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Ojo Encino Chapter Government
(Navajo Nation Subdivision)
HCR 79 Box 1500
Ojo Encino, Navajo Nation 87013
June 2019 New Mexico Lease Sale Protest Comments
5/1/2019

Protested Parcels: 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51 or All Proposed FFO and RPFO lease parcels for June 2019 Lease Sale

I. Chapter Interest and Standing

Ojo Encino Chapter (the "Chapter") has an interest in the leasing of any parcels that are within the Navajo Eastern Agency boundary, Navajo Nation, Traditional Navajo Territories, or of any location which can cause imbalances which may effect any of the previously listed Navajo areas. This comes from traditional Navajo conceptions of relationships (K'é and K'é bikeyah) which is evident from Navajo Fundamental Law (Diné Bi Beenahaz'áanii) codified in Navajo Nation Code (1 N.N.C. §201 - §206). Additionally, Navajo Nation Code Title 26 which defines chapter members as "For purposes of services and benefits, all tribal members, young and old, who either reside within or are registered in the chapter. An individual may not be a member of more than one chapter"¹. A chapter Resident is defined as "one who dwells permanently or continuously within the boundaries of a chapter"². The definition of Governmental Purposes "activities carried out by the chapter for the general health, safety and welfare of the chapter membership"³

The Chapter passed resolution #11-17-16/002 which is "against all pending and future federal fluid mineral BLM leases within Navajo Eastern Agency areas (or other lease sales which could directly or indirectly impact Eastern Agency Areas) until a reasonable revenue sharing mechanism is developed, the new Farmington Field Office Resource Management Plan Amendment is developed, and a full understanding of potential environmental and health impacts of horizontal hydraulic fracturing is developed"⁴.

Importantly a chapter's Land Use Planning area may focus upon lands within its own Chapter boundaries, it does not preclude the Chapter from providing its "services and benefits" from Chapter members who reside outside of the Chapter's land use planning boundaries, and in fact is required under Title 26 to provide those benefits and services. Thus, it is important that a chapter recognize and work on issues affecting chapter membership located in another chapter's boundaries. Especially in such a case as this lease sale which has effects not only upon those non-resident chapter members but also on the chapter's own residents.

¹: 26 N.N.C. § 2.10.b

²: 26 N.N.C. § 2.13

³: 26 N.N.C. § 2.22

⁴: Ojo Encino Chapter Resolution #11-17-16/002: Therefore Clause 1 (See Appendix 5)

II. Analyze Significance under NEPA

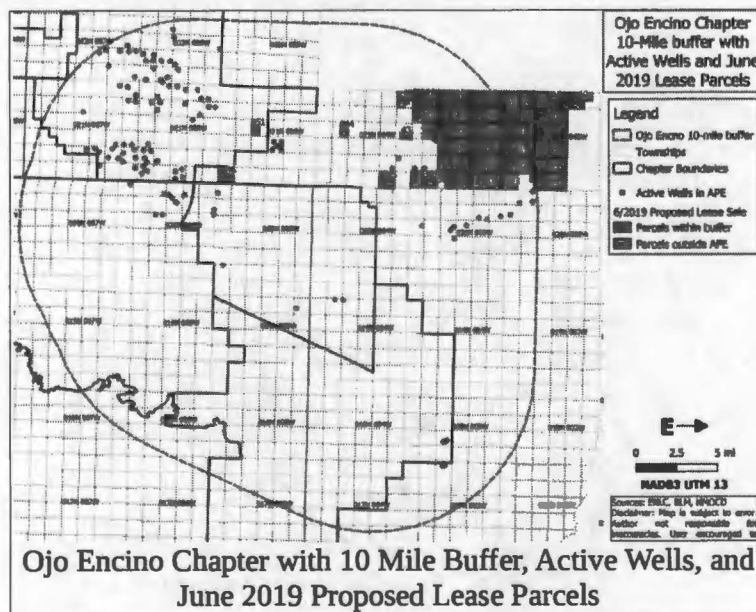
1) Overview of Significance

The Chapter is particularly concerned that there are a multitude of issues which rise to the level of "Significant" in terms of NEPA. The term "Significantly" is defined at 40 CFR §1508.27. Within the defining language a variety of elements are put forward, including the term "intensity" and lack of locally specific context analysis. The Chapter for years has raised issues, in writing and verbally, which are significant both as a matter of intensity and by other means. This action might not be a site specific action, but its impact upon Navajo communities have been described in detail in previous comments. Further discussion of these issues will be shown below.

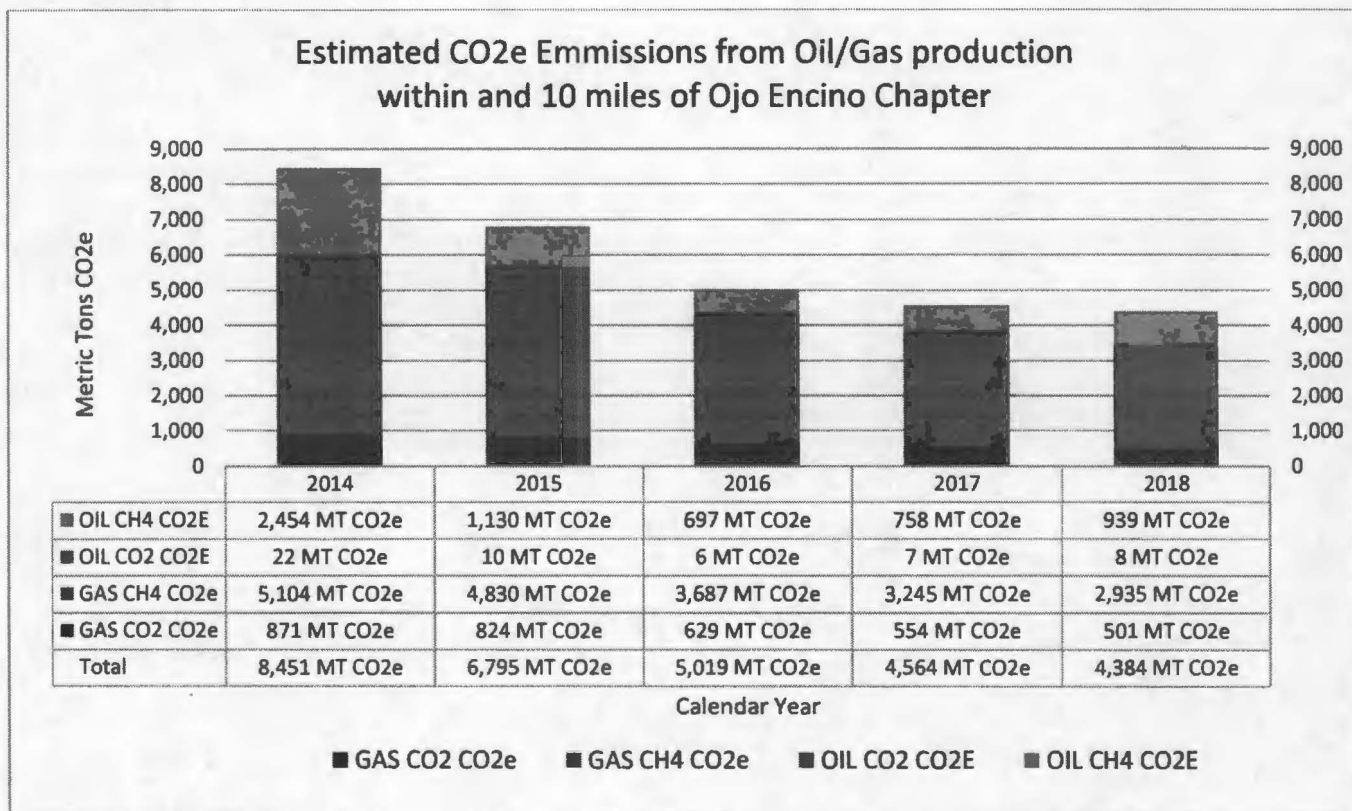
2) Ojo Encino Chapter Context: Greenhouse Gas Emissions from Oil/Gas production

The amount of current oil/gas development within Ojo Encino and the surrounding local region (10 miles from the Ojo Encino Chapter boundary) is fairly low compared to northern areas. Unfortunately, the BLM has failed to take a hard look at the local regional context in regards to the various proposed oil/gas lease sales with the estimated amount of development which could occur due to leasing. The major issue about needing to take a hard look is due to the fact that the BLM RPFO does not have an up-to-date RMP and especially does not have any EIS level plans to tier this Lease Sale EA to which address the unique local regional context of Ojo Encino area.

The Chapter is analyzing wells within the chapter boundaries and within a 10-mile boundary surrounding the Chapter's boundary. This distance was chosen since the BLM rightfully acknowledged various particulates can travel far distances with some larger inhalable particles traveling 10s of kilometers. The 10 mile 16 kilometer boundary provides an area to better understand the regional impact of oil and gas development upon the environment within the Chapter boundaries (although the Chapter is highly concerned with environmental impacts outside of its boundaries as well). As of March 2019, there are 118 active wells within this area. Of this 112 are vertical and 6 are horizontal.



With this area and wells along with production data from NMOCD and various pollution calculations from the June 2019 lease sale draft EA and with the BLM Air Resources Technical Report, contextualized regional impact analysis which is relevant to EJ populations has been developed. Contextualized and relevant means that figures presented don't hide themselves in much larger geographies such as counties, which may have a greater amount of production elsewhere, thus impacts to total county numbers might appear small but are significantly larger when considered in smaller yet important geographies.



Estimated total CO₂e emissions for the entire buffer area has been declining since 2014. Although some slight shifts have occurred as to production (oil production has increased which increased specific GHG emission types). In 2018 total GHG emissions for the buffer area was 4,384 metric tons of CO₂e. This is a reduction of nearly 50%, this is a trend that the Chapter would like to see continue.

Total Production within 10-Mile Ojo Encino Buffer					
	2014	2015	2016	2017	2018
Oil Production (Bbl)	166,526	76,660	47,289	51,422	63,716
Gas Production (MCF)	1,735,410	1,642,428	1,253,610	1,103,465	998,033
5-Year Oil/Gas Production	405,613 bbl oil / 6,732,946 MCF Gas				
5-Year Oil/Gas Production Annual Average	81,123 bbl oil per year/ 1,346,589 MCF Gas per year				

The total lifetime (20 year) production of the proposed parcels are estimated to produce 803,000 bbl of oil and 96,303,000 MCF of gas. Averaged out on a per year basis this would be 40,150 bbl of oil and 4,815,150 of gas. This would be a nearly 50% increase in annual oil production and a nearly 360% increase in gas production for the area. These are substantial increases which will also lead to significant increases in impacts.

The BLM appears to have made a mistake in its calculation of GHG emissions. The Chapter finds the Air Resources Technical Report methodology of estimating GHG emissions being related to oil/gas total production as being a reasonable way to estimate GHG emissions. However, in the Draft June 2019 Lease Sale EA the BLM makes the mistake of detaching differential production to differential emissions by severing production from the estimation and uses an overall average by using the total number of active wells. This unfortunate mistake makes all wells (no matter how productive or little productive) equal in estimated emissions. As is discussed later in this comment, many newer wells in the trichapter area have production rates many times higher than most vertical wells in the San Juan Basin. Thus, true emission estimates which use a consistent methodology would yield a substantially higher amount when using a production-based emission estimate, since the potential development scenario details production estimates for the wells.

Thus, using production-based estimates the estimated GHG emissions for the potential vertical well (19,000 bbl oil and 3,235,000 MCF gas) would be:

Production-Based GHG Emission Estimated based on Potential Production of Vertical and Horizontal wells in June 2019 Draft Lease Sale EA		
Wells as Posited in June 2019 EA	Per Vertical Well	Per Horizontal Well
GAS CO2 CO2e	1,624 MT CO2e	624 MT CO2e
GAS CH4 CO2e	9,514 MT CO2e	3,659 MT CO2e
OIL CO2 CO2E	3 MT CO2e	17 MT CO2e
OIL CH4 CO2E	280 MT CO2e	1,857 MT CO2e
Total CO2e (Per Well)	5,421 MT CO2e	6,157 MT CO2e

Thus, the total GHG emission production of all the potential wells from the June 2019 lease sale would be closer to 423,436 CO2e, not 3,745 CO2e as indicated on table 3.7 on page 38 of the RPFO June 2019 Lease Sale Draft EA. This would represent a .0066% portion of total US emissions and 6.23% of New Mexico O& Gas emissions. Averaged out over 20 years the potential wells would provide an annual average of 21,172 MT CO2e. For total production within the study area, a total potential increase in GHG emissions would be 343,495 MT CO2e annually producing 17,175 MT CO2e. This would represent an almost 400% increase in GHG emission from Ojo Encino buffer area.

3) Ojo Encino Chapter Context: Pollutant Emissions from Oil/Gas production

The Chapter finds the BLM's presentation of table 3.6 rather interesting in that it appears to "dilute" the projected emissions from the potential wells by two means: using all human caused emissions and by using the four-county region. These two particular factors which removes the analysis from meaningful context both spatially and analytically, make the appearance of the potential development of these wells seem almost insignificant. However, the EPA inventories

allow analysis to be done at the county level and by subsector. Thus, the Chapter has elected to present similar data as presented by the BLM using better context to more fully understand the potential impacts from development on the local region and also Sandoval county.

The 2014 National Emissions Inventory has emission information on Criteria and Hazardous Air Pollutant segregated by 60 emission sectors⁵. One of these sectors is defined as being Oil and Gas production which is defined as follows:

This sector includes processes associated with the exploration and drilling at oil, gas, and coal bed methane (CBM) wells and the equipment used at the well sites to extract the product from the well and deliver it to a central collection point or processing facility.⁶

The Chapter is grateful that the EPA keeps such data at the county level, although the Chapter is curious why it does not exist in the BLM's analysis. However, using this data the table 3.6 would appear differently if it includes Sandoval County (which is where all of the proposed lease parcels exist and all potential wells would be constructed) and isolated to the oil and gas production sector:

2014 EPA National Emissions Inventory Data						
	PM ₁₀ *	PM _{2.5} *	NO _x	SO ₂	CO	VOC
4-County Area -OG Prod	405.07	359.62	25,152	162.33	37,448	66,418
Sandoval County – OG prod	3.99	3.96	297	0.13	508	2,220
% of Ojo Encino Study Area 2014 BOE Production (McKinley Cty)	74.7%	74.7%	74.7%	74.7%	74.7%	74.7%
% of Ojo Encino Study Area 2014 BOE Production (Sandoval Cty)	83.3%	83.3%	83.3%	83.3%	83.3%	83.3%
Estimate of Pollutant from OG Prod in Ojo Encino Study Area Sandoval Cty	3.32	3.3	247	.11	423	1,849
Estimate of Pollutant from OG Prod in Ojo Encino Study Area McKinley Cty	.5	.48	28	.008	46	293
Total Estimated Ojo Encino Study Area OG Prod Emissions	3.82	3.78	275	.118	469	2,142
Sandoval County – All Human Emission	22,571	3,266	5,117	175.25	25,830	7,308
One Well Emission**	5.31	.81	6.19	.11	2.63	0.75
Total 38 potential Wells Emission**	201.78	30.78	235.22	4.18	99.94	44.35
Percent Increase for Sandoval County OG Prod Sector***	5,057.14%	777.27%	79.2%	3,215.39%	19.67%	2%
Percent Increase for Sandoval County-All Human Emissions	0.89%	0.94%	4.6%	2.4%	0.39%	0.61%
Total 31 potential Wells Emission from leases in Ojo Encino Study Area	164.61	25.11	191.89	3.41	81.53	23.25
Percent Increase for Ojo Encino Study Area OG Prod Sector	4,309%	664%	69.8%	2,890%	17.4%	1.1%
*For PM figures the following were used: PM2.5 Primary (Filt + Cond) and PM10 Primary (Filt + Cond). These emission types matched with figures in the table for all anthropogenic generated emissions in the 4-county area.						
**Using well emission data from Draft EA						
***Calculated using same method as BLM: Total Potential Well Emission / Sandoval County 2014 Emission						

By using better contextualized analysis (both spatially and analytically) shows how the potential wells will impact Sandoval County as a whole in regards to all human emissions. In fact, most figures are nearly an entire magnitude greater in scale as compared to the figures presented by the BLM using the entire 4-county region. More importantly though, is the massive increases in

⁵ <https://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data>

⁶ 2014 National Emissions Inventory, version 2 Technical Support Document; July 2018; Page 4-154;
https://www.epa.gov/sites/production/files/2018-07/documents/nei2014v2_tsd_05jul2018.pdf

emissions from the Oil and Gas sector for Sandoval county which does not currently have as much production as Rio Arriba and San Juan counties. These massive increases are significant both in terms of the sector itself and as a whole for emissions in the county.

On a more regionally specific context, the Ojo Encino buffer area is responsible for the vast majority of oil and gas production for both Sandoval and McKinley counties. Thus roughly estimating the amount of Oil and Gas production emissions from total BOE production yield roughly the amounts being produced within the Ojo Encino study area. By looking at potential emissions from the proposed leases within the Ojo Encino buffer area yields the increases in emissions that would be faced by local populations compared to what they currently face.

Looking at the sector specific emissions for Oil and Gas production in Sandoval county brings a curious relationship with estimated VOC production.

While many of emission increases for Sandoval county in regards to oil and gas production are extremely large VOC increases are projected to only be 2%. Looking at the Lease Sale Emission table shows the following qualification:

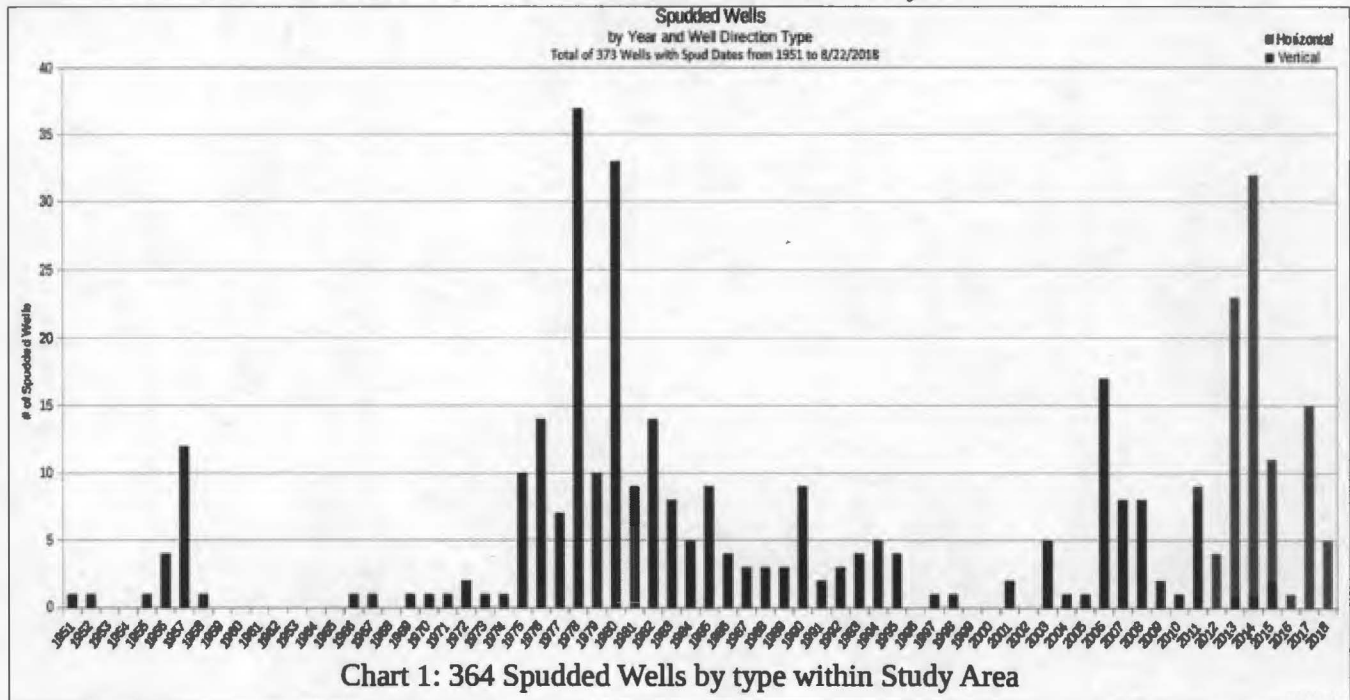
^b VOC emissions at the operational phase represent a 95% control efficiency and estimates potential emissions representing the contribution for “one oil well” from the emissions at storage tanks, gathering facilities, etc.⁷

The Chapter is pleased that the “efficiency” has so dramatically increased apparently from 2014. However, the BLM may wish to relook at its VOC emissions data on a per well basis.

