



March 23, 2016

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Sent via email to pocswellstim@anl.gov

Re: Comments on the Draft PEA for Well Stimulation Treatments on the Pacific OCS

Dear Mr. Yarde and Mr. Fish:

These comments on the Bureau of Ocean Energy Management's ("BOEM") and Bureau of Safety and Environmental Enforcement's ("BSEE") draft programmatic environmental assessment ("draft PEA") for well stimulation treatments ("WST") on the Southern California Outer Continental Shelf are submitted on behalf of the Environmental Defense Center ("EDC") and the Surfrider Foundation. The Southern California Outer Continental Shelf currently contains 43 active leases and 22 production platforms, 19 located within the Santa Barbara Channel, and three located offshore Long Beach and northern Orange County.

EDC is a nonprofit environmental law firm that protects and enhances the environment through education, advocacy and legal action. EDC represents itself and other organizations on work related to coast and ocean resources, the Santa Barbara Channel, clean water, open spaces and wildlife, and climate and energy.

The Surfrider Foundation ("Surfrider") is a non-profit grassroots organization dedicated to the protection and enjoyment of our world's oceans, waves and beaches. Surfrider now maintains over 90 chapters worldwide and is fueled by a powerful network of activists.

EDC and Surfrider have reviewed the Draft PEA with the assistance of Blue Tomorrow, LLC ("Blue Tomorrow"), an environmental consulting company that

specializes in assessing environmental impacts from oil and gas operations. This expert consultant has prepared written comments that are attached hereto, and which are incorporated in their entirety. Please ensure that you separately respond to Blue Tomorrow's expert comment letter.

Summary

EDC and Surfrider Foundation appreciate the opportunity to comment on the draft PEA. Our organizations disagree with the draft PEA conclusion, however, that offshore fracking and acidizing from the 22 southern California offshore oil platforms will have no environmental impact. In addition, as we detail in this letter, the draft PEA is legally insufficient under the National Environmental Policy Act ("NEPA") in numerous respects. We strongly encourage BOEM and BSEE to initiate preparation of an Environmental Impact Statement ("EIS") that acknowledges the significant environmental impacts and risks associated with offshore fracking and acidizing, and that provides a more detailed and thorough analysis of those impacts and risks.

Background

The U.S. Department of the Interior ("DOI") recently defined hydraulic fracturing (*aka* 'fracking') as:

involv[ing] the injection of fluid under high pressure to create or enlarge fractures in the reservoir rocks. The fluid that is used in hydraulic fracturing is usually accompanied by proppants, such as particles of sand, which are carried into the newly fractured rock and help keep the fractures open once the fracturing operation is completed. The proppant-filled fractures become conduits for fluid migration from the reservoir rock to the wellbore and the fluid is subsequently brought to the surface. In addition to the water and sand (which together typically make up 98 to 99 percent of the materials pumped into a well during a fracturing operation), chemical additives are also frequently used. These chemicals can serve many functions in hydraulic fracturing, including limiting the growth of bacteria and preventing corrosion of the well casing. The exact formulation of the chemicals used varies depending on the rock formations, the well, and the requirements of the operator.

Department of the Interior, Bureau of Land Management Final Rule: Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands, 80 Fed. Reg. 16,128 (Mar. 26, 2015).

In contrast to fracking, acidizing uses the application of one or more acids, typically hydrofluoric acid and hydrochloric acid, to the well or underground geologic

formation. Reflecting its prevalent use in the state, California became the first state to directly regulate acidizing, as well as fracking, with the enactment of Senate Bill 4 (“SB 4”) in 2014. Under that law, “acid well stimulation treatment” is defined as “the application of one or more acids to the well or underground geologic formation,” which “may be at any applied pressure and may be used in combination with hydraulic fracturing treatments or other well stimulation treatments.” Cal. Pub. Res. Code § 3158 (2014). According to the American Petroleum Institute, acidizing has been used to improve well productivity for many years, and is “one of the most widely used and effective means available for improving the productivity (stimulation) of wells.”¹

In its Findings for SB 4, the California Legislature in 2014 declared that “[i]nsufficient information is available to fully assess the science of the practice of . . . well stimulation treatment technologies in California, including environmental, occupational, and public health hazards and risks,” and accordingly, that “[p]roviding transparency and accountability to the public regarding well stimulation treatments . . . is of paramount concern.” Section 1(b),(c). Last year, an independent scientific study addressing the environmental and public health impacts of fracking and acidizing prepared by the nonpartisan California Council on Science and Technology (“CCST”) pursuant to that law reached a similar conclusion, with the study’s authors stating that “only incomplete information and data exist,” and that “[f]ew scientific studies of the health and environmental impacts of well stimulation have been conducted to date, and the ones that have been done focus on other parts of the country.” CCST, *An Independent Scientific Assessment of Well Stimulation in California: Volume II. Potential Environmental Impacts of Hydraulic Fracturing and Acid Stimulations* at 6 (July 2015). The numerous gaps in information include the “concentration of well stimulation chemicals, their degradation products, and natural constituents mobilized” by fracking and acidizing. *Id.* at 336.

The deficiency of information concerning offshore fracking and acidizing is even more pronounced than their onshore use.² Unlike onshore fracking, DOI has not initiated

¹ API Briefing Paper: Acidizing Treatment in Oil and Gas Operations. Available at: <http://www.api.org/~media/files/oil-and-natural-gas/hydraulic-fracturing/acidizing-oil-natural-gas-briefing-paper-v2.pdf>.

² Indeed, the use of fracking and acidizing off California’s shores was largely unknown to the general public, local elected officials, and cooperating state agencies until less than two years ago, when investigative reporters, and EDC, discovered its use through records obtained under the Freedom of Information Act (“FOIA”), 5 U.S.C. § 552; EDC published its analysis in a report entitled DIRTY WATER: FRACKING OFFSHORE CALIFORNIA, along with policy recommendations directed at BOEM, BSEE, and DOI, including to stop relying on categorical exclusions to approve well stimulation methods, until they have thoroughly studied the impacts and provided for public participation.

a rulemaking or other public process to address the use of offshore fracking and other well stimulation techniques, nor provided the public with any estimates of the prevalence of well stimulation, or the extent of its expected use in the future.

This lack of prior consideration or analysis of offshore fracking and acidizing, combined with a complete lack of transparency into BOEM and BSEE's approval of permits authorizing these activities, led EDC to file a federal lawsuit against the agencies in late 2014 alleging numerous violations of NEPA.

EDC's lawsuit challenged BOEM and BSEE's failure to provide for any public participation or conduct adequate environmental review in connection with the approval of fifty-one specific Applications for Permits to Drill ("APDs") and Applications for Permits to Modify ("APMs") authorizing WSTs. *Environmental Defense Center v. Bureau of Safety and Environmental Enforcement*, No. 2:14-cv-09281 (C.D. Cal. Dec. 3, 2014) (*EDC v. BSEE*). The majority of the challenged APDs and APMs approved acidizing rather than fracking. Specifically, EDC's action challenged BOEM and BSEE's 1) failure to provide for public participation as required by NEPA; 2) unlawful reliance on categorical exclusions despite evidence of significant and cumulative environmental effects; 3) unlawful reliance on categorical exclusions despite extraordinary circumstances; 4) unlawful reliance on categorical exclusions to approve APDs despite lack of applicability; 5) failure to conduct any NEPA analysis for APMs; and 6) unlawful reliance on categorical exclusions for APMs. Complaint at 32–39, *EDC v. BSEE* (No. 1).

