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March 9, 2020

Mary Neumayr, Chair Council on Environmental Quality 730 Jackson Place, N.W. Washington, D.C. 20503

RE: Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, CEQ-2019-0003, 85 Fed. Reg. 1684 (Jan. 10, 2020).

Delivered via www.regulations.gov

Dear Ms. Neumayr:

Defenders of Wildlife (Defenders) submits these comments in response to CEQ's Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act ("proposed regulations" or "draft regulations"). Defenders is a national nonprofit conservation organization dedicated to the protection of all native plants and animals in their natural communities. For over 70 years, Defenders has protected and restored imperiled species throughout North America by securing and strengthening conservation policies, working on the ground, and upholding legal safeguards for wildlife and habitat in the courts. We represent more than 1.8 million members and supporters nationwide.

Defenders is a strong supporter of the entire suite of federal laws that protect our nation's species and habitats and of their science-based implementation. We are deeply concerned that the proposed changes to CEQ's regulations implementing the National Environmental Policy Act (NEPA) will result in federal decisions and projects that will adversely affect biological diversity, contribute to accelerated loss and fragmentation of habitats, worsen climate change, and lead to species extinctions. Defenders has signed on to collective comments from multiple public interest organizations, and we incorporate by reference those comments. Here we supplement those general comments with specific concerns about the proposed regulations related to biodiversity.

INTRODUCTION

"NEPA covers every creature that we know about today and that we are going to discover tomorrow. It covers mushroom fairy rings as well as megafauna, plants that are listed as threatened and endangered under the Endangered Species Act as well as those that are not."

-Dinah Bear,¹ CEQ General Counsel, 1983-93 and 1995-2007

At its core, NEPA recognizes the importance of a healthy environment to our well-being and our economy. NEPA, which Congress passed with overwhelming bipartisan support in 1969 and

¹ Bear, Dinah. The Promise of NEPA. Chapter 12 in *Biodiversity and the Law*. William J. Snape III (ed.). 1996, Island Press. 259 pp.

President Nixon signed into law on January 1, 1970, is one of the most important environmental and government transparency laws in the United States. Furthermore, because federal decisions regarding land and ocean management, mining and drilling, and infrastructure projects among other activities all have consequences for wildlife, habitat, and the climate, NEPA is also critically important for helping the nation address the twin crises of climate change and biodiversity loss. The law establishes the foundation for a sound set of procedures to ensure the federal government has thought through the consequences of its actions, explored alternative approaches to achieving its objectives, and involved the public in its decision making. NEPA's approach to federal decision making has remained relevant over nearly five decades and has accommodated emerging environmental issues over time.

The changes CEQ proposes in the draft regulations would undercut these important goals and the purposes of NEPA. As we demonstrate below, if promulgated in a final rule, the proposed changes would lead to worse outcomes for wildlife, habitat, and the climate by 1) narrowing the scope of the effects analysis and limiting consideration of climate change; 2) excluding important considerations from the definition of "significant/significantly"; 3) limiting conflict disclosure and public involvement; and 4) rescinding previous guidance. These changes are particularly ill-advised because they will significantly hamper our ability to address two of our most pressing environmental crises, biodiversity loss and climate change.

There is overwhelming global scientific consensus that we are facing a global biodiversity crisis (the looming "Sixth Mass Extinction"). Last spring, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), an independent intergovernmental body representing 130 member countries, delivered a stark and alarming scientific consensus: human activity has devastated the natural world, and biodiversity "is declining faster than at any time in human history."² Based on an exhaustive compilation of nearly 15,000 information sources,³ the IPBES estimates that up to one million species—nearly a quarter of the known life on earth—could face extinction within decades.⁴ The drivers of this decline include habitat loss, overexploitation of species, pollution, and climate change, which is already affecting "almost half (47 percent) of threatened terrestrial mammals, excluding bats, and one quarter (23 percent) of threatened birds."⁵ In fact, climate change is accelerating and exacerbating the effects of these other threats. At the same time, nature provides tremendous benefits to society. For example, scientists estimate the

² Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Report of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on the work of its seventh session, Addendum: "Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services," Key Message A. (May 29, 2019). Available at https://www.ipbes.net/system/tdf/ipbes-7_10_add-1-_advance_0.pdf?file=1&type=node&id=35245

³ United Nations Environment Programme. "IPBES Global Assessment underscores need for transformational change to safeguard life on Earth" (press release) (May 6, 2019). Available at <u>https://www.cbd.int/doc/press/2019/pr-2019-05-06-IPBES-en.pdf</u>

⁴ IPBES, Summary for Policymakers op. cit., Key Message A5.

⁵ *Ibid.*, Background B14.

economic value of ecosystem services for the U.S. and Canada alone at \$8.9 *trillion* dollars per year.⁶ Thus, the loss of biodiversity and destruction of nature fundamentally harms human society.

