I would strongly recommend Alternate A - the NO Action Alternative

This project proposal would not be in the public interest.

The following are detailed comments for your consideration:

1.5. Project Area

This section states the project will be in the Teshekpuk Lake Special Management Area which has been designated for its global significant value to waterfowl, shorebirds, caribou and waterbirds and their habitats.

If another alternative besides Alternative A is considered, I would strongly urge you to exclude the Teshekpuk Lake Special Management Area from oil and gas activities and protect this ecologically sensitive area. This area has been excluded from these activities during the past 40 years, and it should continue to be off limits to these activities. Any part of the project plan that includes activities in this sensitive area should be omitted from any of the proposed Alternatives or permitting process. This area is too valuable and sensitive to impact with oil and gas activities. If the area were to be compromised with a project of this magnitude, the values for which it was designated, would be negated.

2.5.9. Abandonment and Reclamation

I have included the full text of this section in my comments, to bring attention to the length, breath and detail provided in this Draft Supplemental Environmental Impact Statement (DSEIS) on this portion of the project. It appears it may be wording that has been cut and pasted from a simple Right-of-Way project, with the mere addition of "CPAI" to personalize it for this document, as it does not seem applicable to a project of this scale.

"The abandonment and reclamation of Project facilities would be determined by the BLM Authorizing Officer at or before the time of abandonment. The abandonment and reclamation plan would be subject to input from federal, state, and local authorities and private landowners. Abandonment and reclamation may involve removal or travel pads and roads or leaving these in place for alternative uses. Revegetation of abandoned facilities could be accomplished by seeding with native vegetation or through natural colonization. Reclaimed gravel could be used for other development projects. To assist with abandonment and reclamation, BLM holds bonds from any company conducting development activities with the NPR-A to cover the cost of reclamation. CPAI also sets aside money to cover asset retirement obligations."

For comparison, you can see that the DSEIS is 442 pages in length and this section is limited to one short paragraph. The DSEIS focuses exclusively on how this project will be built and operated, and no analysis is provided on how this massive infrastructure and expanse of pads, wells, roads and pipelines will be removed from the project site, once the oil has been extracted. It merely suggests that a reclamation plan could "be written at a later time with input from federal, state and local authorities and private landowners." It seems to be a little late for setting up a plan for ConocoPhillips to rehab the site and invest in these types of expenditures, when all the oil has been extracted.

The project description describes disturbance extraction and relocation of approximately 4.9 million cubic yards of material, enough to make a 20 foot high mound covering 21 football

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fields. Is it possible that this project plans "to reseed with native tundra vegetation" or proposes that surface water would wick through up through 7 feet of gravel on the pads, to facilitate the growth of new plants? This plan needs substantial more detail on what abandonment and reclamation will be required, prior to the start or approval of the project.

If the abandonment and reclamation plans, costs and environmental effects are not considered at this point in the project, what hope is there that they will ever be considered? I think we have seen a strong track history of abandoned mines and resource extraction projects littered across the Alaskan landscape and throughout public lands in the United States. This DSEIS should at a minimum, articulate the plans for abandonment and reclamation of this project, so the effects could be considered in this analysis. Simply stating that there may be a bond required or that reclamation plans may be developed in the future, is not at all adequate. Without this information included in this process, there is little hope that this mining footprint will be removed once the extraction is completed.

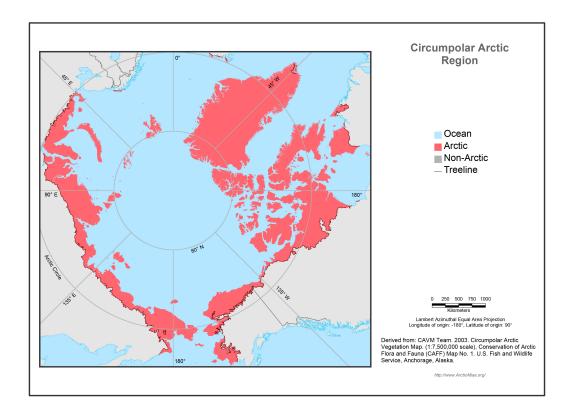
Take the Legacy Wells in the NPR-A as an example of post project reclamation in Alaska, and the timeframe for addressing it. Between 1944 and 1982 exploratory and scientific drilling programs on Alaska's North Slope in the NPR-A, were abandoned. In 1976, the BLM was given responsibility for managing the NPR-A and in 1982 the BLM inherited the responsibility to assess, plug, and clean up the wells. This cost it is being paid for by U.S. taxpayers. The "National Petroleum Reserve in Alaska: 2020 Legacy Wells Strategic Plan, December 2020, Report to U.S. Congress" was prepared by the BLM in response to a directive included in Senate Report 116-123. The BLM plugged 6 of 136 wells for a cost of \$30,000 per well. It is estimated that plugging another 20 remaining wells will cost between \$125-150 million. This is being done over 40 years AFTER the wells were drilled and abandoned.

