Statement of Jesse W. Deubel, executive director of the New Mexico Wildlife Federation, before the House Natural Resources Subcommittee on National Parks, Forests, and Public Lands, hearing entitled, "Examining the Impacts of Climate Change on Public Lands Recreation."

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Chair Haaland and members of the subcommittee, on behalf of the New Mexico Wildlife Federation I am privileged for the opportunity to share with you my personal experiences and observations as to the impacts climate change has inflicted on public lands recreation in New Mexico.

I'm a native New Mexican and I've been hunting and camping on public lands in New Mexico for more than 30 years. I've seen firsthand the ongoing effects of climate change on our precious wildlife populations, forests, rivers and streams.

For example, over the past few decades, I've seen an area where I used to hunt turkeys with my father in the Gila National Forest change from being thick with birds when the streams were flowing to being completely empty of birds now that streams and springs have dried up.

And the issue extends to every corner of the state. Climate change threatens everything we hold dear in New Mexico: our economy, our recreation and even our health.

I spent my early childhood years as a resident of the small village of La Puebla, in Rio Arriba County. The most current estimate of the median family income in Rio Arriba County is \$33,422 per year. This figure is substantially lower than New Mexico's estimated median family income of \$58,308. These numbers are provided to emphasize the incredible importance of the \$9.9-billion dollar outdoor recreation economy in New Mexico.

Although not rich with monetary resources, New Mexico and its citizens are incredibly wealthy in terms of public lands. Within our state borders, we have approximately 9 million acres of land managed by the National Forest Service and 13 million acres of

land managed by the Bureau of Land Management.

In our most recent legislative session, New Mexico passed a bill, HB 462, which allowed for the development of a state Office of Outdoor Recreation. It has become clear to the citizens of New Mexico as well as to our elected officials that our robust outdoor recreation economy is crucial for the success of our state.

The benefits of outdoor recreation extend well beyond their financial impact. Research continues to prove the immeasurable health benefits provided by outdoor recreation. The physical activities enjoyed on NM public lands are too numerous to list. The benefits to the physical health of those participants is undeniable.

Our country continues to struggle with a mental health epidemic. Time spent outside observing nature provides mental health support that cannot be found in a pill bottle. Obesity rates in this country have risen tremendously over the past several decades. Millions of citizens across the United States continue to struggle with substance abuse and addiction.

The solution to these trends must begin with our youth. The strain on our healthcare system will be reduced when we increase the percentage of our children who are actively engaged in outdoor recreation. We must introduce youth to the outdoors and help them gain a love and appreciation for wild places. In doing so, we are introducing them to the most successful health and wellness regimen in the history of our species.

I was incredibly fortunate that my father allowed me to follow him around the woods as he hunted. My first outing was to the Carson National Forest when I was six years old. Likely a result of my attendance on that trip, we never saw any of the mule deer we pursued. I will never forget trudging behind my dad through knee-deep snow on that early November day. I struggled to keep up as we climbed the steep mountainside. My feet were frozen as we hiked, but I didn't dare let my dad know for fear he would cut the day short. By the end of that first day afield, I would forever be passionate about being outdoors.

Five years after that first hunting trip, I was introduced to the Gila National Forest with my very own spring turkey tag in my pocket. The year was 1991 and I was riding behind the bench seat of dad's rusted-out, 1978, two-wheel-drive, Ford pickup. Dad was driving and his [our] hunting partner Glen Kendall rode passenger. I was in awe as dad

drove for hours across changing landscapes and a variety of vibrant ecosystems. As we turned south on NM State Highway 52 from NM State Highway 60, dad enthusiastically pointed out the impressive array of large satellites spread across the Plains of San

Agustin. He educated me about the work being done at the Very Large Array as we witnessed magnificent herds of pronghorn as they ran effortlessly beside us as though taunting us to engage in a race. The pavement quickly ended as we continued south on the now dirt road [still NM Hwy 52] into the foothills of the San Mateo Mountains. A herd of elk congregated around a large pond created by a formidable, dirt berm constructed to catch water from rains and from the melting snow on the surrounding peaks. It was the third week of April. The spring break offered by my public school did not coincide with the hunting season for spring turkey. Dad emphasized on more than one occasion during that drive, "You'll learn more during a week down here than you would have at school. You better get that make-up work done when we get back though."