⁷ RPFO Draft June 2019 Lease Sale EA (DOI-BLM-NM-A010-2019-0010-EA): Page 34

4) Intensity of Development by Production in Counselor

Counselor Chapter's area's⁸ first horizontally drilled well began production in March of 2012 (API:30-043-21117⁹). Other horizontal wells in the Counselor area came into production since¹⁰. This has marked a dramatic change in the magnitude and composition of oil/gas production from the area. It also has affected different mineral owners in different ways.



NMOCD data indicates that the quantity of wells that have been spudded within the Counselor since 2011/2012 has been quite large, not consistently seen since the early 80s. However, unlike the late 70s / early 80s these wells are almost all completely horizontal wells.

The utilization of horizontally drilled wells which are hydraulically fractured requires increased footage of laterals to be perforated. Within the study area, 298 wells with perforation data on their NMOCD information page were analyzed for total perforation length. Of these wells 226 are classified as vertical and 72 are considered Horizontal by NMOCD. The vertical wells had an average perforation length of about 163 feet while horizontal wells have an average perforated length of 5,991 feet. This is an almost 37 fold increase in average perforation length. The total amount of vertical well lateral footage perforated within the Counselor area is 36,723 feet. The total amount of horizontal well lateral footage perforated within the Counselor area is 431,379 feet. One average perforated length horizontal well has the same amount of perforated lateral

⁸For purposes of this document the Counselor Chapter area is defined as the following townships: 21N5W, 21N6W, 21N7W 22N7W, 22N6W, 23N7W S/2, and 23N6W S/2. At times in the comments, Counselor Chapter and Counselor Chapter Area could be used interchangeably.

⁹<https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-043-21117>

¹⁰Refer to Chart 1 for spudded wells by month and type within the Counselor area. Data source is NMOCD.

as nearly 37 averagely perforated vertical wells. This is an immense difference¹¹. The BLM has already admitted that this activity does cause differences in impacts:

Over time, improvements in hydraulic fracturing techniques have further increased the production potential of individual wells. Those same improvements may also lead to incrementally higher emissions of VOCs during the relatively brief completion phase of new wells. Additionally, modern fracturing techniques may indirectly increase the quantity of roadbed dust temporarily suspended in the atmosphere simply due to an increase (relative to older fracturing techniques) in vehicular traffic involved in transporting mobile equipment and supplies. However, once the hydraulic fracturing is complete, these effects largely disappear.¹²

Considering that horizontal wells which are hydraulically fractured have longer lateral being hydraulically fractured, it would stand to reason that the intensity of the impacts from these wells would be greater than their vertical counterparts. The current 2003 RMP did not consider horizontal drilling in its analysis:

"Horizontal drilling is possible but not currently applied in the San Juan Basin due to poor cost to benefit ratio. If horizontal drilling should prove economically and technically feasible in the future, the next advancement in horizontal well technology could be drilling multi-laterals or hydraulic fracturing horizontal wells. Multilateral could be one, two or branched laterals in a single formation or single laterals in different formations. Hydraulic fracturing could be a single fracture axial with the horizontal well or multiple fractures perpendicular to the horizontal well. These techniques are currently complex and costly, and therefore typically inappropriate for most onshore U.S. reservoirs. Comprehensive engineering and geologic research will be required in the near future in order for these techniques to become viable within the 20 year time frame anticipated by this RFD (8.3)"¹³.

Thus the Chapter is concerned that this difference in impact has not been properly analyzed and mitigated (even if the BLM insists it is "largely" short term). Interestingly, the BLM does not consider impact to be completely short term, what are the long term effects? Considering the scale of difference in regards to perforated lateral lengths is considerable (a magnitude in difference) these "small" and "temporary" differential impacts are likely being multiplied many

¹¹These presented averages and totals are for the Counselor Area. Data was pulled from individual NMOCD well webpages.

¹²https://eplanning.blm.gov/epl-front-office/projects/nepa/90068/126746/154500/20171205_FINAL_EA_Farmington_Oil_and_Gas_Lease_Sale_Mar_ch_2018_v2b.pdf Page 51

¹³<https://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=463> Page 113

times due to the large scale in differences between vertical and horizontal wells. This increase in scale also includes production.

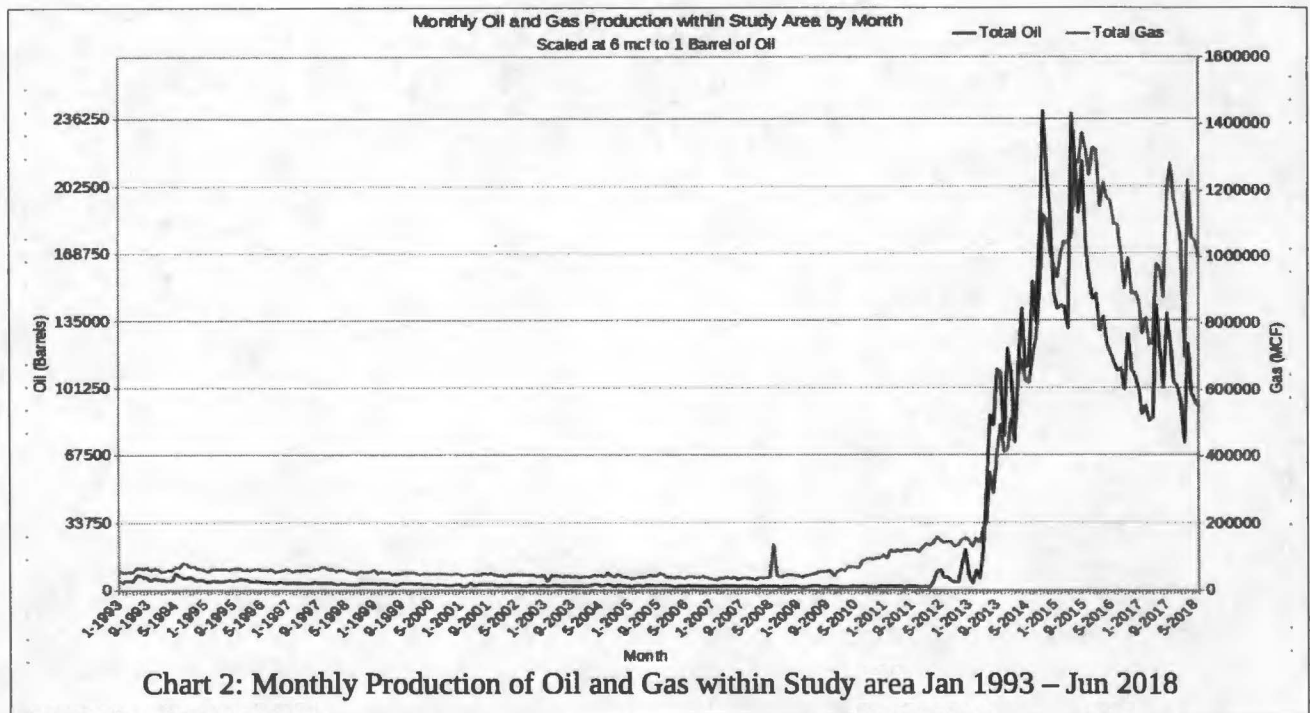
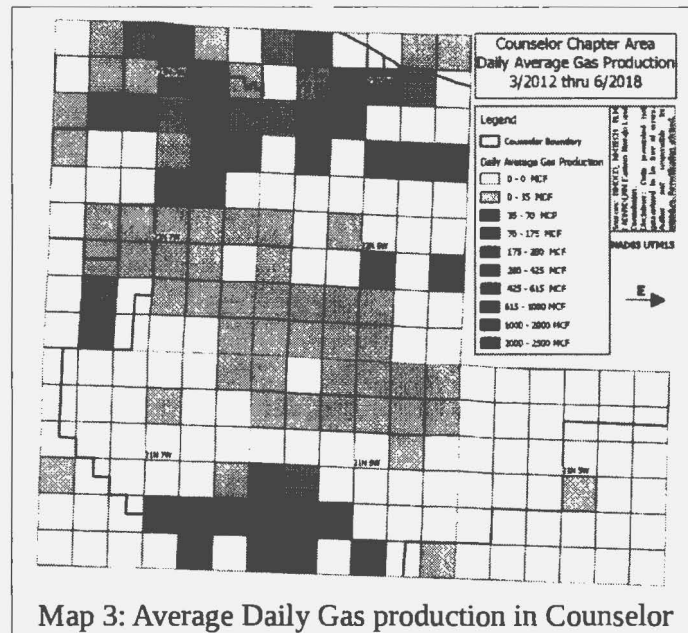
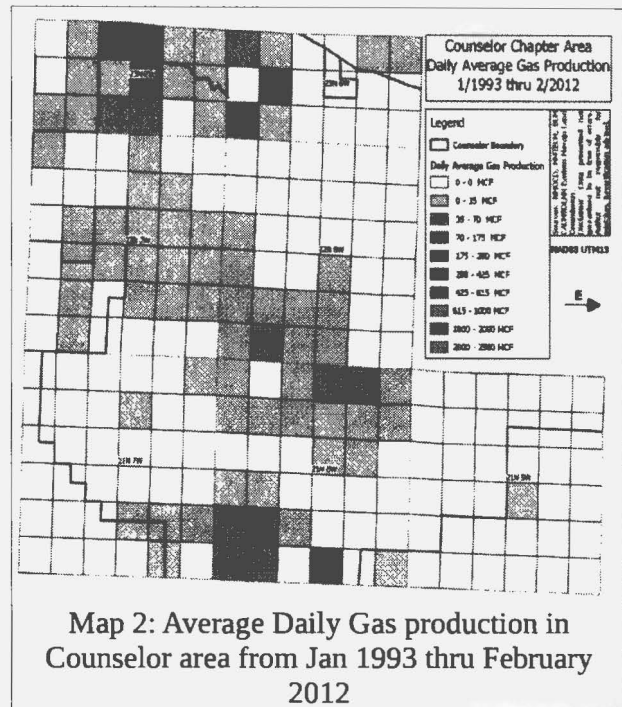
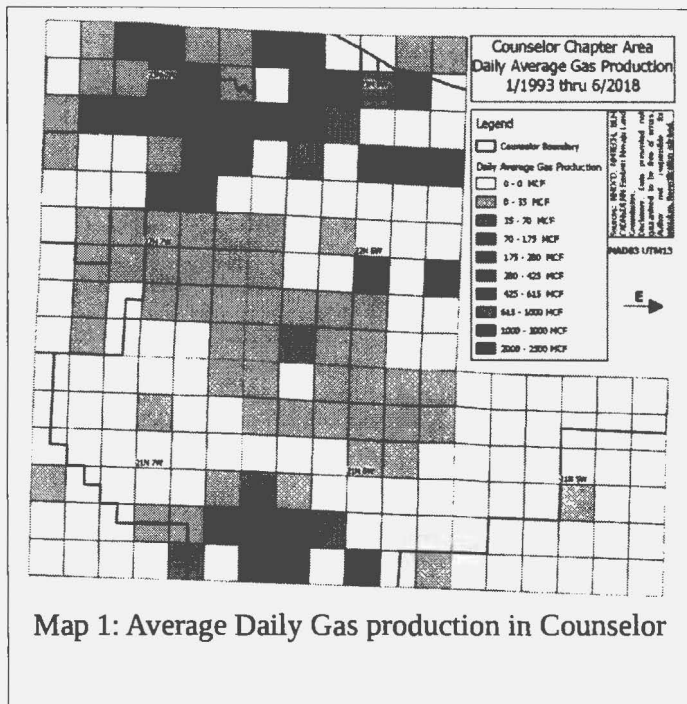


Chart 2 shows total monthly production for oil and gas production within the Counselor area from 1993 thru Jun 2018. During the time frame before the first horizontal well became productive (January 1993 thru February 2012) a total of about 6,822,294 barrels oil and 7,865,862 mcf of oil were produced. This was an average of about 29,662 barrels oil/month within the Counselor area. An average of about 34,199 mcf gas/month was produced within the Counselor area before producing horizontal wells. The current era of production (March 2012 thru June 2018) the Counselor area has produced 12,915,214 barrels of oil and 58,445,214 mcf of gas. This equates to 169,937 barrels of oil/month and 769,016 mcf gas/month.

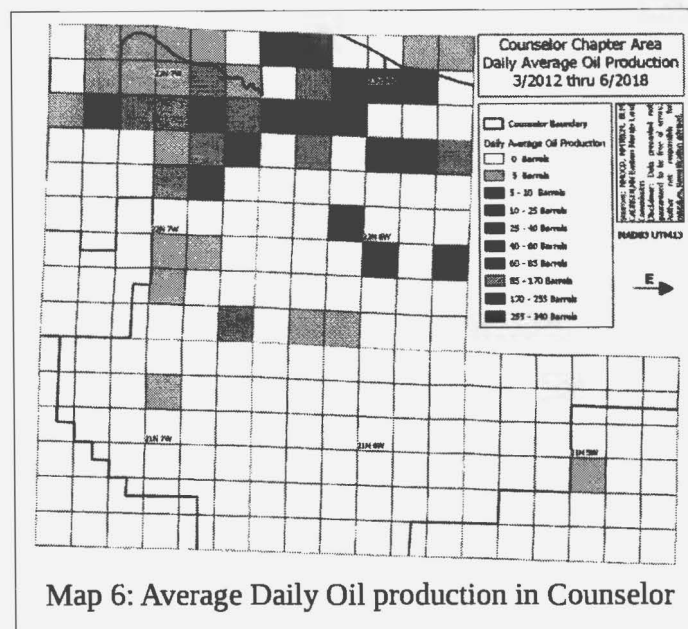
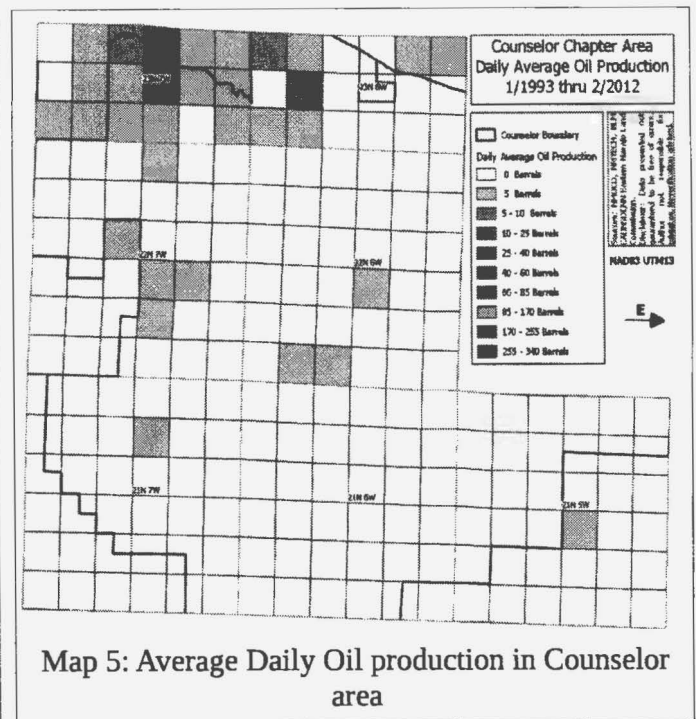
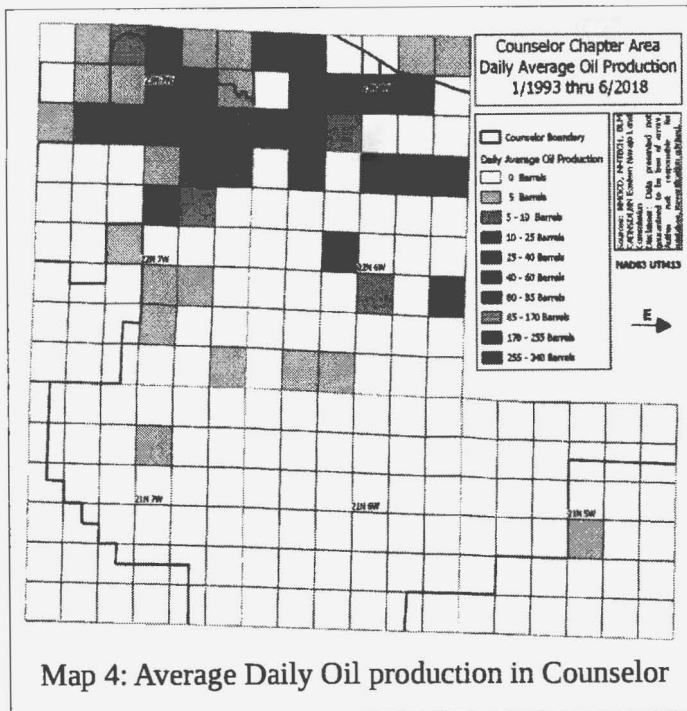
The increase in scale of production within the Counselor area is significantly higher. The horizontal era is seeing production rates of nearly 5.72 times total oil production per month and 22.5 times total gas production. This massive increase in production (and of intensity since it is being produced much more quickly) is being driven by horizontal wells within the Counselor area. Vertical wells from January 1993 thru June 2018 produced 836,738 barrels of oil and 21,230,894 mcf of gas. Horizontal wells (March 2012 thru June 2018) produced 7,711,418 barrels of oil and 50,129,534 mcf of gas.

Additionally, many of the horizontal wells have multiple wells per pad. While this may reduce total surface acreage impacted, it does concentrate and intensify the oil/gas development. Thus, where a typical well would have been 660' from a residential structure with its

significant lower production rates versus having 2 or more horizontal wells only 660' from a structure with a great deal of increased production.



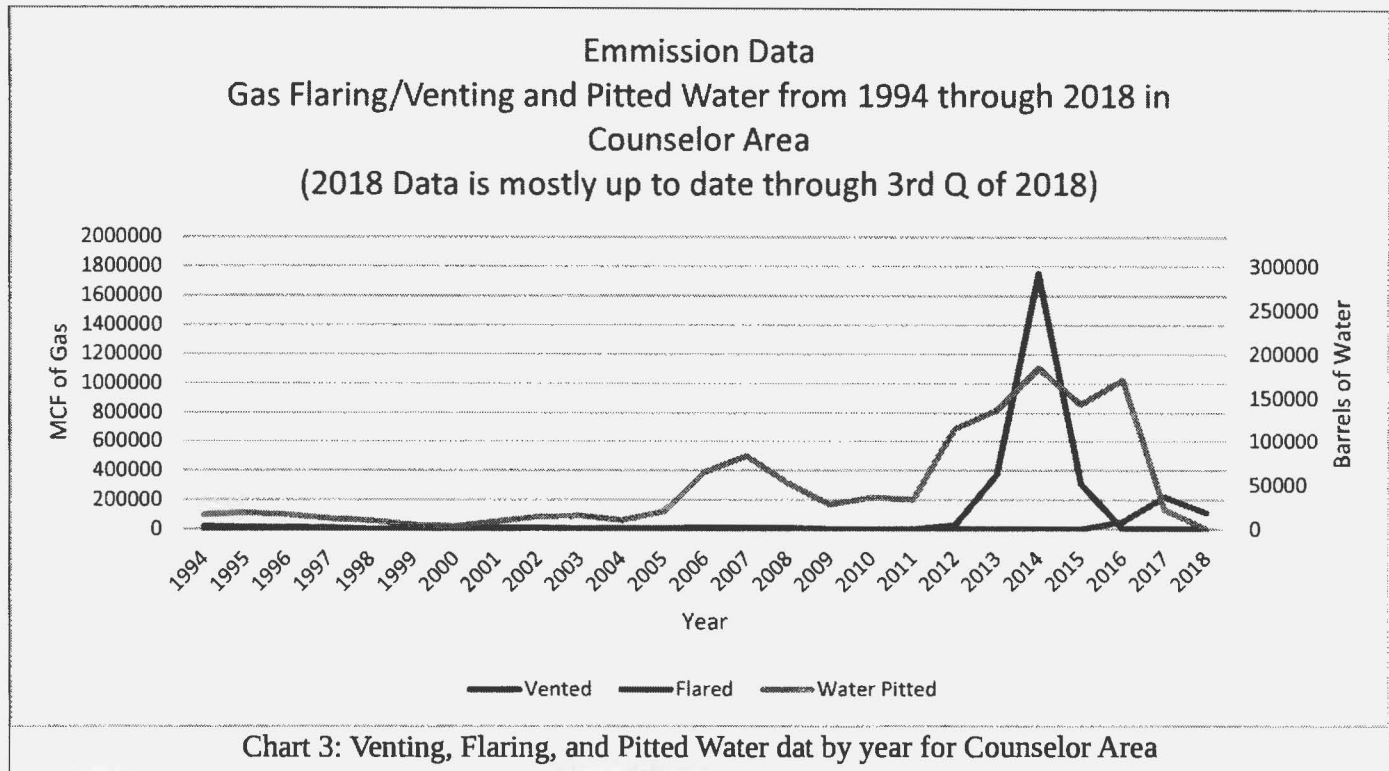
After the introduction of horizontal drilling within the Counselor area (March 2012) gas production has increased significantly. The area now sees daily gas production rates that are substantially higher than rates that had been seen before. This intensification of production has moved southwards towards populated tribal trust parcels (northern parts of 226N6W and 22N7W). Leasing of additional parcels will likely continue the increases in production in the area and continue to change the geographic pattern of gas production.



