

Written Testimony
House Subcommittee on Energy and Mineral Resources
Field Hearing on the Impacts of Oil-Gas Development, northwest New Mexico

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Chairman Lowenthal, and distinguished Members of the Committee, thank you for the opportunity to provide written testimony for this field hearing of the U.S. House of Representatives Subcommittee on Energy and Mineral Resources on the impacts of oil-gas development in northwest New Mexico.

Chaco Canyon was the center of a thriving society that flourished in the Four Corners region of New Mexico from 850-1150 CE. The Chacoans and affiliated Pueblo groups built hundreds of great house structures across the region and connected many of these places with kilometers of roads and other landscape features. This extensive, ancient landscape is managed today by a variety of federal, state, private, and Tribal owners. These places have deep spiritual and cultural importance to nearby Pueblos and Tribes that are descendants of the Chacoan people.

Many sites associated with ancient Chacoan society are protected within the boundaries of Chaco Culture National Historical Park. Chaco Canyon and several outlying great houses are UNESCO World Heritage Sites that preserve the history and culture of the Pueblo people. Furthermore, Chaco Canyon is the ancestral home of Pueblo people and it is where many of the cultural traditions that are practiced to this day at Acoma, Zuni, Tesuque, Zia, Hopi, Taos, and other pueblos in New Mexico emerged. Over more recent centuries, the landscape around Chaco was settled by the Navajo people and other groups who have added their own unique traditions to the rich cultural legacy. Federal agencies are also a major, modern-day presence and oversee Chaco Canyon, a national park since 1980, along with important cultural and historic sites across the surrounding landscape.

Despite the protection offered by Chaco Culture National Historical Park, many sites lie outside the Park across the Greater Chaco Landscape. These places, many of which are as significant as those within Park boundaries, are scarcely protected from the ravages of oil-gas development. Unfortunately, these include components of the Chaco Culture World Heritage Site like Pierre's Site, located on federal land managed by the Bureau of Land Management. Increased oil-gas development associated with the Mancos-Gallup Shale play in northwest New Mexico has been threatening fragile Chaco-affiliated cultural resources across a large portion of the San Juan Basin since late 2011. The threat to sensitive cultural resources is heightened by several mid-2017 executive and secretarial orders from the Trump administration that aim to prioritize energy development on public lands. In fact, over the past year-

and-a-half, the administration has proposed leasing within a few miles of the Park no less than three times, only to defer at the last minute because of out-cry from Tribes, the archaeological community, and many others. But these deferrals are temporary, and if fully implemented, these orders will further fragment and degrade the Greater Chaco Landscape.

During the last six years, Archaeology Southwest and its partners have cooperated with the Bureau of Land Management (BLM) Farmington Field Office and Bureau of Indian Affairs (BIA) as these Agencies have been in the process of amending the 2003 Resource Management Plan (RMP) for the Farmington Field Office and drafting new Environmental Impact Statements (EISs) for their regions (BLM and BIA). Our partners include the All-Pueblo Council of Governors (APCG), The Wilderness Society, the National Trust for Historic Preservation, National Parks Conservation Association, Friends of Cedar Mesa, New Mexico Wilderness Alliance, Conservation Lands Foundation, and Pew Charitable Trusts.

As an archaeological and preservation organization, we are most concerned with the protection of the fragile area around Chaco Canyon (Chaco Culture National Historical Park aka Chaco Park) that we have identified as the Greater Chaco Landscape. This area of several millions acres is not protected by National Park Service monument or park status and has been the focus of extensive and severe oil-gas extraction activity for nearly a century. Within the several million-acre area, ancient archaeological and cultural sites within the 10-mile cultural protection zone occur at the highest density outside the Park. Thus, much of our focus has been on this very sensitive area closest to the World Heritage Site of Chaco.

In 2011, the Farmington Field Office area became the focus of renewed oil-gas exploration with the application of hydraulic fracturing or fracking technology, along with advances in horizontal drilling to access fluid mineral resources. This resulted in the drilling of roughly 150 wells into the Mancos Shale Formation by late 2013, located at about 5000 feet below the surface. This activity had not been anticipated by BLM in their 2003 RMP and thus a process to amend the RMP was triggered. This process is still underway with draft RMP amendment and EIS documents expected later this year.