Over the past year, another international scientific body, the Intergovernmental Panel on Climate Change (IPCC) released two additional major reports. The first, titled "Climate Change and Land,"⁷ found that humans—through our appropriation of land for food, fiber, fuel and other products—are impacting 70 percent of the Earth's ice-free lands.⁸ And we are degrading roughly a quarter of that land surface through soil loss, desertification, and pollution,⁹ while the warming climate threatens to accelerate this degradation with increased flooding, drought, erosion, crop losses, and permafrost melt. The second IPCC publication, the "Special Report on the Oceans and Cryosphere,"¹⁰ provides an equally sobering description of the effect of warming and acidification on the world's oceans, which have to date absorbed one-third of our greenhouse gas emissions and 90% of the heat trapped by the remainder.

In the United States, the federal Fourth National Climate Assessment (NCA4), a multi-agency, congressionally-mandated report released by the Trump administration in 2018, sent a similar message: "Ecosystems and the benefits they provide to society are being altered by climate change, and these impacts are projected to continue. Without substantial and sustained reductions in global greenhouse gas emissions, transformative impacts on some ecosystems will occur; some coral reef and sea ice ecosystems are already experiencing such transformational changes."¹¹

I. THE PROPOSED REGULATIONS WILL DRASTICALLY NARROW THE EFFECTS ANALYSIS AND LIMIT IF NOT ELIMINATE ANY CONSIDERATION OF CLIMATE CHANGE

Current NEPA regulations require agencies to assess three kinds of effects or impacts: direct, indirect, and cumulative.¹² According to the current definitions:

Effects include:

(a) Direct effects, which are caused by the action and occur at the same time and place.

(b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population

⁶ IPBES. 2018. Summary for policymakers of the regional assessment report on biodiversity and ecosystem services for the Americas of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Bonn, Germany: IPBES Secretariat. Available at <u>https://ipbes.net/assessment-reports/americas</u>

⁷ Intergovernmental Panel on Climate Change. Climate Change and Land: An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers. (August 7, 2019). Available at https://www.ipcc.ch/site/assets/uploads/2019/08/Edited-SPM Approved Microsite FINAL.pdf

⁸ *Ibid.*, Finding A1.

⁹ *Ibid.*, Finding A1.5.

¹⁰ Intergovernmental Panel on Climate Change. The Ocean and Cryosphere in a Changing Climate (report website). Available at <u>https://www.ipcc.ch/report/srocc/</u>

¹¹ U.S. Global Change Research Program. Fourth National Climate Assessment, Volume II: Impacts, Risks and Adaptation in the United States. Summary Finding 8. Available at <u>https://nca2018.globalchange.gov/</u> ¹² 40 C.F.R. § 1508.25(c).

density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Effects and impacts as used in these regulations are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which many have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.¹³

Cumulative impacts are:

"The impacts on the environment which 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 actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."¹⁴

The changes delineated as proposed § 1508.1(g)¹⁵ and through targeted deletions of the words "indirect" and "cumulative(ly)" throughout the proposed regulations would likely be devastating for wildlife, habitat, and the climate. We discuss indirect effects, cumulative impacts, and climate change in turn.

A. Indirect Effects

The proposed regulations conflate direct and indirect impacts and weaken the requirement that federal agencies consider effects removed in time or place by proposing to redefine indirect effects such that agencies "may include," but are no longer required to include, such effects in their analyses:

(g) *Effects* or *impacts* means effects of the proposed action or alternatives that are reasonably foreseeable and have a *reasonably close causal relationship* to the proposed action or alternatives. Effects include reasonably foreseeable effects that occur at the same time and place and *may include* reasonably foreseeable effects that are later in time or farther removed in distance.

(1) Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic (such as the effects on employment), social, or health effects. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.

(2) A "but for" causal relationship is insufficient to make an agency responsible for a particular effect under NEPA. Effects should not be considered significant if they are remote in time, geographically remote, or the product of a lengthy causal chain. Effects do not include effects that the agency has no ability to prevent due to its limited statutory authority or

¹³ 40 C.F.R. § 1508.8.

¹⁴ 40 C.F.R. § 1508.7.

¹⁵ 85 Fed. Reg. at 1728–29.

would occur regardless of the proposed action. Analysis of cumulative effects is not required. $^{\rm 16}$

The requirement to discuss both direct and indirect effects in the EIS is also eliminated from Environmental Consequences, proposed § 1502.16.¹⁷ This removal of the explicit definition of "indirect" effects creates a risk that federal agencies will not adequately consider indirect impacts that are triggered by their action but removed in time or geographic location. The addition of language making the consideration of indirect effects discretionary, even when but-for causation exists, substantially increases that risk. Indeed, the preamble asks whether CEQ should eliminate consideration of indirect effects altogether.

