Department of the Interior
1849 C St., NW
Washington, D.C. 20240
Submitted via electronic mail to: orphanedwells@ios.doi.gov

RE: Draft State Guidance for Orphaned Well Program

To the Honorable Secretary of the Interior Deborah Haaland,

We, the undersigned organizations and individuals, respectfully submit the following comments regarding the draft state initial grant guidance for the allocation of funds to the states to plug orphaned wells and remediate and restore well sites as directed by the Bipartisan Infrastructure Law of 2021. This is an unprecedented program with many unknowns, potential pitfalls, and opportunities. We thank the Department of the Interior and its civil servants for their work and the opportunity to comment on the draft guidance. We have organized our comments by topic and commenter.

We have also attached three supporting documents: an earlier memo drafted by Megan Milliken Biven, a blog post by Ted Boettner, and a white paper on the lat/long discrepancy between regulator data and actual location of orphaned wells.

We would also like to extend an offer of support. This program is new and the task before the Department of the Interior and the White House Infrastructure Implementation team is considerable. The signatories of this letter contain experience, expertise, and wisdom relevant to many of the unknowns you will undoubtedly face.

The Infrastructure Investment and Jobs Act (H.R. 3684):
Title VI Methane Reduction Infrastructure Grant Program
Sec. 349 Orphaned Well Site Plugging, Remediation, and Restoration
FY 2022 State Initial Grant Guidance:
https://www.doi.gov/sites/doi.gov/files/state-initial-grant-guidance-bil.pdf

Initial Grant Guidance:

"Administrative costs" identified in Sec. 40601(c)(2)(B)(i), limited to not more than 10 percent of the funds received, are those costs that cannot be directly attributed to well plugging and site reclamation projects, but instead to general grants management or program administration. Administrative costs can be expended for personnel or non personnel costs, and can be direct or indirect, but should represent the costs to the State for managing the overall grant-funded work rather than preparation for and execution of individual projects.

Commenter Name / Affiliation	**Comment**
Megan Milliken Biven True Transition	- This definition requires greater clarification. While participating states have dedicated public well plugging programs and staff, these offices are scaled to at most a few hundred yearly well plugging projects. The documentation and administration required for these grants will require

	considerable personnel increases. What is the delineation for activities that constitute the management of a single project versus activities relating to documenting and meeting grant requirements for that project? How will staff document time spent on either activity?
Ted Boettner Ohio River Valley Institute	- Some states (e.g. Ohio*) are using "construction management firms" to outsource large parts of administration and program management of orphaned well plugging insteading of doing this inhouse. It is imperative that this guidance includes these costs in the 10% of "administrative costs" since it could lead to less wells being plugged and well sites restored. - *https://www.hannah.com/DesktopDefaultPublic.aspx?type=hns&id=4i5OI0TLbUE%3d&u=TbpqQbwDi5c%3d

Initial Grant Guidance:

p. 11: (n) Actual total cost per well of plugging and surface reclamation; and

p. 5: SF-424A Budget Information for Non-Construction Programs An SF-424A is a standard form that provides an estimate of the work's major cost centers (e.g., State employee labor, training, equipment, contracting and other operational costs), where the sum total of the budget justification equals the overall Initial grant request..

Detailed Budget Proposal/Justification: This detailed information supports and identifies the estimated costs provided in the SF-424A and should include an itemized budget breakdown with unit costs for the period of the Initial grant funding and the basis for estimating the costs of personnel salaries, fringe benefits, project staff travel, materials and supplies, equipment, and consultants and contracts. This document should also include narrative descriptions of the items included in the project budget.

Commenter Name / Affiliation	**Comment**
Megan Milliken Biven True Transition	- Cost expenditures in this program will inform financial assurance rates both for states and the federal government. We recommend that the Department of the Interior model this program's cost reporting on the Bureau of Safety and Environmental Enforcement (BSEE) NTL No. 2016-N03 Reporting Requirements for Decommissioning Expenditures on the OCS. We recommend that DOI develop uniform cost categories to ensure that states report program expenditures accurately and consistently. We also recommend that states report bids received so that DOI can monitor evolving industry rates under the influence of the program.

Initial grant guidance:

"Orphaned Well" - The term "orphaned well" with respect to Federal or Tribal land, means a well that is not used for an authorized purpose, such as production, injection, or monitoring, and for which no operator can be located, or the operator of which is unable to plug the well and to remediate and reclaim the well site. With respect to State or private land, the term also:

(1) has the meaning given the term by the applicable State; or

(2) if that State uses different terminology, has the meaning given another term used by the State to describe a well eligible for plugging, remediation, and reclamation by the State.	
Commenter Name / Affiliation	**Comment**
Megan Milliken Biven True Transition	- Several states do not statutorily define orphan wells (Alabama, Alaska, Idaho, Montana, Nevada, New Mexico, New York, Ohio, Oklahoma, South Dakota, West Virginia, and Wyoming) and in those cases, we recommend that the Department of the Interior require mandatory adoption of the federal definition to qualify for all federal grants. - Several states have definitions that are inappropriate and counter to the legislative intent of the Infrastructure Investment and Jobs Act (H.R. 3684)**.** In Colorado, for example, an orphan well means a well for which no owner or operator can be found, **or where the owner or operator is unwilling** or unable to plug and abandon the well. Unwilling is a broad and inappropriate threshold. We recommend that the Department of the Interior audit state definitions and identify which ones do not meet the federal standard. In those cases, we recommend that the Department of the Interior require adoption of the federal definition to qualify for all federal grants. - While the statute declares that it does not constitute an expansion of liability, administrators must recognize that at the state level it can. Once a well is plugged and abandoned, there is always a risk of leaks and failure and a need for re-abandonment. In cases where an operator plugged its own wells, the public regulator can return to those companies and order them to repair leaks and replug the well. If a well owned by an active operator is plugged by a state's orphan well program and that plug fails, then what will the process be? Is the well now a permanent ward of the state? In some states that is indeed the case. How we define which wells are eligible for plugging does have future consequences. Nobody wants the federal government to plug wells with solvent owners, and with the current definitions, this program is at serious risk of doing just that. We recommend that language be developed to describe future liability and obligations for operators' whose wells might be plugged because of this program.
Ted Boettner Ohio River Valley Institute	- States oil and gas well databases (e.g. West Virginia) reveal that many (abandoned) wells listed as "operator unknown" do in fact have solvent operators. For example, the WVDEP database lists 4,589 abandoned wells with "operator unknown" which is the state's orphaned well list. Ross and Wharton Gas Company has 15 wells listed as orphaned, Southwestern Energy has 10 wells listed as orphaned while EQT has 9 wells listed as orphaned. - One alternative to defining an "orphaned well" for states and Tribes is to create a certification process at DOI for each orphaned well plugged using federal funds. This could also include penalties if it is discovered that federal funds were used to plug well or restore well sites that have solvent owners. * *To find these wells, enter the following API# into the WVDEP Oil and Gas Well Database ((https://apps.dep.wv.gov/oog/wellsearch/wellsearch.cfm)

	Ross and Wharton Gas Company: 4704700018, 4700100106, 4701300258, 4709700001, 4704700024, 4709100053, 4700100371, 4704700021, 4704700005, 4704700004,4704700013, 4704700015, 4704700012, 4705100138, 4704700019. Southwestern Energy (Subsidiaries: Virco, Triad Hunter) : 4708500787, 4708502887, 4708500067, 4708505504, 4708505660, 4708703403, 4707300951, 4708502966, 4708701474, 4708501827 EQT (Subsidiaries: Carnegie Production, Eastern States, Trans Energy): 4708500430, 4701100103, 4709701834, 4704300046, 4707900088, 4710300271, 4701100230, 4701100101 4703902926.
Scott Eustis Healthy Gulf	- The Louisiana Department of Natural Resources (LDNR) does not provide a complete list of effectively orphaned wells. Department estimates are in the thousands, but independent estimates[1],[2] that follow the methane research of Dr. Townsend-Small et al.[3], are above 20,000. The discrepancy is mainly due to the amount of "shut-in" wells that have been shut-in for over a decade, but also doubts about the effectiveness of coastal wells that have been plugged and abandoned, in the face of increasing coastal storm energies. - Each storm brings more wells from "shut-in" into the orphan category. These inactive wells number more than 26,800. These wells are ill-maintained, and we have found that coastal wells in this category are the majority of wells that leak oil and gas in storms, such as Hurricane Ida. - LDNR has a separate code (28) for wells it cannot 'locate' to determine that they are plugged, separate from its list of orphan wells (23, 26). As of May 2021, there were 2,589 wells in that category. For these wells, more intensive survey techniques must be funded.

Initial Grant Guidance:

The following list includes the features the Department of the Interior has determined are important components of successful orphaned well programs. Although not required in relation to Initial grant funding, many are expected to be required for subsequent grants, and States are encouraged to incorporate these features into projects funded with Initial grants.

For those parts that are applicable, the State should include the following information as a narrative attachment to the required elements listed above.

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[1] Andrew Jacoby. Presentation on Abandoned Oilfields, Acadiana Center for the Arts Theatre, Lafayette on November 8th, 2021. DRAFT 2021-11-xx AJ presentation on Abandoned Oilfields.pdf Video at Andy Jacoby Plugged and Abandoned Wells Lafayette Fall 2021 Trim https://www.youtube.com/watch?v=fkwQEA0Pg4Q

[2] As of May 2021, 26,854 wells in inactive **status codes 8, 18 19, 20, 21, 23, 26, 27, 28, 31, 32, 33, 34, 36, and 37**. Downloadable at https://dnrgisvct.dnr.state.la.us/Zip/8866.zip

[3] Geophysical Research Letters. Emissions of coalbed and natural gas methane from abandoned oil and gas wells in the United States. Amy Townsend-Small, Thomas W. Ferrara, David R. Lyon, Anastasia E. Fries, Brian K. Lamb First published: 20 February 2016 https://doi.org/10.1002/2015GL067623