In January 2016, EDC reached a settlement agreement with BOEM and BSEE that requires the agencies to prepare a Programmatic Environmental Assessment ("PEA") addressing environmental impacts of offshore well stimulation in federal waters off California, and issue the final environmental review document by May 28, 2016, after a public comment period of at least 30 days. Settlement Agreement, *EDC v. BSEE* (Settlement lodged Jan. 29, 2016, No. 79-1). The settlement requires the agencies to withhold approval of drilling permits authorizing well stimulation pending completion of the PEA. In addition, if the agencies determine during the PEA process that well stimulation may have significant environmental impacts, they must prepare a Programmatic Environmental Impact Statement ("PEIS"). Finally, under the settlement, BSEE must develop an electronic filing and public notification web site for offshore drilling permit applications, and post completed applications to the system within five days. *Id.*

Specific Comments

Purpose and Need

NEPA requires federal agencies proposing actions to “briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” 40 C.F.R. §§ 1502.13, 1508(9)(b); 43 Fed. Reg. 45,983 (1979). The purpose and need statement “is an obvious place for the court to start when analyzing the adequacy of an environmental impact statement [or environmental assessment],” as “[i]t is from this statement that the agency, public, and ultimately, the court may begin to judge whether the agency has fully analyzed the possible impacts of the action and reviewed a reasonable range of alternatives to that action.” *Soda Mountain Wilderness Council v. Norton*, 424 F. Supp. 2d 1241, 1261 (E.D. Cal. 2006).

In defining a purpose and need statement, an action agency must place particular weight on the relevant statutes and other authorities that define its legal duties and responsibilities in relation to the proposed project or program. *Citizens Against Burlington v. Busey*, 938 F. 2d 190, 196 (D.C. Cir. 1991) (“[A]n agency should always consider the views of Congress, expressed, to the extent that the agency can determine them, in the agency’s statutory authorization to act, as well as in other congressional directives.”). Moreover, the definition of a purpose and need statement under NEPA cannot be entirely driven by private party applicants, permittees, or lessees. *See Van Abbema v. Fornell*, 807 F. 2d 633, 638 (7th Cir. 1986) (“the evaluation of ‘alternatives’ mandated by NEPA is to be an evaluation of alternative means to accomplish the general goal of an action; it is not an evaluation of the alternative means by which a particular applicant can reach his goals.”). Accordingly, a purpose and need statement that states a purpose to enact or adopt a private party applicant’s proposal is unlawfully narrow. *National Parks & Conservation Ass’n v. Bureau of Land Management*, 606 F. 3d 1058, 1069-72 (9th Cir. 2010); *Theodore Roosevelt Conservation Partnership v. Salazar*, 661 F. 3d 66, 73 (D.C. Cir. 2011).

The draft PEA fails to meet these legal requirements by including a purpose and need statement that is driven entirely by the desire of oil company lessees to conduct offshore fracking and acidizing. Specifically, BOEM and BSEE incorrectly define the purpose and need statement as “to allow the use of certain WSTs (e.g. hydraulic fracturing) in support of oil production at platforms on the Pacific OCS.” Draft PEA at ES-1.

The legal settlement entered into by EDC with BOEM and BSEE that compelled this programmatic environmental analysis further undermines the notion that the purpose

of the PEA is simply to facilitate offshore WST practices. Settlement Agreement, *EDC v. BSEE* (No. 79-1). As stated in the settlement, the PEA is a central obligation agreed to by the agencies in order to resolve our numerous alleged claims that the agencies have routinely violated NEPA in their issuances of categorical exclusions for offshore fracking and acidizing. Under the settlement, the purpose of the PEA is for the agencies, *for the first time*, to consider the potential environmental impacts of offshore well stimulation, and then based on that analysis, determine whether further offshore well stimulation should be permitted or otherwise authorized. Indeed, BOEM and BSEE agreed that they “will not pre-determine the outcome of this assessment.” The purpose and need statement runs directly afoul of this binding settlement commitment, as well as NEPA’s underlying requirements, by not only presuming that offshore fracking and acidizing can be done safely and in conformance with governing laws, but that BOEM and BSEE have an obligation to promote their use.

Moreover, the overly narrow purpose and need statement does not reflect or acknowledge the requirements of the Outer Continental Shelf Lands Act (“OCSLA”), 43 U.S.C. §§ 1331–1356b, requiring BOEM and BSEE to *balance* oil production with environmental protection, nor does it acknowledge numerous other applicable environmental laws such as the Endangered Species Act, Clean Water Act, and Coastal Zone Management Act. Originally enacted in 1953, the OCSLA reaffirmed federal control over resources on the Outer Continental Shelf (“OCS”), located beyond three nautical miles from a state’s coast. OCSLA requires that oil exploration and production be “balanced with ‘protection of the human, marine, and coastal environments.’” *Natural Resources Defense Council v. Hodel*, 865 F. 2d 288, 292 (D.C. Cir. 1988) (quoting 43 U.S.C. § 1802(1)–(2)). BOEM and BSEE cannot narrowly interpret OCSLA to limit the scope of their NEPA analysis. *See Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1213 (9th Cir. 2008) (quoting *Forelaws on Board v. Johnson*, 743 F.2d 677, 683 (9th Cir.1985)) (“NEPA’s legislative history reflects Congress’s concern that agencies might attempt to avoid any compliance with NEPA by narrowly construing other statutory directives to create a conflict with NEPA. Section 102(2) of NEPA therefore requires government agencies to comply ‘to the fullest extent possible.’”). Although the purpose and need statement does acknowledge that BOEM and BSEE must comply with the OCSLA, the presumption that the agencies shall allow the use of offshore fracking and acidizing puts the cart before the horse, and calls the overall objectivity of the draft PEA into question.

Project Alternatives

Using the purpose and need statement as a foundation, federal agencies are directed under NEPA to “study, develop, and describe alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning

alternative uses of available resources. . . .” 42 U.S.C. § 4332(2)(E). The discussion of alternatives is “the heart” of the NEPA process, and is intended to provide a “clear basis for choice among options by the decisionmaker and the public.” 40 C.F.R. § 1502.14; *Idaho Sporting Congress v. Alexander*, 222 F. 3d 562, 567 (9th Cir. 2000) (compliance with NEPA’s procedures “is not an end in itself . . . [but] it is through NEPA’s action forcing procedures that the sweeping policy goals announced in § 101 of NEPA are realized.”). As purpose and need statements are one of the main engines driving the alternatives analysis within a NEPA document, failure to properly define a project’s purpose and need will in turn preclude proper consideration of a reasonable range of alternatives. *National Parks Conservation Ass’n*, 606 F. 3d at 1072 (“As a result of this unreasonably narrow purpose and need statement, the BLM necessarily considered an unreasonably narrow range of alternatives.”).

Like an agency’s determination of a project’s purpose and need, the range of alternatives may not be entirely driven by a private applicant’s preferences. See *Forty Most Asked Questions Concerning CEQ’s NEPA Regulations*, 48 Fed. Reg. 18,026 (March 16, 1981) (“In determining the scope of alternatives to be considered, the emphasis is on what is ‘reasonable’ rather than on whether the proponent or applicant likes or is itself capable of carrying out the particular alternative. Reasonable alternatives include those that are practical or feasible from a technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.”). The agencies must “rigorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R. § 1502.14.

