

Appendix A: Comment Letter and Reclamation's Response to Comments

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February 10, 2017

VIA EMAIL AND U.S. MAIL

remerson@usbr.gov

Ms. Rain Emerson
 South Central California Area Office
 U.S. Bureau of Reclamation
 1243 N St
 Fresno, CA 93721

Re: Comments on Draft EA/FONSI for the Central Valley Project Interim Renewal Contracts for Panoche Water District and San Luis Water District, 2017-2019

Dear Ms. Emerson:

I. INTRODUCTION

On behalf of Pacific Coast Federation of Fishermen's Associations, San Francisco Crab Boat Owners Association, Inc., Institute for Fisheries Resources, and North Coast Rivers Alliance, we respectfully submit the following comments on the Draft Environmental Assessment ("EA") and Draft Finding of No Significant Impact ("FONSI") for the Central Valley Project Interim Renewal Contracts for Panoche Water District and San Luis Water District, 2017-2019 ("Project" or "Interim Contracts"). The EA and FONSI are deficient and an Environmental Impact Statement ("EIS") must be prepared, as required by the National Environmental Policy Act ("NEPA").

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The EA is inadequate in six respects. First, the Bureau of Reclamation ("Reclamation") based its EA and FONSI on the false premise that it could not reject the interim contracts. Under the Central Valley Project Improvement Act ("CVPIA"), renewal of the interim contracts is discretionary. *Pacific Coast Federation of Fishermen's Associations v. United States Department of the Interior* ("PCFFA"), 655 Fed. Appx. 595, 598 (9th Cir. 2016). Second, the EA fails to study a reasonable range of alternatives; no alternatives were considered. Third, the EA improperly excludes from analysis all of the source waters that the Project will harm, including the Trinity, American, and Sacramento rivers, the Delta, and their watersheds. Fourth, the EA's analysis of the Project's impacts, including impacts to biological resources, impacts related to global warming, and cumulative impacts, is inadequate. Fifth, the EA improperly relies upon outside documents addressing different issues to excuse its lack of analysis. Sixth, an EIS must be prepared.

II. DISCUSSION

A. The EA Improperly Assumes That the Contracts Will Be Renewed

Volker-2 The EA states that renewal of the interim contracts is “required by Section 3404(c) of the CVPIA.” EA at 2. This is false. The Ninth Circuit expressly held in the *PCFFA* case that it “d[id] not agree . . . that the . . . CVPIA . . . required Reclamation to enter into the interim contracts.” 655 Fed.Appx. at 598. The pertinent part of section 3404(c) is in subsection (1), which states that “[c]ontracts which expire . . . **may** be renewed for an interim period. . . .” (Emphasis added.) Congress clearly knew the difference between the mandatory “shall” and the permissive “may,” as reflected by the fact that the statute provides that the Secretary “shall, upon request” execute a first long-term renewal, but only “may” execute “successive” long-term renewals. Because the statute clearly employs discretionary language, directing that Reclamation “may” issue interim renewals of expired contracts, *Reclamation has discretion not to renew the contracts*. Moreover, though the contracts themselves purport to mandate renewal, Reclamation cannot “evade [its NEPA] obligations by contracting around them.” *PCFFA*, 655 Fed.Appx. at 598 (“We also reject Reclamation’s argument that the contracts themselves mandated renewal”).

Volker-3 Reclamation’s incorrect assumption that it is required to renew the interim contracts is a flaw that goes to the heart of the EA. The purpose of conducting environmental review is to allow decisionmakers and the public to consider the environmental costs of their activities before deciding whether to approve them. But here, Reclamation deliberately ignored the feasibility of its option of not renewing the interim contracts. The public cannot be assured that the agency seriously weighed the environmental costs and benefits of its activities if agencies are allowed to proceed from a blatantly false assumption that they cannot choose to reject proposed actions.

B. The EA Fails to Consider a Reasonable Range of Alternatives

Volker-4 “[C]ourts require consideration of a reasonable range of alternatives in environmental assessments as well as in impact statements.” Mandelker, *NEPA Law and Litigation*, § 10:30. The EA fails to consider a reasonable range of alternatives; *no* alternatives to the proposed action were considered. A proper range of alternatives would have considered interim contract renewals at amounts less than the current allocation along with nonrenewal of the contracts. Such alternatives would show the environmental and land use impacts of such reductions, giving Reclamation, Congress and the public a proper understanding of the contract renewals’ impacts. The EA’s failure to provide a reasonable range of alternatives violates NEPA.

Volker-4 The EA’s *only* justification for refusing to study an alternative reducing contract quantities is that because Panoche and San Luis Water Districts supposedly “put their full contract quantity to beneficial use and will continue to do so in the future,” therefore “a reduction in contract quantity is not warranted for these contractors and Reclamation has eliminated a contract reduction alternative from further review.” EA at 11. This is not a legitimate reason to

↑ completely exclude such an alternative from analysis. As discussed, the CVPIA makes contract renewal entirely optional, and therefore necessarily empowers Reclamation to partially approve the contract.¹ Renewing the interim contracts but significantly reducing the contract quantity could substantially reduce the environmental impacts of the contracts and therefore warrants careful review by Reclamation.

Moreover, even assuming contrary to law that Reclamation *is* statutorily disabled from reducing contract quantities to benefit the environment, which it clearly is not, Reclamation would still need to analyze such an alternative because NEPA is intended to inform both the executive branch *and* Congress. An “alternative may be reasonable, and therefore required by NEPA to be discussed in the EIS, even though it requires legislative action to put it into effect.” *Kilroy v. Ruckelshaus*, 738 F.2d 1448, 1454 (9th Cir. 1984).

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Reclamation’s *policy decision* to promote the economic security of *agricultural* users rather than devote more water to *environmental* purposes can only be made after a full accounting of the environmental impacts. Though “NEPA does not prohibit the government from taking actions for whatever political, ecological or economic reasons motivate the proposed action[, i]t does, however, require a transparent process so that the public is informed about their choices.” *Soda Mountain Wilderness Council v. Norton*, 424 F.Supp.2d 1241, 1262 (E.D.Cal. 2006).

NEPA’s purpose is to inform agencies of the environmental consequences of exercising their discretion and thereby “foster both informed decision-making and informed public participation.” *Native Ecosystems Council v. U.S. Forest Service*, 418 F.3d 953, 960 (9th Cir. 2005). The EA’s lack of meaningful alternatives frustrated these objectives by precluding Reclamation from making an informed decision about the environmental consequences of not reducing water deliveries. That violates NEPA.

C. The EA Improperly Limits the Study Area to the Contractors’ Service Areas

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↓ The EA ignores the fact that each water delivery requires a water diversion, and that each water diversion has an environmental impact on its water *source*. It accomplishes this biased analysis by limiting its consideration of environmental impacts to the service areas of the water contractors, where those receiving the deliveries naturally insist that the deliveries are beneficial. EA at 5-6 (scope of EA excludes Delta), 8 (“Proposed Action Area” only includes contractors’

¹ Similarly, an EA’s purpose and need statement is fatally flawed if, as here, it is based on the agency’s erroneous premise that “it had no discretion to consider” a broader purpose and range of options. *Center for Biological Diversity v. National Highway Traffic Safety Admin.* (“NHTSA”), 538 F.3d 1172, 1219 (9th Cir. 2008). Such an assumption prevents the agency from effectively considering the action’s impacts and alternatives. *Western Watersheds Proj. v. Abbey*, 719 F.3d 1035, 1052 (9th Cir. 2013).

↑ service areas). The EA ignores the *diversions*' environmental impacts on the water *sources* – including the American, Trinity, and Sacramento rivers, and the Delta – by narrowly defining the “Proposed Action Area” to *exclude* the areas most adversely affected, including the source watersheds. EA 8. This error is prejudicial because the PEIS from which this EA was tiered “did not analyze site specific impacts of contract renewal,” and thus likewise ignored impacts on the source watersheds. EA 2. The Study Area must be expanded so as to encompass *all* areas potentially affected by the Project’s site specific impacts, including all water sources and their watersheds.

Impacts to the Delta and its species are profound. Continued operation of the CVP and SWP is likely to *jeopardize the continued existence* of endangered species in the Delta, and agricultural runoff and subsurface drainage from Westlands’ CVP-irrigated lands contaminates the San Joaquin River and thence the Delta with selenium and other toxic substances. This contamination is already adversely affecting the reproductive systems of protected species. Since these impacts are potentially significant, an EIS must be prepared. 40 C.F.R. § 1508.27(b)(9).

NEPA prohibits agencies from arbitrarily circumscribing the geographic scope of their analysis. In *Save Our Sonoran, Inc. v. Flowers*, 408 F.3d 1113, 1121-23 (9th Cir. 2004), for example, the Ninth Circuit set aside the Army Corps of Engineers’ EA because the Corps had “improperly constrained its NEPA analysis” by limiting its review to impacts within the desert washes under its jurisdiction rather than the entire property proposed for development. Similarly, in *Border Power Plant Working Group*, 260 F.Supp.2d 997, 1017 (S.D. Cal. 2003), the court rejected the agency’s attempt to limit its environmental review to the impacts of the domestic power *line* it proposed to construct and ignore the impacts of the Mexican power *plant* the line would serve. So too here, the EA should have – but did not – consider *both* the direct effect of the Interim Contracts’ water deliveries on land in the contractors’ service areas *and* the indirect effect of those deliveries on the Delta (and its fisheries) *from which the water would be taken*, and to which contaminated discharges would return.

The EA relies upon outside documents to excuse its lack of analysis. *E.g.*, EA 1-5, 20. But as discussed below, these documents do not and cannot remedy the EA’s deficiencies.

In summary, the EA violates NEPA because Reclamation arbitrarily limited the geographic scope of its analysis and thereby ignored the significant environmental impacts that Project approval will have on source watersheds and the species that reside within them. *Save Our Sonoran, Inc.*, 408 F.3d at 1121-23.

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D. The EA's Impact Analysis Is Inadequate

1. Impacts to Listed Species

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The EA's analysis of impacts to listed species is entirely conclusory and inadequate. First, it improperly assumes that under the proposed action, conditions for special status species and habitats will remain constant, despite their continued *decline*. Second, the EA fails to take a hard look at the impacts to anadromous fish species downstream of the contract lands. Last, it does not adequately consider the impacts to other listed species.

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The EA states that "conditions of special status species and habitat would remain the same as current conditions" because the proposed action would provide for delivery of CVP water to the same lands and up to the same amounts as the previous contracts. EA 19. But this statement overlooks the cumulatively significant impacts of continuing the current conditions, which have repeatedly decimated fish populations. Instead of discussing the impacts of delivering CVP water, the EA relies upon the Long Term Operation ("LTO") EIS, prepared to implement the U.S. Fish and Wildlife Service's ("FWS's") and National Marine Fisheries Service's ("NMFS's") Biological Opinions to assert that continued operation will avoid either jeopardy or adverse modification. EA 18. But the LTO EIS treated the FWS and NMFS Reasonably Prudent Alternatives to protect those species as the ceiling, and not the floor, for appropriate management actions to prevent the extinction of listed species, and the LTO EIS does not address the site specific impacts of contract renewal. These site specific impacts to listed species and habitat, both at the point of delivery *and* at the points of diversion (i.e., the original source) and redirection (e.g., from storage reservoirs), must be addressed now.

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Second, the EA fails to address the potential impacts to listed anadromous fish and fish habitat from contaminated drainage caused or exacerbated by the proposed action. It acknowledges that imperiled fish species, such as the Sacramento River winter-run Chinook, Central Valley spring-run Chinook, Central Valley steelhead, and green sturgeon, "pass through waters in the San Joaquin River corridor between the Delta and the Mouth of the Merced River, or reside in portions of the Delta" which are downstream of PWD and SLWD. EA 15-17 (Table 4), 20 (quote). For that reason, the EA states that these species *may* be affected by the proposed action. EA 15-17. Yet the EA does not provide *any* additional analysis of these effects. Instead it states that the "EA will not be finalized until [the Bureau of Reclamation's] consultation [with the National Marine Fisheries Service] is complete." EA 20. This hide-the-ball strategy prevents the public from meaningfully reviewing and commenting upon the impacts of contract renewal on anadromous fish. The EA relies upon the Grassland Bypass Project's reduction in contaminated drainage flows to minimize impacts to some species (as discussed below); however, that project's "zero discharge [of] selenium objectives" goal is set for 2019, not now. EA 19. And it is not certain to be met. Thus the EA reveals that the proposed action will result in selenium-laced flows that will impact these anadromous fish and their habitat. EA 19- 20. Reclamation must recirculate the EA for public review and comment when the missing analysis about the Project's effects on listed species is added. 40 C.F.R. §§ 1502.9, 1508.9. Should

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cont. ↑ Reclamation instead insert a new discussion of the impacts on anadromous fish and fish habitat into its Final EA, it will improperly preclude informed public comment and subvert the decision-making process.

