriculture, and active forest management. Please include studies that analyze and show the benefits of these federally managed public land uses in development of the DEIS.

Below are some studies that show the benefit of grazing on the environment. Please review these articles and reference studies and include them in your analysis in preparing the DEIS.

http://www.ebparks.org/about/stewardship/grazing/benefits

http://www.thecattlesite.com/articles/731/grazing-studies-what-weve-learned/

https://www.fs.fed.us/rm/pubs_other/rmrs_2009_krausman_p001.pdf

http://cattletoday.com/archive/2008/March/CT1462.shtml

http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=5463

The Air Quality section on pages 14-17 has some assumptions which you admit are pure speculation. Nitrogen level increase is assumed to be coming from agriculture operations rather than possible natural effects from geysers, mud pots and geothermal activity in Yellowstone Park. Your statement that smoke from fires is a temporary condition and should be tolerated and more prescribed burns should occur. I request the Forest Service to include the report from the Montana Department of Environmental Quality where on their website they show the effects of wildfires. I also have a copy of the daily air quality data from DEQ which shows the elevated concentration of particulate toxins in the air associated with wildfire. Below is the chart (screen shot) from the DEQ website.

Please consider that smoke from wildfires is not a temporary condition when taking into account the 3 hazardous conditions on the chart below that state smoke from wildfires "causes premature mortality". When people are dying from the smoke coming from wildfires on federally managed public lands, the Forest Service must consider these facts before proposing additional burning and pollution of our air. Please consider increased active timber management and harvests of a renewable resource. It does not look like the Forest Service has including doing any analysis of the benefits of increased timber harvests. Please include this analysis in the DEIS.

Home / **Wildfire Smoke Updates** / Health Effects Categories

Montana Department of Environmental Quality website

Health Effects Categories

Health Effects Categories	Health Effects	Cautionary Statements
Hazardous	Serious aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; serious risk of respiratory effects in the general population.	Everyone should avoid any outdoor exertion; people with respiratory or heart disease, the elderly, and children should remain indoors.
Very Unhealthy	Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant risk of respiratory effects in the general population.	People with respiratory or heart disease, the elderly, and children should avoid any outdoor activity; everyone else should avoid prolonged exertion.
Unhealthy	Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in the general population.	People with respiratory or heart disease, the elderly, and children should avoid prolonged exertion; everyone else should limit prolonged exertion.
Unhealthy for Sensitive Groups	Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly.	People with respiratory or heart disease, the elderly and children should limit prolonged exertion.
Moderate	Possibility of aggravation of heart or lung disease among persons with cardiopulmonary disease and the elderly.	None

Air Quality Index (AQI) for BAM-2.5 24-Hour [1]

[1] Guideline For Reporting Of Daily Air Quality – Air Quality Index (AQI), EPA-454/R-99-010, July 1999, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, 27711.

The death of a family member caused by smoke from wildfires is and should be considered a severe and permanent impact. The Forest Service seems to overlook this fact and rather move towards less access, less active management of timber, and more towards a hands off management approach. It is important for the Forest Service to complete a cost benefit analysis of hands off, anti-access, approach verses an active, hands on management and increased harvest approach to forest and timber management. I request the Forest Service complete this analysis and include the results as part of the DEIS.

Page 16, Aquatic, Riparian and Watershed reports fails to consider the over population of trees per acre and the impact this has on ground water levels, stream flows, transpiration rate increases, and soil absorption rates. The report seems to wrongly consider an assumption of global warming affects when

earlier in the report the maximum average temperature has only increased by slightly over 1 degree in the last 120 years. If stream flows are down in recent years the Forest Service should focus on factors relevant to these current conditions. Please review current tree populations per acre and analyze the affect each additional tree has on surface and ground water levels.

A pilot project in New Mexico where tree populations were reduced to a healthy forest condition resulted in ground water level increases of up to 70 feet. If reduction of tree per acre population benefits stream flows and ground water levels it should become a priority action by the Forest Service in their new Forest Plan to achieve these benefits to improve water quality and quantity. Please consider peer reviewed science which has studied this issue and include it in the DEIS. Below is an excerpt from the study.

RESTORING A FOREST WATERSHED AND ADDING WATER BACK TO THE LAND

Dan C. Abercrombie, abercrombie@tularosa.net, PO Box 306, Alamogordo, NM 88311, 505-491-7591

Historical evidence clearly shows a significant decline in both stream flow and ground water recharge in the Sacramento Mountains of southern New Mexico. Photos, oral history, early Census data, and written accounts all paint a much wetter picture than is present today. Dense forests are robbing springs and streams of surface flow. Ground water recharge during the recent drought was non-existent. Large numbers of wells all over Otero County dried up. Drilling deeper was successful in some areas, but people in some areas are still hauling water.

Members of the Sacramento River Watershed Coalition recently completed several large thinning projects near Timberon. Several thousand acres of Ponderosa pine and alligator juniper have been thinned and restored to historical tree densities. Trees were thinned on both private and State Land using Senator Jeff Bingaman's Forest Restoration funds, State Forestry Wildland/Urban Interface funds, NRCS Environmental Quality Incentive Program cost share, BLM, and the rancher's input. Tree densities were reduced to improve ground cover and reduce danger of a crown fire.

The Otero Soil and Water Conservation District began monitoring static water levels in five wells in the watershed about three years ago. Following the treatment and decent summer precipitation, water rose about 100 feet in a well below the treated area. The static water level in this well is now about 15 feet. The New Mexico Bureau of Geology is preparing a Hydrogeology Map of the Sacramento Mountains.

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RESTORING A FOREST WATERSHED AND ADDING WATER
BACK TO THE LAND

Dan C. Abercrombie, District Conservationist
Natural Resources Conservation Service
2920 N. White Sands Blvd.
Alamogordo, NM 88310

Historical facts clearly show a significant decline in both stream flow and ground water recharge in the Sacramento Mountains of southern New Mexico. Photos, oral history, early Census data, and written accounts paint a different landscape than is present today. Dense forests are robbing springs and streams of surface flow. Ground water recharge during the recent drought was non-existent. Large numbers of wells all over Otero County dried up.

The Otero Soil and Water Conservation District served as the catalyst to form the Sacramento Watershed Coalition in 1996. The Natural Resources Conservation Service (NRCS), United States Forest Service (USFS), Bureau of Land Management BLM), Otero County Commission, the home owner groups and landowners near Timberon joined with the District in developing a strategy for improving the watershed health. The strategy developed revolved around applying for grants and coordinating implementation of projects. The Otero SWCD applied for 11 grants to thin trees and begin developing a data base of natural resources present in the area. In 2001, the first thinning project began and in 2003 the first grant was received for monitoring static water levels of selected wells in the watershed.

During the summer of 2004, the static water level in the southernmost well being monitored rose 70 feet.

SELECTED RECORDS FOR WATERSHED

General Land Office Survey notes from 1885 describing the Sacramento River area state that "the entire township is covered with a luxuriant growth of grass. Almost the entire township is covered with heavy timber of pine and fir of very good quality". Indeed, many photos taken of the Sacramento Mountains in the early 1900's depict an open forest with good grass cover.

The Department of the Interior carried out a firewood inventory for New Mexico in 1883 for the Tenth Census of the United States. There were 2-5 cords of firewood per acre available at higher elevations and 1-2 cords per acre in lower elevations of the pinonjuniper foothills.

OLD BENT MINE PICTURE TAKEN LOOKING NORTH IN ABOUT 1900 AND IN LATE 2005 PORTRAYS TREE DENSITIES AT ABOUT THE SAME ELEVATION AS THE LAND THINNED BELOW TIMBERON

In the early 1900's a water line was laid from the Sacramento River to Orogrande to supply water for the railroad. As late as 1971, the Sacramento River was stocked with fish at Timberon. Carrisa Spring, part of Timberon's water supply, has yielded as much as 600 gallons per minute. A 10-inch flow meter was installed on the main spring in 1986 and the average yield that year was 108 gpm. In the 1990's the flow ranged from 124 gpm in 1990 to a low of 66 gpm in 1994. Presently it is flowing about 30 gallons per minute.