In this case, BOEM and BSEE impermissibly narrowed the scope of the purpose and need statement, and in turn unlawfully constrained their consideration of alternatives and rendered the draft PEA an empty formality. Although the agencies developed two alternatives that would place some restrictions on the use of offshore fracking and acidizing, by prohibiting the use of fracturing WSTs at depths less than 2,000 feet and prohibiting open water discharge of WST waste fluids, respectively, the agencies inexplicably failed to consider the restrictions together in one alternative, or to otherwise craft a comprehensive alternative that would best preserve the environment in the event that future WST treatments are allowed by the agencies. *Oregon Natural Desert Association v. Bureau of Land Management*, 531 F. 3d 1114 (9th Cir. 2008); *Natural Resources Defense Council v. U.S. Forest Service*, 421 F. 3d 79 (9th Cir. 2005). Additional alternatives that further restrict WSTs would be reasonably related to the project’s proper purpose, which should be whether offshore WST can safely occur, in light of OCSLA’s requirement to balance resource extraction with environmental protection. See *Ctr. for Biological Diversity*, 538 at 1219 (concluding the agency failed to analyze a reasonable range of alternatives, and that a more environmentally protective

alternative was reasonably related to the project's purpose that included energy conservation).

Additionally, and as discussed in more detail below, BOEM and BSEE gave short shrift to the alternatives considered due to their unsupported conclusions that offshore fracking and acidizing will essentially cause no environmental impacts. *See* Draft PEA at 4-60 (“Under Alternative 1, the use of any of the four WSTs included in the alternative is expected to have at most only limited or negligible impacts on potentially affected resources.”); *id.* at 4-71 (“In conclusion, neither the proposed action nor any of the action alternatives are expected to result in more than short-term, localized impacts on the environment.”). This overarching deficiency poisons the adequacy of the entire analysis—in order to take the required “hard look” at a proposed project’s effects as required by NEPA, an agency may not rely on incorrect assumptions or data. 40 C.F.R. § 1500.1(b). It also undermines the adequacy of the alternatives analysis as in essence, BOEM and BSEE have concluded that they need not give any credence to alternatives that would in any manner constrain, condition, or mitigate the impacts of offshore fracking and acidizing based on their arbitrary and capricious assertions that those practices have no impacts to the environment. In relying on inaccurate and unsupported data, the draft PEA runs afoul of NEPA’s mandate that the agencies must “[r]igorously explore and objectively evaluate all reasonable alternatives.” *Sierra Forest Legacy v. Rey*, 577 F. 3d 1015, 1022 (9th Cir. 2009) (*citing* 40 C.F.R. § 1502.14).

Incomplete or Unavailable Information

NEPA’s implementing regulations place specific obligations on agencies considering a proposed action with incomplete or unavailable information. Under those regulations, when there is incomplete or unavailable information regarding potential environmental impacts, the agency shall always make clear that such information is lacking. 40 C.F.R. § 1502.22. As stated by the Ninth Circuit, “general statements about ‘possible effects’ and ‘some risk’ do not constitute a ‘hard look’ absent a justification regarding why more definitive information could not be provided.” *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1213 (9th Cir. 1998) (internal citations omitted). Instead, an “agency must generally prepare an EIS if the environmental effects of a proposed agency action are highly uncertain . . . [and] where uncertainty may be resolved by further collection of data, or where the collection of data may prevent speculation on potential effects.” *National Parks*, 241 F. 3d at 731; *see also* *Sierra Club v. United States Forest Serv.*, 843 F. 2d 1190, 1195 (9th Cir. 1988) (“The purpose of an EIS is to obviate the need for speculation by insuring that available data are gathered and analyzed prior to the implementation of the proposed action.”).

In this instance, the draft PEA suffers from missing information and numerous data gaps, many pertaining to the most concerning and contentious aspects of offshore well stimulation, including the toxicity of chemicals utilized in the process, as well as the impact of those chemicals on the natural environment, including water quality, threatened and endangered species, and human health.

Illustrating these significant gaps in knowledge, the CCST Study cited extensively throughout the draft PEA used the word “unknown” 87 times in Volume II, which addresses potential environmental impacts. The study further notes that as many as 100 chemicals used in WST have “completely unknown materials.” CCST, Volume II at p. 81. Other fundamental information gaps noted in the study include the amount of frack fluid that returns to the surface and how much remains underground. In addition, as the CCST Study notes, “discharges are not monitored for constituents specific to or indicative of hydraulic fracturing, and the timing of sampling is unlikely to coincide with or measure any potential impacts from well stimulation treatments.” *Id.* at p. 103.

The lack of study and information in relation to acidizing techniques is even more pronounced than in relation to fracking. As noted in a recently issued study of acidizing in California, “[w]hile researchers have begun exploring the potential impacts of hydraulic fracturing more seriously, impacts from acidizing are not being examined as closely. It is important that acidizing be a bigger part of the discussion to protect the public and environment from potential harm.” Khadeeja Abdullah, Timothy Malloy, Michael K. Stenstrom & I.H. Suffet (2016): *Toxicity of acidization fluids used in California oil exploration*, Toxicology & Environmental Chemistry.³

As further discussed in detail in that study, there are close to 200 specific chemicals used in acidizing, with at least 28 of those chemicals being “F-graded” (known carcinogens, mutagens, reproductive toxins, developmental toxins, endocrine disrupters, or high acute toxicity chemicals), including hydrofluoric acid, xylene, diethylene glycol, and ethyl benzene. Moreover, almost 90 additional chemicals used in the acidizing process cannot even be identified by a specific name, due to trade secret protections. These enormous gaps in knowledge are compounded by the fact that acidizing relies on chemical concentrations that greatly exceed those used in fracking (6-18% vs. 0.5 %), and relies heavily on hydrofluoric acid, which has “very high acute mammalian toxicity and neurotoxicity.”

In addition, Blue Tomorrow identified specific data gaps in the draft PEA that render a realistic assessment of impacts impossible without more data and analysis.

³ Available online at: (<http://dx.doi.org/10.1080/02772248.2016.1160285>). This study is attached and should be added to the administrative record for the PEA process and decision.

Specifically, the draft PEA's discharge toxicity analysis is inadequate because it contains a significant data gap regarding the composition of flowback fluids. Blue Tomorrow Expert Letter at 1 ("During WSTs additional constituents are being mobilized from the formation and their chemistry and toxicity are unknown. Quantifying the risk from discharging these fluids is not possible without this information."). In addition, the draft PEA completely lacks direct evidence on the impacts of discharges of WST flowback fluids on the marine environment. *Id.* at 2 ("As a result of the absence of scientific studies of impacts to the marine environment from WST waste discharges, the EA evaluation is insufficient to support the conclusion that no WST-related impacts to ecological resources are expected to occur."). Moreover, "only a fraction of chemicals had toxicity data for marine organisms (26 of the 33 chemicals screened in the hydraulic fracturing fluid; and 5 of the 17 chemicals screened in the acidizing case study)." *Id.* at 3. The draft PEA fails to adequately acknowledge these numerous and fundamental data gaps and missing information, and consequent uncertainty regarding environmental impacts. In any event, even if acknowledged, these gaps are so significant to compel preparation of an EIS.