3.2.1.1. Observed Climate Trends and Impacts in the Arctic and on the North Slope

Although this section is titled "in the Arctic" it provides a rather myopic view of what the "Arctic" area includes. It should for analysis of Climate Trends include all waters and land above the Arctic Circle, the entire circumpolar area (see map below), if it is to adequately address climate change concerns in the polar region, of which this project is a part of. This analysis appears to focus more narrowly on just a small section of the Alaskan "Arctic," and an even smaller portion of the total area in the NPR-A. I am suggesting a more comprehensive approach which could provide for a more meaningful analysis in the impacts and cumulative effects sections, as Arctic warming is not contained within the geo/political boundaries of the State of Alaska nor to the boundaries of the NPR-A nor the project site.

This section also does not come close to addressing the potential impacts of this project on the projections for short term and long term thawing of permafrost and the potential short term and long term release of methane gas as a result of that thawing. Paragraph three references permafrost thawing, but does nothing more than introduce it as a concept to be considered.

The last paragraph in this section states: "Models predict permafrost thawing will continue, with some modes predicting that near-surface permafrost will likely disappear on 16%-24% of the landscape of Alaska by the end of the 21st Century (USGCRP 2018)." WOW, I would say that figure is absolutely staggering, as that is a quarter of the near-surface permafrost in Alaska! With the melting of that permafrost comes the release of methane gas. Why is that not introduced and discussed in this section as a climate trends and impact? It is hard to believe with a number as staggeringly significant as that one, there is need for any additional consideration of allowing this proposal to move forward, given that oil development and climate warming, is at the core of melting permafrost!



This section also fails to mention how the methane is monitored and what the challenges are to getting accurate readings, and should be incorporated in this DSEIS. I reference the following article in Inside Climate News and cannot find reference to anything resembling an analysis of this type of impact or an environmental analysis of the methane that that is projected to be released on this project site, in this DSEIS. "Arctic Methane Leaks Go Undetected because equipment can't handle the Cold - Equipment failures in the icy cold raise questions about how accurate emissions estimates from oil and gas wells are in a place where climate change stakes are high." By Sabrina Shankman, Inside Climate News, May 31,2018.

A more recent article dated August 24, 2022, in Inside Climate News by Leslie Hook and Chris Campbell, The Financial Times titled "Methane Hunters: What Explains the Surge in the Potent Greenhouse Gas?" A global map in this article shows a bright red hot spot on the map of this project site, indicating a high amount of methane is currently being released from fossil fuel development in this area.

3.2.1.2. Project Climate Trends and Impacts in the Arctic and on the North Slope

In the second paragraph of this section it states that: "Snow cover duration is expected to decrease with a later date of first snowfall and an earlier snowmelt, and growing season length is expected to increase. These changes will reduce water storage and increase the risk and extent of wildland fires and insect outbreaks."

This Climate Change information was newly incorporated into this draft of the document, as indicated by the yellow highlight. It does not however appear from the analysis in this DSEIS that it had much bearing in revising the projections for water consumption for this project. If the available recharge waters are diminishing due to climate change, this plan should also

address how the water will be replenished from the local freshwater sources that are being tapped for the project's needs. It has been estimated that over 1.6 billion gallons of water will be used over the life of the project. Are there any models or projections to estimate how much snowmelt and rainwater will be available to help recharge the system? If the current available freshwater that this project proposing to tap into are not currently considered to be in "excess" of what is needed for the residents of the north slope, the habitat and animals that currently inhabit the area, how will these water needs be met when so much is being drawn off for the project? It seems like there would be a deficiency showing up for the currently established water needs. If that is not the case, please explain how that freshwater will be replenished?