Developers opened the Sacramento Mountains to large scale logging operations in the early 1900's. A railroad was built from Alamogordo to Cloudcroft and along many

canyons such as in the Sacramento River watershed to transport the trees to saw mills. Settlers, at about the same time, brought large numbers of livestock, which kept the lush grasses of the forest floor short. Without the low intensity ground fires of the past, large numbers of tree seedlings sprouted and lived. The delicately balanced ecosystem early settlers marveled at, was forever changed. Trees began to overpower the natural balance developed between trees, grass, and water over the past centuries.

RESTORATION BEGINS

The Coalition's primary objective was thinning trees. Historic reconstruction of the forest plant communities painted a picture of a more open forest with many large openings or meadows. USFS logging records indicate a tree density of 20-70 trees per acre with 25-45 foot spacing.

Three Federal grant programs were found which fit these parameters. The owner of the Elkhorn Land and Cattle Company applied for an Environmental Quality Incentive Program cost share grant through the Natural Resources Conservation Service to thin trees on his private and State land. Elkhorn restored about 1800 acres of rangeland to a more natural tree density.

Photos depict thinning as part of a landscape with NRCS cost share program.
In 2001, the Otero SWCD successfully applied for a Collaborative Forest Restoration Program grant through the Community Forest Restoration Act of 2000. Three locations in the watershed were thinned. At Sunspot, 8 acres on the western slope below the National Solar Observatory were thinned. The Circle Cross Ranch thinned over 40 acres along the western boundary of Timberon. The Southern Cross Ranch thinned 337 acres south of Timberon.

These photos depict the west side of Timberon before Ponderosa Pine is thinned and after thinning with the CFRP grant. Timberon residents have completed 103 projects to thin 152 acres in Timberon. Project funding was received through the Western Wildland Urban Interface Program, which is part of the Happy Forest Act. BLM used internal natural resource project funding to thin 230 acres of pinon-juniper slopes along the southwest side of Timberon to make Timberon more wildfire safe.

WATER

The Otero SWCD received small grants through the Bureau of Reclamation to monitor the Static water levels in 6 wells in the watershed. Water level data has been collected since 2003. The graph portrays a dramatic rise in the water table at the lower well being monitored. This well is located in an east-west syncline or downfold in the San Andreas Limestone formation.

The Otero SWCD petitioned the 2004-2005 and 2005-2006 New Mexico State Legislatures for funds to complete some hydro-geologic mapping in the Sacramento Mountains. The Otero SWCD has been working on a plan with the Bureau of Geology to gain a better understanding of the water cycle in the Sacramento Mountains. Several years of mapping geology and data collection will provide facts so that land managers

can use better science to make watershed management decisions.

CONCLUSIONS

Almost 3000 acres have been restored to a more natural tree density through the efforts of this Coalition. The wildland-urban interface initiative and Environmental Quality Incentive Program were the tools that led to the number of acres thinned contiguously. Ponderosa Pine roots extend 75-125 feet deep and juniper roots extend up to 200 feet deep. Reducing the consumptive use of the forest by thinning and restoring savannahs to the landscape apparently affected the water cycle. Landscape thinning during the present drought cycle produced a dramatic rise in the water table below the thinning.

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REFERENCES

Abercrombie, Dan C., 2003, *Waters of the Sacramento Mountains Forest*, Water Resources of the Lower Pecos Region, New Mexico, Science, Policy, and a Look to the Future, Decision Makers Field Conference 2003

Garrett, Dave and Garrett, Paula, 2001, *Evaluating Forest Restoration Opportunities on the Lincoln National Forest*: M3 Research

Kaufmann, Merrill R., Huckaby, Laurie S., Regan, Claudia M., Popp, John 1998 *Forest Reference Conditions for Ecosystem Management in the Sacramento Mountains, New Mexico*: U.S. Forest Service, Rocky Mountain Research Station, General Technical Report RMRS-GTR-19

This report has true ground tested results and should be used in your consideration of proposed actions to benefit ground water levels and stream flows. Please include this study in you DEIS.

Your conclusions state all water systems are functioning but this does not address a possible increase in functionality if proper active timber management projects were implemented. Litigation from environmental groups in the last 20 years has caused the Forest Service to base their proposed projects on threat of litigation rather than ecosystem health. Some environmental impact statements prepared by the Forest Service are flawed in some way or another which allows environmental groups to prevail in court. The Forest Service should consider their current ability and capacity to complete a NEPA document which stands the test of court. If the Forest Service is not able to complete a valid NEPA document in project proposals they should evaluate possible alternatives which could be initiated throughout the agency. Please include analysis of how many flawed NEPA documents have occurred, how these documents have been prepared, and how the Forest Service could better prepare these NEPA documents. Please include this analysis in the DEIS.

Terrestrial Vegetation and Ecosystems and Species Pages 26-37 includes opinions not supported by facts and science. Time after time in the report it mentions a threat to vegetation and ecosystems from off

road vehicle use and human activity. There is no science, data or facts to back these opinions. Off road vehicles are restricted to system roads and trails which are maintained many times by volunteer groups and organizations. The report seems to portray this public use as destroying the ecosystem. Please provide reports of off road use and damage from vehicles that is occurring on the Custer Gallatin in the DEIS. National statistics should not apply to current conditions and uses in the Custer Gallatin and if damage has occurred from Off road use, please provide this information in detail in the DEIS. Also provide documentation and studies on the impact of non-motorized and non-mechanized use. Also include studies on the impact of uncontrolled pets which increase the risk of the spread of noxious weeds. Analysis of recreation impacts is important and mitigation measures should be identified if they are present. An opinion is not sufficient and with the Forest Service admitting they have little knowledge of the forest condition under the forest canopy, I requests these opinions be based on facts and those facts be included in the DEIS.

Tourists spend nearly 4 billion dollars in 2015 in Montana. Much of that was spent on outdoor recreation. According to user surveys, 7 out of every 1000 forest visits were in wilderness areas. With nearly 74% of the Custer Gallatin in wilderness and roadless, little area is left for the majority of users. Please provide an alternative in the DEIS that increases multiple use access opportunities of motorized and mechanized use to provide for the increased needs of the public.

On page 31 the report states the Forest Service is working with neighboring land owners in the control of weeds. Please provide a list of these owners. I have had contact with several land owners that are frustrated with the Forest Service and their lack of controlling weeds on the public land they manage. Further information on this should be included in the DEIS along with intended future direction the Forest Service will take in controlling weeds. If further reduced access is proposed in the final Forest Plan, please explain what steps will be taken to control weeds, the cost to control weeds with reduced vehicle access (roads and trails), and additional cost to the Forest Service in controlling weeds with reduced access.

The report on pages 26-37 does not acknowledge the fact that much of the Custer Gallatin forest is dead, dying, or diseased. If this condition has been a result of poor management, alternative management proposals should be identified in the DEIS. It would stand to reason that current management direction of closing roads and access has created worse conditions in the forest that more of the same would produce a continued decrease in forest health. The new Forest Plan should address better management practices and not more of the same. Please provide alternatives to the Forest Plan that will increase forest health through active management and increased human activity. An opinion of human activity being harmful to the forest and ecosystem without science to support such a statement is simply one person's opinion. Please provide actual on the ground information and data from the Custer Gallatin to support the opinion that off road vehicle use has destroyed vegetation.

In your conclusion statement on page 37 you state: "Specialists would benefit from the following information".