Direct Environmental Effects

As noted above, under the *Environmental Defense Center v. Bureau of Safety and Environmental Enforcement*, Case No. 2:14-cv-9281 (C.D. Cal.) settlement agreement, BOEM and BSEE agreed to prepare a PEA. The agreement further specifies that the PEA "will result in a determination that either an [EIS] and Record of Decision (ROD) is required or a Finding of No Significant Impact (FONSI) is appropriate," and further, that the agencies "will not pre-determine the outcome of this assessment to require one product or the other before the analysis in the programmatic EA is complete."

This settlement language conforms with NEPA and its implementing regulations. When a federal agency is not certain whether an EIS is required, it must prepare an environmental assessment ("EA"). 40 C.F.R. § 1508.9. If the agency concludes in an EA that a project may have significant impacts on the environment, then an EIS must be prepared. 40 C.F.R. § 1501.4. If an EA concludes that there are no significant impacts to the environment, the federal agency must provide a detailed statement of reasons why the project's impacts are insignificant and issue a "finding of no significant impact" ("FONSI"). 40 C.F.R. § 1508.13.

In determining whether a proposed action may significantly affect the environment, NEPA requires that both the context and intensity of that action be considered. 40 C.F.R. § 1508.27. In considering context, "[s]ignificance varies with the setting of the proposed action." *Id.* § 1508.27 (a). Consideration of intensity, on the other hand, "refers to the severity of the impact," including impacts on "[u]nique

characteristics of the geographic area such as proximity to park lands . . . wetlands . . . or ecologically critical areas,” “[t]he degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration,” and “[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts.” *Id.* § 1508.27(b). The courts have repeatedly emphasized that “[t]he presence of one such factor may be sufficient to deem the action significant.” *Nat’l Parks & Conservation Ass’n v. Babbitt*, 241 F. 3d 722, 731 (9th Cir. 2001); *Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F. 3d 846, 864–65 (9th Cir. 2005) (EA and FONSI inadequate when agency fails to prepare adequate cumulative impacts analysis).

In the draft PEA, BOEM and BSEE analyze the following categories of potential environmental impacts: air quality (including greenhouse gas emissions); water quality; geologic resources/seismicity; benthic resources; marine and coastal fish and essential fish habitat; marine and coastal birds; marine mammals; sea turtles; commercial and recreational fisheries; areas of special concern; recreation and tourism; environmental justice; and archeological resources. Draft PEA at ES-7. Almost without exception, BOEM and BSEE conclude that the proposed action Alternative 1 to allow use of offshore fracking and acidizing will result in “no WST-related impacts expected.” Draft PEA at ES-11 and ES-12 (Table ES-1). Only with respect to water quality (“slight localized reduction in water quality at surface water discharge location”), induced seismicity (“low potential”), and marine fish and wildlife (“potential for subtle toxic effects in some species from some WST chemicals occurring within the NPDES discharge mixing zone from discharges of WST waste fluids to surface water”) do BOEM and BSEE acknowledge *any* potential environmental impacts from offshore fracking and acidizing.

As illustrated in detail below, these analyses are inadequate under NEPA, and lack scientific and analytical integrity. Because the direct, indirect, and cumulative impacts of offshore well stimulation within the California OCS plainly may result in significant environmental impacts, BOEM and BSEE must now prepare a draft EIS to comply with NEPA’s requirements and the *Environmental Defense Center v. Bureau of Safety and Environmental Enforcement* settlement agreement.

Unsupported and Inconsistent Assumption of Infrequent Use of WSTs

As a threshold matter, BOEM and BSEE improperly based their no impact determinations on the unsupported presumption that WSTs have been and will continue to be “infrequent activities.” *See, e.g.*, Draft PEA at 4-31; *id.* at 4-60 (“Under Alternative 1, the use of any of the four WSTs included in the alternative is expected to have at most only limited or negligible impacts on potentially affected resources.”). BOEM and BSEE

fail to provide any meaningful evidence for their assertion that offshore fracking and acidizing will only be infrequently used.

Notably, this conclusion has been undermined by the oil industry, which has consistently stated that it will not foreclose the use of WSTs in the future. In fact, the oil industry has clearly stated both specific plans, and general intentions, to continue well stimulation practices offshore California in the future. *See, e.g.*, Ken Dowd Declaration in Support of ExxonMobil Corporation's Motion for Leave to Intervene at 5, *EDC v. BSEE*, (No. 19-3) (“[W]ithin the next few months, ExxonMobil intends to apply in 2015 for an additional SPD in the SYU to drill a new well from the Harmony platform, which entails activities involving well stimulation technologies, including the pumping of acid to increase crude oil production from the new well.”); *id.* at 6 (“In addition, ExxonMobil currently intends to invest substantially in its SYU leases for many years into the future. In the ordinary course of its operations, ExxonMobil will continue to evaluate and generate new opportunities to develop the SYU leases including but not limited to the drilling of new wells and stimulation of new and existing wells.”); Notice of Motion and Motion for Leave to Intervene on Behalf of Defendant-Intervenor ExxonMobil Corporation, Memorandum of Points and Authorities at 1, *EDC v. BSEE*, (No. 19) (“ExxonMobil has future exploration and development plans for its substantial investments in offshore leases in the Pacific region that potentially involve well stimulation.”); Declaration of Erik Milito in Support of the Motion to Intervene of American Petroleum Institute at 5, *EDC v. BSEE*, (No. 15-1) (referring to “future offshore plans of API members involving well stimulation methods”).

The oil industry also claims that an injunction of WST would have a significant impact on its leases and interests, which undermines any assumption that the practice is likely to be infrequent. ExxonMobil Motion to Intervene at 6 (“The requested relief would have a significant detrimental impact on ExxonMobil’s property, regulatory, and economic interests in its Santa Ynez Unit leases and permits. Specifically, the relief sought would enjoin the APDs and APMs upon which ExxonMobil has relied in continuing its oil and gas operations in its Santa Ynez Unit leases and enjoin work still left to be done under challenged permits. The relief sought would prevent ExxonMobil from implementing development activities under additional permits it has already obtained, and bring a halt to further exploration and development on ExxonMobil’s investments in its offshore leases in Santa Barbara.”); Milito Decl. at 5 (“API’s members are directly affected by the Complaint’s challenge both to permits already obtained by (or operated by) API’s members on the California OCS, and to all pending and future offshore plans of API members involving well stimulation methods.”). Moreover, industry openly relies on WST in order to facilitate development and production, which only indicates such practices are necessary to continue drilling on offshore platforms, and therefore likely to continue occurring. Motion to Intervene of American Petroleum

Institute at 9, *EDC v. BSEE* (No. 15) (“In addition, API members broadly rely on occasion on well stimulation technologies, including hydraulic fracturing and acidizing, to facilitate oil and gas exploration, development, and production throughout the federal OCS.”).

In addition, and as discussed in more detail below, the assumption of infrequent WST use is directly at odds with other statements made throughout the draft PEA that the use of offshore fracking and acidizing, as well as other enhanced oil recovery techniques, is allowing the oil industry to produce oil and gas from previously inaccessible reserves, and is perpetuating the life of offshore oil platforms beyond their previously estimated life span.