Oil production within the Counselor area has substantially intensified and has increased the areas where it is produced. Horizontal drilling has been the driver of this change. Looking at these patterns of production should indicate to the BLM that horizontal drilling is a substantially different form of technology implementation which has had major effects upon the communities it has been implemented in. It should be noted the geographic pattern and its intensity is much further south then envisioned by the 2001 RFD and has only begin to be analyzed by the newest rounds of RFDs for the Farmington RMPA.

4) Venting, Flaring, and Pitted Water increases in Counselor

Counselor had experienced substantially higher amounts of venting and flaring then it had ever experienced before. This was primarily driven by horizontal drilling in the Counselor area and a lack of accompanying infrastructure to handle such production.



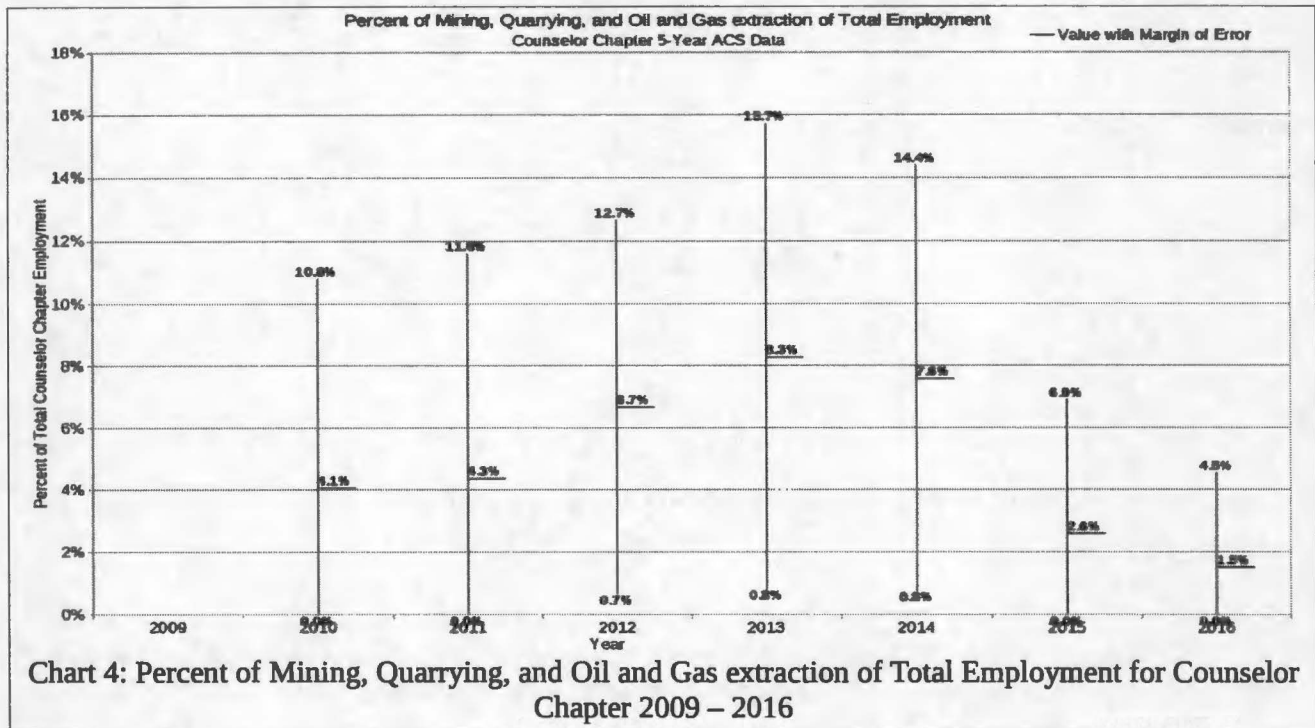
Future development in other areas that have not been traditionally major producers of oil/gas would likely show a similar development evolution where production is far ahead of carrying infrastructure. Meanwhile, the community is exposed to higher toxin levels due to pollution purposefully generated by oil/gas wells.

Having a RMP which has been developed for this intense type of development and for areas which do not have the accompanying infrastructure is a necessity for ensuring human lives and health are protected and resources are not wasted. Unfortunately, it appears that the BLM is not interested in not repeating its mistakes that it has made, and continues to make, regarding insufficient planning.

The chapter has serious concerns regarding health impacts from hydraulically fractured horizontal wells. It has read multiple disturbing studies and now coupled with venting and flaring data, the Chapter feel that there is adequate reason to believe that the BLM has not had the proper measures in place to mitigate impacts to local communities (particularly in Counselor).

5) Economic Impacts of Production in Counselor

Within the Counselor area from January 1993 thru June 2018 a oil production had an estimated value of \$559,898,250 and gas had an estimated value of \$254,308,295¹⁴. This total value produced roughly follows the production patterns of the Counselor area. From March 2012 thru June 2018 total estimated oil production value is \$527,374,110 and total estimated gas production value is 184,609,684. As with overall production the majority of the production value has stemmed from horizontal wells.



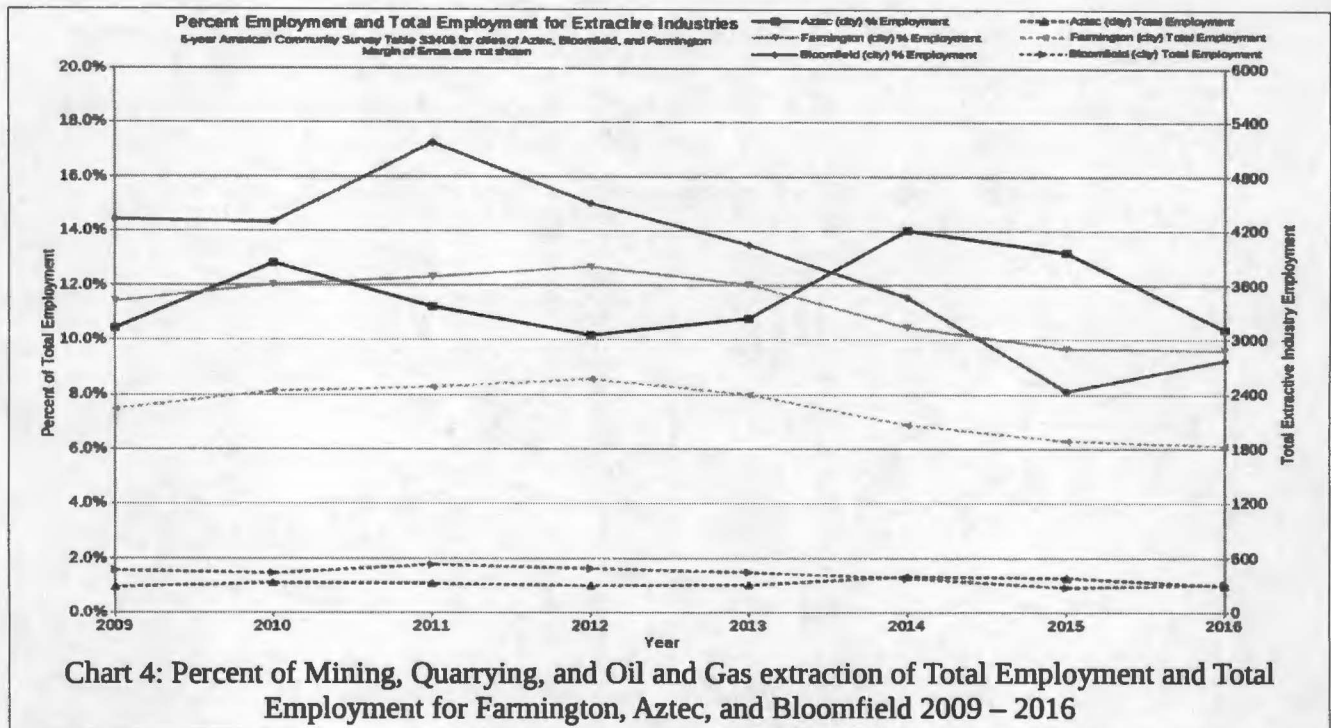
During this time Counselor Chapter does not appear to have had major employment benefits. Although a great deal of value has been generated by this are the residents of the community do not to appear to have seen this value translated into increased local prosperity overall.

Although the margins of error are relatively large, the data has smaller margins of error in 2015 and 2016. It appears that overall Counselor has not seen employment rates in oil/gas that are on par with San Juan County and the Farmington, Aztec, and Bloomfield (FAB) area. Employment for San Juan county and FAB have seen declines in overall employment (by percentage and total) over the past few years, but Counselor by percentage is substantially less. Although Counselor is within Sandoval county, it exists in the Northwest portion of the county. It also uses FAB area as its main shopping and economic zone¹⁵, and lastly unlike most of Sandoval county Counselor area is a major

¹⁴The value are inflation adjusted to August 2018 using BLS CPI. Additionally, production values were calculated monthly using monthly average commodity prices created primarily from the NM pricesheet (NM Tech) and EIA.

¹⁵Hasbídito Food and Energy Report 2012

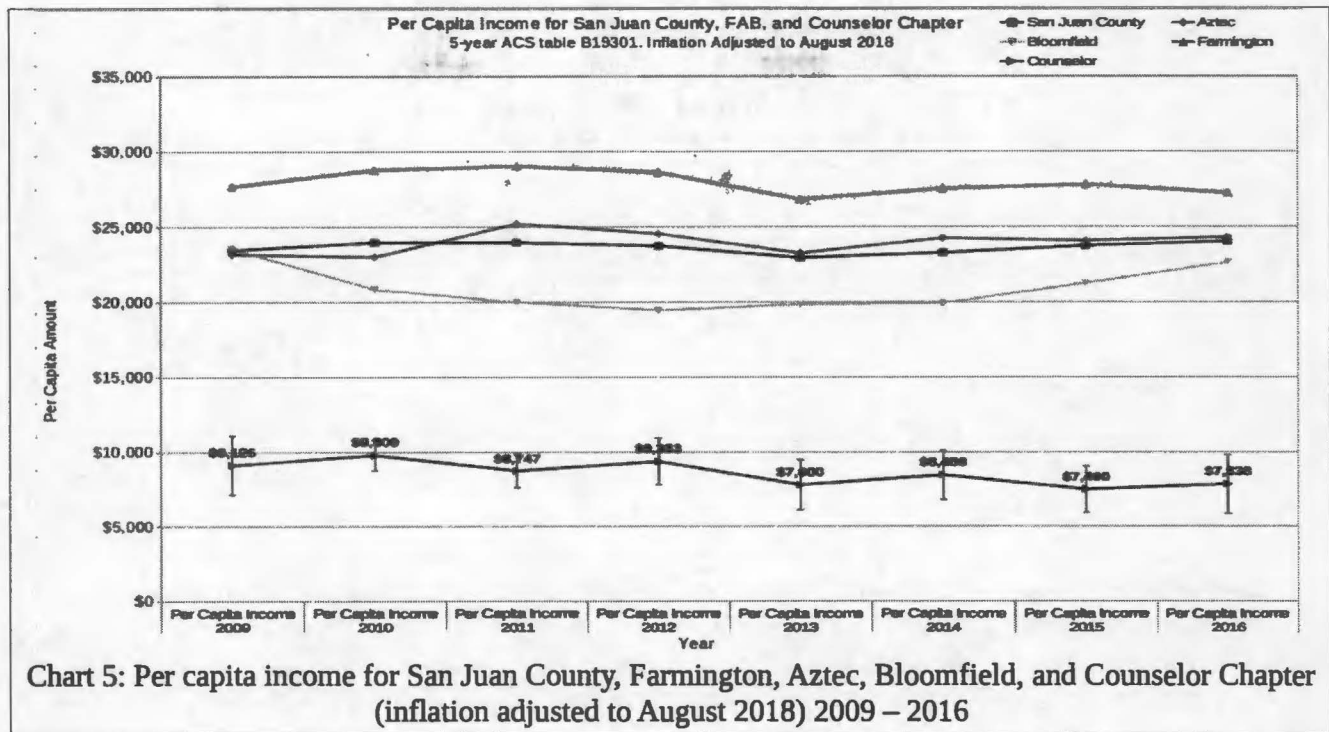
producer of oil/gas. Thus, Counselor for purposes of oil/gas employment should be compared to San Juan County as opposed to Sandoval county.



Additionally, there has been royalties which are being generated by the various wells. No monies are coming back to the local Navajo governments from the oil/gas development within the Counselor area. The federal royalties generated are divided between the State and Treasury department. State royalties go back to the state. Allottee revenues go to the allotment interest holders. From publicly available documents it appears on average that about 38% of allotment interest holders have an address in the Cuba, Counselor, or Nageezi area. Although this does not indicate what percentage of the allotment royalties are returning to the community (or surrounding region) it gives rough idea on the approximate amount. Total production for various mineral owner types from January 1993 thru June 2018 are as follows

	Estimated Oil Value	Estimated Gas Value	Total Estimated Value	% of Total Value
Estimated Federal Production Value	\$383,355,876	\$189,425,898	\$572,781,775	70.4%
Estimated Navajo Production Value	\$46,551,182	\$26,863,274	\$73,414,456	9.0%
Estimated Private Production Value	\$1,664,606	\$1,110,468	\$2,775,075	0.3%
Estimated State Production Value	\$128,326,585	\$36,908,652	\$165,235,238	20.3%

To understand how much this is affecting the economics of Counselor Chapter, per capita income can be used. Counselor Chapter (when adjusted for inflation to Aug 2018) has had declines in its per capita.



6) Scientific Controversy regarding the Greater Chaco Region

The Chapter is aware that the RPFO (and BLM) believe that the Greater Chaco region does not extend out into areas which include the proposed lease parcels. However, the Chapter believes that all the parcels are within the Greater Chaco Region. The Chaco Joint Management plan shows 6 road areas with influence. All of the parcels sit within the east road system. Unfortunately, it appears the BLM does not agree with the Chaco Joint Management plan or with the various Tribes which indicated that parcels in the December 2018 lease sale are part of the Greater Chaco Region. The parcels in the December 2018 lease sale and the proposed parcels for the June 2019 lease sale are very close in proximity to each (except June 2019 proposed parcel #25). BLM RPFO has stated the following:

“The review of existing records and many years of experience in the townships containing the 946 proposed lease sale parcels has turned up no evidence that the proposed lease parcels lie within 947 the Greater Chaco Region. The absence of archaeological evidence of use of the RPFO parcels by Ancestral Puebloans, and the absence of Chaco-era sites within 6½ miles of the proposed lease parcels indicates that the RPFO parcels fall outside the Greater Chaco Region”¹⁶.

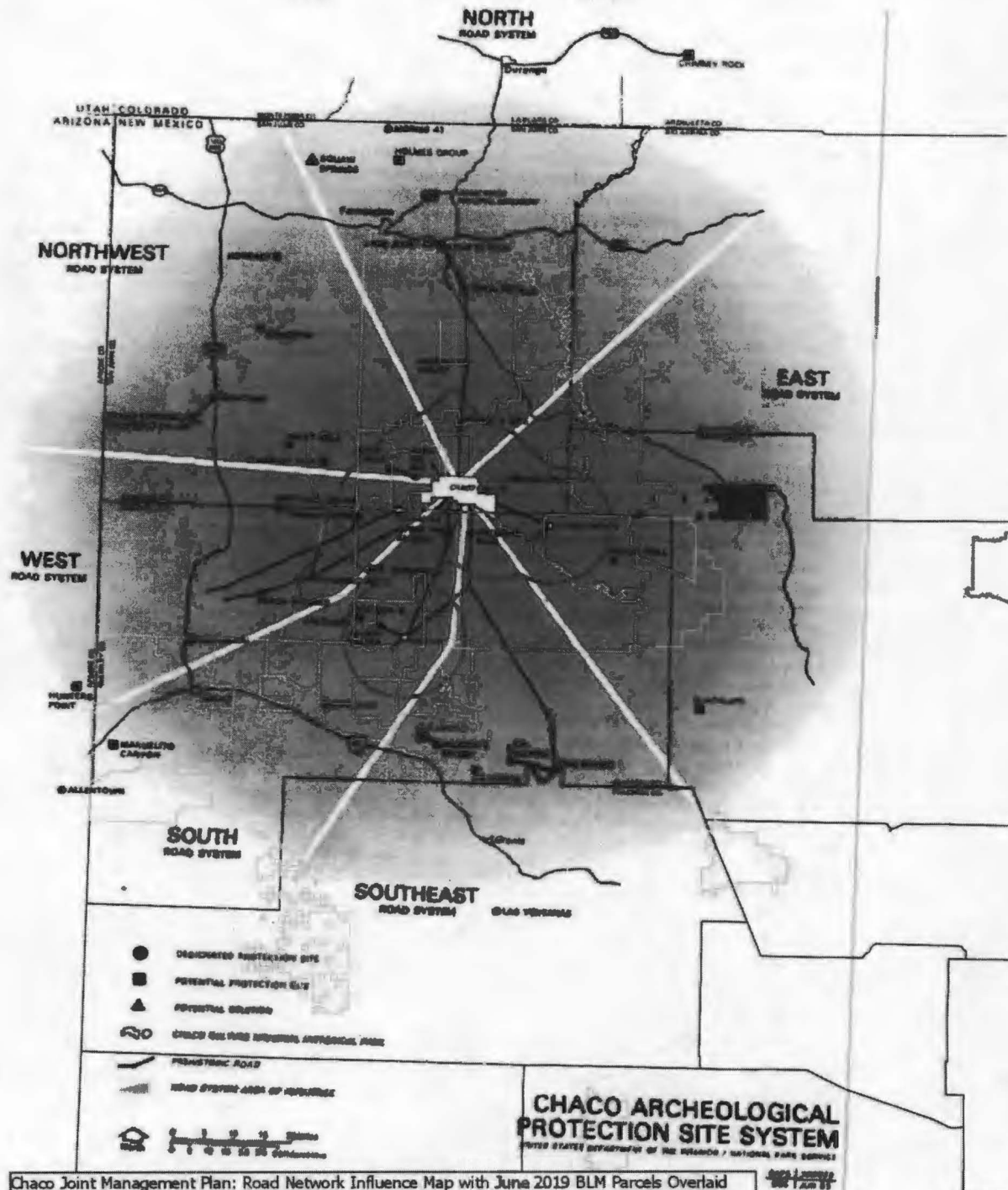
The BLM RPFO also wrote the following:

¹⁶ DOI-BLM-NM-A010-2018-0042-EA: Final RPFO EA: Lines 948-950

Written comments opposing the lease sale because of cultural concerns about the "Greater Chaco Region" were received from Acoma Pueblo, Isleta Pueblo, Laguna Pueblo, Sandia Pueblo, and San Felipe Pueblo, as well as the All Pueblo Council of Governors, and the Ojo Encino Navajo Chapter. Similar opposition was received from Santa Ana Pueblo, who oppose the lease sale based on "landscape and cultural setting of once occupied territory by Puebloan Ancestors." However, other than the general concern about the "Greater Chaco Region" or the "landscape and cultural setting of once occupied territory by Puebloan Ancestors," no specific traditional cultural concerns within the parcels were raised by the tribes consulted.¹⁷

The BLM RPFO has acknowledged that there is a significant difference in opinion amongst experts regarding the extent of the Greater Chaco Region. This scientific controversy has an even greater significance since the DOI secretary deferred the March 2018 lease sale to conduct a cultural survey of the region. Thus, it is important to understand that various entities do not fully understand the extent of the Chacoan culture and its various descendants (such as the Navajo and Pueblos). Since the secretary has already previously noted that better understanding the cultural environment of the region is significant enough to defer a lease sale until further study is completed, it would seem that the BLM should continue to take similar measures where similar circumstances are at play.

¹⁷ DOI-BLM-NM-A010-2018-0042-EA: Final RPFO EA: Lines 937-944



Chaco Joint Management Plan: Road Network Influence Map with June 2019 BLM Parcels Overlaid
Sources: Chaco Joint Management Plan, Chaco Legislation bounds, Eastern Navajo Land Commission, BLM. DISCLAIMER: Map Subject to error. Author not responsible for issues arising from inaccuracies. User assumes all responsibilities of using map.