The elimination of the explicit requirement to consider indirect effects is dangerous because federal agencies have often taken the most limited view of the impacts of their actions, and if enacted, these changes would abet that practice. This would, for instance, allow the Federal Highway Administration to produce an analysis of the effects of construction of a road that overlooks or downplays the "indirect" effects of the road, such as inducing secondary development, "such as gas stations, convenience stores, coffee shops, or restaurants given changes in access and visibility"¹⁸ that may have severe impacts on wildlife and habitat.

A highway example involving significant indirect effects to wildlife and habitat is the construction of a cross-Appalachian highway termed "Corridor H." EPA criticized the Draft Environmental Impact Statement (DEIS) for not covering the disposal of excavated earth and waste fill, which "could result in additional adverse impacts to upland, riparian, and stream habitat." EPA was also concerned about acidic drainage from exposed coal seams, which could kill aquatic life, and about the fragmentation of "some of the last high quality large forested ecosystems in Region 3 . . . [which] exhibit exceptional diversity. . . [and] provide habitat for a wide range of species and conserve our biological heritage. . .The direct and cumulative impacts from the construction, habitat modification and auto exhaust exposure need to be fully described in the final environmental impact statement (FEIS) to ensure that adequate safeguards can be developed to protect this valued ecosystem."¹⁹ In response to this critique, the FEIS was improved through the addition of a section discussing the effects of forest fragmentation and calculating the loss of interior forest and forest-dependent bird breeding habitat.²⁰ It also suggested measures to minimize the spread of invasive plants.

Relatedly, the CEQ preamble asks whether the regulations should broaden the "small federal handle" concept currently embraced by the Army Corps of Engineers to allow all federal agencies to focus solely on the immediate effects of permits or approvals they make. Defenders maintains that such a change would lead to widespread failure by agencies to consider the consequences of the development that their permits make possible and therefore we oppose any such change.

¹⁶ 85 Fed. Reg. at 1728–29 (emphases added).

¹⁷ 85 Fed. Reg. at 1720.

¹⁸ US Highway 53 from Virginia to Eveleth Minnesota; Final EIS; 09/25/2015.

¹⁹ Appalachian Corridor H Project, Alignment Selection Supplemental Draft Environmental Impact Statement; CEQ 940480 (EPA comments 3/24/95).

²⁰ Appalachian Corridor H Construction, Elkins WV to I-81 VA; FHWA-WV-EIS-92-01-F; 4/26/1996.

B. Cumulative Effects

Another major change that would significantly undermine the integrity of environmental reviews under NEPA is CEQ's proposal to revise the definitions of effects to state explicitly that "analysis of cumulative effects is not required."²¹ For too many species, the story of their decline is one of "death by a thousand cuts," the loss of a population here, an important habitat over there. The importance of looking at the effects of an action not in isolation, but in the context of the additive impacts of other actions that could impact the species, has been a core concept of NEPA analysis for its entire history. The new regulations toss that concept out the window, opening the door for agencies to ignore the big picture of cumulative harm to species and habitats.

The Preamble to the proposed regulations states that: "In addition, CEQ proposes a change in position to state that analysis of cumulative effects, as defined in CEQ's current regulations, is not required under NEPA. . . With this proposed change and the proposed elimination of the definition of cumulative impacts, it is CEQ's intent to focus agencies on analysis of effects that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action."²² This statement is unsupported by the legislative history illustrating Congress 'clear intent in passing NEPA to address precisely these types of additive effects. The legislative history repeatedly emphasizes the cumulative nature of environmental degradation. For instance, the 1969 Senate Committee on Interior and Insular Affairs Report in support of passage of S. 1075 demonstrates a clear concern about incremental degradation to the environment:

As a result of this failure to formulate a comprehensive national Policy . . . Environmental problems are only dealt with when they reach crisis proportions. Public desires and aspirations are seldom consulted. Important decisions concerning the use and the shape of man's future environment continue to be *made in small but steady increments which perpetuate rather than avoid the recognized mistakes of previous decades.* Today it is clear that we cannot continue on this course. Our natural resources-our air, water, and land-are not unlimited.²³

Indeed, as the same report makes clear in its explanation of Sec. 101(b), the Senate recognized that cumulative impacts result from a wide range of individual actions:

The subsection also asserts congressional recognition of each individual's responsibility to contribute to the preservation and enhancement of the environment. The enjoyment of individual rights requires respect and protection of the rights of others. *The cumulative influence of each individual upon the environment is of such great significance* that every effort to preserve environmental quality-must depend upon the strong support and participation of the public.²⁴

The earliest guidance that CEQ issued on implementation of NEPA, in May 1970, stated that the effects of federal decisions may be "individually limited but cumulatively considerable."²⁵

²¹ *Supra* n.16.

²² 85 Fed. Reg. at 1708.

²³ S. Rep. 91-296, National Environmental Policy Act of 1969 [S. 1075] page 5, 1969.