Volker-9 Third, the EA incorrectly assumes that impacts to other listed species will be avoided, and thus improperly fails to consider them. While the EA admits that the “ongoing intensive management of agricultural lands, including repetitive activities such as soil preparation, planting, irrigation, applying various chemicals, and harvesting disturbs land surface and reduces the value of these habitats for wildlife,” the EA does not address how the proposed action enables and exacerbates these impacts to listed species, including the San Joaquin kit fox, blunt-nosed leopard lizard, and giant garter snake. These environmental impacts are a direct result of Reclamation’s decision to execute the interim contracts and deliver this water, and must therefore be analyzed.

Volker-10 Instead of doing so, Reclamation claims that the implementation of the “terms and conditions” of the 2009 Grassland Bypass Project Biological Opinion will allow Reclamation to avoid these impacts. EA 20. Yet that project will not eliminate adverse selenium-laced discharges until the *end* of the proposed action’s contract term, *if* it meets its objectives. EA 19. The EA also states that “loss of funding support” could impair compliance with the Grasslands Bypass Permit requirements. *Id.* Thus, Reclamation’s reliance upon these drainage conditions to avoid impacts from delivery is improper. Reclamation also claims that impacts will be avoided because it will comply with “all measures contained within” the concurrence memorandum prepared by the USFWS Sacramento Field Office. EA 20. This concurrence memorandum also assumes compliance with the Grasslands Bypass Project Biological Opinion (EA Appendix D, p.5), despite the potential that funding or other uncertainty could prevent compliance. Further, the compliance memorandum, like the EA, improperly assumes no direct adverse impacts to listed species solely on the basis that the contracts continue existing conditions. EA Appendix D, p. 11.² But USFWS can only reach this conclusion by assuming that the Grassland Bypass Project is fully implemented. Further, the concurrence memorandum finds that “[i]ndirect effects to listed species or suitable habitat have likely occurred as a result of the delivery of CVP water to the individual water districts . . . during the life of the existing or previous water delivery contracts.” EA Appendix D, p. 11. And last, that memorandum concludes that “the short duration of this project” is a factor in USFWS’ conclusion that the interim renewal contracts are not likely to adversely impact the giant garter snake, San Joaquin kit fox or blunt-nosed leopard lizard. But the short-duration of these interim contracts is illusory, given that the proposed action will be the fifth interim contract renewal for each contractor (EA 9), and it is highly likely that in two years another set of contracts will be prepared for renewal.

² The concurrence memorandum mistakenly states that the 24 month period it addresses runs from March 1, 2016 to February 28, 2018. EA Appendix D, p. 11.

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Thus, by never fully analyzing the contract-specific impacts of contract renewal, either short-term or long-term, the Bureau has failed to take a hard look at the proposed action's impacts on listed species.

2. Global Warming

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The EA fails to analyze how global climate change will affect the project. Climate change is likely to reduce flows, increase water temperatures even assuming constant flows, reduce dissolved oxygen, increase salinity, reduce the populations of fish species, and, overall, add many more stressors to already compromised Delta fish and wildlife. Yet the EA does not analyze whether and how global climate change will increase the environmental impacts of the proposed interim contract by negatively affecting the environment surrounding it. That violates NEPA, as recent guidance from the Council on Environmental Quality ("CEQ") makes clear. On August 1, 2016, the CEQ issued its official guidance about federal agencies' analysis of greenhouse gases, titled "Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews," which is attached hereto as Exhibit 1. The CEQ's Guidance emphasizes that agencies have an obligation to disclose how the environmental impacts of their actions will be exacerbated by climate change:

For example, a proposed action may require water from a stream that has diminishing quantities of available water because of decreased snow pack in the mountains, or add heat to a water body that is already warming due to increasing atmospheric temperatures. Such considerations are squarely within the scope of NEPA and can inform decisions on whether to proceed with, and how to design, the proposed action to eliminate or mitigate impacts exacerbated by climate change.

Exhibit 1 at 21. Reclamation must provide detailed and specific information about how climate change will affect the impacts of approving the interim contracts to enable the public to understand the consequences of its actions. *Id.*; *Neighbors of Cuddy Mountain*, 137 F.3d at 1379.

3. Cumulative Impacts

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NEPA mandates that agencies "consider" cumulative impacts. 40 C.F.R. § 1508.25(c)(3). "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." *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1379-1380 (9th Cir. 1998). Here, the EA falls far short of this requirement.

The EA includes *no* substantive analysis of cumulative impacts, instead merely stating that because the Proposed Action "represent[s] a continuation of existing conditions" no cumulative impacts would occur. This is entirely insufficient to account for the deteriorating

↑ condition of the Delta, wherein species are moving ever-closer to extinction. Reclamation is obliged to analyze how the environmental impacts of current operations are magnified by such conditions. As the Delta's water quality continues to decline, and its fish and wildlife are pushed closer to extirpation, the impacts of a given quantity of diversions are magnified. The EA completely fails to grapple with these impacts and thus violates NEPA.

Such cumulative impacts were not considered in the CVPIA PEIS. FWS made clear during its review of the CVPIA PEIS that “[s]ubsequent tiered consultations, addressing future actions or programs carried out by Reclamation (e.g. *contract renewal*), shall consider what incremental effect, if any, such action or program causes in addition to the effects included in the existing environmental baseline.” FWS CVPIA BiOp at 3.³ The cumulative impacts of interim contract renewals have *never* been considered. Moreover, each successive interim contract has an *incremental* environmental impact because selenium and other pollutants bioaccumulate, meaning that concentrations of the pollutant increase when constant quantities of the pollutant are released over time. This “incremental effect” has never been considered. FWS CVPIA BiOp at 3. By failing to provide “quantified or detailed information” about the Project’s cumulative impacts, Reclamation violated NEPA. *Neighbors of Cuddy Mountain v. U.S. Forest Service*, *supra*, 137 F.3d at 1379-1380.

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The EA also states that the Project would have no cumulative impacts because future “regulatory constraints” would be “imposed pursuant to the ESA” to protect endangered species. This is inadequate because the standards under the two statutes are entirely different. The ESA is concerned with avoiding jeopardy to endangered species, whereas NEPA mandates the disclosure of all significant impacts whether or not they also cause jeopardy. For the “purposes of NEPA, a project need not jeopardize the continued existence of a threatened or endangered species to have a ‘significant’ effect on the environment.” *Klamath-Siskiyou Wildlands Center v. U.S. Forest Service*, 373 F.Supp.2d 1069, 1080 (E.D.Cal. 2004). Relying on future ESA constraints to avoid jeopardy to endangered species is not a substitute for meaningful analysis of whether the proposed action will directly or cumulatively cause impacts to endangered species short of jeopardy. *Id.* The EA’s improper equation of the two violates NEPA.

E. The EA’s Reliance on the Outside Documents Is Improper

The EA relies upon outside documents to excuse its lack of analysis. *E.g.*, EA 1-5 (CVPIA PEIS), 15 (Grasslands Bypass Project Biological Opinion), 18 (LTO EIS). However, these documents do not and cannot remedy the EA’s deficiencies, for two reasons.

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³ This document, the full title of which is “Biological Opinion on Implementation of the CVPIA and Continued Operation and Maintenance of the CVP,” is listed in the references section of the EA (EA at 42) and the document is thus part of the administrative record.

↑ First, none of these documents analyzed the site-specific impacts of contract renewal. The EA expressly states that the CVPIA PEIS “did not analyze site specific impacts of contract renewal.” EA 2. Indeed, FWS made clear in its Biological Opinion about the CVPIA PEIS that “[s]ubsequent tiered consultations, addressing future actions or programs carried out by Reclamation (e.g. *contract renewal*), shall consider what incremental effect, if any, such action or program causes in addition to the effects included in the existing environmental baseline.” FWS CVPIA BiOp at 3. Moreover, the PEIS never considered an alternative of reducing contract quantities, so it never considered or disclosed the environmental benefits of reducing the amount of water delivered to Panoche and San Luis Water Districts. FWS CVPIA BiOp at 32 (“The PEIS assumed that contracts would be renewed for the same quantity of water as the existing contracts”). And as discussed above, neither the GBP BiOp nor the LTO EIS analyzed the site-specific impacts of contract renewal. The GBP permits do not purport to mitigate impacts to species under NMFS’ jurisdiction (EA at 15), and moreover they address the environmental impacts of providing drainage service rather than the environmental impacts of providing the water deliveries that create the drainage in the first instance. Similarly, the LTO EIS treated the Reasonable and Prudent Alternatives as the ceiling for future management measures and does not purport to fully mitigate all impacts of long-term CVP operation.

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NEPA also forbids Reclamation from satisfying its informational obligations by incorporating outside documents into an EA. *Natural Resources Defense Council v. Duvall*, 777 F.Supp. 1533, 1538-39 (E.D.Cal. 1991) (disallowing incorporation by reference into an EA because (1) 40 C.F.R. section 1508.21, allowing incorporation by reference, applies only to EISs and (2) an EA’s conclusions should “be close to self-evident and . . . not require an extended document incorporating other studies”). NEPA requires Reclamation to study the impacts of its actions and expose its conclusions to public scrutiny, not obliquely and opaquely refer the reader to outside documents whose location the reader is not directed to and whose conclusions – let alone data and analysis – are not summarized or provided to the reader. As mentioned, the EA here improperly incorporates by reference the CVPIA PEIS (EA at 1-5), the GBP BiOp (EA at 15), and the LTO EIS (EA at 18), and in doing so it violates NEPA. *Duvall*, 777 F.Supp. at 1538-1539.

Even assuming for the sake of argument that the requirements governing incorporation by reference into EISs are also applicable to EAs, Reclamation failed to satisfy them. Putatively incorporated documents must satisfy “three standards: 1) the material is reasonably available; 2) the statement is understandable without undue cross reference; and 3) the incorporation by reference meets a general standard of reasonableness.” *Duvall*, 777 F.Supp. at 1539. Because Reclamation’s EA neither summarizes the conclusions of the outside documents nor tells the reader where they can be obtained, the incorporation requires undue cross reference and fails the general standard of reasonableness. *E.g.*, EA at 1-5, 15, 18; *cf. Siskiyou Regional Education Project v. Rose*, 87 F.Supp.2d 1074, 1097 (D.Or. 1999) (incorporation impermissible because EA failed to specify which portions of documents it incorporated). Additionally, Reclamation’s failure to instruct readers as to where they could find the documents means the material is not “reasonably available,” as required. *Duvall*, 777 F.Supp. at 1539

F. An EIS Is Required

“An agency is required to prepare an EIS where there are substantial questions about whether a project *may* cause significant degradation of the human environment.” *Native Ecosystems Council v. Forest Service*, 428 F.3d 1233, 1239 (9th Cir. 2005) (emphasis supplied); *Western Watersheds Proj.*, 719 F.3d at 1050. When determining whether an action may have a significant effect on the environment, agencies must consider “context and intensity.” 40 C.F.R. § 1508.27; 42 U.S.C. § 4332(2)(C). “Context refers to the setting in which the proposed action takes place. . . . Intensity means the severity of the impact,” as determined by “up to ten factors” listed in 40 C.F.R. section 1508.27(b). *Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F.3d 846, 865 (9th Cir. 2004). These factors indicate that an action is significant “where it is reasonable to anticipate a cumulatively significant impact.” 40 C.F.R. § 1508.27(b)(7). In examining whether an action is significant, agencies must consider “the degree to which the action may adversely affect an endangered or threatened species” or its critical habitat. 40 C.F.R. § 1508.27(b)(9). The presence of just “one of these factors may be sufficient to require preparation of an EIS.” *Ocean Advocates*, 402 F.3d at 865.

Here, at least three of the factors are met, so an EIS is required. The EA’s failure to engage in substantive analysis of the Project’s environmental impacts, as discussed, means that the Project’s impacts are “highly uncertain” such that an EIS is required. 40 C.F.R. § 1508.27(b)(5). As explained above, approval of the Project will have potentially significant cumulative impacts, because selenium and other pollutants bio-accumulate, which further indicates the need for an EIS. 40 C.F.R. § 1507.27(b)(7) (“Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts”). And finally, because the Project may have a significant impact on endangered species, an EIS is required. 40 C.F.R. § 1508.27(b)(9). While each of these reasons is independently sufficient to mandate an EIS, they collectively remove all doubt about the need for Reclamation to conduct a thorough analysis by preparing such a document. *Ocean Advocates*, 402 F.3d at 865.

