



October 21, 2013

Mike King, Executive Director
Colorado Department of Natural Resources
Executive Director's Office
1313 Sherman Street, Room 718
Denver, CO 80203

RE: Meeting held on Monday, September 16th, 2013 regarding the Greater Sage Grouse habitat mapping in Garfield County

Dear Director King,

Thank you for taking the time to meet with myself and members of our team working on behalf of Garfield County regarding Greater Sage Grouse (GSG) habitat mapping and policy issues in Garfield County. We very much appreciate the effort you made in convening key staff from your office as well as from Colorado Parks and Wildlife (CPW) in order to talk candidly about habitat mapping concerns raised by Garfield County. As you can understand, the impact of proposed federal policy via the pending Bureau of Land Management's (BLM) Environmental Impact Statement (EIS) on GSG in Northwest Colorado will have a dramatic, if not crippling socio-economic affect on some counties in NW Colorado. It is critical that local and state government be aligned as much as possible relying on best available and reproducible science to support a realistic response to the US Fish and Wildlife Service (USFWS) as a listing decision hangs in the balance that works for both Garfield County and northwest Colorado. To this latter point, we very much appreciate your willingness to work with Garfield County.

To revisit and memorialize the outcome from our meeting, we understand that CPW has developed and primarily uses two maps regarding the management of Greater Sage Grouse in Colorado which include the Sensitive Wildlife Habitat (SWH) map and the Restricted Surface Occupancy (RSO) map. It was made clear that the SWH map does not accurately delineate

actual habitat; rather, it is used as a reference tool intended to require consultation for potential development within its boundaries and should not be construed as a map depicting any form of a “No Surface Occupancy” (NSO) policy. Additionally, the RSO map is intended to define a 0.6 mile buffer round an active lek with the purpose of prohibiting development activity. We also understand that the SWH map has been sent to the BLM in the form of the Preliminary Priority Habitat (PPH) map for use in their EIS. Further, CPW intends to adjust this Preliminary Priority Habitat (PPH) map with the very recent data collected by Dr. Brett Walker which is anticipated to reduce / shrink the PPH boundaries. Once this has occurred, CPW will resubmit that revised map to the BLM for use in the EIS. (CPW staff also reaffirmed that the acceptable margin of error for distance from plotted bird locations was no greater than 50 meters.)

While the County certainly appreciates the efforts on the part of CPW to continue to refine their mapping, we will continue to advocate for our habitat mapping efforts in our comments 1) to the BLM on the draft EIS on GSG in Northwest Colorado, 2) in our comments to the Colorado Oil and Gas Conservation Commission’s (COGCC) rulemaking hearings on wildlife mapping, and 3) in future coordination meetings with the USFWS. As discussed in our meeting, one the County’s primary concerns is there appears to be a fundamental disconnect between how CPW designed and uses the SWH map as a basis for consultation versus how the BLM is using the PPH map for project-specific land management policies and “in-the-field” decisions.

As explained to the County by CPW staff on September 5, 2012 in a County Coordination meeting, this BLM - PPH map (which is CPW’s SWH map) was generated at a *50,000-foot level* not intended for specific “on-the-ground” land use management. Again, the County urges CPW and DNR to continue to provide that comment and direction to the BLM on the draft EIS. In effect, it should be made clear that the BLM - PPH map (based on CPW’s SWH map) should be better defined as a *Wildlife Consult Map* that should not be confused with actual habitat for which the BLM is to manage for the survival of the bird.

As a matter of background and in the context of the BLM’s EIS, the County has analyzed CPW’s SWH map and found it to be problematic if it is used for localized land use decisions. First, the habitat model designed by Dr. Mindy Rice was done so using vegetation data on a 1-kilometer scale (0.6 mile grid cells). In doing so, it inaccurately typed large amounts of vegetation that do not include any vegetation communities known to support Greater Sage Grouse such as pinion-juniper, fir, and aspen groves. Furthermore, numerous other criteria that are known to directly influence suitable greater sage-grouse habitats were, admittedly by design, excluded from the habitat model, including slope parameters, relevant landforms, percent canopy cover, etc. Again, this model approach is too coarse to be used as an effective local habitat management tool which Dr. Rice specifically notes in her paper.