As the RMP amendment process has unfolded over the last nearly six years, BLM has continued to approve permits for oil-gas activities and to offer leases of new lands every year. At this point in time, more than 90 percent of the Farmington Field Office lands under BLM authority have been leased, including many sites that part of the World Heritage Site designation or are now congressionally designated Chaco Protection Sites. These lands were leased prior to these designations; however, widespread leasing and drilling has continued on immediately adjacent lands, which has resulted in significant visual and auditory impacts and fragmentation of the broader cultural landscape. As of early 2019, many hundreds of wells have been sunk into the Greater Chaco Landscape, while the planning process languishes. We believe these already-leased lands provide sufficient access to the oil-gas resources in the Greater Chaco Landscape, particularly with the advances in horizontal drilling, such that additional leasing should not be permitted.

Thus, Archaeology Southwest and its partners have advocated for a permanent exclusion of new oil-gas leasing within a 10-mile cultural protection zone around Chaco Park and its outlying units. We fully supported Senate Bill 2907 introduced in 2018 by Senators Udall and Heinrich that would provide for the withdrawal of Federal minerals in this 10-mile cultural protection zone around Chaco Culture NHP. A

2019 version of this bill has just been introduced in the Senate along with a House companion bill, with Congressman Lujan as lead sponsor.

Despite agreeing to avoid oil-gas leasing in the 10-mile zone while the RMP amendment and draft EIS process is on-going, BLM has nonetheless included leases within this zone no less than three times during this administration. Given the importance of Greater Chaco to Tribes and many other groups, this action has triggered protests and near-record numbers of comments to BLM. At the last minute, BLM has withdrawn lease parcels within or close to the 10-mile zone, only to offer similarly positioned lease parcels in later sales. This peculiar game of chicken is disrespectful to the Tribal communities with connections to Chaco, and to Navajo residents that currently live in the area, and should stop immediately.

Over the last six years, Archaeology Southwest and its partners have provided comprehensive comments to BLM and BIA with specific recommendations for management of the Greater Chaco Landscape surrounding Chaco Culture NHP. Below, I summarize these recommendations:

1. BLM and BIA must include a robust role for the National Park Service (NPS) in future oil and gas management decisions.

We are encouraging BLM and BIA to improve interagency coordination and give the NPS a more active role in planning the decisions that affect the visitor experience at Chaco Culture (NHP). Regular and frequent consultations among the Agencies is necessary to give the NPS a strong role in the decision-making process for oil-gas development on Chaco's boundary.

In addition, NPS staff possess unique expertise that can be beneficial to the agencies as they evaluate future proposals. Not only does NPS co-administer the Chaco Archaeological Sites Protection System, along with BLM and the Navajo Nation, but it also possesses expertise in managing night sky, viewsheds, and soundscape values in and around units of the National Park System. NPS has already provided BLM with some information on night skies around Chaco Culture NHP as part of recent oil and gas leasing proposals. This role should be formalized and broadened as part of the BIA-BLM planning process.

Furthermore, working with NPS, we recommend that BLM and BIA sponsor and conduct a comprehensive viewshed and soundscape analysis from Chaco Culture NHP. We also ask that stipulations be developed to protect Park Resources, including stipulations that require NPS consultation before development can proceed near the Park. In the planning documents adopted by BLM and BIA, we urge the agencies to ensure that there is a robust, ongoing role for NPS in future oil and gas management decisions.

2. The agencies should take immediate, concrete steps to improve Tribal coordination and consultation, as well as public outreach and engagement.

In addition to their interagency coordination obligations, BLM and BIA share important Tribal consultation and public engagement duties. The National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and a number of executive orders require notice and outreach to Tribes, allottees, residents and the public at various stages of the oil and gas development process. BLM

Manual 1780 and Handbook 1780-1 have also set the Interior Department on an important new path to improving relationships and coordination with Tribes and allottees.

By joining as co-lead agencies and expanding the planning area, BLM and BIA have already taken initial steps toward improving Tribal engagement and public outreach around Farmington and northwest New Mexico but much more needs to be done. The new scoping process, which began in the fall of 2016, saw BLM and BIA representatives meet directly with Tribal representatives and residents at community centers and Navajo Chapter Houses and brought a critical set of stakeholders to the table. It set the stage for an inclusive planning process with robust Tribal engagement and consultation but, again, more needs to be done. Regular meetings with engaged Tribes should be the rule, not the exception.

Furthermore, we urge BLM and BIA to be sure that this type of outreach and engagement continues after the current planning process is complete. The agencies should view the RMP Amendment and draft EIS as the start of an ongoing relationship and open dialogue with Tribes, allottees, and the public about oil and gas planning decisions. Residual impacts to Tribal communities from expanded oil and gas development can include distortions in labor markets, housing prices, public infrastructure, and disruptions in social systems. This ongoing relationship should both monitor and implement outreach programs to help communities adjust to changes.