- "better understanding of forest conditions under the forest canopy"

The previous statements truly reveal that the Forest Service is embarking on a decision without knowledge of the condition of our forest. The scoping document lays out how the plan is being developed using computer modeling and google earth views without knowledge of conditions under the forest canopy. Forest Service personnel no longer get out in the forest to evaluate proper management needs. The forest is managed from offices isolated from the resource. Please explain in the DEIS how the Forest Service can make decision to improve the forest health, better provide for the public needs, and increase the productivity of this federally managed public land when in the scoping document you state you do not have information on the "forest condition under the forest canopy".

According to the HJ 13 Study completed by the Montana Environmental Quality Council in 2016, an increase of big game on private land of 18% has occurred in the recent years. You state an importance for big game cover as a reason wildlife use the forest. The reality is these private lands are not concerned with wildlife cover but more with proper grass and range management. These private lands attract big game for the simple fact they are productive in vegetation production. Federally managed public lands are overgrown with timber choking out the grasses required by big game. The Forest Service has failed to open the canopy through active management resulting in more big game pressure on private property. Damage to haystacks, fences, and irrigation equipment occur which burdens landowners and the state of Montana. The current management of our federal public lands is costing Montana citizens in tax dollars reimbursing landowners for this damage. Please include an analysis in the DEIS how big game moving from federally managed public lands to private lands has affected wildlife management costs, access to big game for hunting, and the impact to private property.

If the analysis shows a direct negative affect on communities, private property, and environmental conditions, the Forest Service must pay particular attention to these adverse effects as required under the Environmental Justice Act in low income and minority population areas. Because the Forest Plan includes areas of Montana with low income populations and tribal minorities, the Forest Service is required to pay particular attention to these areas when developing the Forest Plan revision. Please include in the DEIS how the Forest Service has addressed low income and minority populations.

Per Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations (February 11, 1994), requires each Federal agency to achieve environmental justice as part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations (hereinafter "environmental justice communities"). At the U.S. Department of Agriculture (USDA), environmental justice refers to meeting the needs of these underserved communities by reducing disparate environmental burdens, removing barriers to participation in decision making, and increasing access to environmental benefits that help make all communities safe, vibrant, and healthy places to live and work. (See page 14 for definitions of commonly used terms.)

The proposed scoping document as currently described does not address the need for "increasing access to environmental benefits that help make all communities safe, vibrant, and healthy places to live and work" and actually goes one step further to actually propose to reduce access (see page 9 of DAR) to those benefits that the executive order calls for.

According to Hungry In Montana report dated 2016 (www.mfbn.org/research) 72% of households in Montana are living below poverty. Montana remains 49th in wage income level and these facts should be considered in the development of the Custer Gallatin Forest Plan revision and the need for access to these public land resources. The Forest Service is required to pay particular attention to this segment of the population when proposing actions that directly affect low income populations.

Page 39 of the Draft Assessment Report mentions the multiple use of Forest Service managed land and states these multiple use are allowed. The Multiple Use Sustained Yield Act requires the Forest Service to manage for multiple uses. The report indicates these uses are allowed but in fact they are mandated. Please include reference to the Multiple Use Sustained Yield Act in the DEIS. Please assess the need for multiple use and active management in areas of the Custer Gallatin National Forest during the preparation of the DEIS.

The Forest Service refers to the 2012 Planning Rule as listing "wildlife conservation as a priority" but the 2012 Planning Rule is simply a Forest Service Rule and does not supersede the Multiple Use Sustained Yield Act. The Multiple Use Sustained Yield Act benefits not only wildlife if correctly implemented but also directly benefits the economic and social wellbeing of local communities. Healthy and vibrant communities benefit the environment and must be considered in the development of the Custer Gallatin Forest Plan revision.

Page 55 lists the Historic Register list of cultural and historic properties. One of these properties is the Nez Perce National Historic Trail but there is another trail not listed which should be and this is the Big Sky Snowmobile Trail. This trail is listed on the National Historic Register and should be included in this list. Please include the Big Sky Snowmobile Trail in your list on page 55.

Page 59 refers to the importance of tribal resources and the dependence on these resources for the tribes. Unemployment in some tribes in Montana is at 50% and the use of the land managed by the Forest Service is critical in providing subsistence resources for the Native American Tribes. The Crow tribe depends on the development of coal reserves for many of their jobs and economic support. Protecting the resource for the tribes must include opportunities for the tribes to develop these coal and mineral reserves. Please include in the DEIS analysis the importance of mineral development and what affect this has on employment and economic wellbeing of Native Americans.

The Environmental Justice Act requires the Forest Service to pay particular attention to these minority and low income segments of our populations when developing land use plans. The DEIS should reflect your careful analysis of the importance of these resources to the tribes for employment and economic sustainability.

It was refreshing to see the Forest Service review the local Growth Policies or Resource Plans in the preparation of the Draft Assessment Report. All counties reviewed have indicated tourism or recreation as a major factor in supporting their counties and communities. This is an important factor for the Forest Service to consider when developing the new Forest Plan. Coordination between the Forest Service and the counties is required under both 43 USC 1701 and 16 USC 1604. Please follow the coordination requirement in the development of the new Custer Gallatin Forest Plan revision.

During the 2015 legislative session, Representative Kerry White brought forward HJ 13 which was assigned to the Environmental Quality Council during the interim. This study focused on the loss of access to and on our federally managed public lands over the last several decades. Due to the lack of historic data from the Forest Service and BLM, the study was limited to information from 1995 to 2015. During this time the report confirmed a loss of 21,951 miles of road open to motorized public use. Also the BLM reported a loss of almost 1,800 miles of road open to public motorized use. The available BLM data was significantly less than the Forest Service as their inventory is currently underway.

The final report from the EQC for the HJ 13 study is available at the following link.

http://www.leg.mt.gov/content/Committees/Interim/2015-2016/EQC/Committee-Topics/hj-13/hj13-finalreport.pdf

Please review this study during the preparation of the DEIS and consider these past actions of closures and how they have adversely affected counties and local economies and also how working to reverse the trend of closures of roads could benefit counties and local communities. As stated above, local communities depend on access to our federally managed public land for recreation and tourism. Also as with Stillwater County, their economic development plan calls for expanding development of their natural resources as a priority. Recreational development and expanding recreation tourism and travel services for economic benefit are also a priority. Most of the counties in the study area are very dependent on recreation for economic benefit and access is an integral part of providing this benefit.

Agriculture and resource development are also important economic drivers of counties and communities in the planning area as stated in the Draft Assessment Report on pages 62-68. Because of the large amount of federally managed public land contained in most of these counties, access to these resources is a critical part of community sustainability.

A question should be asked. Has the closure of nearly 22,000 miles of roads during the last 20 years by the Forest Service reduced the economic opportunities of small communities? I request the Forest Service analyze the impact these closures have had on local communities. Many of these communities are of minority and low income individuals which are particular vulnerable to adverse effects from Forest Service and BLM land management plans and actions. The new Forest Plan revision will have a profound effect on these counties and communities and the Forest Service must to take a hard look at the economic impact their actions will have on these areas.

The Social and Economic Benefits and Conditions beginning on page 62 shows a brief explanation of county needs associated with their respective Growth Policies or Resource Plans. The Forest Service has received the Growth Policies from the affected counties as they were presented to them through the Custer Gallatin Working Group collaborative. The Assessment document refers to these local plans but it is unclear how the Forest Service is coordinating with these counties in the preparation of the Forest Plan moving forward. The Draft Assessment Report should have been shared and discussed with the counties before release to the public as required under federal law. Instead the Forest Service released the document to the public without prior engagement with the counties under the coordination requirement.

Please document in the DEIS how the Forest Service cooperated and coordinated with local governments in the preparation of the DEIS. Also please include in the DEIS all issues of inconsistency between the local Growth Policies and proposed Forest Plan that are identified and the Forest Service's explanation as to why their plan cannot be consistent with the local Growth Policy or Resource Plan.