Commenter Name / Affiliation	Comment
Megan Milliken Biven True Transition	- We request greater clarity on what documentation states will be required to provide for each plug and abandonment and remediation project funded by this statute. Can states just provide a narrative attachment to describe all wells, or will they be required to submit a narrative attachment for each individual well? Will the Department of the Interior need to sift through each narrative to confirm whether a state met statutory guidelines and intent? While the statute requires that states receiving Formula grants (Section 40601(c)(4) submit a report (D) 15 months following expenditures, there is nothing in the statute that precludes the Department of Interior from requiring participating states to provide uniform data in a uniform manner. - For the sake of administrative feasibility and the possibility of comparing "apples to apples" we recommend that "Recommended Elements" be changed to "Required Elements" and that "narrative attachments" are instead a uniform template for each individual well and site restoration project. Even if several plugging projects are bundled into a single contract, information should still be reported on a per well basis. This will allow the Department of the Interior to track, evaluate, and compare plugging and restoration projects. It will also allow the government to incorporate the data more easily into databases or a single for future monitoring.
Initial grant guidance: (a) The State's process for determining that a well has been orphaned, including what efforts will be made to redeem financial assurances or otherwise recoup remediation costs from any parties responsible under State law;	
Virginia Palacios Commission Shift	- The guidance should require states to include not only information about States' processes for determining that a well has been orphaned, but also processes states have to prevent wells from being orphaned, including those that require current operators to plug inactive wells that still have a responsible party on file. For example, the Railroad Commission (RRC) of Texas routinely allows operators extensions to well plugging timelines. Nearly half of all active well operators in Texas have more than 25% of their wells inactive and unplugged.[4] In total, Texas had 142,000 inactive unplugged wells at the end of FY 2021.[5] The decision to grant federal funds should consider allocating less funds to states that have a process designed to allow inactive wells to linger for long periods -increasing the risk that operators will orphan their wells.
David Levy PetroTechnologies, Inc. (Owner) Louisiana Oilfield Site	- The legal attempts to recover expended funds should not be allocated to the state attorney general. If the particular attorney general favors the operator or the particular expenditure, no action to recover funds will occur.

[4] Railroad Commission of Texas. March 10, 2022. Monthly Report of State Managed Well Plugging Activities February 2022, FY 2022. Retrieved from: https://www.rrc.texas.gov/media/43ojrmfc/february-22-smp.pdf

[5] Railroad Commission of Texas. (August 31, 2021). Wells Monitored by the Railroad Commission. https://rrc.texas.gov/oiland-gas/research-and-statistics/well-information/well-distribution-tables/

Restoration Commissioner	
Megan Milliken Biven True Transition	- Several states have imposed legal handcuffs onto regulators seeking to protect the public and recoup costs from responsible parties. For instance, Louisiana's RS 30:93 only authorizes the Secretary of Natural Resources to pursue prior responsible parties for restoration costs unless restoration costs exceed $250,000 and only in reverse chronological order. An operator may have made millions in profit from a particular well, only for the federal government to clean up its mess. - We recommend that the Department of the Interior require each state to describe the full and regulatory process for recouping costs as part of their application. If a state regulator determines it is in the public's interest to plug a well with an active and solvent operator and/or active and solvent predecessor operators, states should be required to describe the legal steps and what laws and regulations either empower or hinder the regulator.

Initial Grant Guidance:

d) If no prioritization process currently exists, the State should describe its plans to develop and implement a prioritization process.

Commenter Name / Affiliation	**Comment**
Megan Milliken Biven True Transition	- We recommend that the Department of the Interior and the White House implementation team with consultation from outside experts create national and uniform ranking standards based on criteria outlined in the statute. We recommend that participating states conform to this single prioritization process. This will also help create standardized cost categories to compare and audit grant program expenditures. - In states without prioritization criteria and processes, we recommend that the Department of the Interior require adoption of the federal criteria. - Some states are planning to "bundle" non prioritized sites into bid packages with prioritized sites. Does DOI have a policy or opinion on how it will treat these cases?
Scott Eustis Healthy Gulf	- We humbly request that the Department prioritize wells in the Coastal Zone in state waters, as these wells are more vulnerable to increasing storm energies. - The Offshore Gulf, as well as the Coastal Zones of Louisiana and Texas are the areas of the USA that have the highest rates of pipeline gas and oil incidents, per mile of pipeline, according to data from USDOT PHMSA[6],[7]. It stands to reason that the wells and small flowlines are also likely to be 'leakier' in these coastal zones.

[6] Data Visualization Overview The Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety. https://www.npms.phmsa.dot.gov/Documents/NPMS_HeatMap_GTIncidents.pdf

[7] Oil and Gas Pipeline Integrity in Texas and Louisiana, 2010-2020.pdf Eustis, July 2021

	- Prioritizing Coastal Zone wells increases mobilization costs per well, as mobilizing material to operate in the shallow-water environment is more expensive and material is more limited than for terrestrial wells.[8],[9] - Prioritizing coastal wells will likely have the benefit of hiring back experienced oil and gas workers laid off in the price crash of 2020. - Coastal wells will require more survey work to determine their integrity, and whether they are super-emitters. Coastal areas must be surveyed for methane leaks after each hurricane season. - DOI should consider areas that are tidally influenced as "coastal", and especially areas tidally influenced with normally brackish salinities. Although local political concerns in Louisiana and Texas have excluded them from the official coastal zone[10], the effects of large saltwater surges on oil and gas wells and flowlines are similar despite local political differences.

Initial Grant Guidance:

p. 6: (e) Details of how the State will identify and address any disproportionate burden of adverse human health or environmental effects of orphaned wells on disadvantaged communities, including communities of color, low-income communities, and Tribal and indigenous communities;
p. 12: E. States are encouraged to consider prioritizing projects, and/or the benefits that flow from those projects, in disadvantaged communities.