Second, in the design of the SWH map, CPW has applied an arbitrary four-mile buffer (eight-mile diameter) around active leks. (The four mile distance is believed to be the distance from the lek where 80% of the hens will nest.) However, this distance also assumes the birds will be nesting in their commonly understood habitat as is commonly found to be true in large expanses of gently rolling sage brush communities in Wyoming, Montana, etc. Garfield County does not have these same expanses of rolling sage brush communities; conversely, the habitat is severely fragmented in a scattered patchwork of sage brush on hill tops intermixed with large areas of non-habitat vegetation communities such as aspen, conifer, pinion-juniper, etc. Moreover, the area in Garfield County also contains large areas of slopes (in excess of 30%) that are not known to support Greater Sage Grouse. So, the County opposes an arbitrary application of a four-mile buffer around an active lek in this landscape because it captures thousands of acres of non-habitat where development and activity could / should occur without requiring any involvement from government agency oversight.

Third, CPW's SWH map (which is used by the BLM as the PPH map) is based on the agency's "Occupied Range" map which appears to be an internal map maintained primarily by research staff and updated based on field-observations over time. This is problematic because the data used to inform this map is specific to individual professional opinion which may vary from time to time depending on individual field personnel and is not reproducible. In recent discussions with CPW staff, it became apparent that these opinions stray far from data that is cited in the literature from CPW biologists as to the accepted criteria for what defines habitat and where the Greater Sage Grouse are commonly located within that habitat.

In response to this, the County recently spent considerable resources to produce a highly accurate Suitable Habitat Map which is attached as *Exhibit A* to this letter. This map is a result of creating two distinct models (a weighted overlay model and a fuzzy overlay model). These models were driven by criteria developed from an exhaustive literature search using CPW's own researcher criteria (including slope, distance to forest, canopy cover, landforms and vegetation community). In addition, the Garfield County habitat model utilized a vegetation dataset that maps existing vegetation communities with a much higher degree of accuracy, based on performing a supervised image classification process on 2-meter cell resolution color-infrared photography. Moreover, in recent meetings with CPW to validate our mapping, it became clear that our mapping had a high degree of correlation to relevant / recent bird location data points collected by CPW's Dr. Brett Walker. In doing so, our model captured 92 percent of the bird locations within 100 meters of our habitat model. An important additional correlation is made with a high degree of accuracy when CPW's RSO map is overlaid on Garfield County's Suitable Habitat map which is attached as *Exhibit B* to this letter. It should also be understood; the County's Suitable Habitat map was created with a transparent process and is reproducible. To the contrary, after considerable effort, we found that the CPW SWH map is

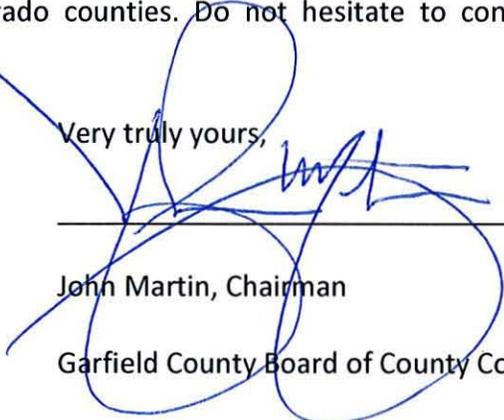
not reproducible and is based on data that the agency refuses to release to the public in order that it is verified.

The net result proved that CPW's proposed SWH map has inaccurately mapped large areas of non-habitat (pinion-juniper, fir, and aspen groves) on the Roan Plateau in Garfield County as priority habitat. As understood in terms of acres, while CPW has mapped approximately 220,000 acres as priority habitat in their PPH map, Garfield County's Suitable Habitat map identifies only 59,093 acres of suitable habitat. This is a 73% reduction in habitat in Garfield County. Put another way, CPW's SWH map was developed with such a broad brush approach, it erroneously captured approximately 160,907 acres of land that does not have Greater Sage Grouse habitat characteristics supported by relevant peer-reviewed literature and 'data-verified' field observations. By doing so, it will have the practical effect of requiring a land owner to consult with CPW on projects that are clearly cited in areas of non-habitat.

We want to thank you for convening staff from both DNR and CPW and taking time to discuss these issues and providing clear direction regarding the intent and use of the Sensitive Wildlife Habitat map (BLM - PPH map) in the BLM's EIS. We appreciate your clarity and direction on how the SWH map is intended to be used as a tool for consultation only for projects within its borders and not specifically designed as an actual 'habitat' map to be interpreted as any form of NSO or otherwise by the BLM in developing land use policy. The County urges CPW and DNR to continue to provide this direction in their comments to the BLM on the draft EIS. In effect, it should be made clear that the BLM - PPH map (based on CPW's SWH map) should be better defined as a wildlife consult map that should not be confused with defining actual priority or general habitat for which the BLM is required to manage for the survival of the bird.