Unlawful Reliance on Analysis for NPDES Revision

Another overarching and defining failure of BOEM and BSEE’s analysis of direct environmental impacts is that several sections of the environmental impacts discussion improperly rely on the EPA California OCS National Pollution Discharge Elimination System (“NPDES”) General Permit as a basis for its no impact conclusions. For example, in the discussion of marine mammal impacts, BOEM and BSEE state that no impacts would occur based on the EPA analysis associated with its recent revision of that permit. Draft PEA at 4-46. However, a non-NEPA document cannot satisfy a federal agency’s obligations under NEPA. *Klamath-Siskiyou Wildlands Center v. Bureau of Land Management*, 387 F. 3d 989, 998 (9th Cir. 2004) (rejecting as “without merit” arguments that an agency may excuse itself from its NEPA hard look duty where a “facility operates pursuant to a state permit under the Clean Air Act.”); *South Fork Band Council v. Dept. of Interior*, 588 F. 3d 718, 726 (9th Cir. 2009); *Makua v. Rumsfeld*, 163 F. Supp. 2d 1202, 1217 (D. Haw. 2001). Under NEPA, BOEM and BSEE must conduct their own independent environmental analysis.

Water Quality

The Draft PEA fails to adequately assess the impacts of WST discharges on water quality. As noted above, the analysis suffers a critical information gap regarding the composition of flowback fluids as opposed to injection fluids. It instead attempts to estimate impacts based on chemical concentrations in injection fluids and dilution of produced waste water, which provides no insight into impacts of flowback fluids. As Blue Tomorrow demonstrates, the composition of flowback fluid is distinct from injection fluid. Blue Tomorrow Expert Letter at 1-2 (“WST fluids prior to injection likely have substantially different chemistry and constituent concentrations than flowback fluids after a WST. During these treatments heavy metals, organics, and radioactive material can be mobilized from the formation, by chemicals in the injection fluid or by

the fracturing of the target formation, and mixed with the flowback fluids.”). Specifically, flowback fluids are likely to contain additional pollutants and pose additional impacts, especially in the acidizing context. *Id.* at 2 (“[A]cid treatments (matrix acidizing, acid fracturing, and acid maintenance) use high concentrations of very strong acids such as HCL and HF acids to dissolve scaling and clogging of the well bore, and to dissolve the formation rock itself to increase connectivity and permeability within the formation to increase production. After the acid treatment fluids return to the surface, they can contain very high levels of dissolved solids and heavy metals and have been reported to have pH in the range of 0 to 3.). These pollutants are “not present in injection fluids,” *id.*, rendering the agencies’ analysis of impacts of WST discharges based on injection fluids inadequate.

Moreover, the agencies’ provide no direct evidence to conclude that WST discharges have no impacts on ecological resources. Their reliance on the CCST study is insufficient, which itself acknowledges a lack of data. *Id.* at 2 (“The 2015 CCST assessment includes literature review of studies of ecological conditions and contamination in the marine environment around California offshore platforms, and laboratory investigation of the toxicity of produced water discharges on the marine environment. However, the EA does not include direct evidence to support the determination that no ecological resources will be effected by the discharge of WST flowback fluids.”).

The Draft PEA acknowledges there is a “lack of toxicity data for many constituents of WST fluids.” Draft PEA at 4-30. However, it fails to sufficiently address this data gap, or provide adequate information to meaningfully address impacts of WST discharges on the marine environment. Blue Tomorrow Expert Letter at 3 (“[T]he information cited in the EA regarding the eco-toxicity of chemicals found in WST stimulation fluids is insufficient to justify that there is no potential to impact ecological resources.”). The agencies should instead determine “[a]cute and chronic toxicity data for well stimulation chemicals, as well as chemicals identified in flowback fluids that may be discharged to the ocean” in order to evaluate impacts. *Id.* (quoting CCST 2015 at 103).

In addition, the Draft PEA fails to sufficiently address whole effluent toxicity (“WET”). As Blue Tomorrow explains, while some analysis was conducted as to “individual toxic effects” of WST fluids, “[t]here are both cumulative and interaction (or synergistic) affects that should be considered in assessing the toxic effects of a fluid with multiple toxic constituents.” *Id.* The Draft PEA simply fails to conduct this analysis. The WET testing performed under the NDPES General Permit is inadequate because it is not timed with WST discharges and is performed infrequently. *Id.* (“However, WET testing is performed quarterly, and will likely not capture the toxicity effects of from

WST fluid discharges, as “the timing of WET tests is not linked to well stimulation events in the NPDES permit” (CCST 2015, page 71). Furthermore, if results from WET tests indicate no observable effects, the testing frequency is reduced from quarterly to annual WET tests (NPDES CAG280000 2013). Due to the infrequency of WET testing and its lack of linkage with WST discharges, the EA’s assumption that previous results from WET testing in the OCS has not demonstrated impacts from WST operations is flawed.”). Therefore, the Draft PEA is inadequate for its failure to address potentially significant impacts to water quality.

The Santa Barbara Channel, Protected Lands and Waters, and Endangered Species

As noted above, the “context” of a proposed action is one of two key factors in determining “significance” of environmental impacts and the requirement to prepare an EIS. Context “means the significance of the action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality.” 40 C.F.R. § 1508.27(a). The “context” of a proposed action will often also have significant overlap with the “intensity” factors enumerated under CEQ’s regulations, including the presence of threatened and endangered species, ecologically important areas, and other considerations.

In this case, the environmental setting, or context, of offshore oil drilling in Southern California federal waters generally, and the use of WST in particular, further undermines BOEM and BSEE’s blanket determination of no or *de minimus* environmental impacts in the draft PEA. In particular, the large majority of California’s offshore oil platforms in federal waters are located in the Santa Barbara Channel. As detailed in our 2013 “Dirty Water” report,⁴ the Santa Barbara Channel harbors extraordinary biological diversity, so much so that it is dubbed “the Galapagos of North America.” Blue, fin, and humpback whales, and the southern sea otter are among the threatened and endangered species that depend on the Channel for their survival and recovery.

Reflecting this environmental importance, many of the waters and islands of the Santa Barbara Channel are specially designated and protected, including the Channel Islands National Park and Channel Islands National Marine Sanctuary. Specific platforms from which WST has been conducted are in direct proximity to these protected zones. The Santa Clara Unit (platforms Gail and Gina in particular), for example, lies in close proximity to the Marine Sanctuary boundaries, while platforms A, B, and C are

⁴ Brian Segee & Elise O’Dea, *Dirty Water: Fracking Offshore California*, (2013), Available at <http://www.environmentaldefensecenter.org/wp-content/uploads/2015/03/DirtyWater.pdf>

directly adjacent to the Santa Barbara Channel Federal Ecological Preserve. In addition, the Channel is home to a network of state and federal Marine Protected Areas (“MPAs”). There are thirteen MPAs at the Channel Islands and five along the mainland coast from Point Conception to the Goleta Slough.

The Channel, as well as the waters off Long Beach and the northern Orange County coastal cities of Huntington Beach and Seal Beach, also serves as a primary economic engine for southern California tourism, fisheries, and other industries. For example, the commercial fishing industry in Santa Barbara alone generated over \$11 million on average in annual earnings between 1980 and 2013. Lisa Wise Consulting, Inc., *Commercial Fisherman of Santa Barbara, 2014 Commercial Fisheries Economic Impact Report* at 2 (April 2015). In 2013, Santa Barbara had the highest earnings in the state of California with respect to seven species, including: the red sea urchin, California spiny lobster, red rock crab, yellow rock crab, giant red sea cucumber, white seabass, grass rockfish. *Id.* at 3–4. Working waterfronts also attract tourism. *Id.* at 4.