²⁴ *Ibid.* at 19. (emphasis added).

²⁵ 35 Fed. Reg. 7390, 7391 (May 12, 1970).

In addition to general habitat impacts, cumulative impacts from a variety of projects are a barrier to the recovery and even continued persistence of numerous imperiled species. To prevent extinctions, these impacts must be fully accounted for, prevented wherever possible, and mitigated where not. One endangered species that has particularly suffered the "death by a thousand cuts" of incremental habitat loss, destruction, and fragmentation is the Florida panther (*Puma concolor coryi*). These ongoing and cumulative threats are enumerated in the draft EIS for the Collier County Multi-Species Habitat Conservation Plan and include federal, state and locally led projects.²⁶ Cumulative effects on the panther and numerous other Florida species are also outlined in the EIS for the Central Everglades Planning Project.²⁷ These types of analyses are critical to understanding impacts to endangered and other species, and to managing federal projects for their preservation. Additional examples of important considerations of cumulative effects on wildlife and habitat are provided in **Appendix A**, including the effects on the endangered American burying beetle by the routing of the R-Project Transmission Line, Mancos Shale drilling effects on aquatic species, and coastal resilience projects whose cumulative effects are beneficial to fish, wildlife, and humans.

C. Climate Change

As the most significant piece of federal legislation guiding environmental analysis and decisionmaking, NEPA clearly has a role to play in how projects with a federal nexus prevent additional greenhouse gas emissions, mitigate the current and future effects of climate disruption, and prepare for the environmental impacts of climate change yet to come. Climate change is one of the most important environmental issues to emerge in the past few decades and promises to remain so for the foreseeable future. It is increasingly critical for agencies to thoughtfully and thoroughly consider climate change, from both an emissions and an adaptation standpoint, as part of their NEPA analysis. Indeed, as the legislative history of NEPA establishes, Congress heard testimony on the environmental impacts of rising carbon dioxide emissions, precisely the type of cumulative environmental impacts it intended agencies consider. For example, Edward Wenk of the National Council on Marine Resources and Engineering Development testified that, "CO₂ content could reduce the size of the Arctic and Antarctic ice masses, raise sea levels, and elevate oceanic temperature." He further stated that "this problem [global climate change] transcends the marine environment, and is best attacked from a broader viewpoint [provided by NEPA]"²⁸

A responsible and scientifically-grounded update of the NEPA regulations would clearly lay out how agencies should undertake these considerations. As Defenders raised previously in communications to CEQ, agencies' environmental analyses should provide clear and science-based direction on three distinct but interrelated aspects of climate change: 1) the impacts of the greenhouse gas emissions from their projects; 2) the impacts of climate change on their projects; and 3) the ways that climate change could magnify the damaging impacts of a proposed action on vulnerable species, ecosystems and human communities.

²⁶ U.S. Fish & Wildlife Service. 2018 Eastern Collier Multiple Species Incidental Take Permit Applications and Habitat Conservation Plan. Draft Environmental Impact Statement at 103–15.

²⁷ Central and Southern Florida Project 2014. Comprehensive Everglades Restoration Plan, Central Everglades Planning Project, Final Integrated Project Implementation Report and Environmental Impact Statement, Addendum at 262.

²⁸ House of Representatives Report 91-378, page 129, 1969.

Instead, the proposed regulations would virtually eliminate agencies' considerations of climate change. Last spring, President Trump revoked CEQ's guidance for agencies on the consideration of climate change in NEPA reviews, clearly an effort to institutionalize climate denial into government decision-making. The proposed regulations move even further in that direction. In addition to the explicit exclusion of cumulative effects, the proposed regulatory definition of "effects" seems tailor-made to permit agencies to exclude from their analyses the indirect effects of greenhouse gas emissions their projects will cause or induce.²⁹

Those provisions mirror provisions included in the revised ESA regulations and appear to be expressly aimed at climate change (as well as other long-range impacts). As the Ninth Circuit Court has explained, however, "[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct."³⁰ It is astonishingly wrongheaded for CEQ to be moving so drastically in the opposite direction.

By eliminating the definitions of indirect and cumulative impacts, explicitly stating that analyzing cumulative effects is not required, adding the "reasonably close causal connection" requirement to the effects definition, and defining away remote or downstream effects from "significant," the new regulations will enable federal agencies to omit from their NEPA documents any discussion of emissions, climate impacts to the project, or impacts that would be worsened by climate change.