Thus, we recommend that in the joint planning documents, a permanent, interagency BLM-BIA-NPS working group be established that meets regularly with Tribes, allottees, State of New Mexico personnel, and the public to discuss and provide recommendations on ongoing minerals management decisions. Additionally, to increase transparency, we urge the Agencies to make all NEPA documents (including categorical exclusions) for Federal, Tribal, and allotted mineral development decisions (e.g., leasing, permitting, right-of-way, suspensions, etc.) available online for public review.

3. The joint planning document should manage the 10-mile cultural protection zone around Chaco Culture NHP in a proactive manner, designed to maximize protection of cultural resources.

The first area that BLM and BIA should manage under common allocations, stipulations and development conditions is the checkerboard of Federal, Tribal, New Mexico State Trust, and allotted lands within 10 miles of Chaco Culture NHP. This area has fewer oil-gas leases and is less developed than surrounding areas. Thus, it has retained much of its cultural integrity and natural characteristics. It contains many undisturbed cultural sites and is critically important to preserving the resources and visitor experience within Chaco Culture NHP, as well as the homes, ranches, and traditional lifestyles of the Navajo people who live near the park. It also contains at least 12 Chacoan great houses and associated communities.

The new Senate withdraw bill (S. 1079) and companion House bill to withdraw Federal minerals in the 10-mile zone are part of this process. But, the Agencies carry the heavy load for protection of this sensitive, fragile area.

New State of New Mexico land commissioner Stephanie Garcia-Richards has recognized the need to protect the 10-mile zone around Chaco Canyon and has indicated full support for the Senate and House

bills. To protect state trust lands within the 10-mile protection zone, Garcia-Richards plans to issue an Executive Order that will put a moratorium on new oil-gas leasing on state trust lands in the area until December 31, 2023. Coupled with the proposed Federal legislation, this is a huge step towards protecting the most sensitive archaeological and cultural zone around Chaco Canyon.

Given this background, I make the following recommendations to preserve and protect cultural resources within the 10-mile cultural protection zone:

- Close the 10-mile zone to all new leasing across all land jurisdictions, and, where closures are not possible, apply no surface occupancy (NSO) stipulations. This approach builds upon the Senate and House withdrawal bills to address all land jurisdictions.
- Where cultural resources are present in lease areas, agencies and oil-gas operators should invite interested Tribes and Tribal members to conduct site visits and plan their development to address specific Tribal concerns. Also, require that operators file viewshed and soundscape analyses with the Park Service, BLM, and BIA before conducting surface-disturbing activities and, in cooperation with those agencies, develop viewshed and soundscape protection plans.
- Require that BLM and BIA consult with the National Park Service before issuing new leases and drilling permits.
- Protect dark night skies; limit flaring and artificial lighting.
- Prioritize reclamation of well pads, access roads, and other oil and gas infrastructure to restore viewsheds from Chaco Culture NHP and nearby cultural sites.
- Prioritize new drilling within already-developed, less-sensitive areas using avoidance measures, such as siting, screening, and mandatory unitization.

4. The Great North Road Corridor requires special treatment under the BLM-BIA joint plan.

Another area that warrants a landscape-level management approach is the corridor of cultural and archaeological sites and great houses along the Great North Road (but beyond the 10-mile protection zone around the Park). This corridor has seen significantly more oil and gas leasing and development than the lands immediately surrounding Chaco Culture NHP. However, like the lands around the Park, this corridor also contains a high density of connected cultural sites that would benefit from enhanced lease stipulations and development guidelines. To protect this area, the plan should:

- Create a single area of critical environmental concern (ACEC) along the Great North Road corridor – but broader than the existing ACEC, which is insufficiently narrow – and close it to future leasing.
- Prohibit new rights-of-way across the Great North Road and other identified Chacoan roads.

- Require phased leasing that prioritizes leases away from areas with low development potential and sensitive resources.

- Require that operators file viewshed and soundscape analyses with the Park Service, BLM, and BIA before conducting surface-disturbing activities and, in cooperation with those agencies, develop viewshed and soundscape protection plans.

For the Great North Road, then, the Agencies should adopt consistent management decisions and resource protections at various landscape levels across Federal, Tribal, and allotted lands and should coordinate these decisions with the State of New Mexico. The agencies should manage areas with connected resources and common resource management concerns under consistent stipulations and development conditions.