It is clear in the Draft Assessment Report that counties are very dependent on the management of federal lands in their area for many things related to both their social and economic needs. Counties are asking for increased recreation opportunities and more access to the resources that benefit their counties economically. Increased fuel loads have put many of these communities at risk of catastrophic fires resulting in poor air quality, polluted water, unproductive soils, and extreme erosion. Access for search and rescue, fire suppression, weed control, firewood gathering, and many other important needs must be seriously considered in the new Forest Plan revision and the Forest Plan should be an adaptive document that gives land managers the ability to make decisions based on current or changing needs. Local governments should be given more influence in the decision process as they are responsible for the Health, Safety, and Welfare of the citizens in their county.

Include in the DEIS possible solutions to providing more local and tribal government influence over project proposals. Current state law provides for the Montana Attorney General to engage in litigation against the Forest Service on active management projects and fuel reduction efforts. The Forests in Focus program has appropriated funds to assist federal land managers in bringing fuel reduction projects to completion. The Chessman Reservoir project West of Helena is a good example of one such project. Please include in the DEIS some possible alternative management scenarios that would benefit the resource, local and tribal governments, and the Forest Service in completing fuel reduction projects similar to the Chessman Reservoir.

The Draft Assessment Report lacks information on current conditions of the forest in specific areas and includes statements such as "lacks understanding of forest conditions beneath the forest canopy", "forest managers need to work closely with tribes to identify and prioritize areas of tribal cultural significance", "the Custer Gallatin's timber resources are due for updated resource evaluation", "likely geologic resource locations", "projected demand for various natural resources", "updated trail condition survey information for designated trails", "results of this study were very generalized and have not yet been verified on the ground", "outfitters and guides are among the

opportunities that will help Custer Gallatin managers better understand recreational use on the national forest and make better informed management decisions", "traffic volumes to help determine average daily traffic and to show use patterns", "deferred maintenance cost analysis to show funding trends and road maintenance needs", "improved Custer Gallatin infrastructure location data", "an inventory of user created roads", "improved information on Custer Gallatin dams", "Information needs related to the forest plan revision process include identifying where existing utility and communications corridors are located, where special use authorizations are in place, where uses overlap, where access is inadequate or unofficial, and where future human development is expected. Records should also be updated to include right-of-way acquisition data from more than 20 years ago. This information will help Custer Gallatin managers develop criteria for land use decisions and to determine where right-of-way corridors are most needed".

The current condition and assessment report should be more complete and clearly is lacking in information which is needed to complete a new Forest Plan revision. With this lack of information which the Forest Service admits to be valuable in making an informed decision on future management, when will this information be available? Should a final decision be postponed until this information is gathered and considered in the decision? If a decision is made without this information, would this decision be arbitrary and capricious?

The lack of specific information in the Draft Assessment Report is alarming. As a fourth generation Gallatin County resident and a Custer Gallatin Forest user of over 50 years I have seen to steady decline in forest health. The Draft Assessment Report should acknowledge this fact as much of the forest is dead or dying, our population of trees per acre have become unsustainable reducing water availability and stream flows, range conditions under thick canopy cover have reduced forage availability for wildlife, loss of multiple use access in the Travel Plan decision has reduced opportunities for the majority of users and put addition impacts on the trails, roads and facilities that were left open, and all of this has happened in the time I have used this forest.

It is clear the Forest Service lacks the knowledge of long time employees on this forest to make the decisions necessary. Most of the decision makers on this forest are new to the area. I.D. Team leader Virginia Kelly stated at a recent Custer Gallatin Working Group meeting that "we are behind in the process because our I.D. Team is taking time to familiarize themselves with this forest." In other words the decision makers for the Forest Plan have come here from other areas and are not familiar with the Custer Gallatin Forest. This is not an isolated case in the Forest Service today as many see the Forest Service as a revolving door of employees shuffled throughout the agency.

In a perfect world the federal land managers would consult with local residents and local governments to ascertain the needs of the communities. These managers would strive to educate the public on the importance of active management for better ecological health of the environment but in recent years the Forest Service has been forced to manage our public than through a process I will call "by threat of litigation". Several important projects are simply set aside because of litigation threats from extreme environmental groups. Most projects are simply too expensive to bring forward because of the red tape and preparation cost associated with regulation. The Draft Assessment

On page 119 of the Draft Assessment Report the Forest Service states "while significant gains have been made in improving access, there are a few locations where access can be improved." This statement is simply false. Much of the access to and on the Custer Gallatin has been closed in the last 20 to 30 to 50 years to multiple use access and the majority of users. Access to mineral resources have diminished, timber harvests have declined, grazing allotments have been retired or reduced, roads and trails once open to the public have been closed, blocked or obliterated, and to state the Forest Service has made significant gains is false.

The Forest Service is required to do a cumulative analysis of the impacts of past actions when preparing the new Forest Plan under NEPA and the CEQ regulations. Please include in the DEIS a list of past actions by the Forest Service that have reduced or significantly affected access to and on the Custer Gallatin. Most counties appear to require more opportunities for recreation, timber harvests, mineral production, and grazing in the new Forest Plan. Please provide the public with an alternative in the DEIS that increases these opportunities as identified in the local county Growth Policy. NEPA requires a "wide range of alternatives for the public to comment on" and the Forest Service must take a hard look at providing an alternative with increased multiple use recreation, increased timber harvests, increased mineral development, and increased grazing opportunities.

Below is a list of past actions the Forest Service may want to consider in developing their cumulative effects analysis. This list is in no way a complete list of actions that have affected access but rather a place where the Forest Service can begin their required "cumulative affects analysis".

List of Current and Immediate Past Actions Affecting Multiple-Use Recreation

United States Court Of Appeals for the Ninth Circuit
No. 01-35690 D.C. No. CV-96-00152-DWM
Every Resource Management Plans and Planning Actions
(inter-agency) Grizzly Bear Recovery Plan
(inter-agency) ICBEMP
(inter-agency) Northern Rockies Lynx Amendment
(inter-agency)3-States OHV Strategy
B-DNF Continental Divide Trail near Jackson, MT
B-DNF Whitetail Pipestone Travel Plan
B-DNF 2003 Forest Plan Update
B-DNF Analysis of the Management Situation
B-DNF Continental Divide trail near Feely
B-DNF Continental Divide trail near Whitetail-Pipestone
B-DNF Social Assessment
B-DNF Mussigbrod Post Fire Roads Management
B-DNF & BLM Flint Creek Watershed Project
BLM Blackleaf Project EIS
BLM Dillon Resource Management Plan
BLM Headwater Resource Management Plan
BLM Arizona Strip Travel Plan
BLM Bruneau Resource Area Travel Plan

Document states several times that the Forest Service is forced into a balancing act of making decisions not based on best available science or forest health but more on what is "socially acceptable".

I am a member of the Montana Legislature serving in my third term and also serving my second term as chairman of the Natural Resource Committee and I am also a member of the Environmental Quality Council (EQC) interim committee serving two terms. During one of the EQC meetings a long time 30+ year employee of the Forest Service in Region One was asked what he thought of the condition of our forest today verses when he began his career. He stated that "today the forest is in worse condition than were I began working for them many years ago." This is very evident in my mind as well and I know the Forest Service does the best they can to manage this vast resource for the benefit of the environment and the public while following the vast amount of laws, regulations, and directives.

It is frustrating to me to see the deterioration of the health of this resource and I disagree with many decisions the Forest Service has made in blocking and closing more and more access to our public lands. Access is the key component to both the ability to manage this resource and to disperse the activities and opportunities the public is entitled to enjoy. This is why your statement on page 9 of the document alarms me and our organization as it appears you are preparing the public for yet more closures. "Continued environmental changes may result in Custer Gallatin management decisions that are unpopular but necessary, such as access restrictions."