Map 7: Chaco Joint Management Plan Road Network Influence map with June 2019 Proposed BLM parcels, Chaco legislation boundary, and Easter Navajo Agency Chapters.

1) Potential impacts on the Decision Space of the RMPA and previous delay of RPFO parcels due to RMP adoption

Currently the FFO is conducting a RMPA in regards to Mancos/Gallup shale development. This RMPA will update the RMP for the unique impacts from unconventional drilling (horizontally drilled hydraulically fractured wells). Additionally, the RPFO is still in the process of adopting a new RMP¹⁸. The BLM has currently decided that it can still lease parcels while trying to conduct planning to mitigate impacts from unconventional development (significant impacts as illustrated within this document). This is a reversal from the previous decision by the RPFO. Part of the reason the RPFO has reversed its position is because of IM 2018-034. The Chapter has expressed its dismay in the application of this Memorandum to this lease sale. The Chapter has also raised concerns that it will also negatively impact proper Tribal consultation. Currently, an injunction is enforce regarding this memorandum in areas affecting sage grouse. Based on the contents of the injunction ruling, it should raise additional concerns about the application of the memorandum during this lease sale. As a reminder, IM 2018-034 does not and cannot override NEPA and FLPMA. Due to the nature, scale, and speed of the lease sales offering parcels within areas affecting Navajos, it is stretching the very limited resources of the Chapter to be able to properly research and respond to the leases in a timeframe that is meaningful for the BLM. This expedited process is affecting the quality of input that the Chapter can feasibly provide the BLM. This has been discussed verbally with the BLM previously by the Chapter. Interestingly the injunctive ruling regarding IM 2018-034 states the following:

This risk is compounded by the overlapping comment and protest periods, combined with accelerated oil and gas lease parcel reviews generally, all of which are left in the wake of IM 2018-034. See, e.g., Ex. 1 to Stellberg Decl. (illustrative table setting forth schedules for September 2018 and December 2018 oil and gas lease sales in BLM's western states, including public comment opportunities and protest deadlines). Plus, the burden of such constraints upon public participation and compressed protest periods falls most heavily upon members of the public, as those who have nominated potential lease parcels and BLM have had far more time to evaluate and consider the details of such parcels. Hence, there are cognizable and significant legal consequences that can be argued to result from IM 2018-034.¹⁹

In addition the decision later states:

In turn, for a subset of lease sales, IM 2018-034 relegates any sort of contemporaneous public input to the much later-in-time (and, WWP would contend, the "too late in time") adversarial protest (with its 10-day deadline, rather than IM 2010-117's previous 30-day deadline) and appeals process, neutralizing and diminishing the substantive and practical value of such input...²⁰

The Chapter has expressed these concerns before the US District Court of Idaho expressed such sentiments. Responsible officials need to consider the gravity of this situation and its negative affect upon tribal consultation processes as well.

¹⁸https://www.nm.blm.gov/oilGas/leasing/leaseSales/2014/january2014/Jan%202014%20OG%20Lease%20Sale%20EA_Public%20Review_Rio%20Puerco.pdf: Table 2.0 (Pages 12-27)

¹⁹Western Watersheds Project v. Zinke, 2018 WL 4550396, Case No. 1:18-cv-00187-REB (Doc. 74): Page 25

²⁰Id: Page 39

8) Effect on Infrastructure and Health/Environment

Lastly, the massive increases in production that took place in Counselor area has led to continued strain upon the area's infrastructure. Continued leasing (particularly without EIS level mitigations) will continue to strain the infrastructure such as roads. This is because proper EIS level planning will not have been completed before the lease sale. The BLM is very much aware of the different type of impact and increased intensity of unconventional development in the Counselor area. Having proper EIS level planning will allow for thorough planning and ensure that parcels being offered can be offered for lease sale. Additionally, all mitigations can be applied before lease sale, thus mitigation strategies will not be limited by leasing actions. Also, the massive increase in production in the Counselor area has certainly increased dust in the area from increased traffic and it is more than likely that there has been increased emissions and noise pollution.

9) Significance Conclusion

The degree of significance presented should compel the BLM to engage in an EIS for the purposes of this lease sale. The Chapter must request that the BLM at minimum to defer all parcels in the RPFO and FFO to ensure that proper level EIS documents and appropriate cultural resource studies can be tiered to for purposes of this lease sale (along with proper amounts of Tribal Consultation). It should be evident from GHG and emission analysis that the impacts to the Ojo Encino locality as detailed in the lease document would be significant. Neither the RPFO or FFO have an EIS level planning document to tier this lease sale to which incorporates horizontal drilling. The RPFO does not have an updated EIS level plan which incorporates the newer realities of modern drilling and oil/gas production which protects populations and resources from negative impacts of oil/gas production.

III. Need for Further Tribal Consultation

For a myriad of reasons, Ojo Encino Chapter Government must request that the BLM defer all parcels proposed for the June 2019 lease sale for further tribal consultation. These lands are significant areas that are important to the Navajo populations for economic, cultural, and resource purposes. The complexities and importance of these areas require detailed conversations with Navajo Local communities, Chapter Governments, and the National Navajo Government.

Additionally, without the ability to tier this proposed action to an updated EIS level plan that contains updated Tribal consultation elements, of which this Tribal consultative environment has vastly changed just within the last 4 years, these parcels will require additional time well beyond the June 2019 timeline to be thoroughly consulted.

IV. Ojo Encino Chapter Land Use Plan Implications

The Ojo Encino Chapter (the "Chapter") is a political subdivision of the Navajo Nation under 11 N.N.C. § 10 and a local governance certified chapter pursuant to 26 N.N.C. § 102. Utilizing Title 26 Authorities, Ojo Encino Chapter developed its original Land Use Plan in December 2003. Additional Title 26 authorities were granted via "Title 26 Certification" on March 6, 2012. With these new authorities Ojo Encino Amended its land use plan to meet the changing needs of the community and certified the plan via Ordinance OJO-ORD-2017-1. Most of the parcels have the

potential to impact the quality of life of Ojo Encino chapter residents and members due to impacts on the environment, likely impacts to from traffic, and impacts to the broader cultural environment.

1) Diné Bi Beenahaz'áanii (Navajo Fundamental Law)

On the opening page of the Ojo Encino's 2016 Community Based Land Use plan the Declaration of the Foundation of Diné Law is displayed²¹. This provides the basis of Navajo law and governance.

In the Navajo Nation Council Resolution amending the Navajo Nation Code to Recognize the Fundamental Laws of the Diné (Resolution #CN-69-02) the following clauses are discussed:

The Diné have always been guided and protected by the immutable laws provided by the Diyin, the Diyin Diné'é, Nahasdzáá and Yádilhil; these laws have not only provided sanctuary for the Diné Life Way but has guided, sustained and protected the Diné as they journeyed upon and off the sacred lands upon which they were placed since time immemorial; and²²

It is the duty of the Nation's leadership to preserve, protect and enhance the Dine Life Way and sovereignty of the people and their government...²³

The Navajo Nation Council finds that the Diné Life Way must be protected and assured by incorporating these fundamental laws into the Navajo Nation Code in a manner that will openly acknowledge and recognize their importance and would generate interest to learn among all Diné; and²⁴

The Navajo Nation Council further finds that all elements of the government must learn, practice and educate the Dine on the values and principles of these laws...²⁵

The amended code itself describes Diné Bi Beenahaz'áanii as follows:

The Diné bi beenahaz'áanii embodies Diyin bitsaqdëq beenahaz'áanii (Traditional Law), Diyin Dine'é bitsaqdëq beenahaz'áanii (Customary Law), Nahasdzáán dóó Yádilhil bitsaqdëq beenahaz'áanii (Natural Law), and Diyin Nohookáá Diné bi beenahaz'áanii (Common Law).

These laws provide sanctuary for the Diné life and culture, our relationship with the world beyond the sacred mountains, and the balance we maintain with the natural world.

These laws provide the foundation of Diné bi nahat'á (providing leadership through developing and administering policies and plans utilizing these laws as guiding principles) and Diné sovereignty. In turn, Diné bi nahat'a is the foundation of the Diné bi naat'á (government). Hence,

²¹Ojo Encino Chapter 2016 Community Based Land Use Plan: Page ii (Inside Cover). Available at http://ojoencino.navajochapters.org/ojoencino_2016lup_125dpi.pdf

²² CN-69-02 (Where As Clause 2) (Accessible online: <http://www.navajocourts.org/Resolutions/CN-69-02Dine.pdf>)

²³ Id. (Where As Clause 3)

²⁴ Id. (Where As Clause 5)

²⁵ Id. (Where As Clause 8)

the respect for, honor, belief and trust in the Diné bi beenahaz'áanii preserves, protects and enhances the following inherent rights, beliefs, practices and freedoms...²⁶

As noted by the Navajo Nation Council resolution CN-69-02, Navajo Fundamental Laws are a part of Navajo governance since "time immemorial"²⁷. These super structural laws have been practiced by Navajo leaders in local governance since before European contact²⁸. The law should be approached from a holistic manner.

1) *Diyin Dine'é Bitsqqdęę Beenahaz'áanii--Diné Customary Law*

"It is the right and freedom of the people that there always be holistic education of the values and principles underlying the purpose of living in balance with all creation, walking in beauty and making a living..."²⁹

"It is the right and freedom of the people that every child and every elder be respected, honored and protected with a healthy physical and mental environment, free from all abuse."³⁰

2) *Nahasdzáán dóó Yádiłhił Bitsqqdęę Beenahaz'áanii--Diné Natural Law*

"The four sacred elements of life, air, light/fire, water and earth/pollen in all their forms must be respected, honored and protected for they sustain life..."³¹

"The six sacred mountains, Sisnajini, Tsoodził, Dook'o'oosliíd, Dibé Nitsaa, Dził Na'oodiłii, Dził Ch'ool'íí, and all the attendant mountains must be respected, honored and protected for they, as leaders, are the foundation of the Navajo Nation..."³²

"All creation, from Mother Earth and Father Sky to the animals, those who live in water, those who fly and plant life have their own laws, and have rights and freedom to exist..."³³

"The Diné have a sacred obligation and duty to respect, preserve and protect all that was provided for we were designated as the steward of these relatives through our use of the sacred gifts of language and thinking..."³⁴

"Mother Earth and Father Sky is part of us as the Diné and the Diné is part of Mother Earth and Father Sky; The Diné must treat this sacred bond with love and respect without exerting dominance for we do not own our mother or father."³⁵

²⁶: 1 N.N.C. § 202 (Accessible online: <http://www.navajonationcouncil.org/Navajo%20Nation%20Codes/V0010.pdf> or <http://www.navajocourts.org/dine.htm>)

²⁷: CN-69-02 (Where As Clause 2)

²⁸: Kenneth Bobroff. *Diné Bi Beenahaz'áanii: Codifying Indigenous Consuetudinary Law in the 21st Century*. (Page 2)

²⁹: 1 N.N.C. § 204.A

³⁰: 1 N.N.C. § 204.E

³¹: 1 N.N.C. § 205.A

³²: 1 N.N.C. § 205.B

³³: 1 N.N.C. § 205.C

³⁴: 1 N.N.C. § 205.D

³⁵: 1 N.N.C. § 205.E

"The rights and freedoms of the people to the use of the sacred elements of life as mentioned above and to the use of the land, natural resources, sacred sites and other living beings must be accomplished through the proper protocol of respect and offering and these practices must be protected and preserved for they are the foundation of our spiritual ceremonies and the Diné life way..."³⁶

"It is the duty and responsibility of the Diné to protect and preserve the beauty of the natural world for future generations."³⁷

2) K'e Bikéyah (Related to Fundamental Law)

At the December 28, 2017 TriChapter meeting [representatives from Counselor, Ojo Encino, and Torreon/Starlake Chapters were present], there was a discussion on the meaning of "k'é bikeyah". The knowledge base of the discussion stems from Diné common knowledge that stems from teachings handed down from Diné knowledge keepers (i.e. Medicine Men, elders, etc.) The following narratives briefly describes the attempt to define the heading of this section:

One Chapter official said this about the land: "If we get rid of all the colors [referring the checkerboarded and multi-colored map of the TriChapter area], the land is for all. We are free to go to wherever [we wish]. We [Diné people], don't say 'We own the land'. Before maps there were no designated boundaries only landmarks. These major and minor landmarks being sacred mountains and sacred places. But we were free to travel beyond."

A local citizen stated: "Before the lands were mapped into ownership tracts the landscape is one body. And from time immemorial the people were living in extended clan groups that move and intermarried in the TriChapter region. All the lands were connected. The land is put there for us and as the clans grew, there clans were then recognized to historically use certain areas of land. These land areas were marked using various cultural patrimony (such as, but not limited to, buried grinding stones, sweat lodges, certain types of textiles, and rock cairns)."

In an extended conversation, the following precipitated is translated from the Diné language: "The regional Diné culture of the TriChapter areas is, at times, unique compared to other Diné regions and communities. Our songs, stories, language and methods of ceremony differ in distinct ways from people even as close seventy miles away. Even within the TriChapter region, the clans each have differing histories at how they arrived within the region. In terms of land ownership, the people don't own anything but control the footprints they are standing on. The land itself is a holy being and provides nourishment to the people and the people give nourishment to the earth-mother".

In summation, "K'é" is descriptive of a group of distinct and unique people that differ from other groups of Diné even as close as seventy miles away. "Bikeyah" is difficult to define because the Diné cannot own a holy deity. But, the TriChapter region Diné marked their historical land use areas utilized various cultural patrimony. The Diné in TriChapter region are a unified people through kinship, marriage and culture.

³⁶: 1 N.N.C. § 205.F

³⁷: 1 N.N.C. § 205.G

Significantly, this shows Sub-Cultural variation which is an important Way-of-Life Social Factor for NEPA analysis. Although the FFO is currently considering an ethnographic study of the broader region, this sub-cultural variation has not been accounted for by current EIS level plans or other lower level planning. It is likely this variation has not been shown through standard cultural resource surveys. Thus, this sub-cultural variation will require extensive understanding to ensure that impacts from proposed actions are understood and to fully understand potential mitigation mechanisms that can be implemented which are properly contextualized for the area. Thus, any irreversible action that could potentially limit mitigating mechanisms or other determinations/alternatives of future sub-cultural variation studies in the area should be avoided.

3) Quality of Life

Title 26 of the Navajo Nation Code is meant to create “opportunities for the improvement of the chapter members’ quality of life by: 1. Creating opportunities and environment for economic development. 2. Conserving natural resources and preserving Navajo heritage and culture...”³⁸. Statistically, residents of Ojo Encino Chapter and the trichapter region do not appear to benefit via job creation from Oil/Gas industry. Additionally, the local communities do not appear to benefit from the revenues generated by federal oil/gas leases. Lastly, allottees do not appear to benefit from federal oil/gas development particularly since it could lead to drainage. Drainage of tribal trust and allottee assets is a major concern of the Chapter.

Thus, the Chapter in its fulfillment of the goals of Title 26 and balancing economic development with the values as outlined in Diné Fundamental Law³⁹ must interpret the proposed federal action in the lens of “conserving natural resources and preserving Navajo heritage and culture” since positive economic benefits are not apparent for the communities in question.

Ojo Encino identified Quality of Life as being a major element of increasing the Chapter’s residential population⁴⁰. As noted by Chapter planning documents, there is a large Navajo Diaspora that exists across the Navajo Nation, the Trichapter Region, and Ojo Encino⁴¹. It is postulated that by enhancing the Quality of Life for residents of Ojo Encino that some of the diaspora could be brought back and to ensure current residents are satisfied living in the area. While the diaspora has multiple causes (including unemployment, social disorder, lack of infrastructure and public services) a strength that does exist to help counter this issue is the high environmental qualities of the Chapter area (Clean Air (likely much better than NAAQS), High Quality Ground Water, good Soundscape, good Viewscape, Dark Night Sky, Etc)⁴². Although the BLM does have mechanisms to mitigate impacts to these resources, these mitigations were developed for the context of the surrounding dominant society. These mitigation strategies were not developed for the unique Navajo community context or the sub-cultural Trichapter social context.

The Chapter has determined that leasing will not likely improve the economic situation of the Chapter residents and will likely strain already frail infrastructure, public services, and could cause

³⁸Ojo Encino Chapter 2016 Community Based Land Use Plan: Page 3 (From Navajo Nation Documents)

³⁹1 N.N.C. § 206.B

⁴⁰Ojo Encino Chapter 2016 Community Based Land Use Plan: Page 11

⁴¹Ojo Encino Chapter Sustainable Community Growth Strategy: Pages 6-8 accessible at:
http://ojoencino.navajochapters.org/ojoencino_2016econplan_300dpi.pdf

⁴²Ojo Encino Chapter Sustainable Community Growth Strategy: Page 36

additional social issues as was evident in Counselor Chapter. Additionally, leasing will likely lead to increased degradation of the key natural qualities of the area which is helping to maintain current population levels. While the act of leasing will not immediately cause these degradation/impacts to occur, the likelihood of them occurring with leasing these parcels is significantly heightened and would limit potential mitigations. Currently, no EIS level planning exists that accounts for the unique nature of the population dynamics in Navajo communities, additional planning and understanding is needed by the BLM to fully mitigate and possibly prevent negative consequences of leasing/development from occurring to the rural communities. Thus, all FFO parcels should be deferred from leasing to further understand these important dynamics.

4) Water Resources

Ojo Encino Chapter and Trichapter Officials identified to the BLM RPFO that Ojo Encino water is of high quality and supplies the region with groundwater via Navajo Tribal Utility Authority waterlines. At least two major water bearing aquifers are identified within Chapter boundaries: Menefee and Mesa Verde formations⁴³. Some of these formations exist more than 2,000' under the surface within Chapter boundaries. Thus, the Chapter has a combination of deep and shallow water sources (for both human and livestock use). Additionally, seeps/springs were also identified in the Chapter as being of high quality. Water is identified as "one of the most critical elements for development within the chapter."⁴⁴ Although the Navajo-Gallup Water Supply Project (Cutter Lateral) will provide a large source of clean surface water for the Chapter and surrounding region, the hydrologic report underlying the project cannot guarantee its water supply determinations due to legal settlements of upstream users and climatic shifts⁴⁵. Thus, in the unlikely situation that by 2060 water shortages occur the groundwater present in Ojo Encino will be very important for the Navajo population. Additionally, time horizons past 2060 become increasingly varied as to surface water supplies. The Chapter looks at extended timelines for the security of its population on the horizon of many generations and centuries at a time. Groundwater is a resource which is controlled immediately within the community and provides a resource security for a necessary element for our community to exist in the future no matter what legal, political, and climatic changes occur. Thus, any potential projects or actions which could directly or indirectly lead to degradation of aquifers within Ojo Encino is taken extremely seriously as an economic and cultural security issue.

As part of the Chapter policies the following is stated:

III. Natural & Cultural Resources

1. Ojo Encino Chapter's policy regarding water is it's protection and conservation.

a) All water (surface and sub-surface) should be protected from undue or unneeded contamination.

b) Ground water must be protected and shall include deep aquifer water.

c) The chapter shall develop a water management policy which should consider aquifer recharge.⁴⁶

It is important to note that the Chapter considers all water to be protected from undue or unneeded contamination. This includes water which might not be considered "potable" by various agencies or entities. This water may be currently unpotable but future technology may open this water for

⁴³Ojo Encino Chapter 2016 Community Based Land Use Plan: Page 66

⁴⁴Ojo Encino Chapter 2016 Community Based Land Use Plan: Page 69

⁴⁵Id Page 69

⁴⁶Id. Page 99

usage. More importantly water is also sacred both in cultural terms and by Navajo law⁴⁷ having more than just mere economic value. Water is additionally protected as a cultural resource by the following Ojo Encino Policies III.B.i and III.C.i:

It is the policy of the chapter that cultural resources includes past and present cultural facets of the community and natural resources. All lands bordering Dinétah are a part of the greater cultural landscape. All activities within Ojo Encino that effect both past and current tangible and intangible cultural elements in accordance to what Diné within Ojo Encino revere in the natural, ceremonial, and oral histories since time immemorial are considered to impact Ojo Encino's cultural resources. Thus, any development that may have these impacts should be considered to ensure that development will not impact the cultural resources too negatively and is properly balanced with positive elements for the community community. (Policy III.B.i)⁴⁸

Ojo Encino considers natural resources and cultural resources as being the same. Impacts on natural resources (both living and non-living) do constitute an impact on the cultural resources and well being of the community. Any development which will negatively impact or deplete natural resources in the community should be examined for negative and positive consequences to the natural resource and to the cultural environment. This shall include viewsheds. (Policy III.C.i)⁴⁹

Additionally, the Chapter is concerned with any federal actions which has the potential to effect (directly or indirectly) Navajo Reservoir and Cutter Reservoir waters since these are the headwaters for the Navajo Gallup Water Supply Cutter Lateral Project which will provide many Eastern Agency Chapters with domestic water.