5. The Agencies should conduct viewshed and soundscape analysis for Chacoan great house communities.

In addition to closer collaboration with NPS, as discussed above, we encourage the agencies to support other efforts to protect Chacoan communities from indirect effects to viewsheds and soundscapes. The recent work by Ruth Van Dyke documents considerable indirect effects to the viewshed and soundscape of the Pierre's Community. The ACEC established to protect the community is too small to address and prevent many visual and auditory impacts. Van Dyke concludes that the encroachment of oil-gas facilities has compromised the integrity of the ancient community and the ability of the archaeological community to fully understand and assess its role in the Greater Chaco Landscape. Thus, we believe that viewshed and soundscape analysis must be completed for Chacoan great house communities and protective measures put in place prior to allowing any additional leasing within the communities' boundaries.

Working with NPS, the Navajo Nation, and archaeological groups, we urge BLM and BIA to conduct a comprehensive viewshed and soundscape analysis for all Chacoan great house communities across the Greater Chaco Landscape. The agencies should exclude known Chacoan communities from additional leasing until studies are complete. Assign stipulations to protect adjacent or nearby Park Resources, including stipulations that require NPS consultation before development can proceed near the Park. In the planning documents adopted by BLM and BIA, there is a great need to ensure a robust, ongoing role for NPS in future oil and gas management decisions.

Beyond this recommendations, the All Pueblo Council of Governors (APCG) has spoken out on several occasions, issuing several resolutions calling on the BLM and BIA to work closely with Pueblo people while preparing the RMP amendment and draft EIS. The Pueblo governors also endorsed a series of measures that would go a long way toward protecting the magnificent cultural resources and modern-day residents of the Chaco area from oil and gas development, including supporting the 10-mile protection zone around the park that would be off limits to oil and gas development. Most recently, the APCG has partnered with the Navajo Nation in 2017 and 2019 to press the agencies for additional protections across the Greater Chaco Landscape.

In 2018, Archaeology Southwest engaged researchers Richard Friedman and Sean Field to conduct analysis of the BLM-procured LiDAR data (and other remote sensing data) from 2016. This focused primarily on oil-gas lease parcels from the BLM's March 2018 sale, as well as the Bis sa'ani Chacoan Community located roughly 5 miles northeast of Chaco. A variety of landscape features were identified by the analysts across the lease areas and in the Bis sa'ani Community area. Most were determined to be of modern or recent, historic origin. Nonetheless, several features of possibly ancient, Chacoan origin were found. Several landscape features were identified within the Bis sa'ani Community that line up with a road-related feature recorded during the late 1970s work. In several of the lease parcels, anomalous linear features were detected that do not appear to represent modern or historic phenomena. Fieldwork is necessary to confirm or refute the ancient origin of these features; however, it is worth noting that the area around Bis sa'ani has been the target of leasing proposals over the past few six years, and there is active development in the area, which underscores the pressing need to document and protect these fragile resources. And, more broadly, this limited LIDAR project makes clear the value of using these data to assess lease parcels across Greater Chaco.

Adding to my list of recommendations above, then, I encourage BLM and BIA to require oil-gas lease holders to use LiDAR and other remote sensing data that are currently available to assess tracts of land to be developed. This approach should complement more conventional archaeological work under Section 106 of the NHPA and reduce the risk of unidentified cultural resources being damaged or destroyed during oil-gas development. In addition, the preliminary findings of the ethnographic studies in the area make clear that the requirements of Section 106 of the NHPA and Bulletin 38 are not being adequately met with the standard, archaeological approach to fieldwork and reporting. It is critically important to get Native American teams into the field to document cultural resources prior to clearances being issued for oil-gas and other development across the Greater Chaco Landscape.

In conclusion, representing Archaeology Southwest, the Society for American Archaeology, and the New Mexico Archaeological Council, I feel strongly that energy interests have dominated for far too long in northwest New Mexico – to the detriment of cultural sites in Chaco Canyon and the surrounding Greater Chaco Landscape. For Native people, these ancestral places archaeological sites play a significant role in the collective cultural identity and heritage of many Native American people, especially Puebloan people. The destruction of these heritage places by development activities has an unquantified negative effect emotionally, psychologically, and spiritually on Tribal people and this should not be ignored but given appropriate and meaningful consideration by decision makers. On the ground, local Navajo communities and families have borne the brunt of these impacts. Thus, it is long past time to set aside and protect the irreplaceable Greater Chaco Landscape of New Mexico.