The document states on page 88 that "More than two-thirds of the national forest is designated in one or classifications discussed below." These include "Designated Wilderness, Inventoried Roadless Areas, National Natural Landmarks, National Scenic Byways, Recommended Wilderness, Recreation and Wildlife Management Areas, Research Natural Areas and Special Interest Areas, Wilderness Study Areas". With more than two thirds of the national forest designated in special classification, where does the majority of the public recreate, where do counties get the resources to provide economic benefits, how do these designations affect the Forest Service's ability to manage these areas for better environmental health in reducing wildfires and fuel loads, and why would any further reduction to access benefit anyone including the agency.

The Draft Assessment Report refers to volunteer groups and organizations helping the Forest Service in their management of these public lands. The truth is that volunteer organizations are most often prohibited from helping maintain trails and facilities The biggest barrier to volunteer organizations helping the Forest Service in management activities such as weed treatments of trail maintenance is the problem with liability exposure by the agency. This issue has been discussed in depth between Joni Packard with Region One and me. This liability question is a nationwide issue and the Draft Assessment Report failed to mention this issue of liability concerns. Please include in the DEIS possible solutions to this issue and how the Forest Service can achieve better partnerships with volunteer organizations. The Forest Service no longer focuses on maintenance but rather on preparation of documents in compliance with federal mandates and requirements. Because of this the health and productivity of the forest and our environment have diminished significantly.

BLM Escalante Grand Staircase Monument
BLM Missouri Breaks Monument
BLM Moab Resource Management Plans
BLM National OHV Strategy
BLM National Mountain Biking Strategic Action Plan
BLM San Rafael Travel Plan
BLM Sleeping Giant Travel Plan
BLM Whitetail/Pipestone Rec. Management Strategy
BLM Lake Havasu RMP
BLM Sustaining Working Landscapes Initiative
BLM Rocky Mountain Front Scenery Evaluation Project
BLM Kanab Resource Management Plan
Bitterroot NF Fire Salvage EIS
Bitterroot NF Post-fire Weed Mitigation EIS
Bitterroot NF Sapphire Divide Trail
Bitterroot NF Forest Plan Revision
Caribou NF Travel Plan
Custer National Forest Travel Plan
EPA Tenmile Creek Watershed Plan
Flathead NF Robert Wedge Post Fire Project
Flathead NF West Side Reservoir Post Fire Project
Flathead NF Forest Plan Revisions
Flathead NF Moose Post Fire Road Closures
Flathead NF Spotted Bear Road Closures
Gallatin NF 2002 Travel Plan Update
Helena NF Blackfoot Travel Plan
Helena NF Blackfoot Water Quality Plan
Helena NF Cave Gulch Fire Salvage Sale
Helena NF Clancy-Unionville Plan
Helena NF North Belts Travel Plan
Helena NF North Divide Travel Plan
Helena NF Noxious Weed Plan
Helena NF South Belts Travel Plan
Helena NF South Divide Travel Plan
Helena NF Continental Divide National Scenic Trail
Humboldt Toiyabe NF Charleston-Jarbidge Road
Humboldt Toiyabe NF Spring Mountains NRA
Kootenai NF Bristow Restoration Project
Kootenai NF McSwede Restoration Project
Kootenai NF Forest Plan Revisions
Lolo NF Forest Plan Revision
L&CNF Judith Restoration Plan
L&CNF Rocky Mountain Front Travel Plan
L&CNF Snowy Mountain Travel Plan
L&CNF Travel Plan update
Montana State Wolf Plan
Montana State Trail Grant Program PEIS
Montana State Trail Plan PEIS

Montana FWP Statewide Outdoor Recreation Plan
Nez Perce NF Travel Plan Revisions
NPS Salt Creek Road Closure
NPS Yellowstone Winter Plan (snowmobile closure)
Payette NF Travel Plan Revisions
Sawtooth NF Travel Plan Revisions
USFS National OHV Policy and Implementation
USFS Forest Plan Amendments for Grizzly Bear Habitat Conservation
USFS National Strategic Plan 2003 Update
USFS Roadless
USFS Roadless Rule II
USFS Roads Policy
USFS National Land Management Plan Revisions
USFWS Bull Trout Recovery Plan
USFWS Westslope Cutthroat Trout ESA
USFWS CMR National Wildlife Refuge Road Closures
USFWS Sage Grouse Plan

Page 112 mentions the trail infrastructure in the Custer Gallatin and the conclusions on page 113 indicate further information is needed. I would request the Forest Service include in the DEIS and in their analysis the Todd Orr trail survey report. This report was completed prior to the Gallatin Travel Plan revision but was never included in the administrative record. I request this information be included in the Forest Plan revision DEIS.

Page 3 of the reports the Forest Service used the "Best Available Science" when completing the assessment. I find significant gaps in the science being used because there are many assumptions being used because of the lack of knowledge or information on the subject being discussed. Numerous times the Forest Service has indicated in their "conclusions" that you lack the information needed to complete the new Forest Plan and you are going to rely on further information being gathered or future monitoring data to inform future management decisions. The question would be: "If you don't have the data and you don't have the information necessary to complete a comprehensive analysis of current conditions, then how can you make an informed decision based on assumptions rather than facts?"

And if this decision is based on assumptions proven to be false, or incomplete or incorrect information, then what opportunity do you have in the future to change a formally adopted decision and would not this decision based on assumptions, incomplete information, and inaccurate conditions on the ground be considered arbitrary and capricious?

There are a few other additional comments CBU would like to make. On page 15 you state "Custer Gallatin managers are required to reduce air pollution." and "we work closely with several organizations to assess and protect air quality." As shown in our previous comment above, air pollution from specifically wildfires is killing people. Please list all the "several organizations" you are working closely with on the pollution issue and what their role in this partnership. Also your statement of "managers are required to reduce pollution" please list that requires you to reduce pollution and what regulation you must follow and what liability you assume in the adverse effects of wildfire smoke?

In the analysis the Forest Service is required to identify areas of additional wilderness and additions to the wild and scenic rivers. The Forest Service is not required to propose any new wilderness or wild and

scenic river designations and can remove past suggested wilderness and wild and scenic designations. During the review of additional wilderness areas CBU requests the Forest Service to strongly consider the information below and the negative impact wilderness areas have on counties and local economies.

The Economic Costs of Wilderness
Brief

- Print
- ShareThis

June 16, 2011
by Brian C. Steed, Ryan M. Yonk, and Randy Simmons

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Jon M. Huntsman School of Business, Utah State University
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Summary
Wilderness is one of the most contentious issues in American public lands management. Local officials often bemoan Wilderness designations as creating economic hardships by limiting extractive industries, outdoor recreation, and the siting of transportation corridors, water and power lines, and telecommunication facilities. In direct contrast, many environmentalists allege that Wilderness creates economic benefits for local communities through increasing property values and from benefitting the tourism industry. This study explores the economic claims by examining empirical evidence of identifiable differences in the economic conditions of Wilderness and Non-Wilderness Counties. Some Wilderness can have positive economic impacts but our findings indicate that this is not the general rule. We find that when controlling for other types of federally held land and additional factors impacting economic conditions, federally designated Wilderness negatively impacts local economic conditions. Specifically, we find a significant negative relationship between the presence of Wilderness and county total payroll, county tax receipts, and county average household income. By working together with local communities to address their concerns, environmentalists can help develop balanced policy that genuinely acknowledges the local economic costs associated with Wilderness.
Introduction to Wilderness
Wilderness, so designated pursuant to the Wilderness Act of 1964, is the most restrictive of all federal land-use designations. The Wilderness Act protects areas "untrammeled by man" that have not been developed for other human uses. To preserve wild characteristics, the Wilderness designation prohibits roads, road construction, mechanized travel, and the use of mechanized equipment. Wilderness also impacts extractive industries such as mining, logging, and grazing.[1] The stringent requirements of the Wilderness Act also disallow the construction of telecommunication towers, facilities for power generation, transmission lines, and energy pipelines.
Due to these restrictions, local officials frequently complain that Wilderness harms local economies by limiting the opportunities for economic development. The State of Utah, for instance, recently passed House Joint Resolution 10 which requested that the U.S. Congress not designate any additional Wilderness in Utah. Through a vote by a supermajority of members, the state legislature asserted that Wilderness' limitation of multiple uses causes substantial economic hardship for the state. Environmentalists counter that the presence of Wilderness actually attracts residents and businesses to nearby communities. Wilderness is claimed to increase property values and create a higher quality of life in those communities. Environmentalists also claim that Wilderness contributes to a healthy tourism industry. The Wilderness Society notes "[d]esignated wilderness areas on public lands generate a range of economic benefits for individuals, communities, and the nation—among them, the attraction and retention of residents and businesses."[2] The Sonoran Institute similarly finds, "protected natural places

are vital economic assets for those local economies in the West that are prospering the most."[3] The Sonoran Institute further notes, "Wilderness, National Parks, National Monuments, and other protected public lands, set aside for their wild land characteristics, can and do play an important role in stimulating economic growth—and the more protected, the better."[4]