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Ms. Rain Emerson, Bureau of Reclamation
February 10, 2017
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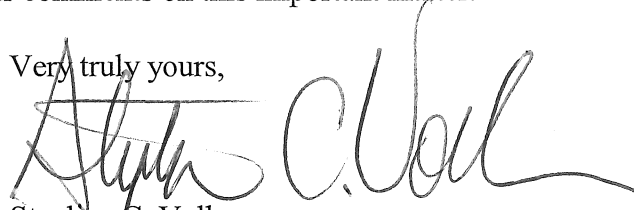
III. CONCLUSION

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For all of these reasons, Pacific Coast Federation of Fishermen's Associations, San Francisco Crab Boat Owners Association, Inc., Institute for Fisheries Resources, and North Coast Rivers Alliance urge Reclamation to reject the proposed EA and FONSI and to prepare an EIS.

Thank you for considering our comments on this important matter.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Stephan C. Volker', written over a horizontal line.

Stephan C. Volker
Pacific Coast Federation of Fishermen's Associations, San
Francisco Crab Boat Owners Association, Inc., Institute for
Fisheries Resources, and North Coast Rivers Alliance

TABLE OF EXHIBITS

Exhibit 1: Council on Environmental Quality, "Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews" (August 1, 2016)

EXHIBIT 1



EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
WASHINGTON, D.C. 20503

August 1, 2016

MEMORANDUM FOR HEADS OF FEDERAL DEPARTMENTS AND AGENCIES

FROM:  CHRISTINA GOLDFUSS
COUNCIL ON ENVIRONMENTAL QUALITY

SUBJECT: Final Guidance for Federal Departments and Agencies on
Consideration of Greenhouse Gas Emissions and the Effects of
Climate Change in National Environmental Policy Act Reviews

I. INTRODUCTION

The Council on Environmental Quality (CEQ) issues this guidance to assist Federal agencies in their consideration of the effects of greenhouse gas (GHG) emissions¹ and climate change when evaluating proposed Federal actions in accordance with the National Environmental Policy Act (NEPA) and the CEQ Regulations Implementing the Procedural Provisions of NEPA (CEQ Regulations).² This guidance will facilitate compliance with existing NEPA requirements, thereby improving the efficiency and consistency of reviews of proposed Federal actions for agencies, decision makers, project proponents, and the public.³ The guidance provides Federal agencies a common

¹ For purposes of this guidance, CEQ defines GHGs in accordance with Section 19(m) of Exec. Order No. 13693, Planning for Federal Sustainability in the Next Decade, 80 Fed. Reg. 15869, 15882 (Mar. 25, 2015) (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur hexafluoride). Also for purposes of this guidance, "emissions" includes release of stored GHGs as a result of land management activities affecting terrestrial GHG pools such as, but not limited to, carbon stocks in forests and soils, as well as actions that affect the future changes in carbon stocks. The common unit of measurement for GHGs is metric tons of CO₂ equivalent (mt CO₂-e).

² See 42 U.S.C. 4321 et seq.; 40 CFR Parts 1500–1508.

³ This guidance is not a rule or regulation, and the recommendations it contains may not apply to a particular situation based upon the individual facts and circumstances. This guidance does not change or substitute for any law, regulation, or other legally binding

approach for assessing their proposed actions, while recognizing each agency's unique circumstances and authorities.⁴

Climate change is a fundamental environmental issue, and its effects fall squarely within NEPA's purview.⁵ Climate change is a particularly complex challenge given its global nature and the inherent interrelationships among its sources, causation, mechanisms of action, and impacts. Analyzing a proposed action's GHG emissions and the effects of climate change relevant to a proposed action—particularly how climate change may change an action's environmental effects—can provide useful information to decision makers and the public.

CEQ is issuing the guidance to provide for greater clarity and more consistency in how agencies address climate change in the environmental impact assessment process. This guidance uses longstanding NEPA principles because such an analysis should be similar to the analysis of other environmental impacts under NEPA. The guidance is intended to assist agencies in disclosing and considering the reasonably foreseeable effects of proposed actions that are relevant to their decision-making processes. It confirms that agencies should provide the public and decision makers with explanations of the basis for agency determinations.

requirement, and is not legally enforceable. The use of non-mandatory language such as “guidance,” “recommend,” “may,” “should,” and “can,” is intended to describe CEQ policies and recommendations. The use of mandatory terminology such as “must” and “required” is intended to describe controlling requirements under the terms of NEPA and the CEQ regulations, but this document does not affect legally binding requirements.

⁴ This guidance also addresses recommendations offered by a number of stakeholders. See President's State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience, *Recommendations to the President* (November 2014), p. 20 (recommendation 2.7), available at www.whitehouse.gov/sites/default/files/docs/task_force_report_0.pdf; U.S. Government Accountability Office, *Future Federal Adaptation Efforts Could Better Support Local Infrastructure Decision Makers*, (Apr. 2013), available at <http://www.gao.gov/assets/660/653741.pdf>. Public comments on drafts of this guidance document are available at <http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/comments>.

⁵ NEPA recognizes “the profound impact of man's activity on the interrelations of all components of the natural environment.” (42 U.S.C. 4331(a)). It was enacted to, *inter alia*, “promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man.” (42 U.S.C. 4321).

Focused and effective consideration of climate change in NEPA reviews⁶ will allow agencies to improve the quality of their decisions. Identifying important interactions between a changing climate and the environmental impacts from a proposed action can help Federal agencies and other decision makers identify practicable opportunities to reduce GHG emissions, improve environmental outcomes, and contribute to safeguarding communities and their infrastructure against the effects of extreme weather events and other climate-related impacts.

Agencies implement NEPA through one of three levels of NEPA analysis: a Categorical Exclusion (CE); an Environmental Assessment (EA); or an Environmental Impact Statement (EIS). This guidance is intended to help Federal agencies ensure their analysis of potential GHG emissions and effects of climate change in an EA or EIS is commensurate with the extent of the effects of the proposed action.⁷ Agencies have discretion in how they tailor their individual NEPA reviews to accommodate the approach outlined in this guidance, consistent with the CEQ Regulations and their respective implementing procedures and policies.⁸ CEQ does not expect that implementation of this guidance will require agencies to develop new NEPA implementing procedures. However, CEQ recommends that agencies review their NEPA procedures and propose any updates they deem necessary or appropriate to facilitate their consideration of GHG emissions and climate change.⁹ CEQ will review agency

⁶ The term “NEPA review” is used to include the analysis, process, and documentation required under NEPA. While this document focuses on NEPA reviews, agencies are encouraged to analyze GHG emissions and climate-resilient design issues early in the planning and development of proposed actions and projects under their substantive authorities.

⁷ See 40 CFR 1502.2(b) (Impacts shall be discussed in proportion to their significance); 40 CFR 1502.15 (Data and analyses in a statement shall be commensurate with the importance of the impact...).

⁸ See 40 CFR 1502.24 (Methodology and scientific accuracy).

⁹ See 40 CFR 1507.3. Agency NEPA implementing procedures can be, but are not required to be, in the form of regulation. Section 1507.3 encourages agencies to publish explanatory guidance, and agencies also should consider whether any updates to explanatory guidance are necessary. Agencies should review their policies and implementing procedures and revise them as necessary to ensure full compliance with NEPA.

proposals for revising their NEPA procedures, including any revision of CEs, in light of this guidance.

As discussed in this guidance, when addressing climate change agencies should consider: (1) The potential effects of a proposed action on climate change as indicated by assessing GHG emissions (e.g., to include, where applicable, carbon sequestration);¹⁰ and, (2) The effects of climate change on a proposed action and its environmental impacts.

This guidance explains the application of NEPA principles and practices to the analysis of GHG emissions and climate change, and

- Recommends that agencies quantify a proposed agency action's projected direct and indirect GHG emissions, taking into account available data and GHG quantification tools that are suitable for the proposed agency action;
- Recommends that agencies use projected GHG emissions (to include, where applicable, carbon sequestration implications associated with the proposed agency action) as a proxy for assessing potential climate change effects when preparing a NEPA analysis for a proposed agency action;
- Recommends that where agencies do not quantify a proposed agency action's projected GHG emissions because tools, methodologies, or data inputs are not reasonably available to support calculations for a quantitative analysis, agencies include a qualitative analysis in the NEPA document and explain the basis for determining that quantification is not reasonably available;

¹⁰ Carbon sequestration is the long-term carbon storage in plants, soils, geologic formations, and oceans.

- Discusses methods to appropriately analyze reasonably foreseeable direct, indirect, and cumulative GHG emissions and climate effects;
- Guides the consideration of reasonable alternatives and recommends agencies consider the short- and long-term effects and benefits in the alternatives and mitigation analysis;
- Advises agencies to use available information when assessing the potential future state of the affected environment in a NEPA analysis, instead of undertaking new research that is , and provides examples of existing sources of scientific information;
- Counsels agencies to use the information developed during the NEPA review to consider alternatives that would make the actions and affected communities more resilient to the effects of a changing climate;
- Outlines special considerations for agencies analyzing biogenic carbon dioxide sources and carbon stocks associated with land and resource management actions under NEPA;
- Recommends that agencies select the appropriate level of NEPA review to assess the broad-scale effects of GHG emissions and climate change, either to inform programmatic (e.g., landscape-scale) decisions, or at both the programmatic and tiered project- or site-specific level, and to set forth a reasoned explanation for the agency's approach; and
- Counsels agencies that the “rule of reason” inherent in NEPA and the CEQ Regulations allows agencies to determine, based on their expertise and

experience, how to consider an environmental effect and prepare an analysis based on the available information.

II. BACKGROUND

A. NEPA

NEPA is designed to promote consideration of potential effects on the human environment¹¹ that would result from proposed Federal agency actions, and to provide the public and decision makers with useful information regarding reasonable alternatives¹² and mitigation measures to improve the environmental outcomes of Federal agency actions. NEPA ensures that the environmental effects of proposed actions are taken into account before decisions are made and informs the public of significant environmental effects of proposed Federal agency actions, promoting transparency and accountability concerning Federal actions that may significantly affect the quality of the human environment. NEPA reviews should identify measures to avoid, minimize, or mitigate adverse effects of Federal agency actions. Better analysis and decisions are the ultimate goal of the NEPA process.¹³

Inherent in NEPA and the CEQ Regulations is a “rule of reason” that allows agencies to determine, based on their expertise and experience, how to consider an environmental effect and prepare an analysis based on the available information. The usefulness of that information to the decision-making process and the public, and the

¹¹ 40 CFR 1508.14 (“‘Human environment’ shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment.”).

¹² 40 CFR 1508.25(b) (“Alternatives, which include: (1) No action alternative. (2) Other reasonable courses of actions. (3) Mitigation measures (not in the proposed action).”).

¹³ 40 CFR 1500.1(c) (“Ultimately, of course, it is not better documents but better decisions that count. NEPA’s purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.”).

extent of the anticipated environmental consequences are important factors to consider when applying that “rule of reason.”

B. Climate Change

Climate change science continues to expand and refine our understanding of the impacts of anthropogenic GHG emissions. CEQ’s first Annual Report in 1970 referenced climate change, indicating that “[m]an may be changing his weather.”¹⁴ At that time, the mean level of atmospheric carbon dioxide (CO₂) had been measured as increasing to 325 parts per million (ppm) from an average of 280 ppm pre-Industrial levels.¹⁵ Since 1970, the concentration of atmospheric carbon dioxide has increased to approximately 400 ppm (2015 globally averaged value).¹⁶ Since the publication of CEQ’s first Annual Report, it has been determined that human activities have caused the carbon dioxide content of the atmosphere of our planet to increase to its highest level in at least 800,000 years.¹⁷

It is now well established that rising global atmospheric GHG emission concentrations are significantly affecting the Earth’s climate. These conclusions are built upon a scientific record that has been created with substantial contributions from the

¹⁴ See CEQ, *Environmental Quality The First Annual Report*, p. 93 (August 1970); available at https://ceq.doe.gov/ceq_reports/annual_environmental_quality_reports.html.