1. Emissions Impacts

Regarding the cause of climate change, the 2018 National Climate Assessment states, "evidence does not support any credible natural explanations for this amount of warming; instead, the evidence consistently points to human activities, especially emissions of greenhouse or heat-trapping gases [GHGs], as the dominant cause." ³¹ Global scientific consensus indicates that nations must move to rapidly reduce emissions to limit eventual warming to a level that avoids the most dire impacts to human communities and natural systems.³² The same report found that: "On land, impacts on biodiversity and ecosystems, including species loss and extinction, are projected to be lower at 1.5°C of global warming compared to 2°C. Limiting global warming to 1.5°C compared to 2°C is projected to lower the impacts on terrestrial, freshwater and coastal ecosystems and to retain more of their services to humans."³³

Federal appellate courts have found that an agency's NEPA analysis of a proposed action must either quantify the GHG emissions in a manner that accounts for the "upstream" and

²⁹ *Supra* n.16.

³⁰ Ctr. for Biological Diversity v. NHTSA, 538 F.3d 1172, 1217 (9th Cir. 2008).

³¹ Hayhoe, K., D.J. Wuebbles, D.R. Easterling, D.W. Fahey, S. Doherty, J. Kossin, W. Sweet, R. Vose, and M. Wehner, 2018: Our Changing Climate. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, et al.(eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 72–144. doi: 10.7930/NCA4.2018.CH2

³² IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.
³³ *Ibid.*

"downstream" effects on emissions or provide a specific explanation of why it cannot. ³⁴ In addition, agencies must communicate the actual environmental effects resulting from the emissions of greenhouse gases and evaluate the "incremental impact' that these emissions will have on climate change or the environment more generally in light of other past, present, and reasonably foreseeable actions[.]"³⁵

These "actual" environmental effects potentially apply to every aspect of the affected environment for every project. While the climate impacts are most obvious for projects that involve fossil fuel exploration/extraction or transportation infrastructure, the same principles apply to land management projects. In the absence of a mandate for climate analysis, projects involving decisions about cutting of old-growth forests, or implementing habitat conservation plans, will fail to account for important emissions effects. For instance, the 2016 Tongass Land and Resource Management Plan Amendment Final EIS maintained most of the existing mature and old-growth stands, because of the high levels of carbon storage they provide.³⁶ We provide additional examples in **Appendix B**.

2. Climate Impacts to Proposed Projects and the Environment

It is irresponsible to ignore future impacts of climate change to public infrastructure, which must be durably built and properly sited to protect lives and property across a wide range of conditions and well into the future. For infrastructure projects, appropriate attention to climate impacts will entail additional important design considerations such as road elevation, culvert size, and stormwater management. For instance, the North Houston Highway Improvement Project EIS described how the Federal Highway Administration incorporated design improvements to travel lanes, bridges, and culverts to account for increased temperatures and the potential increase of flooding risk during hurricanes due to sea-level rise in conjunction with more intense hurricane rainfall.³⁷

Similarly, analyses of management plans for federal lands, waters, and native species must also account for how climate change will affect these natural resources. The 2016 Tongass Land and Resource Management Plan Amendment Final EIS serves as an exemplar here as well.³⁸ That EIS found that the ecological effects of climate change will adversely affect stream flows, freshwater thermal regimes, and riverine nutrient exports; shrink alpine habitats; shift suitable habitat boundaries for vegetation and wildlife communities; adversely affect species with rare ecological niches or limited dispersibility; increase invasive species, pests, and diseases; impact salmon distribution and productivity; and loss of trees, including the ecologically and economically important yellow-cedar. Informed by these likely impacts, the various alternatives aimed to protect terrestrial and aquatic habitats from these threats.

³⁴ Sierra Club v. FERC, 867 F.3d 1357, 1374 (D.C. Cir. 2017) ("As we have noted, greenhouse-gas emissions are an indirect effect of authorizing this project, which FERC could reasonably foresee, and which the agency has legal authority to mitigate. The EIS accordingly needed to include a discussion of the 'significance' of this indirect effect, as well as 'the incremental impact of the action when added to other past, present, and reasonably future actions[.]" (internal citations omitted).

³⁵ Ctr. for Biological Diversity, 538 F.3d. at 1216.

³⁶ <u>https://www.fs.usda.gov/detail/tongass/landmanagement/?cid=stelprd3801708</u>

³⁷ https://cdxnodengn.epa.gov/cdx-enepa-

II/public/action/eis/details/downloadEisDocuments?eisId=231296

³⁸ https://www.fs.usda.gov/detail/tongass/landmanagement/?cid=stelprd3801708

We provide additional examples of relevant analyses in **Appendix C**. Failing to consider the ways that climate change effects like higher temperatures, sea level rise, or more intense precipitation events will affect both infrastructure and natural systems, create tremendous uncertainty for agency officials and project sponsors, and increase the risk that costly projects will fail.

3. Additive Effects of Climate and Project Impacts

In any NEPA analysis, agencies must be required to identify and evaluate the interactions between a changing climate—like sea level rise, extreme heat, ocean acidification, severe droughts, and intense storms—and the environmental impacts from their proposed actions. These synergistic effects are potentially an important source of indirect and cumulative impacts³⁹ and serve to emphasize the danger of the proposed rule's elimination of their consideration. For instance, a road's impact to a coastal wetland will be greater if that wetland is also being reduced by sea level rise. Similarly, a project involving water withdrawals will have a greater effect on aquatic species if high temperatures, drought, or reduced snowpack also lead to reductions in flow.