3.2.2.3.1. Social Costs of Greenhouse Gases*

I can appreciate the work that went into to attempting to qualify the "cost" of greenhouse gas in this section, but I think it misses the point by diving into the weeds. If you look at the global, overarching "cost" of further increasing greenhouse gas, I believe this analysis needs to look at rising temperatures, shifting weather patterns, increasing storm events and other effects that are altering our economy, food production, disaster response and health. This section's discussion of how "global damages" are calculated and applied to this project proposal, seem to come across as blowing smoke, as there are (as this section states) "Multiple sources of uncertainly inherent in the estimates." Please improve this section in the Final EIS.

3.3. Air Quality & 3.17 Environmentlal Justice

These sections fail to adequately address health effects to local residents. Further data and analysis should be incorporated into this document and NEPA process.

The people in Nuiqsut noticed something was going wrong back in 2012. One of ConocoPhillips wells had blown out and the air quality monitor just happened to be down, for routine maintenance at the time. The town isn't only concerned about the accidents, they are concerned with their health due to daily exposure from the air and water quality but also to the potential pollution effects to their subsistence resources, which they consume. Residents with health problems have been advised to move out of the area. Stacks near the village emit volatile organic compounds (VOC's) and black carbon. Methane can leak throughout the production process. All of these can cause health problems, cardiovascular issues and some can lead to cancer. I reference the following article in Inside Climate News and cannot find reference to anything resembling an analysis of this type of impact in this DSEIS. This should be thoroughly analyzed in the Subsistence and Environmental Justice sections of this DSEIS. The referenced article is: "Surrounded by Oil Fields, an Alaska Village Fears for Its Health - When the wind blows in from the vast oil operations, noses run and asthma flares up. Concerns about respiratory illness have risen as North Slop drilling spreads." By Sabrina Shankman, Inside Climate News, August 2, 2018.

In a more recent incident, during March 2022, a gas leak at the ConocoPhillips site, had an uncontained gas leak, and they had not identified the source of the leak for over a week's time. Given the circumstances, the company decided to evacuate non-essential employees from Alpine Central Facility and CD1 page where the leak was detected. Approximately 300 personnel were relocated. Meanwhile some residents of Nuiqsut, a village about 8 miles south of the development grew concerned, and over 20 families left their community as they were still awaiting more information to make an informed decision. News of the leak were covered in the Alaska Daily News, but no follow-up reporting has been published on the leak event since March.

In a study titled "Unconventional Oil and Gas Development Exposure and Risk of Childhood Acute.Lymphoblastic Leukemia: A Case-Control Study in Pennsylvania, 2009-2017," published 17Aug2022 in the Journal of Environmental Health Perspectives, provides information on a study evaluating potential associations between residential proximity to Oil and Gas Development and risk of acute lymphoblastic leukemia. The discussion points in this study, were that this work adds to mounting evidence of OIGD's impacts on children's health, providing additional support for limiting Oil and Gas Development near residences. Is there any analysis on these types of potential health effects on the residents of Nuiqsut?

This DSEIS fails to adequately address how climate change is effecting the people, their subsistence needs and resources. A study titled "Climate Change in Nuiqsut, Alaska" conducted in 2013/2014 by the ANTHC Center for Climate and Health, addressed vulnerabilities in the community due to climate change. Figure 5. Climate Change Health Assessment Findings, Nuiqsut, Alaska," on page 39 of the report summaries the factors that the residents were experiencing almost 10 years ago. This DSEIS does not appear to reference this study nor discuss how this project may further impact or exacerbate health and

Topic	Changes	Impacts	Health Effects	Adaptations
Climate	Increases in temperature, precipitation variability and extremes.	Travel disruptions, infrastructure damage, timing of seasons.	Supply shortages, accident and injury, mental stress.	Enhance systems for self-sufficiency and emergency preparedness.
Weather	More storms, extreme weather, and lightning.	Damage to infrastructure, travel challenges and disruptions.	Supply shortages, injury, poor air quality, mental stress.	Engineering for extremes, phased relocation.
River	Erosion, low river level, higher tides, increased turbidity flooding.	Land and infrastructure loss, travel disruptions.	Travel accident injury, loss of services.	Riverwatch, Bank protection, phased relocation.
Land	Rapid tree growth, new coastal wetlands, invasive plants.	Loss of tundra to woodlands, loss of berry plant habitat.	Food security, potential for new or increased allergens, mental health.	Monitor changes (LEO); inform clinics on new environmental health concerns; manage invasive plants.
Subsistence	Changes in harvest season. Changes in timing of migration, conditions for travel and the health and abundance of subsistence resources.	Fish illness. Loss of food storage facilities. Poor harvest due to travel problems or changes in wildlife health or behavior.	Food security. Injury. Mental stress.	Monitor subsistence events (LEO), perform comprehensive harvest survey, and encourage healthy food.
Ice Cellars	Warming temperatures, erosion.	Thawing and eroding cellars.	Loss of stored food and water (ice) resources. Foodborne illness.	Provide supplemental cooling systems, relocate cellars to better location. Community freezers.
Infrastructure	Warmer temperatures, erosion, flooding, lightening, wildfires.	Foundation failures, infrastructure loss, damage, service loss.	Loss or interruption of health critical services. Increase for injury or disease.	Monitor change, use adaptive engineering to address risks, align maintenance and repair schedules as appropriate