¹⁵ See USGCRP, *Climate Change Impacts in the United States The Third National Climate Assessment* (Jerry M. Melillo, Terese (T.C.) Richmond, & Gary W. Yohe eds., 2014) [hereinafter “Third National Climate Assessment”], *Appendix 3 Climate Science Supplement*, p. 739; EPA, April 2015: *Inventory of U.S. Greenhouse Emissions and Sinks 1990-2013*, available at <https://www3.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf>. See also Hartmann, D.L., A.M.G. Klein Tank, M. Rusticucci, et al., 2013 *Observations Atmosphere and Surface*. In *Climate Change 2013 The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K., et al. (eds)]. Cambridge University Press: Cambridge, United Kingdom and New York, NY, USA. Available at http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter02_Final.pdf.

¹⁶ See Ed Dlugokencky & Pieter Tans, National Oceanic and Atmospheric Administration/Earth System Research Laboratory, <http://www.esrl.noaa.gov/gmd/ccgg/trends/global.html>.

¹⁷ See <http://earthobservatory.nasa.gov/Features/CarbonCycle>; University of California Riverside, National Aeronautics and Space Administration (NASA), and Riverside Unified School District, *Down to Earth Climate Change*, <http://globalclimate.ucr.edu/resources.html>; USGCRP, *Third National Climate Assessment, Appendix 3 Climate Science Supplement*, p. 736 (“Although climate changes in the past have been caused by natural factors, human activities are now the dominant agents of change. Human activities are affecting climate through increasing atmospheric levels of heat-trapping gases and other substances, including particles.”).

United States Global Change Research Program (USGCRP), which informs the United States' response to global climate change through coordinated Federal programs of research, education, communication, and decision support.¹⁸ Studies have projected the effects of increasing GHGs on many resources normally discussed in the NEPA process, including water availability, ocean acidity, sea-level rise, ecosystem functions, energy production, agriculture and food security, air quality and human health.¹⁹

Based primarily on the scientific assessments of the USGCRP, the National Research Council, and the Intergovernmental Panel on Climate Change, in 2009 the Environmental Protection Agency (EPA) issued a finding that the changes in our climate caused by elevated concentrations of greenhouse gases in the atmosphere are reasonably anticipated to endanger the public health and public welfare of current and future generations.²⁰ In 2015, EPA acknowledged more recent scientific assessments that “highlight the urgency of addressing the rising concentration of CO₂ in the atmosphere,” finding that certain groups are especially vulnerable to climate-related effects.²¹ Broadly

¹⁸ See Global Change Research Act of 1990, Pub. L. 101–606, Sec. 103 (November 16, 1990). For additional information on the United States Global Change Research Program [hereinafter “USGCRP”], visit <http://www.globalchange.gov>. The USGCRP, formerly the Climate Change Science Program, coordinates and integrates the activities of 13 Federal agencies that conduct research on changes in the global environment and their implications for society. The USGCRP began as a Presidential initiative in 1989 and was codified in the Global Change Research Act of 1990 (Public Law 101–606). USGCRP-participating agencies are the Departments of Agriculture, Commerce, Defense, Energy, Interior, Health and Human Services, State, and Transportation; the U.S. Agency for International Development, the Environmental Protection Agency, NASA, the National Science Foundation, and the Smithsonian Institution.

¹⁹ See USGCRP, *Third National Climate Assessment*, available at http://nca2014.globalchange.gov/system/files_force/downloads/low/NCA3_Climate_Change_Impacts_in_the_United%20States_Low_Res.pdf?download=1; IPCC, *Climate Change 2014 Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (R.K. Pachauri, & L.A. Meyer eds., 2014), available at https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full.pdf; see also <http://www.globalchange.gov>; 40 CFR 1508.8 (effects include ecological, aesthetic, historic, cultural, economic, social, and health effects); USGCRP, *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*, available at <https://health2016.globalchange.gov/>.

²⁰ See generally *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66496 (Dec. 15, 2009). (For example, at 66497–98: “[t]he evidence concerning how human-induced climate change may alter extreme weather events also clearly supports a finding of endangerment, given the serious adverse impacts that can result from such events and the increase in risk, even if small, of the occurrence and intensity of events such as hurricanes and floods. Additionally, public health is expected to be adversely affected by an increase in the severity of coastal storm events due to rising sea levels”).

²¹ See EPA, *Final Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, 80 Fed. Reg. 64661, 64677 (Oct. 23, 2015) (“Certain groups, including children, the elderly, and the poor, are most vulnerable to climate-related effects. Recent studies also find that certain communities, including low-income communities and some communities of color ... are disproportionately affected by certain climate change related impacts—including heat waves, degraded air quality, and

stated, the effects of climate change observed to date and projected to occur in the future include more frequent and intense heat waves, longer fire seasons and more severe wildfires, degraded air quality, more heavy downpours and flooding, increased drought, greater sea-level rise, more intense storms, harm to water resources, harm to agriculture, ocean acidification, and harm to wildlife and ecosystems.²²

III. CONSIDERING THE EFFECTS OF GHG EMISSIONS AND CLIMATE CHANGE

This guidance is applicable to all Federal actions subject to NEPA, including site-specific actions, certain funding of site-specific projects, rulemaking actions, permitting decisions, and land and resource management decisions.²³ This guidance does not – and cannot – expand the range of Federal agency actions that are subject to NEPA.

Consistent with NEPA, Federal agencies should consider the extent to which a proposed action and its reasonable alternatives would contribute to climate change, through GHG emissions, and take into account the ways in which a changing climate may impact the proposed action and any alternative actions, change the action’s environmental effects over the lifetime of those effects, and alter the overall environmental implications of such actions.

This guidance is intended to assist agencies in disclosing and considering the effects of GHG emissions and climate change along with the other reasonably foreseeable environmental effects of their proposed actions. This guidance does not establish any

extreme weather events—which are associated with increased deaths, illnesses, and economic challenges. Studies also find that climate change poses particular threats to the health, well-being, and ways of life of indigenous peoples in the U.S.”).

²² See <http://www.globalchange.gov/climate-change/impacts-society> and Third National Climate Assessment, Chapters 3-15 (Sectors) and Chapters 16-25 (Regions), available at <http://nca2014.globalchange.gov/downloads>.

²³ See 40 CFR 1508.18.

particular quantity of GHG emissions as “significantly” affecting the quality of the human environment or give greater consideration to the effects of GHG emissions and climate change over other effects on the human environment.

A. GHG Emissions as a Proxy for the Climate Change Impacts of a Proposed Action

In light of the global scope of the impacts of GHG emissions, and the incremental contribution of each single action to global concentrations, CEQ recommends agencies use the projected GHG emissions associated with proposed actions as a proxy for assessing proposed actions’ potential effects on climate change in NEPA analysis.²⁴ This approach, together with providing a qualitative summary discussion of the impacts of GHG emissions based on authoritative reports such as the USGCRP’s National Climate Assessments and the Impacts of Climate Change on Human Health in the United States, a Scientific Assessment of the USGCRP, allows an agency to present the environmental and public health impacts of a proposed action in clear terms and with sufficient information to make a reasoned choice between no action and other alternatives and appropriate mitigation measures, and to ensure the professional and scientific integrity of the NEPA review.²⁵

Climate change results from the incremental addition of GHG emissions from millions of individual sources,²⁶ which collectively have a large impact on a global scale.

²⁴ See 40 CFR 1502.16, 1508.9.

²⁵ See 40 CFR 1500.1, 1502.24 (requiring agencies to use high quality information and ensure the professional and scientific integrity of the discussions and analyses in environmental impact statements).

²⁶ Some sources emit GHGs in quantities that are orders of magnitude greater than others. See EPA, *Greenhouse Gas Reporting Program 2014 Reported Data*, Figure 2: Direct GHG Emissions Reported by Sector (2014), available at <https://www.epa.gov/ghgreporting/ghgrp-2014-reported-data> (amounts of GHG emissions by sector); *Final Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources Electric Utility Generating Units*, 80 Fed. Reg. 64661, 64663, 64689 (Oct. 23, 2015) (regulation of GHG emissions from fossil fuel-fired electricity generating power plants); *Oil and Natural Gas Sector Emission Standards for New, Reconstructed, and Modified Sources*, 81 Fed. Reg. 34824, 35830 (June 3, 2016) (regulation of GHG emissions from oil and gas sector).

CEQ recognizes that the totality of climate change impacts is not attributable to any single action, but are exacerbated by a series of actions including actions taken pursuant to decisions of the Federal Government. Therefore, a statement that emissions from a proposed Federal action represent only a small fraction of global emissions is essentially a statement about the nature of the climate change challenge, and is not an appropriate basis for deciding whether or to what extent to consider climate change impacts under NEPA. Moreover, these comparisons are also not an appropriate method for characterizing the potential impacts associated with a proposed action and its alternatives and mitigations because this approach does not reveal anything beyond the nature of the climate change challenge itself: the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large impact. When considering GHG emissions and their significance, agencies should use appropriate tools and methodologies for quantifying GHG emissions and comparing GHG quantities across alternative scenarios. Agencies should not limit themselves to calculating a proposed action's emissions as a percentage of sector, nationwide, or global emissions in deciding whether or to what extent to consider climate change impacts under NEPA.

1. GHG Emissions Quantification and Relevant Tools

This guidance recommends that agencies quantify a proposed agency action's projected direct and indirect GHG emissions. Agencies should be guided by the principle that the extent of the analysis should be commensurate with the quantity of projected GHG emissions and take into account available data and GHG quantification tools that

are suitable for and commensurate with the proposed agency action.²⁷ The rule of reason and the concept of proportionality caution against providing an in-depth analysis of emissions regardless of the insignificance of the quantity of GHG emissions that would be caused by the proposed agency action.

Quantification tools are widely available, and are already in broad use in the Federal and private sectors, by state and local governments, and globally.²⁸ Such quantification tools and methodologies have been developed to assist institutions, organizations, agencies, and companies with different levels of technical sophistication, data availability, and GHG source profiles. When data inputs are reasonably available to support calculations, agencies should conduct GHG analysis and disclose quantitative estimates of GHG emissions in their NEPA reviews. These tools can provide estimates of GHG emissions, including emissions from fossil fuel combustion and estimates of GHG emissions and carbon sequestration for many of the sources and sinks potentially affected by proposed resource management actions.²⁹ When considering which tool(s) to employ, it is important to consider the proposed action's temporal scale, and the availability of input data.³⁰ Examples of the kinds of methodologies agencies might consider using are presented in CEQ's 2012 Guidance for Accounting and Reporting GHG Emissions for a wide variety of activities associated with Federal agency operations.³¹ When an agency determines that quantifying GHG emissions would not be

²⁷ See 40 CFR 1500.1(b) ("Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail."); 40 CFR 1502.2(b) (Impacts shall be discussed in proportion to their significance); 40 CFR 1502.15 (Data and analyses in a statement shall be commensurate with the importance of the impact...).

²⁸ See https://ceq.doe.gov/current_developments/GHG-accounting-tools.html.

²⁹ For example, USDA's COMET-Farm tool can be used to assess the carbon sequestration of existing agricultural activities along with the reduction in carbon sequestration (emissions) of project-level activities, <http://cometfarm.nrel.colostate.edu/>. Examples of other tools are available at https://ceq.doe.gov/current_developments/GHG-accounting-tools.html.

³⁰ See 40 CFR 1502.22.

³¹ See

https://www.whitehouse.gov/sites/default/files/microsites/ceq/revised_federal_greenhouse_gas_accounting_and_reporting_guidance_

warranted because tools, methodologies, or data inputs are not reasonably available, the agency should provide a qualitative analysis and its rationale for determining that the quantitative analysis is not warranted. A qualitative analysis can rely on sector-specific descriptions of the GHG emissions of the category of Federal agency action that is the subject of the NEPA analysis.

When updating their NEPA procedures³² and guidance, agencies should coordinate with CEQ to identify 1) the actions that normally warrant quantification of their GHG emissions, and consideration of the relative GHG emissions associated with alternative actions and 2) agency actions that normally do not warrant such quantification because tools, methodologies, or data inputs are not reasonably available. The determination of the potential significance of a proposed action remains subject to agency practice for the consideration of context and intensity, as set forth in the CEQ Regulations.³³

2. The Scope of the Proposed Action

In order to assess effects, agencies should take account of the proposed action – including “connected” actions³⁴ – subject to reasonable limits based on feasibility and practicality. Activities that have a reasonably close causal relationship to the Federal action, such as those that may occur as a predicate for a proposed agency action or as a consequence of a proposed agency action, should be accounted for in the NEPA analysis.

060412.pdf. Federal agencies’ Strategic Sustainability Performance Plans reflecting their annual GHG inventories and reports under Executive Order 13514 are available at <https://www.performance.gov/node/3406/view?view=public#supporting-info>.