We look forward to continuing to work with you and CPW so that our collective comments to the BLM will be as aligned as possible. It is our hope that these comments are both realistic and effective to ensure protection of the bird and its habitat so that realistic policies are put in place by the BLM that help avoid a listing without severely impacting the socio-economics of northwest Colorado counties. Do not hesitate to contact us if you have any questions or comments.

Very truly yours,



John Martin, Chairman

Garfield County Board of County Commissioners



Mike Samson, Commissioner

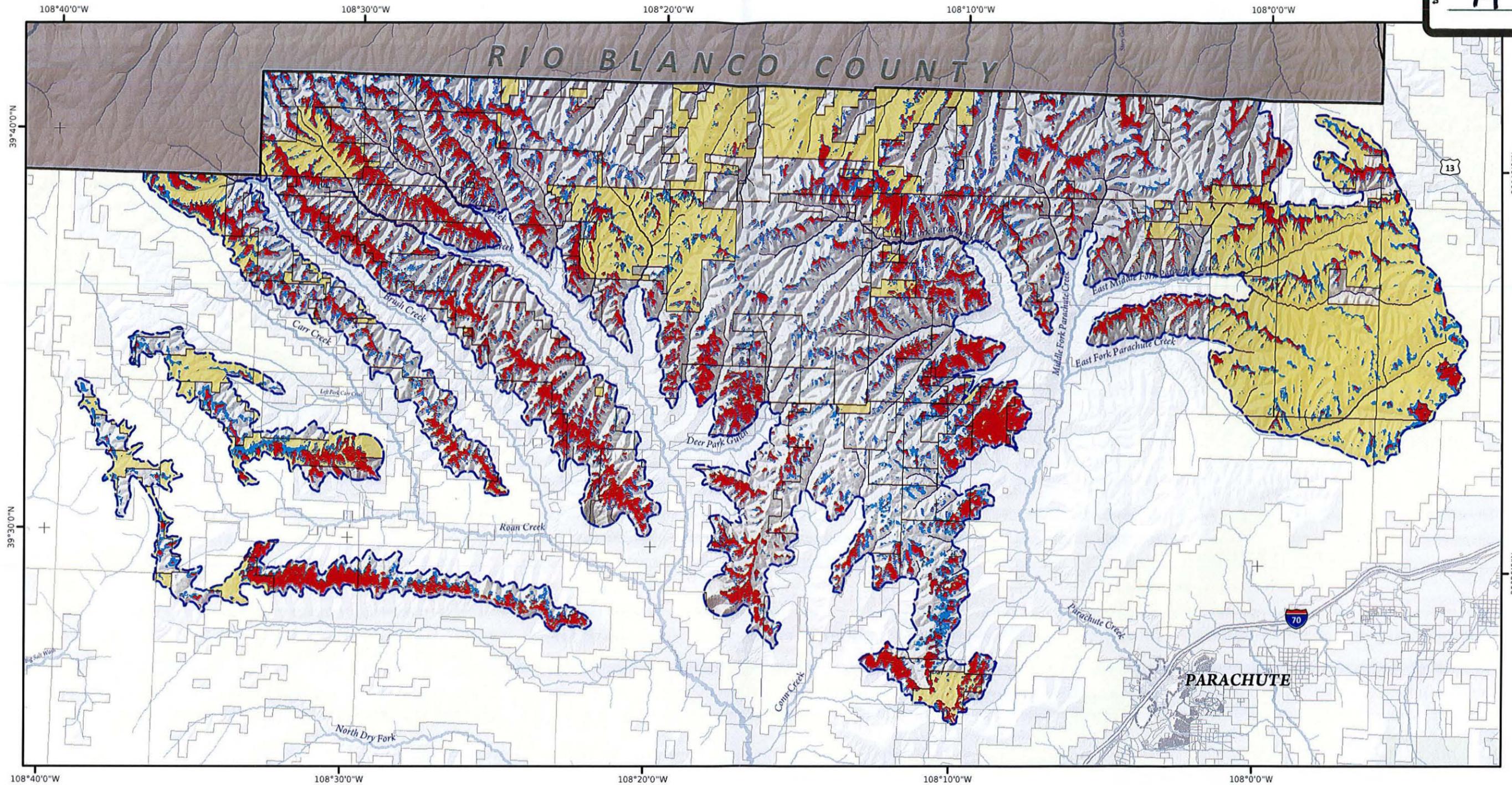
Garfield County Board of County Commissioners