Despite these differing views, Congress has continued creating Wilderness Areas. There are 759 Wilderness Areas currently in the United States, totaling 109,663,992 Acres (Gorte 2010). Wilderness is managed by four federal agencies: the National Forest Service, the National Park Service, the Fish and Wildlife Service, and the Bureau of Land Management. Wilderness Areas dramatically vary in size from the Pelican Island Wilderness in Florida, which occupies a mere six acres, to the 9,078,675-acre Wrangle Island Wilderness in Alaska. Due to the stringent requirements laying out Wilderness characteristics, the majority of Wilderness Areas are found within largely rural and lightly populated counties within Alaska, California, Colorado, Montana, New Mexico, Nevada, Oregon, Utah, and Washington. Only six states contain no Wilderness: Connecticut, Delaware, Iowa, Kansas, Maryland, and Rhode Island.

Understanding the Economic Impact of Wilderness

To provide better evidence of economic impacts, we use longitudinal statistical analysis over every county in the United States dating back to 1995. The panels each contain measurements of economic conditions taken every five years.[5] We selected three uniformly applicable variables as proxies for county economic conditions: average household income, total payroll, and total tax receipts. Average household income and total tax receipts are gathered by the U.S. Census Bureau. Total payroll figures are gathered by the Bureau of Labor Statistics.

Average household income is calculated by dividing the sum of all income of the residents over the age of 18 in each household by number of households. Average household income has the advantage of specifically addressing how individual households are on average affected by Wilderness designation in these counties. It has the disadvantage of being self-reported to the U.S. Census Bureau and, accordingly, may not be as valid as more direct measures.

Total payroll is a broader metric that captures those under the age of 18 and commuters who may live outside but work within a county. Further, it is a measure of the economic situation of individuals rather than households. Total payroll is not a perfect proxy because it does not capture the capital investment, county residents who work outside the county, or most importantly, retirees who do not receive payroll. Nevertheless, the data are readily available and considered a reliable metric for local economic conditions.

County tax receipts present two advantages over the others measures.[6] First, the data are largely complete; local governments are required by state and federal statute to report tax receipts correctly. These requirements provide some confidence in the data that self-reporting does not provide. Second, tax receipts represent all taxable transactions in the county. This provides a useful metric of economic activity. Tax receipts, however, are not a perfect proxy as there are significant institutional differences across states, regions, and often counties themselves about how, when, and why taxes may be collected.

Although none of our dependent variables is a perfect proxy for economic conditions, taken together, they paint a relatively complete picture of the economic situation. We expect that the presence of Wilderness would have similar effects on each variable.[7] To ensure that it is the effect of Wilderness and not simply federal land ownership that harms economic conditions we include control variables for each of the federal agencies that manage public land. We also include variables that control for the significant differences among counties. These variables include population, land area, and number of households, birth rate and school enrollment, and infant death rate. Further, we include variables indicated by the economic development literature as likely important in determining outcomes: high school graduates, median household income, poverty rate, crime rate, government employment, unemployment rate, social security recipients.

Findings

Controlling for other factors influencing county economic conditions, the Wilderness designation is significantly associated with lower per capita income, lower total payroll, and lower total tax receipts in counties. The estimated impact of Wilderness on county economies is detailed in Table 1 below. Full results of the regression analysis from the three models are contained in Appendix 1.

Table 1: The Economic Impact of Wilderness

Measure of Economic Condition	Economic Impact
Average Household Income	$-1446.06
Total Payroll	$-37,500.00
County Tax Receipts	$-92,910.00

These results indicate that Wilderness impacts both households and counties. Average household income within Wilderness Counties is estimated to be $1,446.06 less than Non-Wilderness Counties. Total payroll in Wilderness Counties is also estimated to be $37,500 less than in Non-Wilderness Counties. County Tax Receipts in Wilderness Counties is estimated to be $92,910 dollars less than in Non-Wilderness Counties.

Analysis and Conclusions

The argument often stated by the environmental community that Wilderness is good for local economies is simply not supported by the data. When comparing Wilderness and Non-Wilderness Counties, Wilderness Counties are at an economic disadvantage to their Non-Wilderness counterparts. Accordingly, if the test for whether or not to designate Wilderness is economic, Wilderness fails. But economics did not underlie the Wilderness Act or any of the Wilderness Areas established since the Act was passed. Wilderness is established for emotional, ecological, and cultural purposes. Our results show that those purposes are accomplished at a cost to local economies.

A variety of factors could lead to the negative relationship between Wilderness and economic conditions. Arguably, areas "untrammeled by man" have less existing economic activity and reducing the potential for future economic development by designating those areas as Wilderness will not, on net, be economically positive. It is also possible that different types of Wilderness may have different implications for economic conditions. As noted, four federal agencies currently manage Wilderness Areas, and different agencies may have different economic impacts on counties. Wilderness within National Parks, for instance, may more effectively attract tourists than Wilderness on Bureau of Land Management or National Forest Service lands.

Finally, it is probable that the location of Wilderness has an impact on the direction and magnitude of its economic impact. Phillips (2004), for instance, found that Wilderness designation in the Green Mountains of Vermont had a positive impact on private land values in that area of Vermont. We should assume that some Wilderness can, in fact, have positive economic impacts, even though our findings indicate that this is not the general rule.

While there may be other legitimate, non-economic reasons for the designation of Wilderness, the tradeoff will likely impose an economic burden on local families and businesses. The benefits and costs from Wilderness are unevenly distributed between local and non-local communities, with local communities incurring a larger burden of the costs. This provides a good reason why local officials often rally against and adamantly oppose Wilderness.

When environmentalists and national agencies consider the creation of Wilderness designations in the future, they should pay attention to the interests of local communities. This paper illustrates the adverse economic costs of Wilderness on local economies. By working together with local communities to address their concerns, environmentalists can help develop balanced policy that genuinely acknowledges the local economic costs associated with Wilderness.