³² See 40 CFR 1507.3.

³³ 40 CFR 1508.27 (“‘Significantly’ as used in NEPA requires considerations of both context and intensity: (a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. . . . (b) Intensity. This refers to the severity of impact.”).

³⁴ 40 CFR 1508.25(a) (Actions are connected if they: (i) Automatically trigger other actions which may require environmental impact statements; (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously, or; (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.).

For example, NEPA reviews for proposed resource extraction and development projects typically include the reasonably foreseeable effects of various phases in the process, such as clearing land for the project, building access roads, extraction, transport, refining, processing, using the resource, disassembly, disposal, and reclamation. Depending on the relationship between any of the phases, as well as the authority under which they may be carried out, agencies should use the analytical scope that best informs their decision making.

The agency should focus on significant potential effects and conduct an analysis that is proportionate to the environmental consequences of the proposed action.³⁵ Agencies can rely on basic NEPA principles to determine and explain the reasonable parameters of their analyses in order to disclose the reasonably foreseeable effects that may result from their proposed actions.³⁶

3. Alternatives

Considering alternatives, including alternatives that mitigate GHG emissions, is fundamental to the NEPA process and accords with NEPA Sections 102(2)(C) and 102(2)(E).³⁷ The CEQ regulations emphasize that the alternatives analysis is the heart of the EIS under NEPA Section 102(2)(C).³⁸ NEPA Section 102(2)(E) provides an independent requirement for the consideration of alternatives in environmental documents.³⁹ NEPA calls upon agencies to use the NEPA process to “identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.”⁴⁰ The requirement to

³⁵ See 40 CFR 1501.7(a)(3), 1502.2(b), and 1502.15.

³⁶ See 40 CFR 1502.16.

³⁷ 42 U.S.C. 4332(2)(C), 4332(2)(E); 40 CFR 1502.14, 1508.9(b).

³⁸ 40 CFR 1502.14.

³⁹ See 40 CFR 1500.2, 1508.9(b).

⁴⁰ 40 CFR 1500.2(c).

consider alternatives ensures that agencies account for approaches with no, or less, adverse environmental effects for a particular resource.

Consideration of alternatives also provides each agency decision maker the information needed to examine other possible approaches to a particular proposed action (including the no action alternative) that could alter the environmental impact or the balance of factors considered in making the decision. Agency decisions are aided when there are reasonable alternatives that allow for comparing GHG emissions and carbon sequestration potential, trade-offs with other environmental values, and the risk from – and resilience to – climate change inherent in a proposed action and its design.

Agencies must consider a range of reasonable alternatives consistent with the level of NEPA review (e.g., EA or EIS) and the purpose and need for the proposed action, as well as reasonable mitigation measures if not already included in the proposed action or alternatives.⁴¹ Accordingly, a comparison of these alternatives based on GHG emissions and any potential mitigation measures can be useful to advance a reasoned choice among alternatives and mitigation actions. When conducting the analysis, an agency should compare the anticipated levels of GHG emissions from each alternative – including the no-action alternative – and mitigation actions to provide information to the public and enable the decision maker to make an informed choice.

Agencies should consider reasonable alternatives and mitigation measures to reduce action-related GHG emissions or increase carbon sequestration in the same fashion as they consider alternatives and mitigation measures for any other environmental effects. NEPA, the CEQ Regulations, and this guidance do not require the decision

⁴¹ See 42 U.S.C. 4332(2)(C), 4332(2)(E), and 40 CFR 1502.14(f), 1508.9(b). The purpose and need for action usually reflects both the extent of the agency's statutory authority and its policies.

maker to select the alternative with the lowest net level of emissions. Rather, they allow for the careful consideration of emissions and mitigation measures along with all the other factors considered in making a final decision.

4. Direct and Indirect Effects

If the direct and indirect GHG emissions can be quantified based on available information, including reasonable projections and assumptions, agencies should consider and disclose the reasonably foreseeable direct and indirect emissions when analyzing the direct and indirect effects of the proposed action.⁴² Agencies should disclose the information and any assumptions used in the analysis and explain any uncertainties.

To compare a project's estimated direct and indirect emissions with GHG emissions from the no-action alternative, agencies should draw on existing, timely, objective, and authoritative analyses, such as those by the Energy Information Administration, the Federal Energy Management Program, or Office of Fossil Energy of the Department of Energy.⁴³ In the absence of such analyses, agencies should use other available information. When such analyses or information for quantification is unavailable, or the complexity of comparing emissions from various sources would make quantification overly speculative, then the agency should quantify emissions to the extent that this information is available and explain the extent to which quantified emissions information is unavailable while providing a qualitative analysis of those emissions. As

⁴² For example, where the proposed action involves fossil fuel extraction, direct emissions typically include GHGs emitted during the process of exploring for or extracting the fossil fuel. The indirect effects of such an action that are reasonably foreseeable at the time would vary with the circumstances of the proposed action. For actions such as a Federal lease sale of coal for energy production, the impacts associated with the end-use of the fossil fuel being extracted would be the reasonably foreseeable combustion of that coal.

⁴³ For a current example, see Office of Fossil Energy, Nat'l Energy Tech. Lab., U.S. Dep't of Energy, *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States*, Pub. No. DOE/NETL-2014/1649 (2014), available at <http://energy.gov/sites/prod/files/2014/05/f16/Life%20Cycle%20GHG%20Perspective%20Report.pdf>.

with any NEPA analysis, the level of effort should be proportionate to the scale of the emissions relevant to the NEPA review.

5. Cumulative Effects

“Cumulative impact” is defined in the CEQ Regulations as the “impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.”⁴⁴ All GHG emissions contribute to cumulative climate change impacts. However, for most Federal agency actions CEQ does not expect that an EIS would be required based *solely* on the global significance of cumulative impacts of GHG emissions, as it would not be consistent with the rule of reason to require the preparation of an EIS for every Federal action that may cause GHG emissions regardless of the magnitude of those emissions.

Based on the agency identification and analysis of the direct and indirect effects of its proposed action, NEPA requires an agency to consider the cumulative impacts of its proposed action and reasonable alternatives.⁴⁵ As noted above, for the purposes of NEPA, the analysis of the effects of GHG emissions is essentially a cumulative effects analysis that is subsumed within the general analysis and discussion of climate change impacts. Therefore, direct and indirect effects analysis for GHG emissions will adequately address the cumulative impacts for climate change from the proposed action and its alternatives and a separate cumulative effects analysis for GHG emissions is not needed.

6. Short- and Long-Term Effects

⁴⁴ 40 CFR 1508.7.

⁴⁵ See 40 CFR 1502.16, 1508.7, 1508.8. See also CEQ Memorandum to Heads of Federal Agencies, *Guidance on the Consideration of Past Actions in Cumulative Effects Analysis*, June 24, 2005, available at https://ceq.doe.gov/nepa/regs/Guidance_on_CE.pdf.

When considering effects, agencies should take into account both the short- and long-term adverse and beneficial effects using a temporal scope that is grounded in the concept of reasonable foreseeability. Some proposed actions will have to consider effects at different stages to ensure the direct effects and reasonably foreseeable indirect effects are appropriately assessed; for example, the effects of construction are different from the effects of the operations and maintenance of a facility.

Biogenic GHG emissions and carbon stocks from some land or resource management activities, such as a prescribed burn of a forest or grassland conducted to limit loss of ecosystem function through wildfires or insect infestations, may result in short-term GHG emissions and loss of stored carbon, while in the longer term a restored, healthy ecosystem may provide long-term carbon sequestration. Therefore, the short- and long-term effects should be described in comparison to the no action alternative in the NEPA review.

7. Mitigation

Mitigation is an important component of the NEPA process that Federal agencies can use to avoid, minimize, and compensate for the adverse environmental effects associated with their actions. Mitigation, by definition, includes avoiding impacts, minimizing impacts by limiting them, rectifying the impact, reducing or eliminating the impacts over time, or compensating for them.⁴⁶ Consequently, agencies should consider reasonable mitigation measures and alternatives as provided for under existing CEQ Regulations and take into account relevant agency statutory authorities and policies. The NEPA process is also intended to provide useful advice and information to State, local

⁴⁶ See 40 CFR 1508.20, 1508.25 (Alternatives include mitigation measures not included in the proposed action).

and tribal governments and private parties so that the agencies can better coordinate with other agencies and organizations regarding the means to mitigate effects of their actions.⁴⁷ The NEPA process considers the effects of mitigation commitments made by project proponents or others and mitigation required under other relevant permitting and environmental review regimes.⁴⁸

As Federal agencies evaluate potential mitigation of GHG emissions and the interaction of a proposed action with climate change, the agencies should also carefully evaluate the quality of that mitigation to ensure it is additional, verifiable, durable, enforceable, and will be implemented.⁴⁹ Agencies should consider the potential for mitigation measures to reduce or mitigate GHG emissions and climate change effects when those measures are reasonable and consistent with achieving the purpose and need for the proposed action. Such mitigation measures could include enhanced energy efficiency, lower GHG-emitting technology, carbon capture, carbon sequestration (e.g., forest, agricultural soils, and coastal habitat restoration), sustainable land management practices, and capturing or beneficially using GHG emissions such as methane.

Finally, the CEQ Regulations and guidance recognize the value of monitoring to ensure that mitigation is carried out as provided in a record of decision or finding of no significant impact.⁵⁰ The agency's final decision on the proposed action should identify those mitigation measures that the agency commits to take, recommends, or requires

⁴⁷ NEPA directs Federal agencies to make "advice and information useful in restoring, maintaining, and enhancing the quality of the environment" available to States, Tribes, counties, cities, institutions and individuals. NEPA Sec. 102(2)(G).

⁴⁸ See CEQ Memorandum to Heads of Federal Agencies, *Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact*, 76 FR 3843 (Jan. 21, 2011) available at https://ceq.doe.gov/current_developments/docs/Mitigation_and_Monitoring_Guidance_14Jan2011.pdf.

⁴⁹ See Presidential Memorandum: *Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment* (<https://www.whitehouse.gov/the-press-office/2015/11/03/mitigating-impacts-natural-resources-development-and-encouraging-related>) defining "durability" and addressing additionality.

⁵⁰ See 40 CFR 1505.2(c), 1505.3. See also CEQ Memorandum to Heads of Federal Agencies, *Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact*, 76 FR 3843 (Jan. 21, 2011) available at https://ceq.doe.gov/current_developments/docs/Mitigation_and_Monitoring_Guidance_14Jan2011.pdf.

others to take. Monitoring is particularly appropriate to confirm the effectiveness of mitigation when that mitigation is adopted to reduce the impacts of a proposed action on affected resources already increasingly vulnerable due to climate change.

B. CONSIDERING THE EFFECTS OF CLIMATE CHANGE ON A PROPOSED ACTION AND ITS ENVIRONMENTAL IMPACTS

According to the USGCRP and others, GHGs already in the atmosphere will continue altering the climate system into the future, even with current or future emissions control efforts.⁵¹ Therefore, a NEPA review should consider an action in the context of the future state of the environment. In addition, climate change adaptation and resilience — defined as adjustments to natural or human systems in response to actual or expected climate changes — are important considerations for agencies contemplating and planning actions with effects that will occur both at the time of implementation and into the future.⁵²

1. Affected Environment

An agency should identify the affected environment to provide a basis for comparing the current and the future state of the environment as affected by the proposed action or its reasonable alternatives.⁵³ The current and projected future state of the environment without the proposed action (i.e., the no action alternative) represents the reasonably foreseeable affected environment, and this should be described based on

⁵¹ See Third National Climate Assessment, *Appendix 3 Climate Science Supplement 753-754*, available at

http://s3.amazonaws.com/nca2014/low/NCA3_Full_Report_Appendix_3_Climate_Science_Supplement_LowRes.pdf?download=1.

⁵² See Third National Climate Assessment, Chapter 28, “Adaptation” and Chapter 26, “Decision Support: Connecting Science, Risk Perception, and Decisions,” available at <http://www.globalchange.gov/nca3-downloads-materials>; see also, Exec. Order No. 13653, 78 Fed. Reg. 66817 (Nov. 6, 2013) and Exec. Order No. 13693, *Planning for Federal Sustainability in the Next Decade*, 80 Fed. Reg. 15869 (March 25, 2015) (defining “climate-resilient design”).