It seemed like hours passed as we bounced across the washboard surface of that long dirt highway. As we entered the Gila National Forest, dad was noticeably pleased at the fact that we hadn't seen a single other vehicle on the road since turning down Hwy 52 hours before. We were keeping count of the game we saw. Eventually the number of mule deer sightings exceeded both elk and antelope. We did not keep count of the plentiful rabbits and squirrels that darted across the road nor the birds that flew about. Dad and Glen both, however made a special occasion of noticing every raptor we saw. Whether perched on the limb of a Ponderosa Pine or soaring high in the sky, between them they knew what species each was. They were intent on making sure I learned to the birds' identities as well. I didn't think we would ever reach camp as we winded up and down bumpy switchbacks into canyons and then back out and then back down the next. Eventually we came to a creek crossing where dad stopped the truck. "Wow! Creek's running awfully high!" Dad exclaimed. Glen asked, "Do you think we can make it across?" Dad contemplated the question for a minute as he walked up the bank admiring the swiftly flowing water. With a mischievous smile that I can picture as clearly today as I could on that day dad replied, "Well...there's only one way to find out."

After we all piled back in the truck, dad put it in reverse to provide room for a running start. Water splashed up onto the windshield as the truck's tires skipped across the cobblestones lining the bottom of the creek. Water rolled down the small glass window which my eyes had been glued to for more than six hours. Both dad and Glen adorned ear to ear smiles as the truck rolled to a stop in the middle of the road. Dad laughed as

he turned off the windshield wipers and joked, "It's about time this truck got washed!" After a couple more uneventful stream crossings dad backed the truck up to the edge of a meadow and turned off the engine. As we got out of the truck Glen stretched his arms out wide and spoke loudly through a yawn, "We're home!"

Glen says that every time we arrive at this camp. In the 28 years since my first visit to this wonderful location there have only been two springs that I wasn't able to make it to this special place. Dad died in 2015. Glen and I have continued the tradition. Just last month [April 2019] I arrived to camp after Glen had been there for a couple days already. "Welcome home!" Glen said, as his eyes filled with tears. With open arms we hugged one another in a tight embrace. Glen helped me to get set up as we reminisced about the decades of memories we've made in this exact mountain paradise.

Later, we sat around a crackling campfire and discussed the following day's plan. Glen's assessment took priority since he had spent the last couple days scouting the area. "There just aren't very many birds around. I haven't seen one. I think I heard a distant gobble, but I could have imagined that. They can't survive here without any water." I asked, "How far up the canyon until the stream has water?" With his head down Glen solemnly responded, "Further than these old knees are able to carry me."

When I was a boy, the heavy flow of the stream was nearly uncrossable as it passed by camp. For many years, that stream near camp provided the water we needed for our stay. For over ten years now though, the creek has been dry where we camp at the edge of the wilderness boundary.

The following morning I set out "upstream" to find water. Five miles later, water trickled over the stones at the bottom of the creek bed which had been rounded and worn perfectly smooth by rushing water and the sediment it carried with it in years past. As expected, shortly after finding water I began discovering signs of wild, Merriam's turkeys. Even where the water existed though, it was evident that the turkey population was a small fraction of what it had been in the late '90's or the early 2000's.

Hen turkeys require access to water in close proximity of their nests as they spend weeks sitting on their clutch of eggs. In this region, for many seasons now turkeys have made their nests near the creek, where they laid their eggs. If the creek goes dry before the eggs hatch, however, the hen must abandon her nest and relocate further up the canyon where water still flows...for the moment.

In April 2019 I saw exactly two wild turkeys. I wasn't in a position to harvest either. The truth is, I'm not sure I would have killed either even if it had been an option. The flock in this particular area has been so reduced by environmental factors that I would have trouble justifying the harvest. Many years ago, I would measure the number of flocks I saw each day rather than the number of individual birds I saw during an entire trip. The deer and elk and black bears seem to be faring a little better because they are able to travel further. Also to their advantage is the fact that these species travel at night when temperatures are cooler.