Commenter Name / Affiliation	**Comment**
Virginia Palacios Commission Shift	- The Railroad Commission of Texas does not provide information about how to access language accomodation on its website. Analysis of disproportionate burdens should also consider linguistic isolation as a metric. Linguistic isolation is defined in EJSCREEN demographic indices as “Percent of people in a block group living in linguistically isolated households. A household in which all members age 14 years and over speak a non-English language and also speak English less than "very well" (have difficulty with English) is linguistically isolated.” Because language has a discrete and practical effect on the ability of community members to engage in regulatory processes, it is essential that this metric be taken into account in DOI’s application screening processes. Texas, in particular, is a multilingual state with more than one third of its population speaking a language other than English in the

[8] After Hurricane Ida, Oil Infrastructure Springs Dozens of Leaks, By Blacki Migliozzi and Hiroko Tabuchi Sept. 26, 2021https://www.nytimes.com/interactive/2021/09/26/climate/ida-oil-spills.html
[9] Hurricane Ida oil spills 'mind-boggling,' but likely not as bad as Katrina, Rita Some call for infrastructure review every five years, fines for violators By MARK SCHLEIFSTEIN AND TRISTAN BAURICK | Staff writers PUBLISHED SEP 13, 2021 AT 4:00 AM Courreges said. “The problem we have right now is the [lack of fuel for employees to reach the sites and return] and access to some of the sites is very limited." https://www.nola.com/news/environment/article_bca326b0-1250-11ec-b0d6-fbaf7548a8d0.html
[10] Defining Louisiana’s Coastal Zone: A Science-based Evaluation of the Louisiana Coastal Zone Inland Boundary Revised October 2010. Figure ES-1 Intergovernmental Coordination (IGC) Area for coastal planning. Page 52. Figure 11. Coastal Non-Point Pollution Control Boundary http://www.dnr.louisiana.gov/assets/OCM/CoastalZoneBoundary/CZB_Study_Report_October_2010_Final.pdf

	home.[11] - DOI should include additional guidance on steps states can take to support the Justice40 Initiative.
Scott Eustis Healthy Gulf	- The Louisiana Department of Natural Resources (LDNR) does not provide a complete list of orphan wells. Department estimates are in the thousands, but independent estimates[12],[13] are above 20,000, mainly due to the amount of "shut-in" wells that have been shut in for over a decade. Each storm brings more wells from "shut-in" into the orphan category. When we examine the full suite of wells in inactive categories, the majority of wells are in Environmental Justice Block Groups, areas that have higher non-white, higher lower-income, or higher native american population than their reference Parish. This confirms previous analyses on the legacy of environmental racism in Louisiana.[14] - DOI should examine the data on linguistic isolation in Louisiana, particularly in regard to Asian American fishing communities on Louisiana's coast, to ensure those areas are notified about the program in their language. Louisiana's CPRA has an analysis of CDC's Social Vulnerability Index in its 2017 State Master Plan[15] that is quite useful in describing locations where linguistically isolated populations are dependent on natural resources for the local economy. These areas must be prioritized for clean up, as these communities are even more dependent on well clean up for economic success. - DOI should review Louisiana's Tribes' petition to the UN[16] for more information about disparate burdens on indigenous peoples of Louisiana. - Rural methods for determining environmental justice communities (i.e. comparing demographics of tracts or block groups using a parish reference, instead of a national or state reference) are essential in Louisiana, to understand how wells disparately burden Native American, Asian American, and coastal African American communities. Native American communities in particular will be overlooked if DOI is only using state demographics as a reference frame. - DOI should use a rural method for determining environmental justice communities in Louisiana, to comply with Justice 40 and Executive Orders on environmental justice.
Initial Grant Guidance:	

[11] U.S. Census. QuickFacts: Texas. Language other than English spoken at home, percent of persons age 5 years+, 2016-2020. Retrieved from: https://www.census.gov/quickfacts/fact/table/TX/POP815220#POP815220

[12] Andrew Jacoby. Presentation on Abandoned Oilfields, Acadiana Center for the Arts Theatre, Lafayette on November 8th, 2021. DRAFT 2021-11-xx AJ presentation on Abandoned Oilfields.pdf Video at Andy Jacoby Plugged and Abandoned Wells Lafayette Fall 2021 Trim https://www.youtube.com/watch?v=fkwQEA0Pg4Q

[13] As of May 2021, 26,854 wells in inactive status codes 8, 18 19, 20, 21, 23, 26, 27, 28, 31, 32, 33, 34, 36, and 37. Downloadable at https://dnrgisvct.dnr.state.la.us/Zip/8866.zip

[14] Scott A. Hemmerling, Christine A. DeMyers, and Jessica Parfait.Environmental Justice.Apr 2021.134-145.http://doi.org/10.1089/env.2020.0052

[15]Hemmerling, Hijuelos April 2017 Attachment C4-11.2: Social Vulnerability Index; Figure 4: Non-English Speaking, Migrant Population; Figure 8: Asian, Natural Resource Employment Component http://coastal.la.gov/wp-content/uploads/2017/04/Attachment-C4-11.2_FINAL_030817.pdf

[16] Rights of Indigenous People in Addressing Climate-Forced Displacement January 15, 2020, page 10, "Recommendations" https://s3.documentcloud.org/documents/6656724/Louisiana-Tribes-Complaint-to-UN.pdf

p. 6: (f) The methodology to be used by the State to measure and track methane and other gasses associated with orphaned wells, including how the State will confirm the effectiveness of plugging activities in reducing or eliminating such emissions…