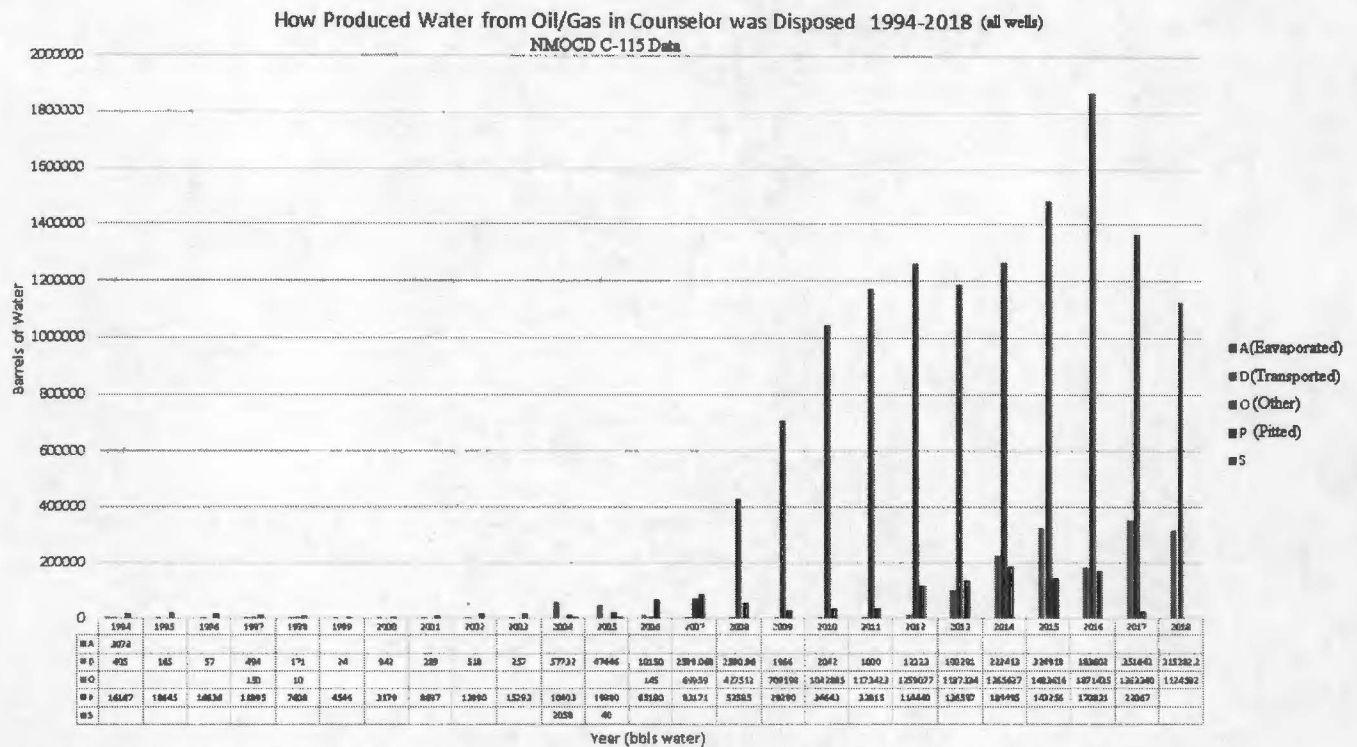
Lastly, the Chapter as a Cooperating Agent for the FFO RMPA is concerned that the lease of any parcels within the FFO will restrict potential alternatives regarding water protection and lead to unmitigated impacts that are not accounted for by current EIS level plans.

Unfortunately, the BLM FFO or RPFO have not done planning in regards to horizontally drilled hydraulically fractured wells and how they differ regarding production and impacts. In Counselor, NMOCD c-115 data shows the following:

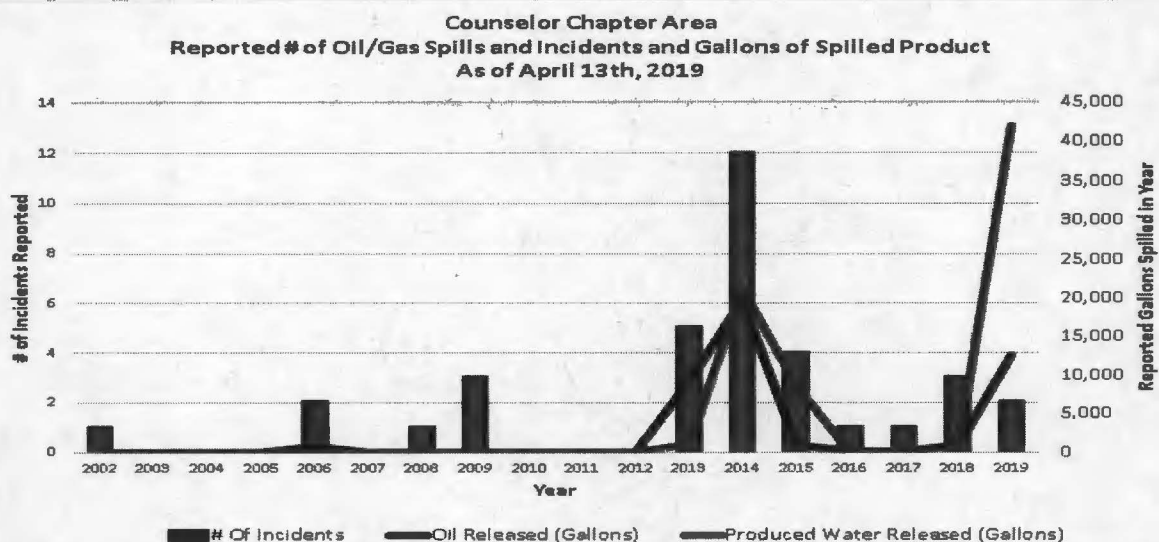
⁴⁷ 1 N.N.C. § 205.A

⁴⁸ Ojo Encino Chapter 2016 Community Based Land Use Plan: Page 99

⁴⁹ Id.



Major increases in water which is either transported (which is assumed to be sold) or Othered. It is not clear what other means however it appears to refer to sludge disposal. This sludge contains various levels of heavy metal and other potential toxins. The BLM has not fully analyzed in this EA or other documents the attributes of this toxic waste product which will be produced in large quantities within the area and potentially injected within Ojo Encino Chapter boundaries. Since the scale of production is so significantly higher, the BLM needs to take a hard look at how produced water handling and disposal will effect localities (especially local EJ communities) since the chances for spills and or accidents will inevitably increase. This trend has been also seen in Counselor Chapter:



5) Heating Fuel (Firewood)

The Chapter considers firewood to be a subsistence resource of the Navajo people in Ojo Encino and the broader region. This is designated by the Chapter's Policies:

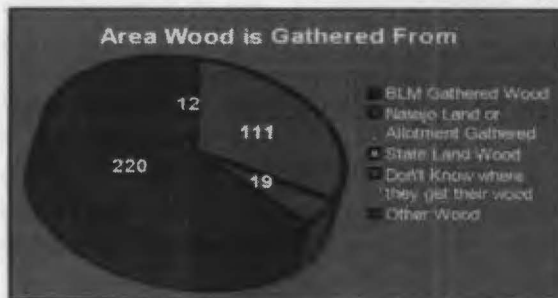
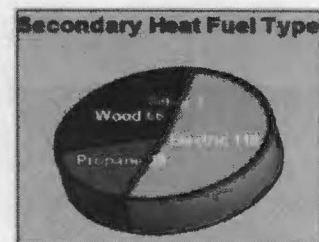
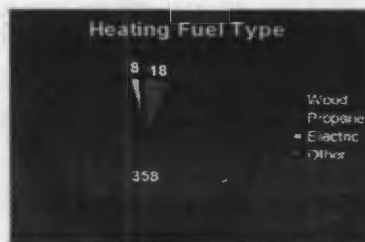
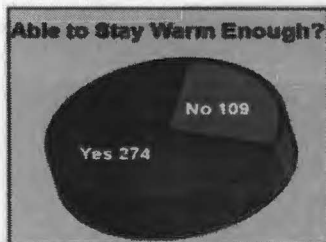
The chapter considers fuelwood supplies as being a subsistence resource of the Navajo community. This is due to historical consumption use, current overwhelming use, and an economic inability of Navajo community members to change heating fuels. All federal agencies should be made aware of this. (Policy III.C.ii)⁵⁰

The reason for this designation is based on Census data and from locally derived survey data for the Trichapter region.

Census Data

2010 5yr ACS Table B25040	Housing Units Using Firewood as Heating Fuel	Total Housing Units	Percent
Counselor Chapter	216	238	90.8%
Huerfano Chapter	377	720	52.4%
Nageezi Chapter	208	253	82.2%
Ojo Encino Chapter	105	150	70.0%
Torreón/Starlake Chapter	280	348	80.5%
Navajo Nation	28,342	44,691	63.4%
Sandoval County	2,535	48,534	5.2%
San Juan County	5,857	41,036	14.3%
New Mexico	52,087	762,551	6.8%
United States	2,415,634	117,716,237	2.1%

Hasbídító Trichapter Food and Energy Survey August 2013



⁵⁰Id.

The Census data and locally collected Trichapter Survey data both indicate that there is a differential pattern of vegetative resource usage by the populations within the Navajo Nation. Thus, additional analysis is required to understand this usage and potential impacts from any direct or indirect effects of the proposed federal actions.

6) Road/Transportation Impacts

The main route within Ojo Encino Chapter is called Ojo Encino Road, also known by its designated route number ISR-474. ISR-474 provides a connection mechanism for people from Torreon, Ojo Encino, and Counselor who are traveling north to Farmington and South to Bernalillo/Albuquerque. This road is in the BIA inventory and the road has been damaged by humate mining traffic located on Federal Leases. Additionally, this road has a damaged bridge and serves as part of local school bus routes. This road along with the myriad of dirt roads within Ojo Encino has not been designed for heavy industrial traffic.

The Ojo Encino Land Use Plan has identified the areas where this road has suffered large amounts of potholes⁵¹. In a community meeting with the a local NM state police officer, the officer declared the road to be one of the most dangerous in his district. This is due to the quantity and severity of the potholes which form. This appears to be due to heavy industrial traffic which uses the road. Pothole repairs alleviate the situation temporarily (a few months) but the patches wear out quickly. The Chapter is working with entities to fix, upgrade, and control traffic on the road. However, additional traffic on this and other roads within the Chapter will stress the already frail infrastructure further (while not providing sufficient resources to mitigate these further impacts). This is already the case due to insufficient BLM planning, mitigations, and planning by BLM actions in Counselor (Oil/Gas Development) and by within Ojo Encino (Humate Extraction).

ISR-474 Road Condition Report from Ojo Encino Land Use Plan



⁵¹Id. Page 44

The BLM must defer all parcels that could potentially affect roads within the Chapter and surrounding chapters. Real planning (not a basic traffic plan) must be developed to actually mitigate impacts from traffic and ensure safety while ensuring that infrastructure degradation is prevented.

7) Land Consolidation

The Chapter has a policy of consolidating all land management to tribal control⁵². Ideally, this includes minerals as well⁵³. The policy is number II.E.1:

The policy of Ojo Encino chapter is that all lands within Ojo Encino boundaries should be transferred to tribal control. Tribal can mean either allotment or trust lands.

a) The chapter considers all lands within its boundaries to have social, economic, and cultural significance to its community. The chapter also considers that these lands also have effects on the political/governance integrity of the chapter, economic security of chapter residents, and have effects on the health/welfare of chapter residents.

The Chapter must insist that the BLM (both RPFO and FFO) work with the Chapter to consolidate lands within Chapter boundaries to reduce management conflicts. However, leasing current lands before consolidating lands could preclude options which may be currently available. Thus, the Chapter must insist all parcels within and surrounding Ojo Encino Chapter be deferred for further consultation.

8) Population Density of Areas

The Chapter has concerns with parcels being offered that have populations living on or within proximity. Thus, the Chapter must insist on additional time and consultation to more fully understand which parcels have populations living upon or in an area around them.

IV. Economic Plan Impacts

1) Food System Development

The Chapter has made Food Systems Development a key component of its economic development strategy⁵⁴. This strategy includes the development of gardens, farms, and ranching. All of these activities could be impacted by the proposed FFO lease sale parcels since these activities rely heavily upon ground water. This will likely be the case even after the Navajo-Gallup Cutter Lateral is constructed. Thus, any activities in the area that could affect groundwater, surface water, or ranchlands/farmlands is of great concern to the Chapter for economic reasons. The Chapter must insist that all parcels within 10 miles of Ojo Encino Chapter boundaries are deferred for further consultation.

2) Chaco Cultural Landscape

Any Parcels that could effect the broader Chaco Cultural landscape are of great concern to the Chapter (this extends further then the 10 mile buffer zone). The chapter believes

⁵²Id. Page 98

⁵³Ojo Encino Chapter Sustainable Community Growth Strategy: Page 34

⁵⁴Id.: Page 42-43

that Chaco Canyon can provide a regional anchor for Navajo tourism development⁵⁵. Thus, the Chapter must insist all parcels that effect this larger cultural region must be deferred for further tribal consultation.

3) San Juan Badlands ERMA

The Chapter has integrated the proposed San Juan Badlands ERMA (2016 Draft RPFO RMP) into its economic plan. This is a beautiful area which deserves more protections and should not be treated by the BLM as a potential major oil/gas development zone. Much (but not all) of the areas within this area is subject to a list of merely 6 BLM stipulations according to the 1986 RPFO RMP. Proper protection of this area is in the economic and cultural interest of residents, the BLM RPFO lacks sufficient planning to protect this area from negative impacts of oil/gas development due to a lack of an updated RMP.

4) Economic Planning Conclusion

The proposed BLM action for all RPFO and FFO parcels have the potential to indirectly effect Ojo Encino economic planning in a negative manner. The Chapter must insist that all parcels are deferred for further consultation and mitigation development to ensure plan conformance.

VI. Disproportionate Economic Impacts and Different Economic Environment

The economic environment of the Navajo Chapters (and of the Eastern Agency in general) is vastly different then the surrounding counties. Using standard economic analysis hides this economic reality faced by Navajo communities

1) Employment in Oil and Gas Extractive Industry

Census data indicates the residents of the Navajo chapters of Counselor, Huerfano, Nageezi, Ojo Encino, and Torreon/Starlake are paid significantly less for Oil/Gas employment then San Juan or Sandoval county averages⁵⁶. It also appears from census data that the percent of the population in these jurisdictions are employed at rates far lower then San Juan county⁵⁷. These employment rates are in general higher than Sandoval county; however, Sandoval county base employment rate for oil/gas and mining is very low. Additionally, almost all oil/gas activity occurring in Sandoval county is in Navajo or Jicarilla areas⁵⁸.

This data seems to indicate that employment economic benefits are accruing to residents in non-Navajo jurisdictions while many of the Navajo areas have comparable levels of Oil/Gas development in San Juan county, and relatively high levels of oil/gas development compared to Sandoval county. This disparity may have many reasons (statistical error, education, or other systemic structural issues). However, from best available data this appears to be a reality for the Navajo communities, and appears to

⁵⁵Id. Page 41

⁵⁶Appendix 1: Pay Rates

⁵⁷Appendix 2: Employment Rates

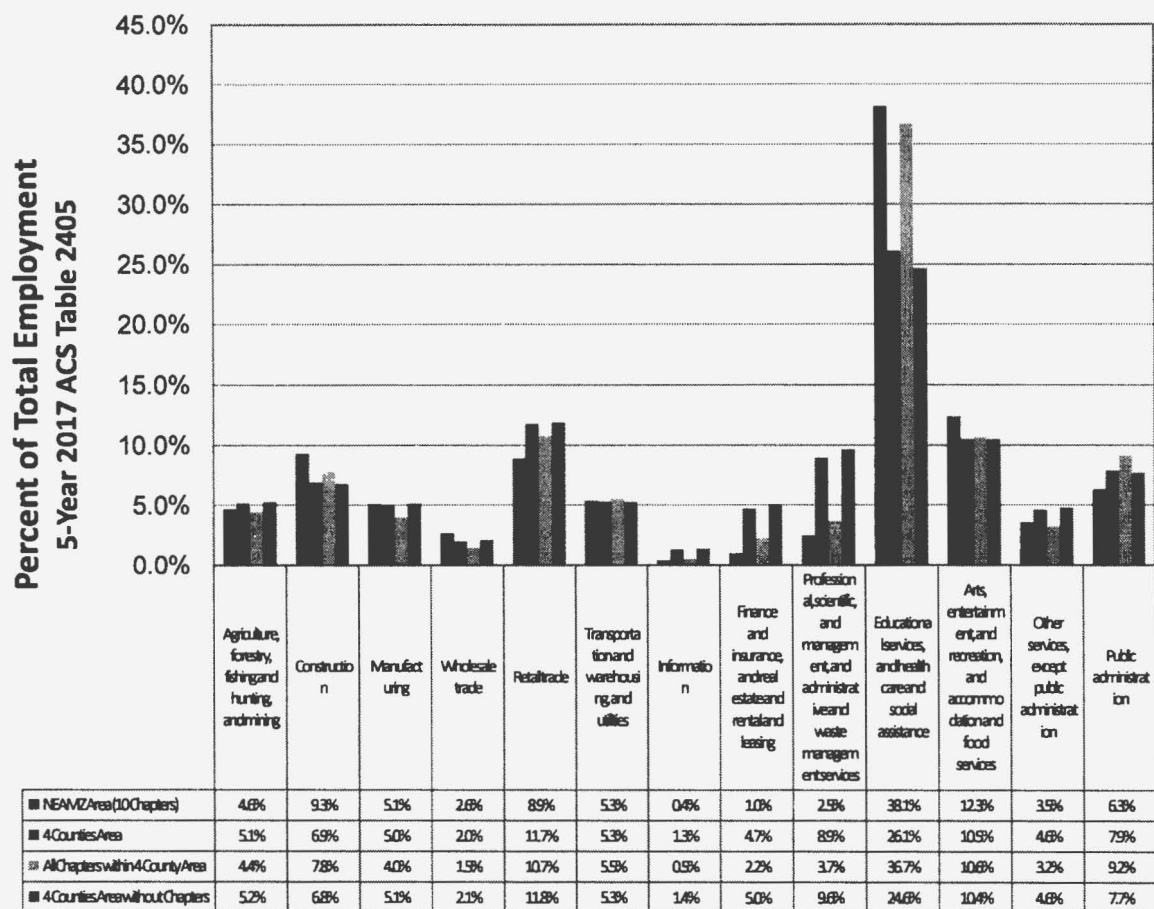
⁵⁸Appendix 3: Sandoval County Political Map

confirm observational evidence brought forward by residents of various Navajo communities.

Thus, while Navajo communities will have to endure negative impacts from oil/gas development, they will not necessarily see the benefits of such development while other communities will.

The employment structure for the proposed NEAMZ area and for all Chapters that are bordered by the 4 county area (McKinley, Rio Arriba, Sandoval, and San Juan) is different than the structure for the populations of those chapters on the stateside.

Percent of Employment by Sector and Area



The above table looks at the structure of employment by industry and geography. Data is presented for the 10 chapters that are present within the FFO RMPA planning area (also referred to as NEAMZ). While a large portion of these chapters are within the planning area the data is for the entire chapter (not just the planning area portion of the chapter). Next, the combined data for the 4-county area is shown (it includes all of the 4 counties both within and outside of the planning area). Following this is the data for all Navajo

chapters within the 4-county area. Lastly, the 4 county area data is shown with the Navajo Chapter data (for the four-county area) removed.

Additional major economic structural differences is unemployment and labor participation rates. The unemployment rate is also substantially higher in Navajo chapters than in the surrounding counties. The 2017 5-year ACS DP03 table shows that unemployment for the the 10-chapter initial NEAMZ area is at 27.7%. The four-county area in general has an unemployment rate of 10.0% while all the Navajo chapters within the 4-county area has an unemployment rate of 20.0%. The unemployment for the 4-county area with all chapters removed is at 8.5%.

The labor participation rate (LPR) is also much lower within chapter communities as well. In 2017 the 5-year ACS DP03The LPR for the 10-chapter area is 49.3%, the four-county area is 56.7%, all chapters within the four county area is 46.6%, and the four counties with the chapter removed is 58.6%. The difference in LPR between Navajo chapters and the surrounding counties is over 20% difference (12% absolute difference).