The threat posed by offshore drilling to the local economy was recently vividly illustrated by the failure of Plains All-American Pipeline LLP, Line 901 at Refugio State Beach. Key fishing areas were closed from Cañada de Alegria to Coal Oil Point up to 6 miles offshore, and two popular state beaches, Refugio and El Capitan, were closed during a busy holiday weekend, and remained closed for over a month. Six class action lawsuits were filed in response to the spill on behalf of members of the fishing and tourism industries, platform workers, and property owners. *See Consolidated Complaint, Stace Cheverez v. Plains All American Pipeline, LP*, 2:15-cv-04113 (C.D. Cal. Dec. 15, 2015). These lawsuits demonstrate that the risks associated with offshore oil result in considerable economic harm. *Id.* at 11 (“In Santa Barbara, these environmental impacts translate to profound economic impacts. In the short term, the oil from Defendants’ ruptured pipeline closed fishing grounds and shellfish areas, and caused many cancelled reservations from tourists who otherwise would have spent their money on hotels, restaurants, kayaking or surf trips, fishing charters, and in the region’s retail stores.”).

While the extent of economic damage is still being calculated, a handful of examples illustrate just the beginning of damages that were suffered. *Id.* at 26 (a community seafood company reported 350 cancelled seafood shares, resulting in over \$6,5000 revenue loss in just the one week following the spill); *id.* at 42 (fishing company reported that its squid fishing can generate up to \$30,000 in a single night, and the spill resulted in closures of squid fishing areas on which the company relies); *id.* at 11 (kayaking company reported 25 cancellations following the spill, resulting in a loss of approximately \$3,000).

Under NEPA, the concentrated presence of threatened and endangered species, proximity to protected areas such as the Channel Islands National Park and National Marine Sanctuary, and overall centrality of the Santa Barbara Channel to the daily fabric of its coastal communities, our economies, and overall way of life are a central factor to consider in deciding whether to prepare an EIS. In areas such as the Santa Barbara Channel, even allegedly “minimal” environmental risks can be considered significant enough to compel the need for an EIS.

In the draft PEA, BOEM and BSEE mention the presence of these areas, but fail to adequately acknowledge the unique environmental, economic, and social importance of the Santa Barbara Channel, the risks posed to the Channel by offshore fracking and acidizing, and the avenues to avoid or minimize those risks. This deficiency is further underscored by the fact that the Ninth Circuit Court of Appeals has already specifically recognized the importance of this environmental context in relation to OCS oil and gas production offshore California. *California v. Norton*, 311 F. 3d 1162, 1176–77 (9th Cir. 2002) (finding substantial evidence of extraordinary circumstances including the potential adverse impacts on threatened and endangered species including the southern sea otter; the potential adverse effects on ecologically significant or critical areas including the Channel Islands National Marine Sanctuary; and the existence of highly controversial environmental effects of offshore oil drilling).

Public Controversy

Oil drilling offshore California generally, and the use of offshore fracking and acidizing in particular, also has “highly controversial environmental effects.” *See id.* §46.215(c); *Norton*, 311 F.3d at 1177 (“That there has been continuous and significant public controversy over the environmental effects of offshore oil activities in California for the past thirty years, and that there is significant public controversy over these lease extensions in particular is beyond debate.”). Offshore drilling in the Santa Barbara Channel has been highly controversial since it was first proposed many decades ago, and the controversy has not abated in light of numerous spills and other accidents in the region, including the 1969 Santa Barbara oil spill and 2015 Refugio State Beach oil pipeline spill. Well stimulation in the Santa Barbara Channel has only further added to the continuing public controversy, and continued local, regional, and national public debate.

Indirect Impacts

CEQ NEPA regulations require agencies to consider the indirect effects of a proposed action, also known as secondary impacts. Indirect effects are defined as those “which are caused by the action and are later in time or farther removed in distance, but

are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b); *Border Power Plant Working Group v. Department of Energy*, 260 F. Supp. 2d 997 (S.D. Cal. 2003). As acknowledged in the draft PEA, “[a]dvances in WSTs and the availability of enhanced oil recovery (EOR) techniques have allowed for continued production from onshore and offshore reservoirs where primary recovery has begun to decline as a result of declining reservoir pressures . . . The use of WSTs may support the continued recovery of oil as primary recovery declines with the 43 active lease areas.” Draft PEA at 1-3-1-4. Despite this acknowledgment, BOEM and BSEE neglect to consider the associated environmental impacts and risks associated with extending the life of aging offshore oil platforms beyond their intended life span.

For example, DOI estimated that Platforms Gina and Gina, located off the City of Oxnard’s coastline, would together produce 52 million barrels of crude oil and 42 billion cubic feet of natural gas over a period of approximately 20 years. *See* Platform Gilda and Platform Gina Project Environmental Impact Report/Environmental Assessment, Volume I (May 1980) (Prepared by City of Oxnard and U.S.G.S.), at p. 3.1-2; *id.* at Figure 3.5-1 (anticipated production schedule for Platform Gina); *id.* at Figure 3.5-2 (Anticipated Production Schedule for Platform Gina—Repetto Formation). Platform Gina’s estimated lifespan was even more brief, at only 18 years. *Id.* at p. 4.3-9. The analysis contained no consideration of the use of offshore fracking and acidizing, but did estimate that development of the Monterey Foundation could extend the life of Platform Gilda by an additional 5 years.

Platform Gina was installed in 1980, 36 years ago, while Platform Gail was installed in 1987, 29 years ago. Draft PEA, at Table 3-1. Thus, both are already operating well beyond the estimated life span and the 20 year environmental analysis associated with that assumption. WST would only increase this life span further of these and other Southern California OCS production platforms, and yet BOEM and BSEE have never addressed the increased environmental impacts and risks associated with this extension, or determined whether the obvious design and engineering issues associated with reliance on this aging infrastructure.

Cumulative Impacts

One of the ten factors agencies must consider when assessing significance is “whether the action is related to other actions with individually insignificant but cumulatively significant impacts.” 40 C.F.R. § 1508.7. A cumulative impact on the environment “results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency . . . or person undertakes such actions.” *Id.* Courts have thus consistently held that NEPA’s cumulative effects requirements apply to EAs as well as EISs. *See Kern v. United States*

Bureau of Land Management, 284 F.3d 1062, 1076 (9th Cir. 2002) (“[A]n EA may be deficient if it fails to include a cumulative impact analysis or to tier to an EIS that has conducted such an analysis.”); *Grand Canyon Trust v. F.A.A.*, 290 F.3d 339, 347 (D.C. Cir. 2002), as amended (Aug. 27, 2002). As stated in that case, “the consistent position in the case law is that, depending on the environmental concern at issue, the agency’s EA must give a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum.” *Id.* at 342.

Here, however, BOEM and BSEE have failed to adhere to this basic NEPA principle, and thus undermined one of the fundamental purposes of NEPA review, “to insure that the agency considers all possible courses of action and assesses the environmental consequences of each proposed action.” *Sierra Club v. Peterson*, 717 F.2d 1409, 1414 (D.C. Cir. 1983). A searching inquiry into potential cumulative effects in this instance is particularly imperative in light of: (1) the extensive existing oil and gas infrastructure and operations already present in the Santa Barbara Channel and off the Long Beach and northern Orange County coastline; (2) the fact that the well stimulation is acknowledged to facilitate yet more oil and gas operations that would otherwise not occur; and (3) the extraordinary natural habitats and wildlife species within the Santa Barbara Channel.