P. 8: V. Recommended standards for measurement, plugging, and remediation

Commenter Name / Affiliation	**Comment**
Dr. Amy Townsend-Small Associate Professor, University of Cincinnati	Methane emissions reduction is in the title of this bill. However, as written, the bill will not meaningfully reduce methane emissions from orphaned wells unless the highest emitting proportion of wells is targeted for plugging. This is because the scientific consensus is that only a small number of orphaned wells emit methane, and the majority of orphaned wells are a minor source or are not emitting methane. Furthermore: - States do not have established methods for measuring methane emissions, but rather, only have bare minimum inspector guidance on detecting emissions. Some state inspection programs instruct inspectors to rely on their noses for smelling gas (note: methane is odorless before odorants are added), utilizing the dish soap "bubble test," and/or listening for the hissing sound of leaking gas. - We recommend that the Department of the Interior issue required measurement techniques. Because the purpose of this subpart is to reduce national methane emissions from orphaned oil and gas infrastructure, we recommend requiring state regulators to measure methane emissions before and after plugging using either chamber or high-flow or other EPA-approved methods and report emissions in grams of methane per hour. - We recommend that the program not default to "emissions factors" for estimating methane leakage rates. These emissions factors are an average of all measurements, including the few high emitters and the many low or non-emitting wells. The draft guidance rightfully directs states to describe witnessing requirements for plugging projects. There will be physical inspectors at every single well plugged by this program, and as such, presents an unprecedented opportunity to collect physical emissions data.
A. R. Ingraffea, Ph.D., P.E., Dist. Member ASCE Dwight C. Baum Professor of Engineering Emeritus Weiss Presidential Teaching Fellow Cornell University	An Ideal Procedure for "Plugging" of Orphan Wells 1. With respect to item IV. C. (c), first identify wells with known methane leakage. Use SOTA aerial survey instruments (such as those described in Chen et al., 2022[17]) for identification. These wells shall be given highest priority for remediation and ranked according to release rate of methane. Super-emitters shall be ranked highest and first for remediation. Rationale: Methane is a very potent greenhouse gas and decreasing its emission into the atmosphere is crucial for near-term amelioration of climate change. 2. For all wells identified in (1), obtain records describing well construction.

[17] Chen Y, et al. Quantifying Regional Methane Emissions in the New Mexico Permian Basin with a Comprehensive Aerial Survey, Environ. Sci. Technol. 2022, https://doi.org/10.1021/acs.est.1c06458

	Rationale: Well age, true vertical depth, casing and cementing design, and any previous workover actions are crucial elements in the design of an effective plan for eliminating methane leakage through plugging and/or other means.[18] 3. Using well construction information obtained in (2), design an internal well inspection protocol most likely to identify the mechanism(s) of well methane leakage. Rationale: A leaking well might be leaking from one or more casing annuli (internal leaking) at its surface and/or external to all casing (gas migration). Knowledge from (2) should suggest what means are necessary to identify all leakage paths. 4. Inspect the well according to findings from (3) using SOTA inspection equipment and techniques both internal to the well and around the well head but outside all casings. Rationale: Standard plugging techniques might be initially sufficient to stop internal leakage if it is identified through inspection but might have little or no effect on stopping gas migration depending on its source(s). 5. Use the knowledge of the well's leaking mechanism(s) to design a remediation procedure to attempt to stop all leakage sources using, as necessary, cement squeezing and/or standard plugging techniques. Rationale: Gas migration might not be halted through standard plugging. Cement squeezing across areas that have been determined through (4) to be sources of leakage might be necessary. 6. Re-measure methane leakage rate of the well. If standard plugging or cement squeezing and plugging were used and found effective move to (7), below. If leakage was not stopped, repeat (4) and (5). If leakage still has not stopped, decide whether additional expenditure is warranted to remediate this well. Rationale: Cement squeezes are successful only about 50% of the time. Additional squeeze jobs might be necessary and might still not succeed. Standard plugging techniques almost always stop internal leakage. 7. Test for methane leakage at least every other year. If leakage is found, review mitigation measures and decide the most likely source(s) of new leakage and proceed to attempt mitigation accordingly.
Initial Grant Guidance: (g) The methodology to be used by the State to measure and track contamination of groundwater and surface water associated with orphaned wells, including how the State will confirm the effectiveness of plugging activities in reducing or eliminating such contamination;	

[18] If no well records are available, proceed to (3) using reasonable assumptions about well construction in the time frame of the construction of the well.

Commenter Name / Affiliation	Comment
Virginia Palacios Commission Shift	- DOI should also collect information on cases of water and soil impact from wells that were initially drilled as oil and gas wells, but which the state allowed operators to reclassify as water wells. A January 2022 Commission Shift report explains: "In Pecos County, just south of Midland, dozens of legacy oil and gas wells were once converted to water wells and are potentially no longer under the jurisdiction of the Railroad Commission.[19] The wells began producing so much water in 2003 that they formed what is now referred to as "Boehmer Lake," a massive salt-water body near Imperial, Texas. Despite efforts from the Pecos County Groundwater Conservation District to get aid from the Oil and Gas Regulation and Cleanup Program to plug the Boehmer Lake wells, the RRC has refused in most cases, because the wells are classified as water wells."[20] Additionally, the wells have caused subsurface deformation leading to a sinkhole that caved in Farm to Market Road 1053 (FM 1053).[21] The Texas Department of Transportation is now proceeding with a project to realign the roadway at a cost of $27 million.[22] These are problems that are too expensive for individual landowners or county governments to repair on their own. State policy caused these problems, and state agencies need to step in to help solve them. If DOI considers these aspects in its Initial Grant process, it can make a greater impact with use of limited federal funds.
Scott Eustis Healthy Gulf	- DOI should also collect information on cases of water and soil impact from wells that were initially drilled as oil and gas wells, but which the state allowed operators to reclassify as water wells. LDNR classifies these wells under codes 21 and 22, and not orphan wells[23].

Initial Grant Guidance:
(i) Methods the State will use to solicit recommendations from local officials and the public regarding the prioritization of well plugging and site remediation activities, and any other processes the State will use to solicit feedback on the program from local officials and the public.