It is also important to understand that income is also lower for Navajo chapters as compared to their surrounding county counterparts. Total average income for all chapters in the 4-county area is \$23,552. The four-county area has an average income of 31,912 but the 4-county area average income increases to \$33,031 when chapters are not included. The difference in income is nearly \$9,500 between chapter residents and residents of the surrounding counties. All economic sectors show a similar pattern regarding lower incomes for chapters.

	4 County Area	All Chapters within 4 County Area	4 County Area without Chapters
Total:	\$31,912	\$23,552	\$33,031
Agriculture, forestry, fishing and hunting, and mining:	\$58,989	\$29,830	\$60,028
Construction	\$33,964	\$28,577	\$34,790
Manufacturing	\$46,681	\$24,862	\$48,939
Wholesale trade	\$38,367	\$28,081	\$39,348
Retail trade	\$21,814	\$17,300	\$22,361
Transportation and warehousing, and utilities:	\$47,588	\$31,660	\$49,834
Information	\$38,246	\$12,673	\$39,472
Finance and insurance, and real estate and rental and leasing:	\$35,235	\$24,270	\$35,885
Professional, scientific, and management, and administrative and waste management services:	\$44,400	\$33,004	\$44,980
Educational services, and health care and social assistance:	\$32,010	\$23,606	\$33,683
Arts, entertainment, and recreation, and accommodations and food services	\$14,837	\$15,719	\$14,717
Other services except public administration	\$20,257	\$18,608	\$20,405
Public administration	\$42,199	\$33,919	\$43,515

Substantially higher unemployment, substantially lower labor participation rates, significant differences in sector employment, and substantially lower average incomes show how chapter areas are substantially different in terms of labor structure as compared to the surrounding counties.

ii) Leakage Rates

The economic leakage rate for the Navajo Nation as a whole has been and continues to be high. The US Commission on Civil Rights issued a report in the 1970s that indicated the

leakage rate for the Navajo Nation was 67%⁵⁹. The Navajo Nation Division of Economic Development 2009-2010 Comprehensive Economic Development Strategy indicates the economic leakage rate is slightly lower at 64%⁶⁰. However, it is likely this rate varies based on area.

Based on proximity to border towns and the degree of economic development by chapter will determine the leakage rate at the chapter level. On nation economic areas in eastern Navajo include Shiprock and Crownpoint. Additional economic opportunities exist throughout eastern areas of the Navajo Nation (such as a few gas stations, trading posts, smaller flea markets, and other informal economic elements). However, for many chapters it is likely that the economic leakage rates are much higher than 64%. For example, in the trichapter area only two c-stores exists, one of which sells gas (Torreon/Starlake). It is important to note that both of these businesses exist on private land, thus are subject to regulations and taxation of the State/County. Although the c-store in Counselor is owned by the Navajo Nation. Thus, these stores represent formal economic entities which keep the leakage rates lower. However, looking at the food/energy surveys for the trichapter area indicate that very little of overall food shopping takes place at these stores. Thus, it is likely that leakage rates for the trichapter area is much higher than 64%.

2) Revenue Generation

In 2015 the Chapter commissioned a study of federal oil/gas production within Eastern Agency areas of the Navajo Nation. The study was aimed at estimating the amount of wealth generated by federal oil/gas wells within Eastern Agency and estimate the amount of federal royalties (as defined by FLPMA) generated within eastern agency (upon federal leases). The total amount generated per year in 2013 and 2014 was roughly \$150,000,000 generating roughly \$19,000,000 in federal royalties. These royalties are nearly evenly split between the Treasury Department and Santa Fe. However, much of these funds never directly or indirectly come back to the Navajo communities being impacted by federal oil/gas development. This has to do with legal structural issues.

The importance of this issue is to recognize that unlike other New Mexico communities which potentially can benefit from federal royalties, Navajo communities do not likely benefit as much or to a substantially lesser degree. It should be noted, federal payments to the Navajo Nation due to treaty obligations of the United States with the Navajo Nation are not justification for the extraction of wealth from communities without bringing back monies to help mitigate impacts (which is the intention of revenue sharing under FLPMA). Additionally, in the Chapter's past discussions with counties, the counties do not feel that they are being adequately funded for services at this time by the state. Thus, the potential trickle down effect of Santa Fe giving monies to the

⁵⁹ McCabe and Hester. The Navajo Nation: An American Colony. A report of the United States Commission on Civil Rights. 1975. Page 26. Accessed at <https://eric.ed.gov/?id=ED111561>.

⁶⁰ The Navajo Nation 2009-2010 Comprehensive Economic Development Strategy. Navajo Nation Division of Economic Development. Page 23. Accessed at http://navajobusiness.com/pdf/CEDS/CED_NN_Final_09_10.pdf

counties and perhaps the counties providing increased services within chapter boundaries (such as grading) is not likely happening.

It is important for the BLM to fully recognize that the Navajo Nation is a sovereign Nation. Unfortunately, due to the checkerboard situation, federal trust lands are not currently taxed by the Navajo Nation. Thus, production taking place on those lands within Navajo country do not necessarily benefit the communities in which the production takes place. As was shown, employment benefits have seemingly accrued to non-chapter communities. Due to major economic structural differences, economic growth/development have not accrued to the chapter communities either. Thus, the next potential benefit for chapter communities (that benefits the broader community and not small segments) would be taxes. However, the BLM does not fully analyze this situation regarding the Chapters.

New Mexico is nearly at the bottom for providing oil/gas tax revenues to its local communities distributing only 14% of its oil tax and only 3% of its gas tax revenues to local governments⁶¹. The amount of local revenues (from taxes and state distributions) in New Mexico from the typical unconventional oil well was about \$94,623 in 2016 (at \$60.00/barrel it would be approximately \$123,000 Jan 2018) over ten years. Tax revenues from oil/gas production is a key element in mitigating negative impacts to communities from oil/gas production. It is the underlying purpose of FLPMA revenue sharing (although it is generally determined by the state how it decides to distribute those revenues). In 2014 the typical unconventional oil well was estimated to generate \$1.3 million in revenues over 10 years, with approximately \$1 million of the revenue generated in the first 2 years⁶². Assuming similar production curves and a current price of about \$60.00 this amount would be about \$918,000.

However, it is important to understand that Navajo Nation is sovereign and the State of New Mexico is also a different sovereign (and a different type of sovereign). Thus, much of the production that takes place on Federal, State, and private lands do not benefit the Navajo Chapters or Navajo Nation via taxes or distributions. The only production that takes place within Navajo Nation in much of eastern agency is on allotment lands, which is a complicated situation in regards to taxation and regulation.

One form of distribution the state does directly to the Navajo Nation is the tribal infrastructure fund (TIF). However, this fund has not provided a large amounts of monies to Navajo compared to revenues generated by chapters in the San Juan Basin. The following are TIF awards over the last five years comparing amounts granted to Navajos versus the total amount distributed⁶³:

⁶¹ <https://headwaterseconomics.org/dataviz/oil-gas-local-governments-production-tax-revenue/>

⁶² How New Mexico Returns "Unconventional" Oil Revenue to Local Governments. Headwaters Economics. January 2014. Accessed at <https://headwaterseconomics.org/wp-content/uploads/state-energy-policies-nm.pdf> Page 2

⁶³ <http://www.iad.state.nm.us/tribalinfrastucturefund.html>

NM Tribal Infrastructure Fund Distributions					
Year	Total Distribution	10 Chapter Area	10 Chapter %	All Chapters	Navajo %
2018	\$8,831,925	\$0	0.0%	\$3,980,078	45.1%
2017	\$5,415,503	\$0	0.0%	\$470,000	8.7%
2016	\$12,158,068	\$160,000	1.3%	\$3,395,912	27.9%
2015	\$14,235,640	\$0	0.0%	\$6,208,394	43.6%
2014	\$14,235,640	\$300,000	2.1%	\$2,275,000	16.0%

It becomes evident that the most effected chapters are not receiving TIF monies. Over the last 5 years the 10 chapter area has received less than 1% (0.80%) of total TIF funds; however, these areas have generated substantially more than this in oil/gas revenues from state and federal royalties and lease sales. It should be noted that in only the first 3 quarters of 2018 that Indian gaming revenues (via Indian gaming compacts) generated nearly \$54 million dollars in revenues for New Mexico. Nearly 11% of total net winnings from this period were generated by the Navajo Nation, thus the Navajo Nation likely generated close to \$6 million in revenue for New Mexico in the first 3 quarters of 2018. To put this into perspective Navajo Casinos (Nation wide not just New Mexico) distributed \$10 million to all 110 chapters for FY2019⁶⁴.

This is illustrative of the fact that the extractive industries in the area are also extracting wealth and opportunity for the chapter communities. Excuses that other revenue mechanisms from the state (such as TIF) make up for the lack of direct distributions is insufficient and ill informed. The revenues simply from one source of Indian gaming far more than exceeds distributions from TIF, and likely covers any other additional distribution mechanisms. Additionally, New Mexico has one of the lowest rates of local governmental oil and gas tax revenue distribution, so the stress placed upon counties to maintain services to tribal areas (which are outside of their tax base) is also highly stressed.

VIII. 43 CFR §3203.10 (a)(e) for EOI Process Is Not Valid for Oil/Gas Resources

43 CFR §3203.10 (a) and (e) details the process for including lands for competitive sale for Geothermal Resources. The parts of the CFR outlined for EOI for oil and gas leasing are under part 3200 Geothermal Resource Leasing. Under 43 CFR §3120.3 the "Director may elect to implement the provisions contained in §§3120.3-1 through 3120.3-7 of this title after review of any comments received during a period of not less than 30 days following publication in the Federal Register of notice that implementation of those sections is being considered". Parts §3120.3-1 through §3120.3-7 outline a nomination process for oil/gas leasing. However, it does not appear that the director has ever put this process through the 30 public review.

The Chapter must insist that the BLM only allow parcels to lease sale which have gone through an actual oil/gas nomination process, and not a process which has been arbitrarily chosen for other resources.

⁶⁴ <https://www.indianz.com/IndianGaming/2018/05/22/navajo-nation-casinos-generate-another-1.asp>

IX. UNDRIP

The United Nations General Assembly passed resolution 61/295: United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) on September 13, 2007. Although the United States was one of only four governments in the General Assembly not to vote for the resolution originally, this changed with President Obama's support starting in December of 2010.

Additionally, the issues arising in North Dakota with the Standing Rock Sioux regarding the construction of the Dakota Access Pipeline has raised concerns by the United Nations Permanent Forum on Indigenous Issues. In a letter, the forum requested that the United States Government abide by the stipulations of UNDRIP.

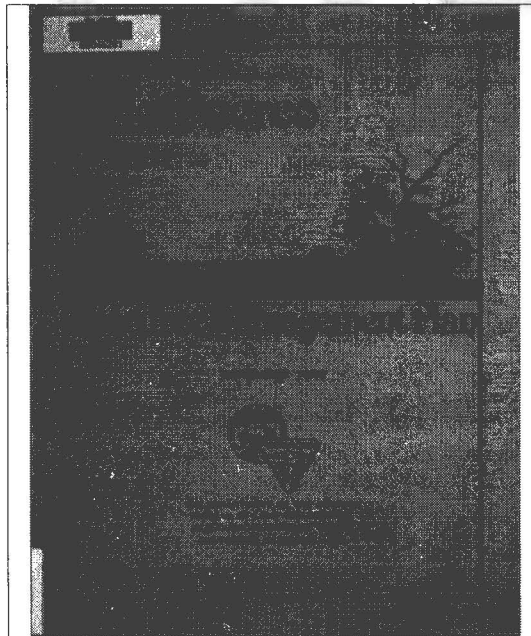
This letter is located at:

<https://www.un.org/development/desa/indigenouspeoples/news/2016/08/statement-on-protests/>

The chapters recognize that the UNDRIP is considered by the US government as "not legally binding or a statement of current international law ", but the Chapter also recognizes that the US government considers UNDRIP as having "both moral and political force". Thus, the Chapter will raise issues related to UNDRIP directly as to help the federal government morally.

Upon review of UNDRIP, the Chapter feels that there is currently no free and prior consent given by peoples in regards to Eastern Agency parcels (which includes all RPFO and FFO parcels, although parcel 25 is far removed it is within Navajo aboriginal lands and in the lands granted by the US Government to Navajo people for settlement via EO 709 and EO 744) for their development. Via resolution, the chapter governments that the Eastern Agency parcels lie within are against all lease sales until the FFO RMPA is completed. An additional nine chapters have also passed resolutions against the lease sale, this includes all Eastern Agency chapters within the planning boundaries of the FFO RMPA. The Eastern Navajo Agency Council is composed of officials from all 31 eastern agency chapters. In addition, the Navajo Nation President's office is also against any Eastern Agency lease sale until the FFO RMPA is completed. Thus, via governmental resolutions at the Navajo local, Agency, and National level governments there is unity in that leasing should not occur until various needs are met.

IX. Rio Puerco Field Office 1986 Resource Management Plan



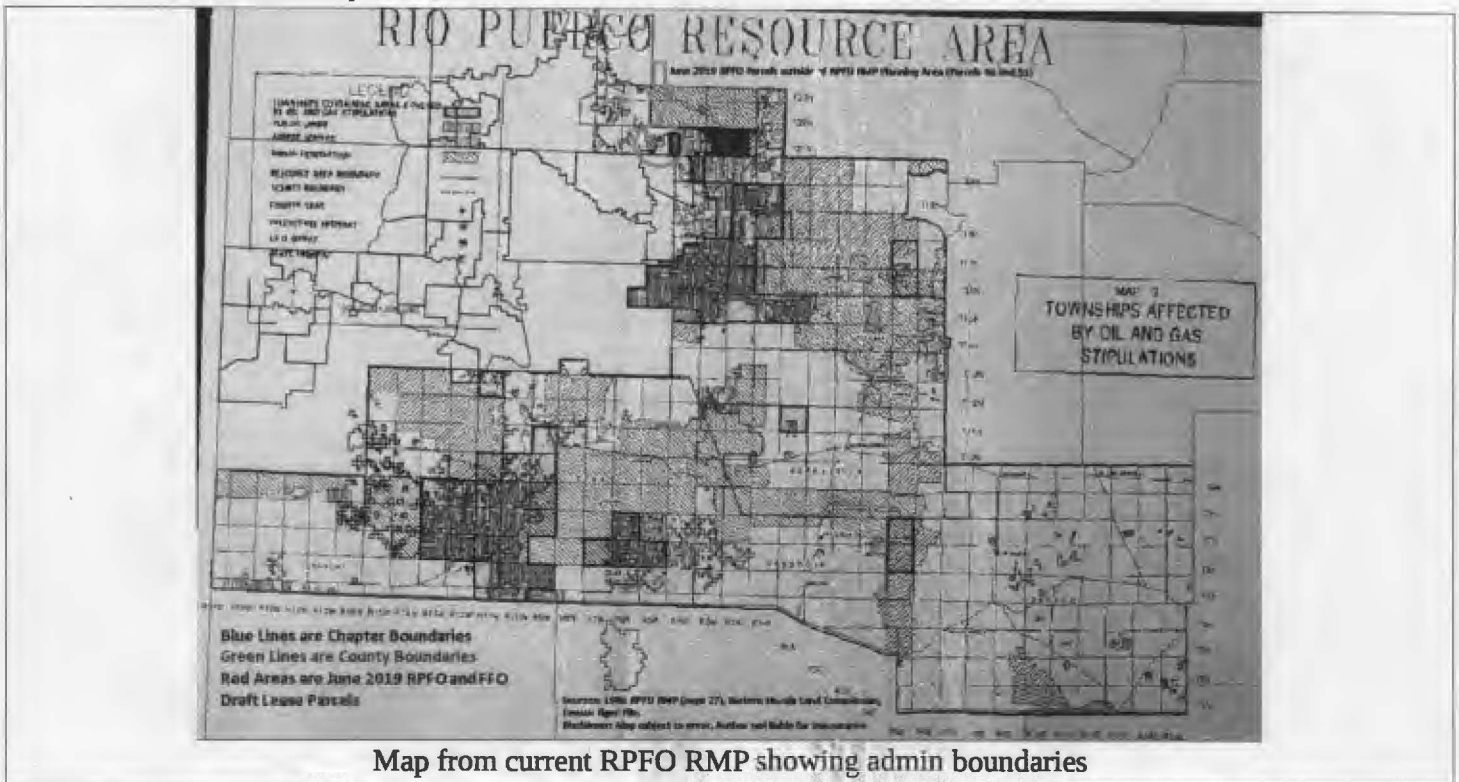
RPFO Current/Active RMP Cover Page

The planning process for the currently active and utilized Rio Puerco Field Office Resource Management plan was announced in the Federal Register on March 23, 1983⁶⁵. The plan was signed in January of 1986⁶⁶. In the RPFO RMP six oil and gas stipulations were developed (plus a New Mexico one). These stipulations are discussed in table 8 of the RPFO RMP (pages 29-31).

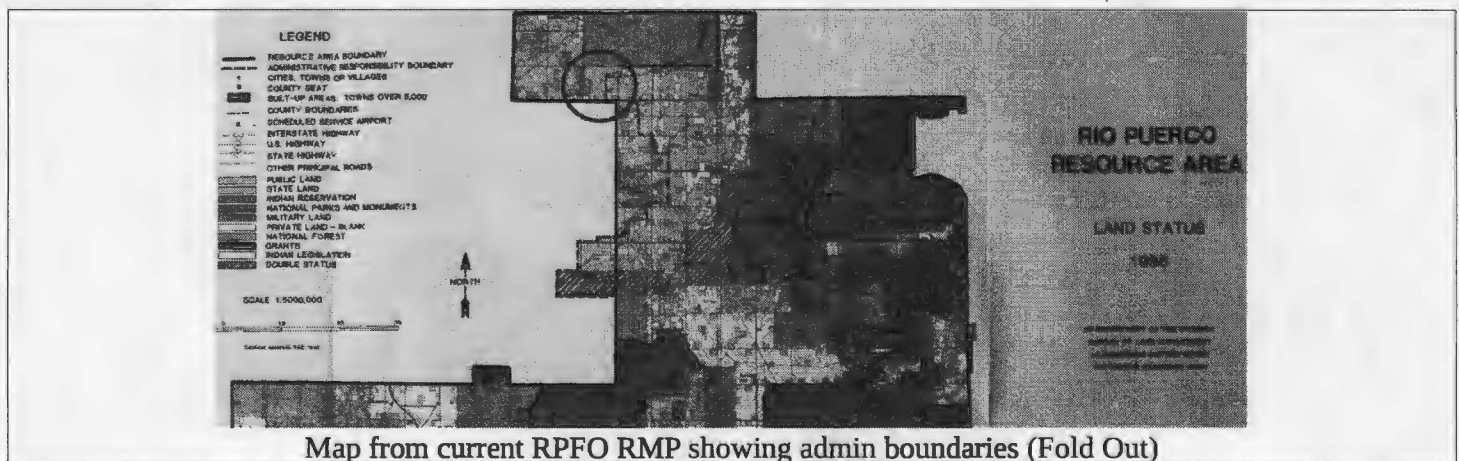
⁶⁵ RPFO 1986 RMP: Page 12

⁶⁶ Id.: Page 4

Of particular interest are the maps showing the administrative boundary for the RPFO in its currently active RMP.



RPFO RMP Images⁶⁷



The RPFO must defer all parcels due to the need for an updated RMP to adopt new strategies, mitigations, and policies for the area which has seen changes in its needs and for the new reality of hydraulically fractured horizontally drilled wells being used at mass scale. As a gentle reminder, the RPFO RMP is over 3 decades old and needs updating (for example the RPFO administrative

⁶⁷ https://ia601704.us.archive.org/19/items/riopuercoresourcunit_0/riopuercoresourcunit_0.pdf

boundaries have changed). Parcels 46 and 51 are not even within the planning area of the current RPFO RMP.

In a related matter, the FFO must do the same since they must amend their current 2003 RMP to adapt measures and policies for the new realities of hydraulically fractured horizontally drilled wells being used at mass scale.

X. Other Concerns

1) Elevated Emissions Portrayed as merely a "Nuisance"

The Chapter is extremely concerned about the BLM's cavalier position regarding the elevated emissions from the potential wells stemming from this proposed leasing action. In the draft EA the BLM states:

Exposure to criteria pollutant emissions—particularly PM_{2.5} and PM₁₀—VOCs, and O₃ (as a secondary emission) would pose a temporary nuisance for those living near the future oil and gas development.⁶⁸

However, as analyzed previously, the emissions from the wells would provide for a significant increase in various pollutants. The bulk of the increases may be temporary, but would be acute. Thus, it would be more than a nuisance and could prove to be a medical emergency for any sensitive populations in the area. Additionally, while the amount appear low when diluted on a very large scale (such as the 4-county region) when brought down to a more contextualized region (such as the Ojo Encino buffer area) it appears that the potential development is quite potent.