The draft PEA does not provide any insight into the past, present, and reasonably foreseeable actions that would help portray a “realistic evaluation of the total impacts” of the proposed action. *Grand Canyon Trust*, 290 F.3d at 342. The draft PEA includes “cumulative impacts” sections with respect to each alternative in which it purports to address “past, current, and reasonably foreseeable future activities” of the action. However, the analysis is “conclusory” and “vague” and thus inadequate under NEPA. See *Te-Moak Tribe of W. Shoshone of Nevada v. U.S. Dep’t of Interior*, 608 F.3d 592, 603 (9th Cir. 2010); *Lands Council v. Powell*, 379 F.3d 738, 745 (9th Cir. 2004) (NEPA analysis “must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment.”); *Grand Canyon Trust*, 290 F.3d at 342 (quoting *Coalition for Sensible Transportation v. Dole*, 826 F.2d 60, 70–71 (D.C. Cir. 1987)) (“it makes sense to consider the ‘incremental impact’ of a project for possible cumulative effects by incorporating the effects of other projects into the background ‘data base’ of the project at issue.”).

For example, with respect to Alternative 1, the draft PEA lists “past, current, and reasonably foreseeable future activities” that contribute to cumulative impacts, as including “oil and gas development and production activities in Federal and State waters as well as onshore; runoff from onshore industries, agriculture, transportation (fossil fuel combustion products), urban development, and sewage treatment plant discharges;

commercial and recreational fishing; commercial and recreational vessel traffic; and recreation and tourism.” Draft PEA at 4-60. It notes, in one general sentence, that these activities may impact certain resources including air and water quality. Based on this conclusory statement, the draft PEA then jumps to the conclusion that because the expected use of WSTs is likely to have “negligible impacts” that are “temporary, localized . . . and infrequent,” Alternative 1’s impacts “are not expected to result in any measurable increases in cumulative effects on resources or socioeconomic/sociocultural conditions of the project area.” *Id.* The remaining cumulative impacts analysis largely relies on the analysis for Alternative 1, and is even more cursory. Draft PEA at 4-62, 4-63, 4-66–67.

This summary conclusion does not include the detailed information that NEPA requires, leaving the public in the dark as to the true impacts of the action. *Neighbors of Cuddy Mountain v. United States Forest Service*, 137 F.3d 1372, 1379 (9th Cir. 1998) (“To ‘consider’ cumulative effects, some quantified or detailed information is required. Without such information, neither the courts nor the public, in reviewing the [agency’s] decisions, can be assured that the [agency] provided the hard look that it is required to provide.”). Even a conclusion that there are no cumulative impacts must be supported by more detail than the draft PEA provides. See *Klamath-Siskiyou Wildlands Ctr.*, 387 at 996. In addition, this analysis improperly hinges on the unfounded assumption of negligible direct impacts, without actually analyzing cumulative impacts. *Te-Moak Tribe*, 608 F.3d at 604 (“The EA’s discussion of the [action’s] direct effects in lieu of a discussion of cumulative impacts is inadequate.”).

As a specific example of inadequate cumulative effects analysis, the EA fails to analyze impacts associated with oil infrastructure, including pipelines, processing plants and the risk of oil spills. The Refugio Oil Spill is an example of the extent of such potential impacts. On May 19, 2015, the Plains All-American Pipeline 901 suffered a massive leak, due to external corrosion, resulting in over 140,000 gallons of crude spilling from onshore Gaviota Coast, onto the beach and into the ocean. Pipeline and Hazardous Materials Safety Administration, *Preliminary Findings Report: Plains Pipeline, LP, Failure on Line 901* (Feb. 17, 2016). The spill resulted in hundreds of dead birds and mammals and more injured, 150 miles of coastline contaminated, two State parks closed, and 138 square miles of fishing grounds closed. Pipeline 901 delivers crude that originates from seven offshore oil platforms in the Channel, including from Platforms Heritage, Harmony and Hondo (operated by ExxonMobil); Hidalgo, Harvest and Hermosa (operated by Freeport McMoran); and Holly (operated by Venoco). Offshore WST is known to occur on at least three of these platforms. Offshore WST enhances production and extends the life of offshore oil platforms, necessitating continued operation of oil infrastructure, and posing additional threats. The draft PEA

fails to analyze the impacts of existing and future oil infrastructure or assess the incremental impacts of WSTs.

In addition, the draft PEA does not contain any meaningful information regarding the extent of “routine” acidizing, and the estimated impacts on the environment this practice may have. BOEM and BSEE apparently consider essentially all treatments using acid to be “routine,” as the draft PEA states that only two matrix acidizing treatments were conducted on the California OCS between 1985 and 2011, and that “the rest would be currently classified as routine well maintenance treatments.” Draft PEA, at p. ES-8; p. 4-3. This information appears to conflict with information EDC has compiled through its own review of BSEE records obtained through FOIA, including specific permits that were challenged in our lawsuit. *See, e.g.* Jan. 3, 2011 APM at Platform Harmony (authorizing “acid stimulate” with 17,000 gallons 15% HCL and 26,000 gallons 12-3 mud acid (12% HCL + 3% HF); March 22, 2013 APM at Platform Harmony (authorizing “acid stimulate” with 75,000 gallons 15% HCL); December 2, 2013 APM at Platform Gilda (authorizing “acid stimulation”). Whatever label is ascribed to the practices authorized under these permits, their use should have been considered in the cumulative impacts analysis and was not.

Compounding BOEM and BSEE’s inadequate cumulative impacts analysis is the bizarre contention that alternative 4, which would prohibit WST, will have greater impacts than the use of offshore fracking and acidizing, based on the baseless contention that it “may necessitate the drilling and production of new wells offshore and/or onshore, increase WST use at onshore wells, and/or increase the need to import more gas and oil.” Draft PEA, at p. 4-67. Notably, BOEM and BSEE fail to provide any support for this conclusion. Moreover, this statement once again highlights the unsupported presumption permeated throughout the draft document that offshore fracking and acidizing will have no impacts. Only by mischaracterizing, discounting, and willfully ignoring these local impacts, can BOEM and BSEE even consider claiming that prohibiting their use will actually result in greater environmental impacts.

Preparation of an EIS is Required

An EIS “must be prepared if substantial questions are raised as to whether a project may cause significant degradation of some human environmental factor.” *Klamath Siskiyou Wildlands Center v. Boody*, 468 F.3d 549, 562 (9th Cir. 2006). “[A] plaintiff need not show that significant effects will in fact occur, but if the plaintiff raises substantial questions whether a project may have a significant effect, an EIS must be prepared.” *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1150 (9th Cir. 1998). “This is a low standard.” *Klamath Siskiyou*, 468 F.3d at 562.

The [agency] cannot avoid preparing an EIS by making conclusory assertions that an activity will have only an insignificant impact on the environment. *Alaska Ctr. for Env't v. United States Forest Serv.*, 189 F.3d 851, 859 (9th Cir. 1999). If BOEM and BSEE opt not to prepare an EIS, the agencies must put forth a “convincing statement of reasons” that explain why the project will impact the environment no more than insignificantly. *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998). This account proves crucial to evaluating whether the agencies took the requisite “hard look” at the potential impact of offshore fracking and acidizing.