Appendix 1: Regression Results Table

	Model 1 Household Income	Model 2 Total Tax Receipts	Model 3 Total Payroll
Observations	7185	7185	7164
Wald Chi-Square	1.28e+06***	21209.98***	48232.88***
Variables			
Wilderness	-1446.06***	-.37.50**	-92.91*
Percent BLM Land	-3.087	.58	-1.66
Percent Bureau of Reclamation Land	40.97	-2.66	3.84
Percent Department of Defense Land	-148.45***	-3.87***	-21.38**
Percent Forest Service Land	-10.78*	.10	-.06
Percent Fish and Wildlife Land	29.25	1.23	-3.50
Percent National Park Land	-4.24	2.55*	-7.60*
Percent Other Federal Land	.99	2.47	8.96
Percent Tribal Land	16.29	.26	-2.78
Percent Tennessee Valley Authority Land	55.40	-1.50	6.63
Population	.40***	-.002***	.01***
Land Area	-.15***	-.002	-.03***
Percent Male	-.040***	.007***	.006***
Percent White	-3.89	-2.00***	-.82
Birth Rate	-406.41***	-7.94***	7.3
Infant Death Rate	4.05	.05	1.66
School Enrollment	-.14***	.013***	-.007***
High School Graduation Rate	58.17***	1.41**	-.38
Poverty Rate	75.59***	-5.11**	6.83**
Crime Rate	.88***	-.006**	.02**
Unemployment Rate	-.51***	.003	.01**
Median Household Income	.	-.009***	.01**
Constant	-127.37	491.06***	-1100.01***

*P=.10 **P=.05 ***P=.01

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ENDNOTES

1 Although mining claims were allowed for the first 20 years after the Wilderness Act passed, mining and mineral exploration are now prohibited within Wilderness. Although logging is not expressly proscribed by statutory language of the Act, the restrictions on mechanized travel, mechanized equipment, and road construction generally preclude large-scale logging activity (Coggins 1993). Grazing is expressly allowed in Wilderness Areas, but administrators may make "reasonable regulations" including the reduction of grazing to improve range conditions (see generally H.R. 96-617). In addition to the prohibitory language found in the Wilderness Act, courts have aggressively blocked a variety of activities in Wilderness and areas adjacent to Wilderness. Uses of land surrounding Wilderness often receive more stringent review. The 10th Circuit Court of Appeals, for instance, in 1972 upheld an injunction of logging in an area that approached a Wilderness Area (*Parker v. United States* 448 F.2d 793 cert. denied 405 U.S. 989). Wilderness Areas also often raise review standards under the National Environmental Policy Act (NEPA). Under NEPA, land uses near Wilderness Areas may be found to have a more "significant" impact than actions near lands not under federal protection. This may increase the costs associated with county or state activities occurring near Wilderness areas and may change the cost calculus in making governance decisions.

2 The Wilderness Society, "The Economic Benefits of Wilderness: Focus on Property Value Enhancement," *Wilderness Society Science and Policy Brief*, no. 2, March 2004, p. 1.

3 R. Rasker, B. Alexander, J. van den Noort, and R. Carter, *Prosperity in the 21st Century West: The Role of Protected Lands*, The Sonoran Institute, 2004, p. ii.

4 Ibid., p. 1. It is interesting to note that these types of studies almost never account for the opportunity costs of Wilderness Designations. They evaluate the potential benefits of Wilderness without accounting for the lost uses of the land including the value of timber, minerals, and recreation use that are lost because of the Wilderness designation.

5 By including evidence over time, we hope to minimize any temporal effects such as changes in the short run versus changes in the long run. Using all counties expands the scope of investigation and enables an examination of whether there are economic differences between Wilderness and Non-Wilderness Counties, while avoiding regional economic phenomena that may be present in individual geographic locations. The Western United States, for instance, has been undergoing a demographic transformation with significant population and land-use transformations throughout the past two decades. By examining all of the United States, we hope to avoid those Western-specific phenomena.

6 It could be argued that counties with large amounts of federally held land will have lower tax receipts and appear negatively impacted in terms of tax receipts. Although left alone, this may downwardly bias the results. We have mitigated these outcomes by including other variables within the model such as county size, county population, and percentage of county held by different governmental agencies. By including these variables, the impact of variable county size and variable ownership should be mitigated within the regression coefficients of these variables and should not downwardly bias the wilderness coefficient.

7 We use a dummy variable to indicate the presence or absence of Wilderness in each county across time. The Dummy is coded 1 for the presence of Wilderness within a county and 0 when a county contains no Wilderness.

The Draft Assessment Report indicates more than two thirds of the Custer Gallatin is in special designation including "more than one third of the national forest's total acreage" is formally designated as wilderness. According to user surveys by the Forest Service:

https://apps.fs.usda.gov/nfs/nrm/nvum/results/

In most cases less than 3% of the population recreates in designated wilderness. In applying a logical sense of available resource for the greatest good in the Custer Gallatin Forest Plan, the majority of public use occurs on non-wilderness lands or lands open to multiple use. CBU requests the Forest Service use this data when looking at additional wilderness areas. The fact is the Custer Gallatin has enough wilderness to provide the quiet experience and solitude the agency is required to have for the amount of people wanting this experience.

The shortage of land to multiple use activity is of great concern as the forest is receiving an increase in visitation every year. Please take this into account in the Forest Plan revision. One area the Forest Service should consider in providing additional multiple use access opportunity is recommended release of the Hyalite Porcupine Buffalo Horn Wilderness Study Area back to multiple use. This area does not qualify for wilderness designation because of structures including cabin and corrals, development view sheds, and infrastructures such as cell towers and communication towers. The attribute inventory completed by the University of Montana included the fact that low commercial air flights were recorded every hour on the hour, 24 hours per day. In meeting with the Yellowstone International Airport Authority this frequency of fights was confirmed. The busiest airport in the State is currently the Yellowstone International Airport and is predicted to continue to increase flights over the HPBH WSA in coming years.

50% of the flights into this airport are freight related and the majorities of these flights are coming in on the flight path over the HPBH WSA and are expected to increase. Again these are low elevation flights as planes decelerate on the glide path to the airport. With all this air traffic, view sheds of development, and manmade structures and amenities contained within the HPBH WSA, CBU believes the HPBH WSA is ripe for analysis and release. Please include analysis of these facts in the DEIS and include them in the Administrative Record. Also include the inventory analysis completed by the U of M University of the attributes in the HPBH WSA and include the air flights data which was recorded and never included in the report. Recreation Director Kimberly Schlinker informed CBU that the air flight data was recorded but was never included in the report and was being used as a base line data point. Please include this base line data point in the DEIS analysis which is available through the U of M University.

Current conditions as identified in the Draft Assessment Report list the campgrounds and cabins available for rent or occupancy. The report details the growth of visitation numbers and these are expected to grow. The cabin rental occupancy is at about 57% but nothing in the report shows campground demand or occupancy numbers. As a longtime resident of this area I have not seen the construction of new campground facilities to meet demand. Campgrounds are full and booked months in advance which indicate a deficiency of these facilities. Please include an analysis of campground occupancy and future needs. Areas in the Gallatin should be identified for additional campgrounds. Portal Creek and Moose Creek would be good areas to expand campground facilities. The access is good and there are many places with suitable terrain. Other areas in TeePee, Taylor Fork, Cinnamon, Olson Creek, and other areas in the Crazy and Prior Mountains should be considered. An analysis of current capacity, occupancy, and future demand estimates would be helpful in future planning. The DEIS should include this analysis of future camping facilities, improved and unimproved, needed in the Custer Gallatin to provide for the projected increased public need and benefit.

Snowmobile use in Montana and the West side of the Custer Gallatin has increased significantly. Please include the following study from the University of Montana Bureau of Business and Economic Research in the drafting of the DEIS. Use this information in the evaluation of the economic impact of snowmobiling and the benefit this use has on the economy of communities and counties.
http://www.bber.umt.edu/pubs/survey/MontanaOHVStudy2013.pdf

Off-Highway use in Montana and in the Custer Gallatin has increased significantly and contributes to local economies and businesses. This recreation use continues to grow and demand for more OHV opportunity will expand and the Forest Service has an obligation to provide more areas where OHV use is allowed. Please use the information provided in the study from the University of Montana Bureau of Business and Economic Research for the evaluation of the economic impact of OHV and include this information in the administrative record and the DEIS.
http://www.bber.umt.edu/pubs/survey/MontanaOHVStudy2013.pdf

Aging demographics of the planning area, along with the desire of counties in their Growth Policies to expand recreation, should be considered in preparing the DEIS. Please provide an alternative to the public in the DEIS that provides more opportunity for OHV, Off Highway, and snowmobile use. Expansion of these opportunities would follow the request from the counties and provide an alternative that would be consistent with the local governments Growth Policy or Resource Plan.