Commenter Name / Affiliation	Comment
Virginia Palacios	- DOI must require states to provide information about public comment

[19] Russell Gold. (2021, December 8). The Dead Sea of West Texas. Texas Monthly. https://www.texasmonthly.com/newspolitics/lake-boehmer-dead-sea-west-texas/ Also see Robert E. Mace. (2021, February 15). Imperial Forces. So Secret, Occult, and Concealed. https://sosecretoccultandconcealed.com/2021/02/15/imperial-forces/
[20] Biven, M. M., & Palacios, V. (2022). Eliminating Orphan Wells and Sites in Texas. Commission Shift. https://commissionshift.org/orphan-wells/
[21] Kim, J. W., & Lu, Z. (2018). Association between localized geohazards in West Texas and human activities, recognized by Sentinel-1A/B satellite radar imagery. Scientific Reports, 8(4727). https://doi.org/10.1038/s41598-018-23143-6
[22] Texas Department of Transportation. Project Tracker. Project ID: 086605036
[23] LDNR Well Status Codes, listed at http://sonlite.dnr.state.la.us/sundown/cart_prod/cart_con_wellstcode

Commission Shift	periods in Spanish, at a minimum, and provide language accessibility instructions for people in other languages. DOI should require states to host public meetings with 30 day notice, providing language interpretation at the meetings. All meeting documents and presentations should be translated into Spanish, and available in other languages upon request. - States should demonstrate that they have meaningfully considered and incorporated public input, and not merely provided an opportunity for comment.

Initial Grant Guidance:
(j) Latitude/Longitude and all other data elements and associated units of measure as indicated in the Orphaned Well Data Reporting Template that accompanies this guidance;

Commenter Name / Affiliation	**Comment**
Virginia Palacios Commission Shift	- DOI should request states to provide information about how they plan to verify the latitude and longitude of orphaned wells at the well level (e.g. rather than lease level) within an acceptable error tolerance. Professional geospatial analysts Bruce Carter, John Conner, and Jackie Portsmouth have documented that RRC GIS mapping records are off by a few feet to hundreds of feet for approximately 60% of legacy well data.[24] - Accurate locations are also relevant to assessing potential sources of groundwater contamination, and disproportionate burdens on disadvantaged communities. - The RRC is missing latitude and longitude coordinates in its public databases for hundreds of orphan wells and thousands of inactive unplugged wells that still have an operator on file. These data points need to be made publicly available for the purposes of environmental justice analysis and transparent public process.
Scott Eustis Healthy Gulf	- LDNR 'cannot locate' 2,589 wells placed under Code 28. This code is separate from orphan wells, yet these wells could be emitting methane. - LDNR must correct well locations that were submitted with an irregular geodetic datum or projection, or are otherwise incorrect.

Initial Grant Guidance:

p. 1 “drive the creation of good-paying union jobs”
p. 7: m) Training programs, registered apprenticeships, and local and economic hire agreements for workers the State intends to conduct or fund in well plugging or site remediation
p. 12: D. For project work that involves construction, alteration, or repair, award recipients, and any sub-awardees, will be expected to comply with the Davis-Bacon Act, which requires that not less than locally prevailing wages and fringe benefits be paid to employees.

[24] Carter, B., Conner, J., & Portsmouth, J. (2022). Documenting the Impact of Orphan Wells on Life, Property, Environment, and the Impact of the Location Data on any Solution. In G-Forensic: Locating Orphan Wells.

Commenter Name / Affiliation	Comment
Ted Boettner Ohio River Valley Institute	- Included in the federal infrastructure bill (IIJA) is the inclusion of Davis-Bacon prevailing wage regulations for orphaned well cleanup. It is imperative that oil and gas regulatory agencies establish an active monitoring program and work with the US Department of Labor to ensure proper enforcement. This is especially important as many states do not have state prevailing wage laws for public construction projects and some states are using construction management firms to implement the program. - DOI should clarify what occupations will be subject to Davis-Bacon wage requirements. We recommend that it includes any laborer involved in plugging an orphaned well and or restoring a well site, including "water hauling" and any handling of oilfield waste. - While the inclusion of Davis-Bacon wages will help "drive the creation of good paying union-jobs" very few (if any) plugging and well restoration service companies are unionized. The creation of apprenticeship and training programs could help ensure that there is a union workforce available to execute the work. Additional funding for workforce and safety training, including a federally recognized apprenticeship program, would also help bring new workers into oil and gas plugging and restoration work and build a larger qualified and skilled workforce. - While the legislation doesn't include provisions regarding contractor policies, it is imperative that irresponsible contractors aren't awarded federal funds. This can be accomplished by contractors meeting basic standards to bid on projects related to federal orphaned well funding, such as maintaining valid licenses and certification, compliance with federal, state, and local laws, having no history of business or labor violations, and meeting bonding and general liability requirements. The inclusion of a "Responsible Bidder" policy acts as an "insurance policy for taxpayers" by providing clear objective standards that contractors have to meet so unscrupulous contractors do not win bids that can drive up costs, reduce the quality of work, lower worker pay and benefits, and ultimately provide less investment in local communities. A responsible bidder policy could also include preventing oil and gas companies from bidding on projects when they have unresolved environmental violations. - Unions are not likely to be attracted to well plugging and restoration work unless the project contracts are over $1 million. In Pennsylvania, the largest contract awarded by the PA DEP for plugging wells was just $250,000 over the last six years. Bundling contracts to include multiple well sites in a similar geographical area can not only increase the size of the contract but it can also reduce costs and the time it takes to plug a well and restore a well site. Guidance could create tiers where a share of funds are divided by project size similar to a bill proposed in Kentucky (SB 315) where ⅓ of funds go to projects with less than 10 wells, ⅓ to projects with less than 25 wells, and ⅓ for projects with more than 25 wells. Larger projects could - those over 25 wells - could be tied exclusively to an federally approved apprenticeship program. Another avenue to explore is project labor agreement or PLAs. The White House underlined the benefits of PLAs in a recent executive order requiring