⁵³ See 40 CFR 1502.15 (providing that environmental impact statements shall succinctly describe the environmental impacts on the area(s) to be affected or created by the alternatives under consideration).

authoritative climate change reports,⁵⁴ which often project at least two possible future scenarios.⁵⁵ The temporal bounds for the state of the environment are determined by the projected initiation of implementation and the expected life of the proposed action and its effects.⁵⁶ Agencies should remain aware of the evolving body of scientific information as more refined estimates of the impacts of climate change, both globally and at a localized level, become available.⁵⁷

2. Impacts

The analysis of climate change impacts should focus on those aspects of the human environment that are impacted by both the proposed action and climate change. Climate change can make a resource, ecosystem, human community, or structure more susceptible to many types of impacts and lessen its resilience to other environmental impacts apart from climate change. This increase in vulnerability can exacerbate the effects of the proposed action. For example, a proposed action may require water from a stream that has diminishing quantities of available water because of decreased snow pack in the mountains, or add heat to a water body that is already warming due to increasing atmospheric temperatures. Such considerations are squarely within the scope of NEPA and can inform decisions on whether to proceed with, and how to design, the proposed action to eliminate or mitigate impacts exacerbated by climate change. They can also

⁵⁴ See, e.g., Third National Climate Assessment (Regional impacts chapters) *available at* <http://www.globalchange.gov/nca3-downloads-materials>.

⁵⁵ See, e.g., Third National Climate Assessment (Regional impacts chapters, considering a low future global emissions scenario, and a high emissions scenario) *available at* <http://www.globalchange.gov/nca3-downloads-materials>.

⁵⁶ CEQ, *Considering Cumulative Effects Under the National Environmental Policy Act* (1997), https://ceq.doe.gov/publications/cumulative_effects.html. Agencies should also consider their work under Exec. Order No. 13653, *Preparing the United States for the Impacts of Climate Change*, 78 Fed. Reg. 66817 (Nov. 6, 2013), that considers how capital investments will be affected by a changing climate over time.

⁵⁷ See, e.g., <http://nca2014.globalchange.gov/report/regions/coasts>.

inform possible adaptation measures to address the impacts of climate change, ultimately enabling the selection of smarter, more resilient actions.

3. Available Assessments and Scenarios

In accordance with NEPA's rule of reason and standards for obtaining information regarding reasonably foreseeable effects on the human environment, agencies need not undertake new research or analysis of potential climate change impacts in the proposed action area, but may instead summarize and incorporate by reference the relevant scientific literature.⁵⁸ For example, agencies may summarize and incorporate by reference the relevant chapters of the most recent national climate assessments or reports from the USGCRP.⁵⁹ Particularly relevant to some proposed actions are the most current reports on climate change impacts on water resources, ecosystems, agriculture and forestry, health, coastlines, and ocean and arctic regions in the United States.⁶⁰ Agencies may recognize that scenarios or climate modeling information (including seasonal, inter-annual, long-term, and regional-scale projections) are widely used, but when relying on a single study or projection, agencies should consider their limitations and discuss them.⁶¹

4. Opportunities for Resilience and Adaptation

As called for under NEPA, the CEQ Regulations, and CEQ guidance, the NEPA review process should be integrated with agency planning at the earliest possible time that would allow for a meaningful analysis.⁶² Information developed during early

⁵⁸ See 40 CFR 1502.21 (material may be incorporated by reference if it is reasonably available for inspection by potentially interested persons during public review and comment).

⁵⁹ See <http://www.globalchange.gov/browse/reports>.

⁶⁰ See Third National Climate Assessment, *Our Changing Climate*, available at <http://nca2014.globalchange.gov/report>. Agencies should consider the latest final assessments and reports when they are updated.

⁶¹ See 40 CFR 1502.22. Agencies can consult www.data.gov/climate/portals for model data archives, visualization tools, and downscaling results.

⁶² See 42 U.S.C. 4332 ("agencies of the Federal Government shall ... utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making"); 40 CFR 1501.2 ("Agencies shall integrate the NEPA process with other planning at the earliest possible time..."); See also CEQ Memorandum

planning processes that precede a NEPA review may be incorporated into the NEPA review. Decades of NEPA practice have shown that integrating environmental considerations with the planning process provides useful information that program and project planners can consider in the design of the proposed action, alternatives, and potential mitigation measures. For instance, agencies should take into account increased risks associated with development in floodplains, avoiding such development wherever there is a practicable alternative, as required by Executive Order 11988 and Executive Order 13690.⁶³ In addition, agencies should take into account their ongoing efforts to incorporate environmental justice principles into their programs, policies, and activities, including the environmental justice strategies required by Executive Order 12898, as amended, and consider whether the effects of climate change in association with the effects of the proposed action may result in a disproportionate effect on minority and low income communities.⁶⁴ Agencies also may consider co-benefits of the proposed action, alternatives, and potential mitigation measures for human health, economic and social stability, ecosystem services, or other benefit that increases climate change preparedness or resilience. Individual agency adaptation plans and interagency adaptation strategies, such as agency Climate Adaptation Plans, the National Fish, Wildlife and Plants Climate Adaptation Strategy, and the National Action Plan: Priorities for Managing Freshwater

for Heads of Federal Departments and Agencies, *Improving the Process for Preparing Efficient and Timely Environmental Reviews under the National Environmental Policy Act*, 77 Fed. Reg. 14473 (Mar. 12, 2012), available at https://ceq.doe.gov/current_developments/docs/Improving_NEPA_Efficiencies_06Mar2012.pdf.

⁶³ See Exec. Order No. 11988, “Floodplain Management,” 42 Fed. Reg. 26951 (May 24, 1977), available at <http://www.archives.gov/federal-register/codification/executive-order/11988.html>; Exec. Order No. 13690, *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*, 80 Fed. Reg. 6425 (Jan. 30, 2015), available at <https://www.gpo.gov/fdsys/pkg/FR-2015-02-04/pdf/2015-02379.pdf>.

⁶⁴ See Exec. Order No. 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, 59 Fed. Reg. 7629 (Feb. 16, 1994), available at <https://ceq.doe.gov/nepa/regs/eos/ii-5.pdf>; CEQ, *Environmental Justice Guidance Under the National Environmental Policy Act* (Dec. 1997), available at <http://ceq.doe.gov/nepa/regs/ej/justice.pdf>.

Resources in a Changing Climate, provide other good examples of the type of relevant and useful information that can be considered.⁶⁵

Climate change effects on the environment and on the proposed project should be considered in the analysis of a project considered vulnerable to the effects of climate change such as increasing sea level, drought, high intensity precipitation events, increased fire risk, or ecological change. In such cases, a NEPA review will provide relevant information that agencies can use to consider in the initial project design, as well as alternatives with preferable overall environmental outcomes and improved resilience to climate impacts. For example, an agency considering a proposed long-term development of transportation infrastructure on a coastal barrier island should take into account climate change effects on the environment and, as applicable, consequences of rebuilding where sea level rise and more intense storms will shorten the projected life of the project and change its effects on the environment.⁶⁶ Given the length of time involved in present sea level projections, such considerations typically will not be relevant to short-term actions with short-term effects.

In addition, the particular impacts of climate change on vulnerable communities may be considered in the design of the action or the selection among alternatives to

⁶⁵ See <http://sustainability.performance.gov> for agency sustainability plans, which contain agency adaptation plans. See also <http://www.wildlifeadaptationstrategy.gov>; http://www.whitehouse.gov/sites/default/files/microsites/ceq/2011_national_action_plan.pdf; and <https://www.epa.gov/greeningepa/climate-change-adaptation-plans>

⁶⁶ See U.S. Department of Transportation, Gulf Coast Study, Phase 2, *Assessing Transportation Vulnerability to Climate Change Synthesis of Lessons Learned and Methods Applied*, FHWA-HEP-15-007 (Oct. 2014) (focusing on the Mobile, Alabama region), available at http://www.fhwa.dot.gov/environment/climate_change/adaptation/ongoing_and_current_research/gulf_coast_study/phase2_task6/fhwahep15007.pdf; U.S. Climate Change Science Program, Synthesis and Assessment Product 4.7, *Impacts of Climate Change and Variability on Transportation Systems and Infrastructure: Gulf Coast Study, Phase I* (Mar. 2008) (focusing on a regional scale in the central Gulf Coast), available at <https://downloads.globalchange.gov/sap/sap4-7/sap4-7-final-all.pdf>. Information about the Gulf Coast Study is available at http://www.fhwa.dot.gov/environment/climate_change/adaptation/ongoing_and_current_research/gulf_coast_study. See also Third National Climate Assessment, Chapter 28, “Adaptation,” at 675 (noting that Federal agencies in particular can facilitate climate adaptation by “ensuring the establishment of federal policies that allow for “flexible” adaptation efforts and take steps to avoid unintended consequences”), available at <http://nca2014.globalchange.gov/report/response-strategies/adaptation#intro-section-2>.

assess the impact, and potential for disproportionate impacts, on those communities.⁶⁷

For example, chemical facilities located near the coastline could have increased risk of spills or leakages due to sea level rise or increased storm surges, putting local communities and environmental resources at greater risk. Increased resilience could minimize such potential future effects. Finally, considering climate change preparedness and resilience can help ensure that agencies evaluate the potential for generating additional GHGs if a project has to be replaced, repaired, or modified, and minimize the risk of expending additional time and funds in the future.

C. Special Considerations for Biogenic Sources of Carbon

With regard to biogenic GHG emissions from land management actions – such as prescribed burning, timber stand improvements, fuel load reductions, scheduled harvesting, and livestock grazing – it is important to recognize that these land management actions involve GHG emissions and carbon sequestration that operate within the global carbon and nitrogen cycle, which may be affected by those actions. Similarly, some water management practices have GHG emission consequences (e.g., reservoir management practices can reduce methane releases, wetlands management practices can enhance carbon sequestration, and water conservation can improve energy efficiency).

Notably, it is possible that the net effect of ecosystem restoration actions resulting in short-term biogenic emissions may lead to long-term reductions of atmospheric GHG concentrations through increases in carbon stocks or reduced risks of future emissions. In the land and resource management context, how a proposed action affects a net carbon sink or source will depend on multiple factors such as the climatic region, the distribution

⁶⁷ For an example, see https://www.blm.gov/epl-front-office/projects/nepa/5251/42462/45213/NPR-A_FINAL_ROD_2-21-13.pdf.

of carbon across carbon pools in the project area, and the ongoing activities and trends. In addressing biogenic GHG emissions, resource management agencies should include a comparison of estimated net GHG emissions and carbon stock changes that are projected to occur with and without implementation of proposed land or resource management actions.⁶⁸ This analysis should take into account the GHG emissions, carbon sequestration potential, and the changes in carbon stocks that are relevant to decision making in light of the proposed actions and timeframes under consideration.

One example of agencies dealing with biogenic emissions and carbon sequestration arises when agencies consider proposed vegetation management practices that affect the risk of wildfire, insect and disease outbreak, or other disturbance. The public and the decision maker may benefit from consideration of the influence of a vegetation management action that affects the risk of wildfire on net GHG emissions and carbon stock changes. NEPA reviews should consider whether to include a comparison of net GHG emissions and carbon stock changes that are anticipated to occur, with and without implementation of the proposed vegetation management practice, to provide information that is useful to the decision maker and the public to distinguish between alternatives. The analysis would take into account the estimated GHG emissions (biogenic and fossil), carbon sequestration potential, and the net change in carbon stocks relevant in light of the proposed actions and timeframes under consideration. In such cases the agency should describe the basis for estimates used to project the probability or likelihood of occurrence or changes in the effects or severity of wildfire. Where such

⁶⁸ One example of a tool for such calculations is the Carbon On Line Estimator (COLE), which uses data based on USDA Forest Service Forest Inventory & Analysis and Resource Planning Assessment data and other ecological data. COLE began as a collaboration between the National Council for Air and Stream Improvement, Inc. (NCASI) and USDA Forest Service, Northern Research Station. It currently is maintained by NCASI. It is available at <http://www.fs.usda.gov/ccrc/tools/cole>.

tools, methodologies, or data are not yet available, the agency should provide a qualitative analysis and its rationale for determining that the quantitative analysis is not warranted. As with any other analysis, the rule of reason and proportionality should be applied to determine the extent of the analysis.

CEQ acknowledges that Federal land and resource management agencies are developing agency-specific principles and guidance for considering biological carbon in management and planning decisions.⁶⁹ Such guidance is expected to address the importance of considering biogenic carbon fluxes and storage within the context of other management objectives and ecosystem service goals, and integrating carbon considerations as part of a balanced and comprehensive program of sustainable management, climate change mitigation, and climate change adaptation.