On the final night of my stay at our deeply sentimental 2019 turkey camp, Glen and I again sat around the campfire. Reluctantly, Glen said, "I guess we can still come here to camp? If we really want to hunt spring turkeys though with a chance of getting into some we probably need to think about finding a new spot." I nodded in agreement as my mind filled with decades of memories of turkeys, Abert's squirrels [I saw only two of those on this trip also], and priceless time with my dad provided by this special home away from home.

As I drove away from camp the following day, I reflected on the changes I've witnessed to my great state in the 32 years that have passed since that first trip of mine to tag along behind dad in the Carson National Forest.

I recalled the "ice wall" dad introduced me to in the Gila where during spring we could reliably harvest ice off a vertical, north-facing, wall of stone from which a spring or "seep" as he called it steadily drained. I haven't seen ice on that wall during the spring season for at least ten years. I haven't seen moisture on that wall, except during an occasional spring rain for at least five years.

I thought of the numerous, remote locations we used to be able to backpack to with confidence, knowing water would be present at our destination. The availability of water at these locations is no longer a safe bet. At eight pounds per gallon, it's not feasible to carry water in to these isolated locations. I miss visiting these places.

While remote destinations have always been my favorite, growing up it was a rare treat for dad to have the ability to take time off work to embark on these trips. Much more common was the weekend family camping trip. Even more common than that was the

Saturday picnic where mom and dad and my brother and sister and I all packed ourselves into the truck and headed out to some area on public land where we could spend the day. During such a day, we might do some fishing, pick wild mushrooms or gather pinon nuts. Mom was creative and she used these opportunities to gather the resources she needed for ideas she had. I can recall making numerous arts and crafts from pine cones, cholla cactus skeletons and various other abundant natural resources. When school broke for summer vacation the outdoor adventures that awaited me seemed endless.

I now have a third grader who will start summer vacation later this month. If this summer is anything like summers of the previous ten years, many New Mexico forest

districts will experience closures due to high fire danger. The threat is real and the closures are necessary. One glance across a forested view in central NM illustrates a picture of rust-colored dominance with intermittent patches of green. Our pinon trees have become infested with bark beetles. I've read the beetles now proliferate because our winters no longer reach cold enough temperatures for long enough periods of time to kill the parasites. Other theories I've read say that our prolonged drought has created trees that do not have enough moisture to produce sap to protect themselves from the invaders.

I'm not sure the reason(s), but the damage to our forests is obvious. I've gathered pinon nuts on the same slopes where indigenous people gathered them for many hundreds of years. The trees on these slopes are now dead or dying. The tradition of gathering this important mast crop from these slopes is also dying. I suppose the loss of that mast will have a much more detrimental effect on the local wildlife than it will on me. I am doubly dispirited.

Between the Cerro Grande Fire in May of 2000 and the Los Conchas Fire in June of 2011 our Jemez mountain range in the Santa Fe National Forest has been almost entirely burned. When entire mountain ranges are converted to soot and ash, what is the fate of the wildlife?

Creeks and streams that provide habitat for native trout species like the Rio Grande cutthroats and Gila trout are going dry. Last September, New Mexico's largest reservoir dropped to an all-time low water level, just 3% of it's capacity. This lake, Elephant Butte is the one I most often take my family to recreate. Last year I never removed the cover from my boat which remains parked in my drive. Boat ramps at

lakes across the state experience months of closures during what historically had been times of peak use. It's no longer uncommon in NM to see announcements encouraging anglers to partake in unlimited fish harvests as popular fisheries are expected to become completely dry.

Opportunities for outdoor recreation in New Mexico are tremendous thanks to our expansive public lands. These opportunities must continue in order to support our state's economy, as well as the quality of life for our citizens. Having been born in this state and raised on our public lands I have personally witnessed a frightening trend. Opportunities for me to share with my children the outdoor activities that my parents shared with me are rapidly disappearing.

Climate change is whittling away at our ability to hunt, fish, camp, picnic, backpack, forage, enjoy boating or otherwise partake in the bountiful health benefits afforded to us by our public lands. The actual dollars lost by the decreased involvement in these activities will pale in comparison to the residual effects of a growing population deprived of an active, outdoor lifestyle. We must act now to make every effort for future generations to have the ability to arrive to a place on public land that is wild, natural, beautiful, sustainable and healing so they may stretch out their arms, breathe fresh, clean air and proclaim "We're home!"