Additionally, the draft EA states:

While levels of HAPs would also increase during construction and completion activities under the Proposed Action, these levels would be low relative to the distance from the source and would not pose a risk to human health (including cancer) because there would be no long-term exposure to elevated levels of toxic air pollutants.⁶⁹

These statements are relatively ambiguous. Low levels relative to the distance from the source is a relative statement based on where the measurement is being taken. What types of distances are being discussed and what HAPS are being analyzed? The Chapter understands that the EPA has data on HAPs and CAPs, CAPs can also be hazardous. Does the BLM also consider CAPS in this statement as well. This is especially important since the BLM acknowledges that PM can travel great distances.

Thus, the Chapter believes that the RPFO must defer all proposed parcels so that it may do better more contextualized planning for the parcels being offered for lease sale and consult with local chapter governments regarding local regional specific impacts.

2) Coalbed Methane Development and Groundwater

The Chapter finds it odd that the BLM has not discussed CBM development. There are a substantial number of wells within proximity of the proposed lease parcels that are CBM. CBM in the area tends to be shallow additionally the Ojo Alamo formation is in close proximity to CBM

⁶⁸ RPFO Draft June 2019 Lease Sale EA (DOI-BLM-NM-A010-2019-0010-EA): Page 35

⁶⁹ RPFO Draft June 2019 Lease Sale EA (DOI-BLM-NM-A010-2019-0010-EA): Page 36

bearing stratigraphies. The BLM must take a hard look at potential of CBM and its potential interaction with ranching, subsistence, and domestic groundwater uses by local population.

3) Chacoan Landscape⁷⁰

The Chapter has already discussed the issue related to its belief that the Greater Chacoan landscape extends in the area being offered for leasing by the RPFO. However, the Chapter must insist on reminding the BLM that Chacoans are also Navajo ancestors as well. The BLM should be cognizant of the oral and ancestral history of the Chacoans to understand all tribes that claim ancestry to Chaco, of which Navajos are one. The BLM must conduct more tribal consultation with Navajos so the BLM RPFO can better understand the cultural sphere in the area it has proposed to lease so that it may better develop strategies to mitigate impacts from potential development.

4) Other

- 1) The RPFO EA erroneously states that chapter poverty rates in the shown table vary from a low of 38% to a high of 68%. The actual low amount is 50% not 38%. Page 52 RPFO
- 2) If the Groundwater for well development is taken locally it would represent a very large proportion of usage for the Ojo Encino buffer area (as opposed to comparing it at the county level). Page 53 RPFO
- 3) The BLM must begin to consider impacts of oil and gas development upon lifeforms which live in the underground environment. These lifeforms tend to be cellular but are part of the living environment, as such the Chapter considers it as part of the cultural sphere of the area. Additionally, these organisms can effect GHG and other various emissions from wells. The BLM must remove all parcels from leasing until further analysis can be done regrading underground lifeform impacts.
- 4) Rio Puerco Watershed Impacts not analyzed sufficiently

Although the following table is concentrated on the RPFO Final EA, the comments are also related to the BLM FFO Final EA as well.

RPFO Final EA Page #	Comment
12	Parcels 46 and 51 are outside the planning area boundary of the RPFO's active RMP and RMPA. These parcels must be withdrawn since they are not within a currently active RPFO plan.
12	BLM correctly acknowledges Counselor Chapter's policies relate to natural resource development both within and surrounding Counselor Chapter. However, the BLM completely ignores Ojo Encino Chapter's integration of the San Juan Badlands ERMA in its draft RMP with its economic development plan. Why does the BLM deny Ojo Encino Chapter's policy connection to lands surrounding its boundaries?
15 (AIB-5)	As discussed by Ojo Encino Chapter, the San Juan Badlands ERMA has been incorporated into the Ojo Encino Economic Strategy Plan, negative impacts to this recreation area is of great concern to the Chapter.

⁷⁰ RPFO Draft June 2019 Lease Sale EA (DOI-BLM-NM-A010-2019-0010-EA): Page 47

15 (AIB-6)	There is more than H2S issues to contend with in regards to human health. Increased levels above ambient of VOCs have been recorded in various hotspots due to oil/gas production within Counselor Chapter and increased levels of PM 2.5 and PM 10 above ambient due to oil/gas within Counselor Chapter. Additionally, there are other impacts from increases in various HAPS and CAPS from oil/gas production, cumulative increases in industrial and vehicular accidents and cumulative increases in stress borne by local populations. These cumulative increases should be analyzed in regards to human health even if some of the CAPS and other figures are below NAAQS or NMAAQs since every incremental increase (even at levels below National and NM standards) can cause increases in negative health outcomes.
16 (AIB-8)	The Chapter is relieved that the BLM RPFO has finally indicated its agreement that the proposed June 2019 lease parcels are part of the Greater Chaco region by stating that 6 sites within the proposed parcels are Anasazi sites. As Navajo and Pueblos groups (including the Chapter) have stated, these parcels are part of the Greater Chaco region and requires additional analysis as the secretary had wisely requested in a previous lease sale. Thus, all lease sale parcels (FFO and RPFO) should be deferred for further cultural analysis.
17 (AIB-11)	The BLM RPFO has a special and unique responsibility to take watershed analysis seriously in areas that could effect the Rio Puerco Watershed. All of the proposed RPFO June 2019 lease parcels will effect (directly or indirectly) the Rio Puerco Watershed. Unfortunately, it appears the BLM RPFO consistently ignores its responsibilities mandated by congress which established the Rio Puerco Management Committee via Public Law 104-333. Considering congress considers the protection of the Rio Puerco watershed to be of great importance, why does the BLM RPFO only consider it in brief? All parcels should be deferred to allow for a more detailed analysis of potential Rio Puerco Watershed impacts, and to identify needed mitigation measures which are not currently available in the 1986 RMP or 1992 RMPA since both overly matured yet active documents were conceived and approved long before the RPMC was created.
18 (AIB-15)	The BLM RPFO has projected the amounts of wells to be developed for the lease sale, why can't it use these projections to do a socioeconomic impact analysis, particularly for local and EJ communities? Additionally, this area of the "San Juan Basin" differs significantly in terms of oil/gas industry impacts.
22	BLM RPFO RFD 2010 citation does not appear in the reference section
25	456 acres of new surface disturbance would represent a nearly 64% increase in surface disturbance for the RPFO (if the current figure of 260 acres as denoted on page 24 is correct). This is a significant decision for the RPFO which will dramatically increase surface impacts.
25	Why are there only two alternatives analyzed, is it because it is the minimum required for a "proper" NEPA analysis? The BLM and public could benefit from some different alternatives. The Chapter has no suggestions for other alternatives since it has determined from data that all parcels should be deferred (No action alternative).
26	Why does the BLM RPFO not include the San Juan Badlands ERMA as a RFFA as part of its analysis?

30 (T 3.2)	The EPA 1 year primary PM2.5 NAAQS is 12.0 µg/m ³ not 60 µg/m ³ . The FFO EA Table 3.3 has similar mistakes.
35 (T 3.6)	Table 3.6 still hides total emissions impacts by using a larger 4 county area. All RPFO parcels are within Sandoval county and at a minimum should indicate Sandoval county emissions, this was provided by the Chapter in its EA comments. It is also shown on the FFO Final EA table 3.4. Additionally, all parcels are located within a very concentrated area and even better more locally specific analysis would focus on the immediate surrounding communities as well. The Chapter also provided some of this analysis too. BLM RPFO must defer all parcels to do better locally specific analysis, and stop trying to hide impact by averaging them out over substantially larger regions.
45	BLM RPFO acknowledges that the projected development from this lease sale will lead to large amounts of GHG emissions. However, it indicates that it can do nothing to stem climate change. Climate change due to anthropogenic influences is incremental, thus every time additional GHG emissions are added the effects are more likely to occur and are more likely to become more acute. So why does the BLM wash its hands of any ability to help mitigate climate change which it acknowledges is real and is anthropogenically driven? Additionally, the EJ communities surrounding these parcels are disproportionately affected by climate change as projected by the BLM RPFO in the EA. Indigenous communities rely on the land for economic and spiritual sustenance. Changes in climate will effect the distribution of medicinal and culturally important plants, modifications to rainfall timings and intensity will disturb traditional dry-farming practices, and, as previously noted, Navajo communities almost completely rely on fuelwood for heating as a subsistence resource. To not analyze in depth the effects of climate change in general and particularly upon EJ communities is irresponsible and is incomplete planning by the BLM RPFO. Even if the amount of GHG emissions from this lease sale is projected to be tiny compared to global emissions, which once again a way in which the BLM hides true impacts of the lease by using extremely large geographic regions, its impact still is cumulative and should be analyzed. Additionally, how much additionally CO2e emissions increase will be coming from the immediate local area due to the proposed lease sale? The FFO also must do similar analysis.
47	What effects to the geology and landscape would come from removing nearly 5.2 million barrels of water? This equates to removing over 29 million cubic feet of water , additionally another 5.25 million cubic feet of oil will be removed. Nearly 120 million cubic feet of gas will be removed, but this gas is likely compressed so its volume would not be the same. A minimum of almost 35 million+ cubic feet of materials will be removed from the lease area, how will this affect the landscape? There are locations used for sun watching and the tracking of other celestial bodies across the San Juan Basin and Greater Chaco Region. Deformations in the landscape, even slight deformations, can render these culturally important locations unusable. Has the BLM RPFO or BLM in general analyzed the impacts of deformations to the surface landscape by the massive removal of underground resources and how these deformations impact celestial body watching locations? There appears to be no analysis regarding

	<p>this although the BLM does acknowledge the importance of the night sky for indigenous populations. Additionally, how likely does this massive removal of water lead to increased injection well activity within Ojo Encino and surrounding Chapters? Lastly, simply injecting a volume of water back into the ground at some other point will not counter the effects of landscape deformation. Landscape deformation, even minor deformation is a major cultural concern generally speaking, but are of specific cultural concern as a means of watching the celestial bodies. Changes substantially greater than what is likely needed to affect such sites has been observed in the Permian basin, the BLM FFO and RPFO need to understand this across the San Juan Basin for cultural resource protection. The Chapter must insist that all parcels are deferred for further analysis regarding impacts to the landscape under NHPA.</p> <p>Please see for an example the following study press release: https://blog.smu.edu/research/2018/03/20/radar-images-show-large-swath-of-texas-oil-patch-is-heaving-and-sinking-at-alarming-rates/</p>
50	The Chapter would like to remind the BLM (FFO and RPFO) that Chacoans also included Navajo ancestors as well. It would be culturally appropriate of the BLM and federal agencies to refer to the Chacoans in a manner which does not exclude Navajos.
50	The BLM RPFO analysis found 6 Anasazi sites within the proposed RPFO lease parcels, as noted in previous comments the Chapter and Pueblos had indicated that these parcels are within the Greater Chaco Region. Now the BLM RPFO has finally recognized this fact by revealing this information. Just because a greathouse (federally recognized or not) is not within immediate vicinity of the parcels does not preclude the area from the Greater Chaco Region/Landscape. Thus, the BLM RPFO needs to recognize that these parcels are within this Greater Chaco Region/Landscape by its own omission and defer all parcels for more in depth cultural analysis as previously directed by the secretary.
50	There are horizontal well sites that are audible at over a mile in Counselor.
51	Sentence states only 6 vertical wells for the entire lease sale but projections show 36 vertical and 2 horizontal wells.
55	Table 7.1 does not show or mention Huerfano chapter because that chapter is not within vicinity of RPFO parcels (although it is closer to FFO parcels and thus is appropriately listed in table 3.7.1 in the FFO Final EA)). Thus, the statement in the EA on page 55 "As seen in the above table, nearby Navajo Nation Chapters range from 98 to 100% minority and 92% to 99% Native American. Poverty rates for these Chapters ranges from 38% to 68%." is incorrect since the chapters listed on table 7.1 the lowest poverty rate Chapter is Torreon/Starlake at 50%.
56 (T 7.2)	What is the .023% increase in NAAQS and VOC emissions in subject EJ communities. What does this mean? What is the total geographic space under analysis? This number would seem to be way to low if the adjacent EJ communities specifically are considered, unless the BLM is hiding the true number again by using geographic spaces that are so large as to hide the locally specific impacts to the EJ communities. However, it becomes apparent that this analysis was not locally specific or relevant for the EJ communities within Vicintiy of either set of parcels

	for the June 2019 lease sale since the FFO Final EA also mentions the exact same figure in table 3.7.2. The analysis needs to be locally specific and relevant for the impacted EJ communities, not just clump all EJ communities together into one analysis so that they can be hidden by larger geographic regions.
57	How can the BLM just say "No" in regards to impacts to EJ communities after the numbers it projected for wells to be developed and products extracted? Perhaps a deeper analysis needs to be done.
57	Chapter is glad to see the BLM RPFO has admitted to disproportionate impacts upon EJ communities due to this lease sale. However, the BLM must follow through with this and do more extensive analysis on these impacts or provide an EIS level study regarding these disproportionate impacts. Thus, the Chapter requests that all parcels are deferred for further tribal consultation.
58	The Chapter also wants the RPFO to adopt a revised RMP as well before any future leasing. Thus all FFO and RPFO parcels must be deferred for completion of the FFO RMPA and RPFO RMP.
132	The BLM FFO or RPFO does not analyze affects to the geomicrobiology (only noted the comment). Fuller analysis is needed for cultural and resource analysis purposes.
	The BLM RPFO and FFO refused to take a hard look at locally specific impacts from the proposed lease sale based on projected development levels. It only used county or multi-county areas in its analysis.
39	Table 3.7 no longer discusses total emissions from all leased parcels and proposed wells, why not?
35	Table 3.6 Still refuses to look at locally specific or even county specific Criteria Pollutants and thus hiding true proposed impacts for Sandoval county.
11	What specific authority(s) is the BLM using to collect and execute EOIs since federal regulations for such a process is only applicable to geothermal leasing. The BLM admits that the geothermal regulation is "not applicable on pages 130-131" "The applicable federal regulations for oil and leasing is 43 CFR 3120 not 43 CFR 3203".
15	AIB-4 does not even briefly analyze a substantially important subsistence resource for Navajo populations in the area. The question itself is half the size of the analysis. How is this considered any type of analysis or even mitigation for a resource which is highly important for Navajo populations which almost solely rely on this resource for heating? It is apparent that the BLM RPFO has lost its ability to produce locally relevant and specific analysis or perhaps other, less local governmental agencies are doing the analysis for them. Either way, AIB-4 is woefully insufficient for an important subsistence resource analysis.
	The BLM is consistently hiding real locally specific impacts by hiding the impact numbers within larger regions. Thus making the analysis irrelevant to local communities and masking the true significance of the postulated impacts in the analysis.
127	The BLM seems to be willfully ignorant of the massive production and construction differences between vertical and horizontal wells. The Chapter has presented enough data to show that these differences do not just impact the "downhole environment" but also the above ground environment. Within Counselor, the massive increases in

	resources extracted requires increases in transportation, pipelines, spills/accidents, etc. is significantly different. This is yet another example of the BLM and particularly the BLM RPFO being disconnected from the localities for which it is planning. Any person who live next to a vertical well being developed versus a horizontal well can tell the significant difference, and the chapter has shown this with BLM, EPA, and NMOCD data. It seems difficult to get the BLM to accept reality.
	Perhaps the BLM is being consistent with IM 2018-034 Updating Oil and Gas Leasing Reform but it's not being consistent with NEPA or NHPA because it is trying so hard to be consistent with IM 2018-034.

XI. Concluding Remarks

The Chapter must insist that all RPFO and FFO June 2019 parcels are deferred from the lease sale. There is a complicated array of issues including proper RMPA and RMP development (for both the FFO and RPFO), lack of a currently sufficient EIS level plan to tier this proposed action to, major tribal trust issues, major impact issues to the Chapter and surrounding communities, and cultural resource impacts that have been unanalyzed. This complicated array of issues will take a great deal of consultation to untangle this multitude of issues and to determine what mitigations can be implemented for protection of tribal trust assets, allottee assets, protection of the environment, protection of the local economy, and general protection of the local communities. For now, the Chapter must insist on deferment of all parcels for further tribal consultation.

With Honor and Respect

 --S--
 George Werito Jr.
 Ojo Encino Chapter President

5-1-2019
 Date

Appendix 1

Pay Rates

Universe: Civilian employed population 16 years and over with earnings. 2012-2016 American Community Survey 5-Year Estimates

Universe: Civilian employed population 16 years and over with earnings. 2012-2016 American Community Survey 5-Year Estimates

	2010			2011			2012			2013			2014			2015			2016		
	Ag	Forest	Mining	Ag	Forest	Mining	Ag	Forest	Mining	Ag	Forest	Mining	Ag	Forest	Mining	Ag	Forest	Mining	Ag	Forest	Mining
Counselor	\$11,875	*		\$14,375	\$34,000		\$14,643	\$33,750		\$13,523	\$33,500		\$28,333	\$33,333		\$27,500	*		*		*
Huerfano	\$13,605	\$6,635		\$67,708	*		\$23,750	\$21,250		\$43,750	\$46,563		\$27,000	\$24,688		\$22,500	\$40,313		\$24,464	\$40,208	
Nageezi	\$16,406	*		\$50,417	*		\$20,625	\$21,250		\$19,375	\$21,667		\$20,313	\$37,500		\$7,083	\$21,250		\$18,750	\$21,250	
Ojo Encino	*	*		*	*		*	*		*	*		*	*		*	*		*	*	
Torreón/Starlake	*	*		*	*		\$16,667	\$50,156		\$6,250	*		\$7,031	*		\$7,344	*		\$6,875	*	
New Mexico	\$37,118	\$50,022		\$37,417	\$50,856		\$37,961	\$52,678		\$38,850	\$53,906		\$38,338	\$54,400		\$39,798	\$56,149		\$42,309	\$60,275	
Sandoval County	\$45,888	\$48,542		\$38,500	\$62,721		\$36,429	\$51,563		\$30,000	\$39,375		\$30,033	\$38,421		\$31,463	\$37,986		\$36,509	\$47,993	
San Juan County	\$51,410	\$54,366		\$52,249	\$54,791		\$50,968	\$54,034		\$53,621	\$57,123		\$51,974	\$55,478		\$54,639	\$57,309		\$60,407	\$62,184	
% Difference from San Juan County																					
Counselor	-76.9%			-72.5%	-37.9%		-71.3%	-37.5%		-74.8%	-41.4%		-45.5%	-39.9%		-49.7%					
Huerfano	-73.5%	-87.8%		-29.6%			-53.4%	-60.7%		-18.4%	-18.5%		-48.1%	-55.5%		-58.8%	-29.7%		-59.5%	-35.3%	
Nageezi	-68.1%			-3.5%			-59.5%	-60.7%		-63.9%	-62.1%		-60.9%	-32.4%		-87.0%	-62.9%		-69.0%	-65.8%	
Ojo Encino																					
Torreón/Starlake							-67.3%	-7.2%		-88.3%			-86.5%			-86.6%			-88.6%		
Average Of Chap	-72.8%	-87.8%		-15.5%	-37.9%		-42.9%	-41.5%		-61.4%	-40.6%		-68.2%	-42.8%		-70.5%	-46.3%		-72.4%	-50.8%	
7 Yr Avg Diff AFM	-59.4%																				
7 Yr Avg Diff MOG	-49.6%																				
% Difference from Sandoval County																					
Counselor	-74.1%			-62.7%	-45.8%		-59.8%	-34.5%		-54.9%	-14.9%		-5.7%	-13.2%		-12.6%					
Huerfano	-70.4%	-86.3%		-75.9%			-34.8%	-58.8%		-45.8%	-18.3%		-10.1%	-35.7%		-28.5%	-6.1%		-33.0%	-16.2%	
Nageezi	-64.2%			-31.0%			-43.4%	-58.8%		-35.4%	-45.0%		-32.4%	-2.4%		-77.5%	-44.1%		-48.6%	-55.7%	
Ojo Encino																					
Torreón/Starlake							-54.2%	-2.7%		-79.2%			-76.6%			-76.7%			-81.2%		
Average Of Chap	-68.6%	-86.3%		-14.7%	-45.8%		-48.1%	-38.7%		-30.9%	-13.8%		-31.2%	-17.1%		-48.8%	-19.0%		-54.3%	-36.0%	
7 Yr Avg Diff AFM	-38.3%																				
7 Yr Avg Diff MOG	-36.7%																				