	PLAs on projects above $35 million. The federal government could lower this threshold to $1 million for projects included in this program.
Virginia Palacios Commission Shift	- Texas is a “right to work” state, which significantly limits the leverage of unions. Without specific requirements from DOI surrounding worker rights and leverage in federally funded programs, driving “the creation of good-paying union jobs” will not be achieved with federal infrastructure funds that go to Texas.
Scott Eustis Healthy Gulf	- These requirements from DOI are an essential part of fixing our coast and our ocean. Healthy Gulf supports DOI encouraging the 'bundling' of well projects to include multiple sites in a particular geographic area. Bundling attracts unions, but also lowers costs for operations in coastal areas, where costs will be higher.We have observed during the construction of Maurepas Pipeline, and the Enterprise Aegis pipeline that union labor and local labor is more sensitive to environmental concerns generated by oil and gas operations, and thus more skilled in minimizing impact of plugging operations in wetland areas.

Initial Grant Guidance:

‘(iii) the means by which the State will use funds provided under this paragraph—

‘‘(I) to lower unemployment in the State; and

‘‘(II) to improve economic conditions in economically distressed areas of the State.

Commenter Name / Affiliation	**Comment**
Ted Boettner Ohio River Valley Institute	- To lower the “unemployment” in states it will require the state to increase employment of state residents since the official definition of the unemployment rate from the US BLS is based on household surveys in contrast to the establishment survey that is based on payroll. Moreover, incarcerated labor is not included in the BLS definition of “labor force”, so utilizing transitional work programs and incarcerated labor will not count towards this statutory mandate. - As mentioned in a previous comment, utilizing PLAs for projects over $1 million can help ensure that local union workers receive contracts to plug wells and restore well sites. Local hiring provisions could also be included for small and large projects.
Scott Eustis Healthy Gulf	- Healthy Gulf supports project bundling and local hire initiatives. In general, local labor and union labor are more skilled at minimizing other environmental impacts of plugging operations–i.e. dredging impacts to wetlands and vessel impact to oyster grounds.

Issue:

Safety, public awareness, and education.

Commenter Name / Affiliation	Comment
Megan Milliken Biven True Transition	- As states begin to confront their unplugged well inventories, we recommend that the Department of the Interior require states receiving any grant funds conform to common sense precautions and safety standards which should include: industrial grade stainless steel fencing around wells and supporting infrastructure, uniform aluminum based signage with warnings, API numbers, date of last production & plugging, a toll-free emergency number, and camera surveillance if appropriate. Oil and gas infrastructure poses real risks and fencing and signage are the bare minimum of what the federal and state governments should require. - We recommend that all signage also indicate that the plugging was the result of the Infrastructure Investment and Jobs Act signed into law by President Joe R. Biden with the date of plugging. President Joe R. Biden is rightfully proud of cleaning up American communities, and it is appropriate and politically prudent that his administration take credit for this legacy. - We recommend that a "mission patch" or emblem is designed specific to this well plugging program. All personnel performing work whether state inspectors or well plugging service providers or habitat restoration crew should be required to wear this emblem either on hard hats and/or on a patch on work uniforms. From Pennsylvania to Texas, this program provides an opportunity for regular people to see their federal government and their tax dollars at work in their community.

Issue:
Program design and transparency.

Commenter Name / Affiliation	Comment
Megan Milliken Biven True Transition	- As this is a nascent program, the federal government is still building out the staff, workflows, and organizational hierarchies and design. We recommend as this information is decided that it is made available publicly on the program's website. There are many stakeholders monitoring this program, and for the sake of credibility, stakeholders should be able to contact relevant staff when issues and questions arise.

Issue:
What is the federal government's obligation if and when a well plugging fails under this program?

Commenter Name / Affiliation	Comment
Megan Milliken Biven	- A 1976 report on plugging and abandonment methods remarked that,

True Transition	"the technical literature contains very little information on long-term testing of cementing materials to determine durability with time and under various temperatures."[25] A recent textbook on plugging techniques pointed out that there is "no international standard describing testing of plugging materials to qualify them for an eternal perspective."[26] While it is very well (pun intended) and good that the federal government is undertaking the important task of plugging orphan wells, it does not confront the impermanent nature of well plugging. This program is an opportunity to create a national monitoring and surveillance framework for this inevitable obligation.
Scott Eustis Healthy Gulf	- This is a tremendous opportunity to examine this pressing problem for our oceans in state waters and coasts. - We recommend some survey work regarding plugging failure after every hurricane season with hurricanes that carry major storm surges. Saltwater is much stronger than steel and cement.
Issue: A description of the State's plugging standards, including the witnessing requirements (qualifications of witness, documentation.)	
Commenter Name / Affiliation	**Comment**
Megan Milliken Biven True Transition Virginia Palacios Commission Shift	- In our recent joint report "Eliminating Orphan Wells and Sites in Texas: A Toolkit for Redesigning the Railroad Commission's Oil and Gas Well Plugging and Cleanup Programs" we examined both the RRC's management of its orphan well program and its oversight of private plugging and abandonment. The Railroad Commission of Texas' programmatic shortfalls are a harbinger of what the Department of the Interior can expect during the implementation of this grant program. We are going to quote from the above report to provide the Department of the Interior appropriate context to inform the drafting of grant and documentation requirements: - Texas statute requires the RRC Oil and Gas Division employ a Chief Supervisor who, among other duties, is responsible for supervising "the plugging of all abandoned wells." Operators are required to provide at least four-hour notice to the district office prior to plugging the well. While Railroad Commission guidance suggests operators should call in all plugs, "they are not required to give [the commission] 4 hours necessarily on every plug." The commission asserts that its inspectors currently witness 74% of all operator plugging of wells, It is unclear how the commission achieves this metric given the four-hour notice and current staff to well ratios. For example, landowners who have called in emergencies to the Railroad Commission have noted that the commission took over 12 hours