Thus, in this case, the agency’s failure to fully review all direct, indirect, and cumulative impacts renders the draft PEA deficient. As such, BOEM and BSEE cannot issue a FONSI. Without the required review under NEPA, any decision not to prepare an EIS is without sufficient evidentiary support.

Endangered Species Act (“ESA”)

The ESA is “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.” *TVA v. Hill*, 437 U.S. 180 (1978). Its fundamental purposes are “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved [and] to provide a program for the conservation of such endangered species and threatened species” 16 U.S.C. § 1531(b). To achieve these objectives, the ESA directs the U.S. Fish and Wildlife Service (“FWS”) or National Marine Fisheries Service (“NMFS”) to determine which species of plants and animals are “threatened” and “endangered” and place them on the endangered species list. *Id.* § 1533. An “endangered” or “threatened” species is one “in danger of extinction throughout all or a significant portion of its range,” or “likely to become endangered in the near future throughout all or a significant portion of its range,” respectively. *Id.* § 1532(6) & (20).

Once a species is listed, the ESA provides a variety of procedural and substantive protections to ensure not only the species’ continued survival, but its ultimate recovery. One central protection, section 7(a)(2), mandates that all federal agencies avoid actions that: (1) jeopardize listed species; or (2) destroy or adversely modify designated critical habitat. *Id.* § 1536(a)(2). To comply with these section 7(a)(2) safeguards, the federal agency taking action and FWS take part in a cooperative analysis of potential impacts to listed species and their designated critical habitat known as a consultation process. Federal agencies must consult with FWS or NMFS when their actions “may affect” a listed species or designated critical habitat. 50 C.F.R. § 402.14(a). Federal agency actions include those projects “authorized, funded, or carried out by such agency.” *Id.* “Action area” is defined broadly under the ESA implementing regulations to include “all areas to be affected directly or indirectly by the Federal action and not merely the

immediate area involved in the action.” 50 C.F.R. § 402.02.

To facilitate the consultation process, the federal agency proposing a project must prepare a “biological assessment,” or BA, which identifies listed species in the area and evaluates the potential effects of the proposed action. *Id.* §§ 402.02, 402.12. At the completion of consultation, FWS or NMFS prepares a “biological opinion” as to whether the action jeopardizes the species or destroys or adversely modifies critical habitat and, if so, suggests “reasonable and prudent alternatives.” 16 U.S.C. § 1536(b)(3)(A). Both agencies must “use the best scientific and commercial data available” during the consultation process. *Id.* § 1536(a)(2); 50 CFR § 402.14(d).

As described in detail above, BOEM and BSEE have concluded in the draft PEA that the use of offshore fracking and acidizing will have no impacts, including impacts on the many threatened and endangered species found in the Santa Barbara Channel, as well as at the Long Beach platforms. The draft PEA states that the development of the EA “will facilitate DOI meeting other environmental requirements *related to future authorizations*, such as Endangered Species Act, Marine Mammal Protection Act, and Coastal Zone Management Act requirements.” Draft PEA, at p. 1-5. Accordingly, it appears that BOEM and BSEE do not intend to initiate ESA consultation on this programmatic environmental assessment.

This failure to initiate and complete consultation with FWS (in relation to the southern sea otter and other species) and NMFS (in relation to blue whale, fin whale, humpback whale, sea turtles, and other species) in relation to this PEA would be a clear violation of the ESA, as any “no effect” determinations are not supported by the available evidence and best scientific information available.

Coastal Zone Management Act (“CZMA”)

The CZMA was enacted in 1972 in order to provide comprehensive, coordinated planning for the protection and beneficial uses of the “coastal zone,” defined to include land near the shorelines of coastal states, as well as coastal waters extending seaward to the limits of the United States territorial sea. 16 U.S.C. § 1451, 1452, 1453(1). The territorial sea for coastal states bordering the Atlantic and Pacific Oceans extends three geographical miles seaward from the coastline, while submerged federal lands that lie beyond this 3-mile limit constitute the “outer continental shelf.” 42 U.S.C. §§ 1302, 1311. The CZMA closely interacts with the OCSLA, which among things establishes detailed processes and requirements for federal oil and gas leasing and permitting activities in the OCS. 43 U.S.C. §§ 1331–1356.

In passing the CZMA, Congress found that the “increasing and competing

demands upon the lands and waters of our coastal zone” had “resulted in the loss of living marine resources, wildlife, nutrient-rich areas, permanent and adverse changes to ecological systems, decreasing open space for public use, and shoreline erosion.” 16 U.S.C. § 1451(c). Accordingly, it placed particular emphasis on the objective of preserving coastal natural resources “for this and succeeding generations.” 16 U.S.C. § 1452(1).

One of the CZMA’s fundamental mechanisms to achieve this overarching objective was to provide coastal states with oversight over activities in federal waters where those states have adopted a Coastal Management Program (“CMP”) to manage coastal land and water uses. The CMP’s purpose is to encourage coastal states to manage their coastal resources in accordance with specific national priorities, including protection of natural resources and water quality. 16 U.S.C. § 1452. In coastal states with federally approved CMPs, federal government actions (including permitting or licensing) proposed in federal waters are subject to state oversight prior to approval.

This oversight process, known as “consistency review,” is a “unique federal-state coordinated regulatory process . . . which grants coastal states which elect to participate in the CZMA program the ability to regulate federal activities that affect their coastal zone.” *CZMA Federal Consistency Regulations Final Rule*, 71 Fed. Reg. 75,864 (Dec. 19, 2016). The “federal consistency program is a cornerstone of the CZMA program and a primary incentive for State’s participation.” *Id.*; *California v. Norton*, 150 F. Supp. 2d 1046 (N.D. Cal. 2001), *aff’d* 311 F.3d 1162 (9th Cir. 2002). The National Oceanic and Atmospheric Administration (“NOAA”) certified the California CMP in 1978.

Regulations implementing the CZMA consistency requirement apply to “all Federal agency activities . . . affecting any coastal use or resource.” 15 C.F.R. § 930.30. “Federal agency activity,” in turn, is defined broadly to include “a range of activities where a Federal agency makes a proposal for action initiating an activity or series of activities when coastal effects are reasonably foreseeable.” *Id.* § 930.31(a). Federal permits authorizing WSTs affect coastal uses and resources and are therefore subject to CZMA consistency review. *See California v. Norton*, 150 F. Supp. 2d at 1052–54 (concluding that the granting of a request to suspend an offshore oil lease is subject to CZMA consistency review because it is a federal activity affecting the coastal zone).

In this instance, BOEM and BSEE have identified the proposed action as the general approval of offshore fracking and acidizing. As California Coastal Commission staff has repeatedly communicated to BOEM and BSEE, these activities have not

previously undergone CZMA consistency analysis. Accordingly, that analysis must be conducted now, rather than delaying again to future site-specific permit applications.

Conclusion

EDC and Surfrider Foundation again thank you for this opportunity to comment on the draft PEA. In light of the numerous NEPA shortcomings discussed in this letter and overarching failure of the draft PEA to adequately analyze the environmental impacts and risks associated with offshore fracking and acidizing, we again request that BOEM and BSEE instead initiate preparation of an EIS that acknowledges the significant environmental impacts and risks associated with offshore fracking and acidizing, and that provides a more detailed and thorough analysis of those impacts and risks.

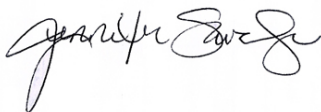
Sincerely Yours,



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ATTACHMENTS

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