subsistence concerns in this community. This report can be accessed by searching the web for "Alaska Dept of Health Nuigsut).

3.11. Birds

The wetland habitat on the North slope of Alaska is critical breeding habitat for birds throughout our world. Birds annually migrate to this location each year, as it provides the habitat they need to breed and successfully rear their young. If there were alternative suitable habitat closer to their winter range, chances are they would not expend the energy they do to reach the North slope each season. Which gets to the point I would like to make, if as this analysis states, it will take 20-30 years to restore this habitat after the project is complete, where will these birds breed in the interim?

I think this analysis is lacking in that it does not identify that the Teshekpuk Lake Wetlands are one of the most ecologically important wetlands in the entire arctic. Other wetland habitat on the North Slope also serve as important seasonal breeding habitat. The birds can't simply relocate to another area during the duration of this project. If breeding habitat is compromised, so is the survival of these species. If the analysis has identified suitable alternative habitat for these species which will be displaced during the life of this project, those locations should be identified in this analysis.

In ROP E-11 it states that 3 years of surveys will be conducted before the start of the construction to determine where the nests are located, and those surveys will be used to make infrastructure siting decisions. It does not take into account that preliminary project activities in the general vicinity, and the surveys themselves may result in disturbance of the nesting and foraging activity resulting in these birds modifying or abandoning their nesting activity. This in turn could show in the survey results that the birds are not using the site, thus opening it up for use of the project, as the birds have already been harassed off the site.

It does not take into account that the Teshekpuk Lake Wetland is one of the most ecologically important wetlands in the entire arctic. Given that some of these birds are already determined to be protected under the endangered species act, there should be no project activity in the habitat that has already been determined to be significant for the survival of these species. What is being proposed here, is simply harassment, which is prohibited under law, for protected species. Has the U.S. Fish and Wildlife Service conducted a Biological Opinion on this proposal and has the information been incorporated into this analysis? If not, when will that occur?

Another reason many of the birds from around our world nest in this habitat is the abundance of insects and invertebrates that are linked to the freshwater and wetlands on the North slope. This analysis does not address how the extraction of 1.6 billion gallons of freshwater may alter their lifecycles, which is directly linked to the nesting success of the birds that breed in this habitat. Will the lowering of water levels, change the depth, temperature or conditions which are required for the continued abundance of insects and invertebrates necessary to serve as an abundant food source? I find that any discussion of this is absent from this analysis.

I also find that a discussion of how the depletion of volume in freshwater may effect waterfowl and other bird and mammal populations that are dependent upon certain water levels for their successful nesting and life cycle requirements, absent from this section. A few inches of change in the water level next to a nest on the water's edge, could lead to nest failure. Changes in precipitation and snowfall already noted as effects of climate change are currently contributing changes or stressors to their breeding habitat. This analysis should include

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information on how further changes in available freshwater volumes, temperature and levels, will effect these species, and the habitats they are dependent upon. It should also address fisheries issues of the proposed freshwater extraction.

This section mentions that birds along the nearshore barge and support vessel route could be temporarily disturbed or displaced due to slow-moving vessels. Effects would occur during four open-water seasons (July7-September 30). A total of 9 barge trips, 16 tugboat trips, and 259 support vessel trips would be needed. The disturbance described here is during the period when these birds are foraging and nesting in the area. The analysis does not describe how the wakes of the boat may effect nesting habitat nor where the birds would find alternative suitable habitat, as the disturbances listed here would cause the birds to expend additional energy to avoid what sounds to be a very active waterway, previously used by the birds.