Tom Jankovsky, Commissioner

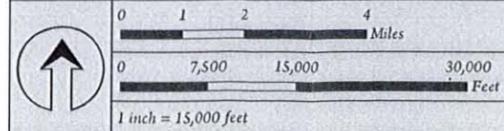
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| | Analysis Area Boundary | 220,967 Ac. | | BLM Lands | | Municipal Boundary |
| | Priority Habitat | 31,070 Ac. | | USFS Lands | | County Boundary |
| | General Habitat | 28,023 Ac. | | Private Lands | | Interstate |
| | | | | | | State Highway |

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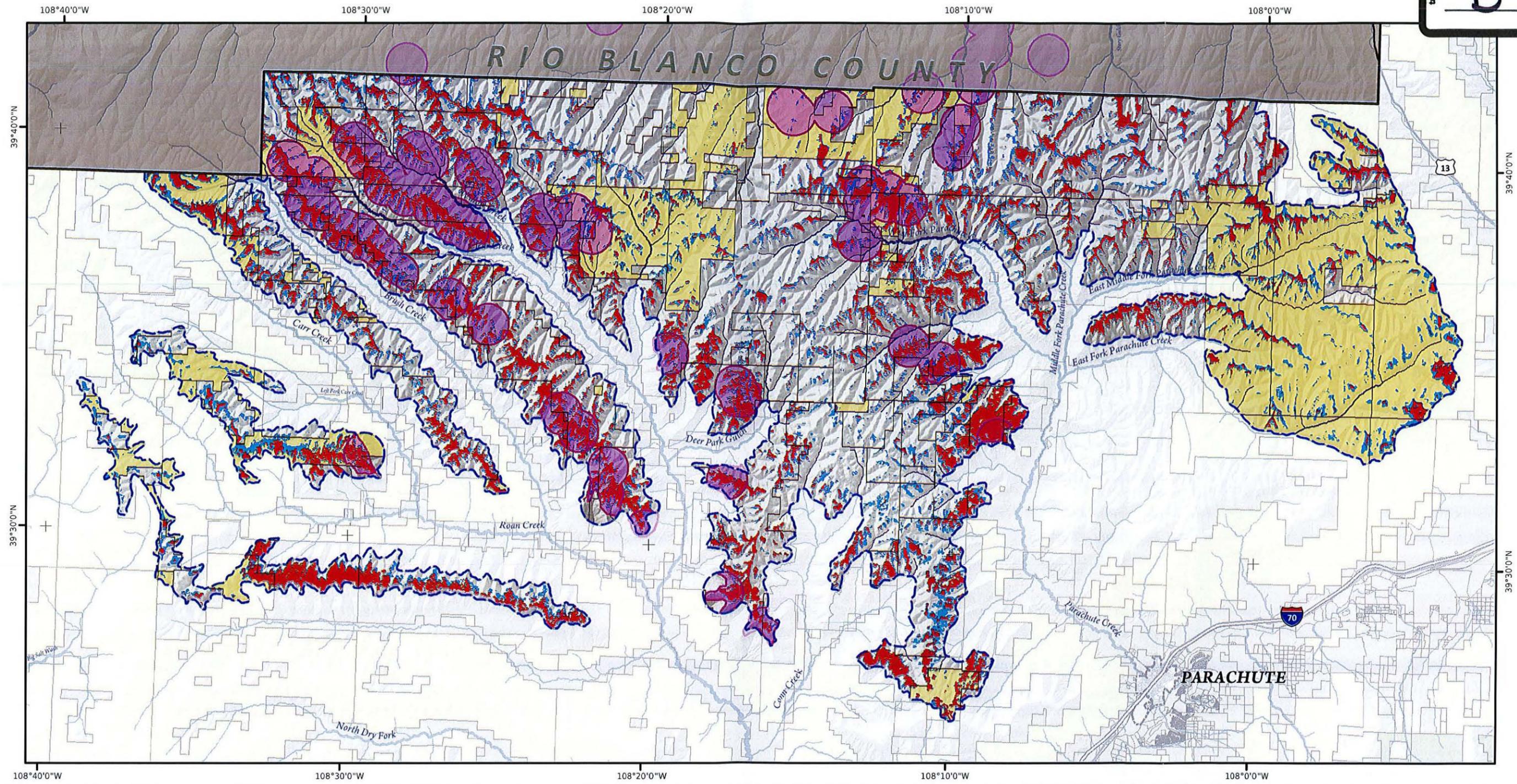


Date: July 2013
PENDO Solutions



Modeled Habitats for Greater Sage Grouse

Suitable Habitat Results
 [Model v1: Revised Vegetation]



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