The following information provides studies on OHV and off-highway use and the economic benefit to local communities and states. Please include these studies in your analysis and preparation of the DEIS.

The Southern Research Station in their report Off-Highway Vehicle Recreation in the United States, Regions and States
(http://www.fs.fed.us/recreation/programs/ohv/OHV_final_report.pdf) determined that of the total U.S. population in the West 27.3% participated in OHV recreation and that out of the total population in Montana 29.1% participated in OHV recreation.

The positive economic impact on the economy of the area must be adequately considered in the decision-making. Arizona State Parks has prepared a good example of an economic analysis of OHV recreation for Coconino County, AZ
(http://www.gf.state.az.us/pdfs/w_c/OHV%20Report.pdf). The economic impacts of OHV recreation in one county are significant with $258.3 million statewide impact and a $215.3 million impact locally that supports 2,580 jobs. Off-highway vehicle recreation activity is an immensely
powerful part of the Arizona collective economic fabric, generating nearly $3 billion in retail sales during 2002 (http://www.gf.state.az.us/pdfs/w_c/OHV%20Report.pdf).This evaluation should be used as guideline to evaluate the existing and potential positive economic impacts associated with OHV recreation in the project area. Additionally, the study does a good job assessing the activities and reasons that recreationists enjoy using off-highway vehicles. Another study conducted found that the total estimated itemized expenditures by households participating in OHV Recreation in Colorado in 2000 was $519,333,239.

. Gilmore Research Group, 1989, Washington DNR, Assessment of ORV impact and use in Roslyn-Cle Elum, WA.

2. Haas, Glenn et al, 1989, Colorado Sate University, Estimated CO recreational use and expenditures for OHV in FY 1988.

3. Tyler & Associates, 1990, CA DOT, A study of fuel tax attributable to OHV and Street

Licensed vehicles used for recreation off-highway.
4. CA OHMVR Division , 1994, CA Department of Parks and Recreation, A 26 page study of the $3 Billion economic impact of OHV use in CA.
5. Oak Ridge National Laboratory, 1994, Federal Highway Administration, Report ORNL/TM-1999/100, Federal Highway Administration, An 80 page summary of the fuel used for OHV recreation, http://www-cta.ornl.gov/publications/offroad.pdf
6. CA OHMVR Division, 1991, CA Department of Parks and Recreation, A 119 page summary of the status of OHV recreation in CA.
7. Schuett, Michael , 1998, West Virginia University, 14 page report on OHV user values and demographics.
8. Motorcycle Industry Council (MIC), 1998, 20 page statistical report of motorcycle population, sales and usage.
9. Generoux, John & Michele, 1993, Minnesota DNR, 33-page report on feasibility of Iron Range OHV Rec'n Area.
10. Hazen and Sawyer, 2001; Colorado Off-Highway Vehicle CO, 144-page analysis of economic impact of OHV recreation in Colorado which is estimated at $230 million, (http://cohvco.org/economics/main.html).
11. Tennessee OHV Economic Impact, A $3.4 Billion Industry, http://www.state.tn.us/environment/ohv/ohvimpacts.pdf, http://www.state.tn.us/environment/ohv/econimpact.pdf
12. March 2003 Presentation at the National OHV Managers Meeting in Charlotte, North Carolina, http://www.etra.net/Newsletters/2003/July2003.htm.
13. Nelson, C.M., Lynch, J.A., & Stynes, D.J. 2000. Michigan Licensed Off-Road Vehicle Use and Users, 1998-99. East Lansing, MI: Department of Park, Recreation and Tourism Resources, Michigan State University, http://www.prr.msu.edu/miteim/orvspend.pdf
14. Jonathan Silberman, PhD. The Economic Importance Of Off-Highway Vehicle Recreation, Economic data on off-highway vehicle recreation for the State of Arizona and for each Arizona County Study, Prepared by School of Management, http://www.gf.state.az.us/pdfs/w_c/OHV%20Report.pdf
15. Hazen, S. (2001). Economic Contribution of Off-Highway Vehicle Use in Colorado, Colorado Off-Highway Coalition.
16. Ingrid E. Schneider, Ph.D. and Tony Schoenecker, Graduate Research Assistant, All-terrain Vehicles in Minnesota: Economic impact and consumer profile, University of Minnesota Tourism Center, 2005. http://www.tourism.umn.edu/research/ATVReport.pdf
17. http://sundaygazettemail.com/section/News/2007062328

A common theme with the public and local and state governments has been the need for more economic development in the area and they are searching for ways to expand and enhance the local economy. OHV recreation is a significant part of the existing economy. Any reduction in OHV recreational opportunities will hurt the local economy. Additionally, the enhancement of OHV recreational opportunities in the project area will provide a badly needed enhancement of the overall local economy as well.

To share a small bit of example information from the report I pulled this information below from a couple of the tables:

ANNUAL Average Itemized Expenditures in 2000 per Resident Household for Maintenance, Repair, Storage, and Miscellaneous Items Associated with Vehicles Used for Motorized Recreation in Colorado.

$4630 - Total for 4x4's
$1232 - Total for Snowmobiles
$1025 - Total for ATV's
$1643 - Total for Dirt or Dual Purpose Bikes
Total Estimated Itemized Expenditures by Households Participating in OHV Recreation in Colorado in 2000
Low Estimate $486,592,806
High Estimate $519,333,239
These are significant economic contributions..... For the sake of considering a ' what-if ' scenario; ...take a rough estimate and say Montana would get 1/3 of this contribution in 2005 without promoting the recreation opportunities and 2/3 of this contribution by promoting the recreation opportunities. That estimate would mean the following annual contribution to the MT Economy for RESIDENT use alone:

Low Estimate $324,395,204
High Estimate $346,222,159

If we in the State of Montana are serious about promoting a sector of tourism-based economies then promoting OHV Recreation is an example of where we can put action where there are words for state-wide economic gain...

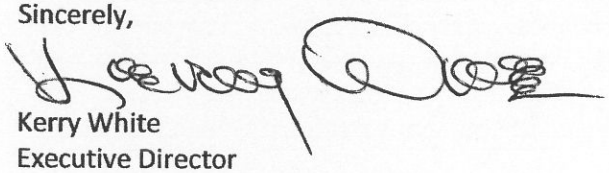
If you take the population of Montana at 980,000 and multiply times 29.1% of the people that use OHVs for recreation, that number would be 285,180. Take that number times $1232 for money spent on snowmobiles and that comes to $351,341,760. That would be if everyone that used OHVs only snowmobiled.

Motorized recreation is always the target of closures to and on our federally managed public land even though other recreation uses have similar and many times more impact. Mechanized use is not subject to road and trail use only. Off trail mechanized summer use has expanded and impacts from user created routes, extreme downhill route construction, and construction materials being hauled into the forest has caused resource damage and erosion. Hikers with dogs are causing feces from pets at trailheads and along trails routes. Some areas of the Custer Gallatin have become so overwhelmed with feces that snowmobiling grooming has been stopped. Weed infestations and the spread of weeds from dogs is becoming more of a problem yet the Forest Service keeps identifying OHV use as the problem.

Please include in the DEIS an inventory of these impacts from other user groups and include possible solutions such as closures to hikers with pets and closures to mechanized use when closing these same areas to motorized. If impacts occur, every user group should be impacted equally. Mitigation attempts and solutions proposed before any further closures are proposed.

CBU is looking forward to working with the Forest Service in identifying solutions to problems. With the loss of nearly 22,000 miles of roads open to the public since 1995, any further loss of access is unacceptable. Ideas to mitigate rather than close access should be considered. An increase in recreation opportunities will benefit local and state economies and an alternative that increases multiple use recreation opportunities should be included in the DEIS.

Sincerely,



Kerry White
Executive Director
Citizens for Balanced Use