Given that these and other effects of climate change are not only "reasonably foreseeable" but are already adversely affecting the United States,⁴⁰ it is firmly within the purview of a NEPA review to consider an action in the context of the future state of the environment. Failing to do so adequately during the NEPA process misses an opportunity for decisionmakers to improve project and environmental outcomes and contribute to safeguarding communities and infrastructure against the effects of extreme weather events and other climate-related impacts. In any NEPA review, agencies must disclose the ways in which climate change impacts may interact with the direct, indirect, and cumulative effects of the proposed action and alternatives, consider the action's environmental effects so wer the lifetime of those effects, and evaluate means to increase the odds of project success as well as mitigate or eliminate environmental impacts of their actions.

If the proposed regulations are promulgated as written, however, agencies will be excused from undertaking the appropriate scope of NEPA review. For example, a forthcoming EIS on amendments to the existing Marine Mammal Protection Act take reduction plan regulations for the critically endangered North Atlantic right whale might consider the fact that climate change has already shifted the whales' prey distribution, increasing the risks entanglements and ship strikes as whales shift their summer distribution north to the Gulf of St. Lawrence in the summer, but fail to account for the fact that this prey and predator distribution may continue to shift both within the U.S. and in Canada as waters continue to warm in the Gulf of Maine. Lacking such analysis, the EIS will not provide an adequate basis for the agency decision maker to determine the true environmental impacts, including the likelihood of accomplishing the regulatory amendments' goal, in reaching a final determination. We provide additional examples of such analyses in **Appendix D**.

³⁹ 40 C.F.R. §§ 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.

⁴⁰ Documented extensively in: USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018

The proposed regulations would enable agencies to ignore the interactions between climate change impacts and other environmental consequences that proposed projects will have on biological resources, imperiled plants and wildlife, vulnerable human communities, and other aspects of the affected environment. Without such analyses, agencies risk, in the words of one court, "failure to consider an important aspect of the problem."⁴¹

II. THE PROPOSED REGULATIONS WILL DRASTICALLY NARROW THE DEFINITION OF "SIGNIFICANT/SIGNFICANTLY" TO IGNORE OR DOWNPLAY IMPACTS TO ESA-LISTED SPECIES AND CRITICAL HABITAT

NEPA requires EISs for "major federal actions significantly affecting the human environment." The existing regulations currently define "significantly" as follows:

Significantly as used in NEPA requires considerations of both context and intensity.

(a) *Context* specifies that the significance of an action must be analyzed in various contexts such as society as a whole, the locality, and the affected region and affected interests.

(b) Intensity refers to the severity of the impact.⁴²

Subsection (b) defines ten intensity factors. Two particularly relevant to biological diversity:

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts;⁴³

(9) The degree to which the action may adversely affect an endangered species or threatened species or its [designated critical habitat].⁴⁴

The draft regulations would delete the definition of "significantly" entirely, including the definitions of context, intensity, and all ten intensity factors. Instead, "significantly" is wrapped into proposed § 1501.3, "Determine the appropriate level of NEPA review":

(b) In considering whether the effects of the proposed action are significant, agencies shall analyze the potentially affected environment and degree of the effects of the action.

(1) In considering the potentially affected environment, agencies *may* consider, as appropriate, the affected area (national, regional, or local). Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend on the effects in the locale rather than in the Nation as a whole. Both short- and long-term effects are relevant. [substitutes for context]

(2) In considering the degree of the effects, agencies should consider the following, as appropriate to the specific action: [substitutes for intensity]

⁴¹ AquAlliance v. U.S. Bureau of Reclamation, 287 F. Supp. 3d 969, 1032 (E.D. Cal. 2018).

^{42 40} C.F.R. § 1508.27.

⁴³ This is also termed segmentation.

⁴⁴ 40 C.F.R. § 1508.27(b)(7), (9).

(i) Effects may be both beneficial and adverse.

(ii) Effects on public health and safety.

(iii) Effects that would violate Federal, State, Tribal, or local law protecting the environment. $^{\rm 45}$

The language proposed in § 1501.3(b)(2)(iii) is an inadequate replacement for intensity factor (9) on ESA-listed species.

At the EA stage, an agency could avoid analyzing adverse effects on listed species and critical habitat that might otherwise have risen to the level of significance requiring a full EIS, even if these effects fell short of ESA-prohibited jeopardy or destruction/adverse modification of designated critical habitat.⁴⁶ Similarly, in an EIS, an agency would not need to identify and discuss the full significance of adverse effects to listed species or designated critical habitat, above and beyond those analyzed for jeopardy and destruction/adverse modification in an ESA section 7 consultation.