Appendix 2

Employment Rates

S2403:INDUSTRY BY SEX FOR THE CIVILIAN EMPLOYED POPULATION 16 YEARS AND OVER American Community Survey 5-Year Estimates

	2015				2016			
	Total Employment	Ag/Forest/Mining	Ag/Forest	Mining+O/G	Total Employment	Ag/Forest/Mining	Ag/Forest	Mining+O/G
Counselor	116	6	3	3	133	5	3	3
Huerfano	802	48	19	29	845	53	18	35
Nageezi	201	21	8	13	179	18	5	13
Ojo Encino	123	3	2	1	125	2	1	1
Torreón/Starlake	403	21	12	9	426	20	13	7
New Mexico	876035	39103	17511	21592	876210	36893	15919	20974
Sandoval County	58433	878	709	169	59332	780	591	181
San Juan County	51561	5713	635	5078	49984	5488	611	4877

	2015				2016			
	Total Employment	Ag/Forest/Mining	Ag/Forest	Mining+O/G*	Total Employment	Ag/Forest/Mining	Ag/Forest	Mining+O/G*
Counselor		5.2%	2.6%	2.6%		3.8%	2.3%	2.3%
Huerfano		6.0%	2.4%	3.6%		6.3%	2.1%	4.1%
Nageezi		10.4%	4.0%	6.5%		10.1%	2.8%	7.3%
Ojo Encino		2.4%	1.6%	0.8%		1.6%	0.8%	0.8%
Torreón/Starlake		5.2%	3.0%	2.2%		4.7%	3.1%	1.6%
New Mexico		4.5%	2.0%	2.5%		4.2%	1.8%	2.4%
Sandoval County		1.5%	1.2%	0.3%		1.3%	1.0%	0.3%
San Juan County		11.1%	1.2%	9.8%		11.0%	1.2%	9.8%

* The percentages presented are for Mining and Oil/Gas is combined. The Navajo coal mine likely employs a large proportion of Navajos in the Huerfano and Nageezi areas. Thus the slightly higher percentages may stem from mining activities

Difference From San Juan County								
Counselor		-5.91%	1.35%	-7.26%		-7.22%	1.03%	-7.50%
Huerfano		-5.10%	1.14%	-6.23%		-4.71%	0.91%	-5.62%
Nageezi		-0.63%	2.75%	-3.38%		-0.92%	1.57%	-2.49%
Ojo Encino		-8.64%	0.39%	-9.04%		-9.38%	-0.42%	-8.96%
Torreón/Starlake		-5.87%	1.75%	-7.62%		-6.28%	1.83%	-8.11%
		-5.23%	1.48%	-6.71%		-5.70%	0.98%	-6.54%

Difference From Sandoval County								
Counselor		3.67%	1.37%	2.30%		2.44%	1.26%	1.95%
Huerfano		4.48%	1.16%	3.33%		4.96%	1.13%	3.84%
Nageezi		8.95%	2.77%	6.18%		8.74%	1.80%	6.96%
Ojo Encino		0.94%	0.41%	0.52%		0.29%	-0.20%	0.49%
Torreón/Starlake		3.71%	1.76%	1.94%		3.38%	2.06%	1.34%
		4.35%	1.49%	2.85%		3.96%	1.21%	2.92%

Appendix 3:
Horizontal Well vs Vertical Well Comparisons
for NMOCD District 3

Counselor Chapter							
	Avg Depth	Avg Oil	Avg Gas	Avg Water	Avg Days Pre	Total Count	Total Removed
Vert Oil Well	5,616	22,662	179,515	3,443	8,073	47	1
Vert Gas Well	1,714	26	161,831	143,307	6,304	80	1
Horiz Oil Well	11,138	98,007	623,926	31,003	1,248	79	3
Horizontal Factor	1.98	4.32	3.48	9.00	0.16		
Intensity Difference: Counselor							
Time Factor	6.47						
Oil Factor	4.32						
Gas Factor	3.48						
Water Factor	9.00						
Nageezi Chapter							
	Avg Depth	Avg Oil	Avg Gas	Avg Water	Avg Days Pre	Total Count	Total Removed
Vert Oil Well	5,535	24,683	98,309	9,713	7,402	90	0
Vert Gas Well	1,608	1,860	149,107	109,623	4,152	89	8
Horiz Oil Well	11,539	130,366	358,632	35,022	1,044	84	5
Horiz Gas Well	10,881	113,596	617,516	30,952	1,137	12	0
Horiz Factor Oil	2.08	6.28	3.65	3.61	0.14		
Horiz Factor Gas	6.77	61.07	4.14	0.28	0.27		
Intensity Difference: Nageezi Oil				Intensity Difference: Nageezi Gas			
Time Factor	7.00			Time Factor	3.65		
Oil Factor	5.28			Oil Factor	61.07		
Gas Factor	3.65			Gas Factor	4.14		
Water Factor	3.61			Water Factor	0.28		
Huerfano Chapter							
	Avg Depth	Avg Oil	Avg Gas	Avg Water	Avg Days Pre	Total Count	Total Removed
Vert Oil Well	5,353	54,203	228,225	52,906	7,616	247	4
Vert Gas Well	3,875	6,410	1,061,817	40,044	7,803	2440	5
Horiz Oil Well	9,946	58,196	495,549	45,966	1,690	18	1
Horiz Gas Well	5,919	3,356	438,598	51,777	2,736	29	1
Horiz Factor Oil	1.86	1.07	2.17	0.87	0.22		
Horiz Factor Gas	1.53	0.52	0.41	1.29	0.36		
Intensity Difference: Huerfano Oil				Intensity Difference: Huerfano Gas			
Time Factor	4.51			Time Factor	2.85		
Oil Factor	1.07			Oil Factor	0.52		
Gas Factor	2.17			Gas Factor	0.41		
Water Factor	0.87			Water Factor	1.29		
District 3 Horizontal Wells >400' between Tdepth and Mdepth & Random 500 Vert Wells							
	Avg Depth	Avg Oil	Avg Gas	Avg Water	Avg Days Pre	Total Count	Total Removed
Vert Oil Well	5,729	38,701	277,204	231,592	7,385	41	1
Vert Gas Well	4,980	4,989	1,785,544	28,739	8,680	456	0
Horiz Oil Well	11,108	100,757	537,314	27,911	1,190	136	0
Horiz Gas Well	6,793	5,186	1,557,299	51,664	4,131	244	2
Horiz Factor Oil	1.94	2.60	1.94	0.12	0.16		
Horiz Factor Gas	1.36	1.04	0.87	1.80	0.48		
Intensity Difference: Dist 3 Oil				Intensity Difference: Dist 3 Gas			
Time Factor	6.21			Time Factor	2.10		
Oil Factor	2.60			Oil Factor	1.04		
Gas Factor	1.94			Gas Factor	0.87		
Water Factor	0.12			Water Factor	1.80		
Aztec and 2 mile buffer (E,N,W (No South))							
	Avg Depth	Avg Oil	Avg Gas	Avg Water	Avg Days Pre	Total Count	Total Removed
Vert Gas Well	4,735	2,762	1,283,183	16,941	8,608	529	1
Horiz Gas Well	6,515	1,935	667,102	23,616	4,867	34	0
Horiz Factor Gas	1.38	0.70	0.52	1.39	0.57		
Intensity Difference: Aztec Area Gas							
Time Factor	1.77						
Oil Factor	0.70						
Gas Factor	0.52						
Water Factor	1.39						

Appendix 4: Documents of Interest

Q10 ENRICO CHAPTER
HCE 78 BOX 1503, Q10 ENRICO, NEW MEXICO 87013
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Resolutions in Opposition to further approvals of federal field natural leases, federal oil/gas related projects and related Environmental Impact statements by Bureau of Land Management within or impacting National Wetlands Agency Areas and Communities

The City of Chicago Chapter (the "Chapter") is a political subdivision of the People's Republic of China ("PRC") and is responsible for the local, state, and general welfare of its citizens and for the maintenance of the Chapter and its infrastructure.

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to maintain confidence in the company's ability to deliver value to its shareholders.

James Earl Ray, 37, of Jackson, Miss., pleaded guilty to the assassination of Dr. Martin Luther King Jr. on April 4, 1968, in Memphis, Tenn.

1. The first step is to identify the problem. This involves understanding the nature of the problem, its scope, and its impact.

George Weintraub Jr., Chapter President
Steve Chappin, Chapter Manager

Elizabeth Stoney, Land Award Mentor
Chapter Vice President
Chapter Secretary/Treasurer

The Chapter is against all parties and issues federal field control in 24 issues while Nevada Energy Agency area (for other issues who relate closely or indirectly impact Energy Agency Area) as a reasonable revenue during mechanism in developed, the new Prudhoe Bay Field Office Resource Management Plan Amendment is developed, and a full understanding of potential environmental and health impacts of technical systems. Sourcing is developed; and

CERTIFICATION

I hereby testify that the foregoing resolution was considered by the Members of the Ojo Grande Chapter on a day called meeting of the Ojo Grande Chapter House at which a quorum was present, and that the same was passed by vote of 23 in-favor, 0 opposed, and 7 abstaining, this 17th day of November, 2016.

Electric Piping Systems

Second Run Cards

Hi - back to Monte. Jim

George Weira, Chapter President
Joanna Vice, Chapter Vice President
Brandon Sam, Chapter Sec/Treasurer

George Wierzbis, Jr., Chapter President

Steve Chappas, Chapter Manager

Jeanette Vico, Chapter Vice President
Brigitte Sam, Chapter Secretary/Treasurer

Resolution OJOE 11-17-16/002 was also passed by the following chapters:

Chapter	Resolution # or Date
Becenti Chapter	
Counselor Chapter	COUN-2016-11
Dikon Chapter	DIL# 12-70-16
Hardrock Chapter	12/17/2016
Huerfano Chapter	HUE-015-17
Lake Valley Chapter	LVC-NOV13-006
Nageezi Chapter	NC 17-013
Oljato Chapter	OLJ11-09-16
Pueblo Pintado Chapter	PPC-11-2016-037
Oak Springs Chapter	OSC 1-08-17 #18
Teesto Chapter	TEE-NOV-12-17
Torreón/Starlake Chapter	TSL 11/2016-092
Whitehorse Lake Chapter	11/16/2016
Whiterock Chapter	WRC-017-009

Resolution OJOE 11-17-16/002 was also passed by the Eastern Navajo Agency Council (composed of representatives from 31 Eastern Agency Chapters)



EASTERN NAVAJO AGENCY COUNCIL
THE NAVAJO NATION
P.O. Box 666
Crownpoint, New Mexico 87313
Phone: (505) 786-2090
Fax: (505) 786-2097

Samuel Begaye, President
Four Chapters
President

Johnny Johnson
Vice-President

Jonathan Nee, Vice President
Farmington
Secretary/Treasurer

Resolution No. ENAC 12-2016-03

Resolution of the Eastern Navajo Agency Council of the Navajo Nation

RESOLUTION IN OPPOSITION TO FURTHER APPROVALS OF FEDERAL FLUID MINERAL LEASES, FEDERAL OIL/GAS RELATED PROJECTS, AND RELATED ENVIRONMENTAL ANALYSIS APPROVALS BY BUREAU OF LAND MANAGEMENT WITHIN OR IMPACTING NAVAJO NATION EASTERN AGENCY AREAS AND COMMUNITIES.

WHEREAS,

- The Eastern Navajo Agency Council ("ENAC") is a governmental entity comprised of officials from all Eastern Navajo Agency Chapters; and
- Monies generated from royalties, sales, and bonuses of federal fluid mineral leases that are within Eastern Agency area boundaries are not shared with the Navajo Nation and Eastern Agency Chapters. A study commissioned by the Ojo Encino Chapter estimated in 2013 and 2014 that federal oil/gas royalty revenues generated from within Eastern Agency areas were an estimated \$19,586,813 and \$18,827,466 respectively. These federal royalty monies were divided between the U.S. Department of the Treasury and the state of New Mexico as provided by the Federal Land Policy and Management Act (FLPMA) Section 317(a); and
- FLPMA provides the following language regarding Mineral Revenue sharing:
Each monies paid to any of such States on or after January 1, 1976, to be used by such State and its subdivisions, as the legislature of that State may direct giving priority to those subdivisions of the State locality or economically impaired by development of minerals leased under this Act, for (i) planning, (ii) construction and maintenance of public facilities, and (iii) provision of public service.
FLPMA Section 317(a); Mineral Revenue
- Currently, most Eastern Agency chapters have a lack of resources for planning, public facilities, and public services; and
- It also appears that many Applications for Permit to Drill (APDs) and Environmental Analyses (EAs) related to federal oil/gas development within, or impacting Eastern Agency areas/communities, historically and currently lack sufficient direct tribal consultation and Environmental Justice analysis; and
- The Bureau of Land Management Farmington Field Office is currently in the midst of amending its Resource Management Plan which began public scoping on February 25, 2014. This amendment process is ongoing and is looking more thoroughly at development within Eastern Agency areas and the effects of Horizontal Hydraulic Fracturing; and

As part of the Resource Management Plan Amendment the following are issues identified for analysis during public scoping:

Issue 1: Oil and Gas Development

How should the BLM manage fluid mineral leasing to address impacts on other resources given the change in projected oil and gas activity in the planning area?

BLM FPD Scoping Report November 2014, Section 2.3.1

How would the BLM manage fluid mineral leasing, including level of permitted development, siting, and mitigation measures, to fulfill the multiple-use mandate while addressing impacts on other resources given the projected increase in development and the use of hydraulic fracturing technology?

BLM FPD Scoping Report November 2014, Section 2.3.2

Issue 2: Land Use Health

What BLM-managed lands in the planning area are appropriate for disposal?

BLM FPD Scoping Report November 2014, Section 2.3.3

Other Potential Issues

How would the BLM accurately assess current air quality conditions and determine appropriate mitigation measures to minimize potential impacts on air quality from proposed fluid mineral development?

How would the BLM minimize the impacts of oil and gas development on important cultural resources in the planning area?

How would the BLM protect tribal resources?

How would the BLM assess current water quality and address impacts on groundwater and surface water quality and quantity from oil and gas development, including hydraulic fracturing?

How would the BLM address both positive and negative impacts of oil and gas development on local and regional economies and social settings, including community values?

How would the BLM minimize impacts from the oil and gas industry on human health? What measures will be in place to ensure transparency of information related to potential contaminants in the planning area?

How would the BLM manage direct and indirect impacts from increased vehicular traffic and additional roads in the planning area as a result of oil and gas development?

How would the BLM assess current water quality and minimize impacts on groundwater and surface water quality and quantity from oil and gas development, including hydraulic fracturing?

BLM FPD Scoping Report November 2014, Section 2.3.4

NOW THEREFORE BE IT RESOLVED THAT,

- The ENAC is against all pending and future federal fluid mineral BLM leases within Navajo Eastern Agency areas (or other lease sales which could directly or indirectly impact Eastern Agency Areas) until a reasonable revenue sharing mechanism is developed, the new Farmington Field Office Resource Management Plan Amendment is developed, and a full understanding of potential environmental and health impacts of horizontal hydraulic fracturing is developed; and
- The BLM shall develop germane and community specific environmental justice analyses and engage in direct tribal consultation with affected tribal communities/chapters. Additionally, the BLM must take a hard look at older leases that will require removal to ensure that they meet the modern standards of analysis such as environmental justice and tribal consultation requirements; and
- The ENAC is against the approval of additional and pending federal oil/gas related projects, supporting infrastructure (unless required for emergency or health/safety purposes), and their corresponding Environmental Analysis within Eastern Agency areas (or other similar projects outside of Eastern Agency Areas which would directly or indirectly impact the Eastern Agency Areas) until a reasonable revenue sharing mechanism is developed, the new Farmington Field Office Resource Management Plan Amendment is developed, and a full understanding of potential environmental and health impacts of horizontal hydraulic fracturing is developed; and
- The ENAC wishes to see an equitable distribution of federal royalty revenues, sales, and bonuses generated within Eastern Agency boundaries (which includes federally managed lands and minerals) to partially mitigate adverse impacts from federal oil/gas development within Navajo Eastern Agency areas. Those funds shall be both shared directly to impacted chapters and a portion also divided amongst all Eastern Agency chapters to help develop planning, public facilities, and public services; and

Eastern Navajo Agency Council Resolution
Page 1 of 1

Eastern Navajo Agency Council Resolution
Page 2 of 3

- The ENAC considers the lack of federal royalties, sales, and bonus sharing with Eastern Agency chapters from activities occurring within Eastern Agency boundaries to be a disproportionate impact on Navajo communities; and
- The ENAC shall cooperate with chapters, the Navajo Nation, and federal entities to better understand potential environmental and health impacts of horizontal hydraulic fracturing activities that could affect Navajo communities.
- Per Resolved #1, the ENAC is in opposition to the proposed January 2017 lease sale of tribal trust federal mineral split estate land located in Coconino and Navajo counties.

CERTIFICATION

WE HEREBY CERTIFY that the foregoing resolution considered by the Eastern Navajo Agency Council at a duly called meeting at which a quorum was present and the same was passed by a vote of 628 in favor, 62 opposed and 432 abstained this December 3, 2016.

Motion made by: John Smith

Seconded by: Charles Long

John Smith

Erin Chavez, President

Eastern Navajo Agency Council

THE NAVAJO NATION

John Smith

Jonathan Nee, Vice-President

Eastern Navajo Agency Council

THE NAVAJO NATION

John Smith

Pamela Vazquez, Secretary/Treasurer

Eastern Navajo Agency Council

THE NAVAJO NATION

Eastern Navajo Agency Council Resolution
Page 3 of 3



THE NAVAJO NATION

RUSSELL BEGAYE PRESIDENT
JONATHAN NEZ VICE PRESIDENT

February 6, 2017

Farmington Field Office
Bureau of Land Management
6251 College Blvd., Suite A
Farmington, NM 87402

Re: Concerns regarding Chaco Canyon Cultural Historic Park

The Navajo Nation is concerned that increased drilling in the Eastern Navajo area is beginning to encroach on Chaco Cultural National Historic Park, to which the Navajo Nation and Navajo people have critical cultural and historical ties. In addition, I am concerned that the increased surface activity from drilling is interrupting the daily lives of Navajo people who live in the Navajo Nation Chapters such as Counselor, Nageezi, Torreon and Ojo Encino.

Due to the impacts on Chaco and the Navajo people, the Nation asks for the Bureau of Land Management to place a moratorium on fracking-related activities such as multi-stage hydraulic fracturing and horizontal drilling and lease sales and permit approvals in the Mancos Shale/Gallup formation in the greater Chaco area until such as time as the amendment to the resource management plan is completed and an environmental impact statement is finalized.

Sincerely,

THE NAVAJO NATION

Russell Begaye, President

Jonathan M. Nez, Vice President

Also please see the following documents:

Ojo Encino Resolution OJOE 07-13-18/007

Resolution requesting the BLM FFO and RPFO to defer all parcels for the December, 2018 Lease Sale for further Tribal Consultation

All Pueblos Governor's Council Resolution APCG 2017-12

CALLING FOR A MORATORIUM ON ALL PERMITTING AND LEASING FOR OIL AND GAS DEVELOPMENT IN AREAS THAT WOULD IMPACT TRADITIONAL CULTURAL PROPERTIES AND SACRED SITES IN GREATER CHACO REGION

National Congree of American Indians Resolution MKE-17-008

To Support Moratorium on Leasing and Permitting in Greater Chaco Region.

New Mexico State Legislature House Memorial 70

A MEMORIAL REAFFIRMING NEW MEXICO'S COMMITMENT TO PROTECTING AND PRESERVING TRIBAL, CULTURAL AND HISTORICAL SITES AND RESOURCES IN THE GREATER CHACO CANYON LANDSCAPE

In particular in the resolved section:

BE IT FURTHER RESOLVED that the United States department of the interior's bureau of land management and bureau of Indian affairs desist from any leasing or issuance of permits without prior tribal consultation in the greater Chaco landscape, as designated by the bureau of land management, until the resource management plan amendment is complete in accordance with federal law; and

(Page 6)

Compendium of Scientific, Medical, and Media Findings

Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)

Fifth Edition

March 2018

<https://www.psr.org/wp-content/uploads/2018/04/fracking-compedium-5.pdf>

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FROM:

070 Encino Chapter

~~070 Encino, AZ~~

HCR 79 Box 1500

070 Encino, Navajo Nation 87013

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BLM, NMSO
SANTA FE

TO:

BLM New Mexico State Office

Attn: State Director

301 Dinosaur Trail

Santa Fe, NM 87502



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