[25] Herndon, J., and Smith, D. K. Plugging wells for abandonment: a state-of-the-art study and recommended procedures. United States: N. p., 1976. Web. doi:10.2172/7132411.
[26] Khalifeh, Mahmoud. 2020. Introduction to Permanent Plug and Abandonment of Wells. https://link.springer.com/chapter/10.1007/978-3-030-39970-2_4

	to respond. - In 2020, private operators plugged almost 8,900 wells, and have sealed another 5,700 so far in 2021. In 2020, 5,137 operators failed to thoroughly complete plugging, abandonment, and site clearance operations. - The Oil Field Cleanup Program consists of six staff members in Austin and 18 District Office Cleanup Coordinators. The commission contracts out to private firms for state-funded well plugging and site remediation while RRC staff oversee decommissioning activities on site. It is estimated the entire annual program provides employment for just 90 to 100 oil field services workers. It requires between 45-50 days to plug an orphaned well with state-managed funds and between 90-105 days to complete a state-managed cleanup. The State Managed Well Plugging and Cleanup Program plugged 1,477 wells in 2020 and projects to plug 1,400 wells in 2021 and 1,000 wells in 2022. The Texas Sunset Commission has repeatedly identified deficiencies in the commission's contracting procedures, specifically the lack of uniform contracting procedures and the risks of commission staff unwilling to pursue adverse action when necessary.

Issue:

'(f) REPORT TO CONGRESS.—Not later than 1 year after the date of enactment of the Infrastructure Investment and Jobs Act, and not less frequently than annually thereafter, the Secretary **shall** submit to the Committees on Appropriations and Energy and Natural Resources of the Senate and the Committees on Appropriations and Natural Resources of the House of Representatives a report describing the program established and grants awarded under this section, including—

''(1) an updated inventory of wells located on Federal land, Tribal land, and **State** and **private** land that are—

''(A) orphaned wells; or

''(B) at risk of becoming orphaned wells;

''(2) an estimate of the quantities of—

''(A) methane and other gasses emitted from orphaned wells; and

''(B) emissions reduced as a result of plugging, remediating, and reclaiming orphaned wells;

''(3) the number of jobs created and saved through the plugging, remediation, and reclamation of orphaned wells; and

''(4) the acreage of habitat restored using grants awarded to plug, remediate, and reclaim orphaned wells and to remediate or reclaim adjacent land, together with a description of the purposes for which that land is likely to be used in the future.

Commenter Name / Affiliation	**Comment**
Megan Milliken Biven True Transition	- This is a cooperative federalist program. There is a lot of justified debate and discussion on what the federal government can require of the states in exchange for federal grants. With that said, the U.S. Congress has directed the Department of the Interior to inventory a broad collection of

	data. The yearly reports and inventories required of the program grant the Department of the Interior the authority to require the collection of this data both in the application phase of the grants and post expediniture / project completion. The Department of the Interior must meet Congress's mandates in an administratively feasible manner which includes informing states of the obligation to disclose this data. - The only feasible way the Department of the Interior can provide a complete inventory of orphaned and at risk wells is if it requires states to report that data in a single and uniform format with uniform definitions and have a uniform risk classification system. - The only feasible way the Department of the Interior can report on emissions reduced as a result of the program is if the Department of the Interior requires states to measure methane emissions using consistent methodology before and after plugging a well. - The only feasible way the Department of the Interior can report on the number of jobs created and saved as a result of the program is if the Department of the Interior requires states to classify jobs according to a single set of classifications, to conform to a single definition of what constitutes a "saved" job. - The only feasible way the Department of the Interior can report on the acreage of habitat restored using grants and a description of the purposes for which that land is likely to be used in the future is if the Department of the Interior requires states to survey and disclose that data on a per project basis in a uniform manner. - This is another benefit of a single national database. States can simply submit the data through that portal. The program provides an opportunity to combine state well datasets into one national database. Expecting the federal government to navigate 30+ databases to administer the state grant program is inefficient. - We recommend that the US Department of the Interior (DOI) in consultation with the US Geological Survey (USGS) create a new, single, public database of wells on federal, Tribal, state and private lands. The Governmental Accountability Office (GAO) has already advised Interior to combine and update its three oil and gas well data management systems into one, and that recommendation should be broadened to incorporate state and Tribal well data.[27] - H.R. 3684 mandates that the Secretary of Interior "publish on a public website the amount that each State is eligible to receive" and we recommend that the new database is "housed" on this same public website. - If there are states unwilling to submit this information, it is also possible that the Department of the Interior can establish satellite offices within state regulator offices to collect this information directly to fulfill the statutory obligations.

[27]GAO-21-209 Oil and Gas: Interior Should Strengthen Management of Key Data Systems Used to Oversee Development on Federal Lands (May 2021) https://www.gao.gov/products/gao-21-209

Thank you for your time, dedication, and consideration.

Signed,

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