Because EAs and EISs must be made public, whereas there is no such statutory disclosure requirement for ESA consultations, this excision of the discussion of adverse impacts to listed species and designated critical habitats would hinder the public's ability to comment on such impacts, in turn hindering the decision maker's obligation to make a fully informed decision.

Moreover, by eliminating the requirement to analyze cumulative effects of all actions, federal or nonfederal, on protected species, the proposed regulations will substantially impair federal agencies' abilities to consider how a project might contribute to the "death by a thousand cuts" that has led so many species to require listing in the first instance. The elimination of the indirect and cumulative effects analyses will hamper or jettison consideration of habitat fragmentation, downstream or downwind impacts, induced development, climate change, and other impacts of a cumulative and often synergistic nature. In the long run, ignoring these impacts will delay or prevent recovery of listed species or bring their very survival into question, with implications not only for the further loss of our nation's irreplaceable biodiversity but also on further restrictions on future federal activities that will result from species' worsening status.

Finally, the proposed regulations will adversely affect ESA-protected species and their habitats by eliminating the requirement for agencies to undertake studies and obtain further information necessary to inform a significance analysis of the effects of various alternatives on such species and habitats. Only through requiring agencies to ensure that they have the full suite of information necessary to take a "hard look" at the consequences of a project and its alternatives and make informed decisions can NEPA's statutory purpose be vindicated.

III. THE PROPOSED REGULATIONS INAPPROPRIATELY ELIMINATE THE REQUIREMENT TO DISCLOSE CONFLICTS OF INTEREST, AND ATTEMPT TO CURTAIL PUBLIC INVOLVEMENT

Contrary to the very purposes for which NEPA was enacted, the draft regulations propose to sharply curtail public involvement and transparency in federal decision making. They propose to conceal conflicts of interest and limit public involvement, to the detriment of the two-way process

⁴⁵ 85 Fed. Reg. at 1714–15 (emphasis added).

⁴⁶ 16 U.S.C. § 1536(a)(2).

NEPA envisions wherein agency decision makers both inform the public of the impacts of proposed actions and alternatives and in turn are informed by public comment, in the service of both transparency and ultimately informed agency decision making.

A. Conflicts of interest

The proposed regulations would eliminate the current regulation requiring that a contractor that a lead agency hires to prepare an EIS certify that it has no financial or other interest in the outcome of the project.⁴⁷ The proposed regulations would not only eliminate this requirement but explicitly specify that an applicant itself may prepare the EIS under the lead agency's direction. Applicants have powerful economic self-interests in minimizing or overlooking environmental impacts in order to reduce costs associated with mitigation and avoid public controversy. It is antithetical to NEPA's purposes for CEQ to give the fox the keys to the henhouse by obscuring from public view whether the very document meant to inform the public and in turn spur public comment has been written by a project proponent itself, a blatant conflict of interest.

B. Limitations on public involvement

The proposed regulations would also limit public involvement and provide avenues for agencies to reduce the analytical quality of their responses to public comment. These proposed changes would undermine public involvement in agency decision making under NEPA in numerous ways. The proposed regulations delete language in the current CEQ regulations saying that federal agencies should "encourage and facilitate public involvement in decisions" and say instead only that the public is to be "informed." The proposed regulations set tight presumptive time limits on the preparation of NEPA documents, creating time pressures that could preclude sound analysis of complicated issues and undermine public understanding of and informed comment on large and complex projects. The proposed regulations purport to establish that public comments not received within the time specified are thereby "forfeited," without regard to the merit of the concerns they raise.

Provisions in proposed § 1503.3(a) of the draft regulations would heighten substantially the standards for agency consideration of comments.⁴⁸ This section places onerous content requirements upon the commenter and opens up the possibility that agencies could ignore comments that do not fit the requested format. In addition, comment and objection periods on FEISs are shortened to 30 days, regardless of the complexity of the issues involved. Any comments on the alternatives, information, and analyses not provided within 30 days of the publication of notice of availability of the FEIS "shall be deemed unexhausted and forfeited."⁴⁹

The draft regulations would also impose new restrictions on involvement by each cooperating agency, which must "limit its comments to those matters for which it has jurisdiction by law or special expertise with respect to any environmental issue" involved.⁵⁰

⁴⁷ 40 C.F.R. § 1506.5(c); 85 Fed. Reg. at 1725.

⁴⁸ 85 Fed. Reg. at 1722.

⁴⁹ Proposed § 1500.3(b), 85 Fed. Reg. at 1713; proposed § 1503.3(b), 85 Fed. Reg. at 1722.

⁵⁰ Proposed § 1501.8(b)(7), 85 Fed. Reg. at 1716.