IV. TRADITIONAL NEPA TOOLS AND PRACTICES

A. Scoping and Framing the NEPA Review

To effectuate integrated decision making, avoid duplication, and focus the NEPA review, the CEQ Regulations provide for scoping.⁷⁰ In scoping, the agency determines the issues that the NEPA review will address and identifies the impacts related to the proposed action that the analyses will consider.⁷¹ An agency can use the scoping process to help it determine whether analysis is relevant and, if so, the extent of analysis

⁶⁹ See Council on Climate Change Preparedness and Resilience, *Priority Agenda Enhancing the Climate Resilience of America's Natural Resources*, at 52 (Oct. 2014), available at http://www.whitehouse.gov/sites/default/files/docs/enhancing_climate_resilience_of_americas_natural_resources.pdf.

⁷⁰ See 40 CFR 1501.7 (“There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. This process shall be termed scoping.”); see also CEQ Memorandum for Heads of Federal Departments and Agencies, *Improving the Process for Preparing Efficient and Timely Environmental Reviews under the National Environmental Policy Act*, March 6, 2012, available at https://ceq.doe.gov/current_developments/docs/Improving_NEPA_Efficiencies_06Mar2012.pdf (the CEQ Regulations explicitly require scoping for preparing an EIS, however, agencies can also take advantage of scoping whenever preparing an EA).

⁷¹ See 40 CFR 1500.4(b), 1500.4(g), 1501.7.

appropriate for a proposed action.⁷² When scoping for the climate change issues associated with the proposed agency action, the nature, location, timeframe, and type of the proposed action and the extent of its effects will help determine the degree to which to consider climate projections, including whether climate change considerations warrant emphasis, detailed analysis, and disclosure.

Consistent with this guidance, agencies may develop their own agency-specific practices and guidance for framing the NEPA review. Grounded on the principles of proportionality and the rule of reason, such aids can help an agency determine the extent to which an analysis of GHG emissions and climate change impacts should be explored in the decision-making process and will assist in the analysis of the no action and proposed alternatives and mitigation.⁷³ The agency should explain such a framing process and its application to the proposed action to the decision makers and the public during the NEPA review and in the EA or EIS document.

B. Frame of Reference

When discussing GHG emissions, as for all environmental impacts, it can be helpful to provide the decision maker and the public with a recognizable frame of reference for comparing alternatives and mitigation measures. Agencies should discuss relevant approved federal, regional, state, tribal, or local plans, policies, or laws for GHG emission reductions or climate adaptation to make clear whether a proposed project's

⁷² See 40 CFR 1501.7 (The agency preparing the NEPA analysis must use the scoping process to, among other things, determine the scope and identify the significant issues to be analyzed in depth) and CEQ, *Memorandum for General Counsels, NEPA Liaisons, and Participants in Scoping*, April 30, 1981, available at <https://ceq.doe.gov/nepa/regs/scope/scoping.htm>.

⁷³ See, e.g., Matthew P. Thompson, Bruce G. Marcot, Frank R. Thompson, III, Steven McNulty, Larry A. Fisher, Michael C. Runge, David Cleaves, and Monica Tomosy, *The Science of Decisionmaking Applications for Sustainable Forest and Grassland Management in the National Forest System* (2013), available at http://www.fs.fed.us/rm/pubs_other/rmrs_2013_thompson_m004.pdf; U.S. Forest Service Comparative Risk Assessment Framework And Tools, available at http://www.fs.fed.us/psw/topics/fire_science/craft/craft/; and Julien Martin, Michael C. Runge, James D. Nichols, Bruce C. Lubow, and William L. Kendall, *Structured decision making as a conceptual framework to identify thresholds for conservation and management* (2009), *Ecological Applications* 19:1079–1090, available at <http://www.esajournals.org/doi/abs/10.1890/08-0255.1>.

GHG emissions are consistent with such plans or laws.⁷⁴ For example, the Bureau of Land Management has discussed how agency actions in California, especially joint projects with the State, may or may not facilitate California reaching its emission reduction goals under the State's Assembly Bill 32 (Global Warming Solutions Act).⁷⁵ This approach helps frame the policy context for the agency decision based on its NEPA review.

C. Incorporation by Reference

Incorporation by reference is of great value in considering GHG emissions or where an agency is considering the implications of climate change for the proposed action and its environmental effects. Agencies should identify situations where prior studies or NEPA analyses are likely to cover emissions or adaptation issues, in whole or in part. When larger scale analyses have considered climate change impacts and GHG emissions, calculating GHG emissions and carbon stocks for a specific action may provide only limited information beyond the information already collected and considered in the larger scale analyses. The NEPA reviews for a specific action can incorporate by reference earlier programmatic studies or information such as management plans, inventories, assessments, and research that consider potential changes in carbon stocks, as well as any relevant programmatic NEPA reviews.⁷⁶

Accordingly, agencies should use the scoping process to consider whether they should incorporate by reference GHG analyses from other programmatic studies, action

⁷⁴ See 40 CFR 1502.16(c), 1506.2(d) (where an inconsistency exists, agencies should describe the extent to which the agency will reconcile its proposed action with the plan or law). See also Exec. Order No. 13693, 80 Fed. Reg. 15869 (Mar. 25, 2015) (establishing GHG emission and related goals for agency facilities and operations. Scope 1, 2, and 3 emissions are typically separate and distinct from analyses and information used in an EA or EIS.).

⁷⁵ See, e.g., U.S. Bureau of Land Management, Desert Renewable Energy Conservation Plan Proposed Land Use Plan Amendment and Final Environmental Impact Statement, Vol. I, § I.3.3.2, at 12, available at <http://drecp.org/finaldrecp/>.

⁷⁶ See 40 CFR 1502.5, 1502.21.

specific NEPA reviews, or programmatic NEPA reviews to avoid duplication of effort. Furthermore, agencies should engage other agencies and stakeholders with expertise or an interest in related actions to participate in the scoping process to identify relevant GHG and adaptation analyses from other actions or programmatic NEPA documents.

D. Using Available Information

Agencies should make decisions using current scientific information and methodologies. CEQ does not expect agencies to fund and conduct original climate change research to support their NEPA analyses or for agencies to require project proponents to do so. Agencies should exercise their discretion to select and use the tools, methodologies, and scientific and research information that are of high quality and available to assess the impacts.⁷⁷

Agencies should be aware of the ongoing efforts to address the impacts of climate change on human health and vulnerable communities.⁷⁸ Certain groups, including children, the elderly, and the poor, are more vulnerable to climate-related health effects, and may face barriers to engaging on issues that disproportionately affect them. CEQ recommends that agencies periodically engage their environmental justice experts, and the Federal Interagency Working Group on Environmental Justice,⁷⁹ to identify approaches to avoid or minimize impacts that may have disproportionately high and

⁷⁷ See 40 CFR 1502.24 (requiring agencies to ensure the professional and scientific integrity of the discussions and analyses in environmental impact statements).

⁷⁸ USGCRP, *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment* (Apr. 2016), available at <https://health2016.globalchange.gov/downloads>.

⁷⁹ For more information on the Federal Interagency Working Group on Environmental Justice co-chaired by EPA and CEQ, see <http://www.epa.gov/environmentaljustice/interagency/index.html>.

adverse human health or environmental effects on minority and low-income populations.⁸⁰

E. Programmatic or Broad-Based Studies and NEPA Reviews

Agency decisions can address different geographic scales that can range from the programmatic or landscape level to the site- or project-specific level. Agencies sometimes conduct analyses or studies that are not NEPA reviews at the national level or other broad scale level (e.g., landscape, regional, or watershed) to assess the status of one or more resources or to determine trends in changing environmental conditions.⁸¹ In the context of long-range energy, transportation, and resource management strategies an agency may decide that it would be useful and efficient to provide an aggregate analysis of GHG emissions or climate change effects in a programmatic analysis and then incorporate by reference that analysis into future NEPA reviews.

A tiered, analytical decision-making approach using a programmatic NEPA review is used for many types of Federal actions⁸² and can be particularly relevant to addressing proposed land, aquatic, and other resource management plans. Under such an approach, an agency conducts a broad-scale programmatic NEPA analysis for decisions such as establishing or revising USDA Forest Service land management plans, Bureau of Land Management resource management plans, or Natural Resources Conservation Service conservation programs. Subsequent NEPA analyses for proposed site-specific

⁸⁰ *President's Memorandum for the Heads of All Departments and Agencies, Executive Order on Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (Feb. 11, 1994), available at <https://ceq.doe.gov/nepa/regs/eos/ii-5.pdf>; CEQ, *Environmental Justice Guidance Under the National Environmental Policy Act*, available at <https://ceq.doe.gov/nepa/regs/ej/justice.pdf>.

⁸¹ Such a programmatic study is distinct from a programmatic NEPA review which is appropriate when the action under consideration is itself subject to NEPA requirements. See CEQ, *Memorandum for Heads of Federal Departments and Agencies, Effective Use of Programmatic NEPA Reviews*, Dec. 18, 2014, § 1(A), p. 9, available at https://www.whitehouse.gov/sites/default/files/docs/effective_use_of_programmatic_nepa_reviews_final_dec2014_searchable.pdf (discussing non-NEPA types of programmatic analyses such as data collection, assessments, and research, which previous NEPA guidance described as joint inventories or planning studies).

⁸² See 40 CFR 1502.20, 1508.28. A programmatic NEPA review may be appropriate when a decision is being made that is subject to NEPA, such as establishing formal plans, programs, and policies, and when considering a suite of similar projects.

decisions – such as proposed actions that implement land, aquatic, and other resource management plans – may be tiered from the broader programmatic analysis, drawing upon its basic framework analysis to avoid repeating analytical efforts for each tiered decision. Examples of project- or site-specific actions that may benefit from being able to tier to a programmatic NEPA review include: constructing transmission lines; conducting prescribed burns; approving grazing leases; granting rights-of-way; issuing leases for oil and gas drilling; authorizing construction of wind, solar or geothermal projects; and approving hard rock mineral extraction.

A programmatic NEPA review may also serve as an efficient mechanism in which to assess Federal agency efforts to adopt broad-scale sustainable practices for energy efficiency, GHG emissions avoidance and emissions reduction measures, petroleum product use reduction, and renewable energy use, as well as other sustainability practices.⁸³ While broad department- or agency-wide goals may be of a far larger scale than a particular program, policy, or proposed action, an analysis that informs how a particular action affects that broader goal can be of value.

F. Monetizing Costs and Benefits

NEPA does not require monetizing costs and benefits. Furthermore, the weighing of the merits and drawbacks of the various alternatives need not be displayed using a monetary cost-benefit analysis and should not be when there are important qualitative considerations.⁸⁴ When an agency determines that a monetized assessment of the impacts of greenhouse gas emissions or a monetary cost-benefit analysis is appropriate and

⁸³ See Exec. Order No. 13693, 80 Fed. Reg. 15869 (Mar. 25, 2015).

⁸⁴ See 40 CFR 1502.23.

relevant to the choice among different alternatives being considered, such analysis may be incorporated by reference⁸⁵ or appended to the NEPA document as an aid in evaluating the environmental consequences.⁸⁶ For example, a rulemaking could have useful information for the NEPA review in an associated regulatory impact analysis which could be incorporated by reference.⁸⁷ When using a monetary cost-benefit analysis, just as with tools to quantify emissions, the agency should disclose the assumptions, alternative inputs, and levels of uncertainty associated with such analysis. Finally, if an agency chooses to monetize some but not all impacts of an action, the agency providing this additional information should explain its rationale for doing so.⁸⁸

V. CONCLUSION AND EFFECTIVE DATE

Agencies should apply this guidance to all new proposed agency actions when a NEPA review is initiated. Agencies should exercise judgment when considering whether to apply this guidance to the extent practicable to an on-going NEPA process. CEQ does not expect agencies to apply this guidance to concluded NEPA reviews and actions for

⁸⁵ See 40 CFR 1502.21 (material may be cited if it is reasonably available for inspection by potentially interested persons within the time allowed for public review and comment).

⁸⁶ When conducting a cost-benefit analysis, determining an appropriate method for preparing a cost-benefit analysis is a decision left to the agency's discretion, taking into account established practices for cost-benefit analysis with strong theoretical underpinnings (for example, see OMB Circular A-4 and references therein). For example, the Federal social cost of carbon (SCC) estimates the marginal damages associated with an increase in carbon dioxide emissions in a given year. Developed through an interagency process committed to ensuring that the SCC estimates reflect the best available science and methodologies and used to assess the social benefits of reducing carbon dioxide emissions across alternatives in rulemakings, it provides a harmonized, interagency metric that can give decision makers and the public useful information for their NEPA review. For current Federal estimates, see Interagency Working Group on Social Cost of Carbon, United States Government, *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866* (revised July 2015), available at <https://www.whitehouse.gov/omb/oira/social-cost-of-carbon>.