3.11.3. <u>Unavoidable Adverse, Irretrievable, and Irreplaceable Effects</u>

This section states that: "Onshore impacts would be irretrievable throughout the life of the Project but would not be irreversible or affect the Long-term sustainability of wildlife in the analysis area <code>IF (emphasis added)</code> reclamation of permanent infrastructure occurred....

Habitat alteration from the CFWR and mine site would be irreversible because the mine pit and the reservoir would fill with water and would permanently change the thermal regime of the underlying soils." <code>WOW! Please explain in your analysis where these birds will be successfully nesting during the life of the project</code> (if not here), and will there be a big enough population of these birds remaining at the completion of this project (as they may not have been able to replace themselves by breeding) to return and use this habitat in the future? Could you also please explain the wording "IF reclamation of permanent infrastructure occurred." Where in this analysis does it describe what reclamation will be required and how it will be conducted? Or could you clarify if the "IF" is referring to the fact that reclamation may not be required? Please explain this in more detail as it is vague and possibly misleading.

3.16.2.3.1 Caribou

This section does not provide analysis on how fracking activities may effect caribou nor subsistence activities. It also concludes "Thus, large deflections of caribou away from the area west of Nuiqsut would have substantial impacts to subsistence users." This analysis does not provide any discussion of how the subsistence resources of Nuiqsut would be met if this happened. This food source is critical to the subsistence needs of this community. Caribou provide a large protein source and its absence is not easily replaced by a trip to the grocery store, as it could be in more urban communities. In addition to being nutritionally important as a food source, subsistence needs also include the cultural significance. How will this be replaced if the subsistence caribou harvest is "deflected" by the project?

3.19. Cumulative Effects

The definition of cumulative effects in this DSEIS omits some of the wording in the Federal Code of Regulations. The DSEIS states:

"The cumulative effects analysis considers impacts of a proposed action and its alternatives that may not be consequential when considered individually, but when combined with impacts of other actions, may be consequential (CEQ 1997). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7 and 1508.25[a][2])"

I don't know if abbreviating the definition was done intentionally or if it was cut and paste error. If it was intentional it would appear to be an attempt to minimize what needs to be considered in this section of the document. The definition in this document needs to be corrected to reflect the legal definition in wording as stated in the National Archives, Code of Federal Regulations.

According to CFR 40 Part 1508.1 (g)(3). The definition is:

"Cumulative effects, which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time."

Once again I would like to refer to the Circumpolar Map, included earlier in this document. When concerns are raised about oil development activities in the arctic, permafrost melting, methane release and climate change, it is important to view them in a broad perspective over the entire circumpolar region and over time. Oil development activities in the past are continuing to have a lasting effects on our climate. Actions such as this proposal, will continue to have lasting effects outlasting the actually years it takes to extract the oil.

This attempt at describing and analyzing the potential "Cumulative effects" falls woefully short of what needs to be included. The authors attempt to limit the analysis to just the project area instead of looking at this project's "Incremental effects" on other past, present and future actions or similar actions (in the circumpolar region) that it is collectively a part of, falls short of considering "Cumulative effects." What is being proposed for this project appears to be a "significant action." When viewed "collectively" with other actions in the circumpolar area over the past, present, and future the effects are certainly significant for not only the project site but for climate change and human, wildlife and global health.

The analysis seems to miss the point completely, that this massive Willow project, along with other similar projects of this magnitude, could add significantly to factors contributing to climate change. This is a global issue that needs to be addressed with global analysis and solutions. To summarize my comments I would like to link them with other voices around our earth.

According to the United Nations:

"The Earth is now about 1.1 degrees C warmer than it was in the 1800's. We are not on tract to meet the Paris Agreement target to keep global temperature from exceeding 1.5 degrees C above pre-industrial levels. That is considered the upper limit to avoid the worst fallout from climate change. Today we are experiencing unprecedented rapid warming from human activities, primarily due to burning fossil fuels that generate greenhouse gas emissions."

"Healthy ecosystems can provide 37 percent of the mitigation needed to limit global temperature rise. Damaged ecosystems release carbon instead of storing it."

In the words of Antonio Guterres, United Nations Secretary-General, 1 July 2022:

"We are still addicted to fossil fuels, For the health of our societies and planet, we need to quit, NOW."