⁸⁷ For example, the regulatory impact analysis was used as a source of information and aligned with the NEPA review for Corporate Average Fuel Economy (CAFE) standards, see National Highway Traffic Safety Administration, Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2017-2025, Final Environmental Impact Statement, Docket No. NHTSA-2011-0056 (July 2012), § 5.3.2, available at <http://www.nhtsa.gov/Laws+&+Regulations/CAFE+-+Fuel+Economy/Environmental+Impact+Statement+for+CAFE+Standards,+2017-2025>.

⁸⁸ For example, the information may be responsive to public comments or useful to the decision maker in further distinguishing between alternatives and mitigation measures. In all cases, the agency should ensure that its consideration of the information and other factors relevant to its decision is consistent with applicable statutory or other authorities, including requirements for the use of cost-benefit analysis.

which a final EIS or EA has been issued. Agencies should consider applying this guidance to projects in the EIS or EA preparation stage if this would inform the consideration of differences between alternatives or address comments raised through the public comment process with sufficient scientific basis that suggest the environmental analysis would be incomplete without application of the guidance, and the additional time and resources needed would be proportionate to the value of the information included.

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Response to Stephan C. Volker Comment Letter, February 10, 2017

- Volker-1 Comment noted. This comment consists of conclusory summary statements of the comments that are set forth in more detail in the remainder of the letter. Please see specific responses Volker-2 through Volker-5 below.
- Volker-2 The comment is incorrect that the Environmental Assessment (EA) improperly assumes that the contracts will be renewed. EA-16-021 analyzes the potential impacts of Reclamation's Proposed Action (proposed execution of new two-year interim renewal contracts) compared to a non-contract renewal No Action Alternative. Reclamation has removed the word "required" from page 2 of the Draft EA.
- Volker-3 The comment is incorrect that Reclamation "deliberately ignored the feasibility of its option of not renewing the interim contracts". The No Action Alternative on page 9 of EA-16-021 states: "Under the No Action alternative, Reclamation **would not renew** the interim renewal contracts that are set to expire February 28, 2017" (emphasis added).
- Further, Reclamation prepared EA-16-021 consistent with National Environmental Policy Act (NEPA) regulations, guidance from the Council on Environmental Quality (CEQ), and the Department of the Interior's NEPA regulations. In accordance with NEPA, an EA is initially prepared to determine if there are significant impacts on the human environment from carrying out the Proposed Action. Reclamation has followed applicable procedures in the preparation of EA-16-021 which includes the required components of an EA as described in the CEQ's NEPA regulations (40 CFR 1508.9): discussion of the need for the proposal, alternatives as required, environmental impacts of the proposed action and alternatives, and listing of agencies and persons consulted.
- Volker-4 The comment is incorrect that the EA fails to consider a reasonable range of alternatives. EA-16-021 included a Proposed Action (execution of two year interim renewal contracts), a reduced contract alternative, and a non-contract renewal No Action Alternative consistent with NEPA and as required by the Ninth Circuit Court Order (Case: 14-15514, 07/25/2016 regarding D.C. No. 1:12-cv-01303-LJO-MJS). As provided in the Ninth Circuit Court Order, "In satisfying the duty [of considering a reduced contract alternative], Reclamation may rely upon any water needs assessment for which the data remain accurate" (Case: 14-15514, 07/25/2016, pg 11). As described in Section 2.3 of EA-16-021, Reclamation reviewed the previous Water Needs Assessments completed for Panoche Water District (PWD) and San Luis Water District (SLWD) in 2000 and determined that updates to the assessments were warranted. New Water Needs Assessments were prepared for PWD and SLWD and included as Appendix B of the Draft EA (now Appendix E of the Final EA). Based on the updated Water Needs Assessments, Reclamation eliminated a contract reduction alternative from further review consistent with 40 CFR Section 1502.14 (see Forty Most Asked

Questions Concerning CEQ's National Environmental Policy Act Regulations 1(a) in <https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>) and the Ninth Circuit Court Order.

- Volker-5 The comment is incorrect that Reclamation improperly limited the Study Area to the Contractor's Service Area. The Ninth Circuit found that the Plaintiff's contention "that the EA's geographic scope was improperly limited to the delivery areas and should have considered the effects, including cumulative effects, of interim contract renewal on the California River Delta, the source of the water, and on the Delta's fish and other wildlife...lacks merit because the EA was tiered off of the PEIS, which addressed Central Valley Project-wide effects of long term contract renewal" and further "In light of Reclamation's obligation to conduct a more comprehensive analysis in the PEIS, it would be impractical to require the agency to trace the incremental effects of each two-year water service contract on the Delta and all Central Valley Project waters" (Case: 14-15514, 07/25/2016, pg 10).
- Volker-6 Comment noted. This comment consists of conclusory summary statements of the comments that are set forth in more detail in the remainder of the letter. Please see specific responses Volker-7 through Volker-11 below.
- Volker-7 See Response to Volker-5. Further, the Ninth Circuit found that "Impacts on salmonids and green sturgeon, as well as cumulative impacts related to drainage and selenium, were more appropriately addressed in the PEIS and the San Luis Drainage Feature Re- Evaluation Final EIS, rather than the EA for interim contract renewal" (Case: 14-15514, 07/25/2016, pg 10).
- Volker-8 See Response to Volker-5 and Volker-7. Further, Reclamation reviewed all special-status species that may be present within the Proposed Action area (see Table 4 of EA-16-021). Potential impacts, including cumulative impacts, to special-status species were considered along with the environmental baseline to determine overall effects to the species. Based on specific species biology and habitat requirements, many species were determined to be absent from the Action area and would therefore not be impacted by the Proposed Action (see Table 4 in EA-16-021). However, as described in Section 3.3 of EA-16-021, there are some special-status species that may be adversely affected by the Proposed Action, and as required by section 7(a)(2) of the Endangered Species Act (ESA), Reclamation consulted with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) on the Proposed Action. Reclamation's determination of impacts related to the Proposed Action are based on the short-term nature of the Proposed Action (a two year contract term), delivery of existing contract quantities through existing facilities for use within existing contract service area boundaries for existing purposes, and specific environmental commitments included in Table 2 of EA-16-021. Reclamation's analysis and determinations are supported by the USFWS and NMFS (see Appendix B and C in Final EA-16-021). Therefore, Reclamation finds that the impacts analysis

included in EA-16-021, including additional language added to the Final EA to clarify the analysis included in the Draft is sufficient and does not preclude the public or decision makers from making an informed decision related to the Proposed Action.

Volker-9 See Response to Volker-8.

Volker-10 See Response to Volker-7. Further, as described in Section 3.3 of EA-16-021, there **may** be adverse effects to special-status species under NMFS jurisdiction from the Proposed Action due to agricultural drainage. There is no information available on the concentration of selenium in listed salmonids and DPS green sturgeon tissue in the Action area, and no way of determining to what extent the drainwater contributed by the irrigation returns from PWD and SLWD, as compared to all other sources of selenium in the Action area, might contribute to those selenium levels. However, as discussed in Section 3.7.1, the Grassland Bypass Project (GBP) continues to reduce selenium inputs to the San Joaquin River by consolidating, storing, reusing, and ultimately reducing subsurface drainage waters from the participating waters districts (see Figures 2 and 3 in EA-16-021). Therefore, Reclamation determined the Proposed Action (taking into account selenium in drainwater that is discharged from the Districts that reaches the San Joaquin River) may adversely affect Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon from the Sacramento River watershed, and the Southern DPS of North American green sturgeon. Reclamation consulted with NMFS on potential impacts from the Proposed Action to these species and NMFS determined that the Proposed Action will not jeopardize the continued existence of anadromous fish and their habitat.

Volker-11 As described on page 17 of the August 1, 2016 CEQ memorandum entitled *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (included as Exhibit 1 to the Volker comment letter), the guidance “is intended to help Federal agencies ensure their analysis of potential GHG emissions and effects of climate change in an EA or EIS is commensurate with the extent of the effects of the proposed action.”

Commensurate with the extent of the Proposed Action (a two-year contract period) and using a “temporal scope that is grounded in the concept of reasonable foreseeability”, Reclamation reviewed the potential effects of the Proposed Action (a two year contract renewal period) on global climate change and the potential impacts of global climate change on the Proposed Action consistent with the CEQ guidance. Climate change is incremental and occurs over the long-term. During the limited, short-term period, of the proposed two year interim renewal contracts, there will not be any significant, measurable environmental changes due to climate change.

As stated in Table 3 of EA-16-021 “The Proposed Action does not include construction of new facilities or modification to existing facilities. While pumping would be necessary to deliver CVP water, no additional electrical production beyond baseline conditions would occur. In addition, the generating power plant that produces electricity for the electric pumps operates under permits that are regulated for greenhouse gas emissions. As such, there would be no additional impacts to global climate change. Global climate change is expected to have some effect on the snow pack of the Sierra Nevada and the runoff regime. Current data are not yet clear on the hydrologic changes and how they will affect the San Joaquin Valley. CVP water allocations are made dependent on hydrologic conditions and environmental requirements. Since Reclamation operations and allocations are flexible, any changes in hydrologic conditions due to global climate change would be addressed within Reclamation’s operation flexibility under either alternative.”

Volker-12 See Response to Volker-5 and Volker-7.

Volker-13 See Response to Volker-5 and Volker-7. Reclamation disagrees that NEPA forbids agencies from satisfying its informational obligations by incorporating outside documents into an EA. Incorporation by reference is allowed in EAs, and was done appropriately here.

Volker-14 The commenter claims an EIS is required. This is not correct because there is no evidence that the Proposed Action will cause any significant effect on the quality of the human environment. Please see Responses to all previous comments.

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February 14, 2017

VIA E-MAIL

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Re: Comments of the San Luis Water District to the Draft Environmental Documents
for the Proposed Execution of Interim Renewal Contracts with Panoche Water
District and San Luis Water District

Dear Ms. Lewis:

The San Luis Water District (San Luis) appreciates this opportunity to submit comments to the Draft EA for the Central Valley Project Interim Renewal Contracts for Panoche Water District and San Luis Water District 2017-2019.

The Bureau of Reclamation (Reclamation) conducted a water needs assessment for San Luis, among others. The results of that water needs assessment show, based on current data, that even with normal deliveries from Reclamation, San Luis will have an insufficient supply of water to serve its customers with a full allocation of water.

We are mindful of the district court's decision concerning the shortcomings of the environmental assessment made for the Interim Renewal Contract for the Westlands Water District (Westlands). In its decision, the court indicated that any decision on the part of Reclamation concerning water supply for Westlands should be based on current information and should include an alternative whereby less than full contract deliveries were made.

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Berliner-1

↑ The information set forth in the Draft EA is based on current data obtained from San Luis and Panoche Water District regarding land-use and irrigation. Further, Reclamation has reviewed its operations and ability to deliver water. In light of the water needs assessment, there is no doubt that San Luis needs every drop of water it can obtain from Reclamation. Shortages have significant impacts on San Luis and its farmers. Further, reduced deliveries have adverse impacts on agricultural production and municipal use viability, managing groundwater basins in compliance with the Sustainable Groundwater Management Act, maintenance of habitat for a wide variety of species including wildlife habitats, socioeconomic support and the local environment, including impacts on disadvantaged communities.

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cont.

One of the criticisms by the district court and its holding regarding the EA for the Westlands contract was that less than 100% of contract amount was not considered. This draft EA does consider less than full contract amount. Reclamation updated the water needs assessment to 2016 and compared contractor demands to their overall water supply and whether a reduced amount would still meet project purposes. Reclamation concluded that a reduction in contract quantity “is not warranted” for San Luis. This is particularly the case since San Luis does not have any other source of water to meet its agricultural or municipal needs. Hence, an interim step between no water and “full” contract entitlement serves no purpose.

Thank you for this opportunity to comment. If you have any questions, please contact the undersigned.

Sincerely yours,



Thomas M. Berliner

cc: Lon Martin
Diane Rathmann, Esq.

Response to Thomas M. Berliner Comment Letter, February 14, 2017

Berliner-1 Comment noted. The comment does not raise concerns or issues specific to the environmental analysis presented in Environmental Assessment-16-021. As such, no changes have been made to the EA and no further response is required.