The draft regulations would also replace "shall" with "may" in two places within the Response to Comments, a rollback of an agency's responsibility to fully address each substantive comment.⁵¹ Additionally, , the draft regulations eliminate the requirement for an agency to cite sources, authorities, or reasons that support the its position when it responds to comments and in explaining why comments do not warrant further agency response.⁵².

Restricting public comment will undermine the foundations of NEPA. Public involvement leads to better decisions, reduces impacts to communities with environmental justice concerns, and can even save money in the long run. A case in point is the plan for managing the Bolinas Lagoon, a tidal wetland located along the San Andreas Fault in Marin County, California. A 1996 management plan found that the lagoon, an important habitat for fish, waterbirds, and marine mammals, had lost about 25% of its tidal habitat from 1968 to 1988 due to excessive sedimentation, and was projected to continue these losses. The U.S. Army Corps of Engineers proposed dredging 1.4 million cubic vards of sediments from the lagoon at a cost of over \$100 million. Local stakeholders, deeply concerned about the environmental impacts of this proposal, commissioned a review of the assumptions and conclusions in the Draft EIS. The review found that sedimentation in the lagoon was a much more dynamic process than had been accounted for in the DEIS and was driven by long-term sediment delivery (which makes the lagoon shallower) and earthquakes (which deepen it). The study also found that, since the lagoon's depth is ultimately controlled by these dynamic processes, dredging would have only a small and short-term effect. On the basis of this work, the stakeholder group developer a "locally preferred alternative" that emphasized habitat restoration and getting excessive levels of sediment inputs under control, which was adopted by the Corps and is now being implemented.53

IV. THE PROPOSED REGULATIONS WOULD SUPERSEDE PRIOR GUIDANCE DOCUMENTS

In the preamble to the proposed regulations, CEQ states that "This proposed rule, if adopted as a final rule, would supersede any previous CEQ NEPA guidance. If CEQ finalizes the proposed rule, CEQ anticipates withdrawing all of the CEQ NEPA guidance that is currently in effect and issuing new guidance as consistent with Presidential directives."⁵⁴ Defenders asserts that canceling CEQ's guidance on Biodiversity⁵⁵ will have adverse consequences for species and habitats, particularly in the context of the other provisions in the proposed regulations that invite agencies to ignore or downplay impacts to the natural world, as we have described above.

Furthermore, we are mystified by CEQ's position regarding the Climate Change guidance. Immediately after stating that all previous guidance would be withdrawn, the preamble states: "Further, CEQ received comments requesting that the regulations address analysis of greenhouse

⁵¹ Proposed § 1503.4(a), 85 Fed. Reg. at 1722.

⁵² Proposed § 1503.4(a)(5).

⁵³ Bolinas Lagoon Ecosystem Restoration Feasibility Project

https://www.marincountyparks.org/~/media/files/departments/pk/projects/open-space/bolinaslagoon/executive-summary.pdf

⁵⁴ 85 Fed. Reg. at 1710, Item K.

⁵⁵ Council on Environmental Quality, January 1993 <u>https://ceq.doe.gov/docs/ceq-publications/Incorporating_Biodiversity_1993.pdf</u>

gas emissions and potential climate change impacts. . . CEQ does not consider it appropriate to address a single category of impacts in the regulations" and points to its 2019 Draft Greenhouse Gas Guidance, which the paragraph above states would be withdrawn, as justification for not addressing these impacts in the draft regulation.⁵⁶ Defenders has submitted comments regarding the inadequacy of the 2019 Draft Greenhouse Gas Guidance, ⁵⁷ which is much inferior to the 2016 Guidance.⁵⁸

CONCLUSION

We close by providing two examples of the devastating consequences of failing to do NEPA analysis.

The 1969 blowout and oil spill at the Union Oil platform in Santa Barbara Channel caused one of the worst environmental disasters in the nation's history. It is widely regarded as one of the events that impelled NEPA's enactment in in 1970. Unfortunately, we don't always learn from our mistakes. In response to the energy crises of the 1970s, the U.S. undertook to dramatically increase domestic oil production, which, unfortunately, enshrined in law exemptions to NEPA for offshore oil projects in the central and western Gulf of Mexico. The 1978 Amendment to the Outer Continental Shelf Lands Act requires fast-tracked approvals of exploration plans and, as the BP Oil Spill Commission Report found:

[E]xpressly singles out the Gulf of Mexico for less rigorous environmental oversight under NEPA. As a result of political compromise with oil and gas interests, the Act exempts lessees from submitting development and production plans (which include environmental safeguards) for agency approval. Accordingly, Gulf leases, unlike those applicable to other offshore areas, are not subject to the requirement of at least one NEPA environmental impact statement for development plans for a particular geographic area.⁵⁹

The Interior Department went even further: "In January 1981, the Department promulgated final rules declaring that exploration plans in the central and western Gulf of Mexico were 'categorically excluded' from NEPA review."⁶⁰ Although it later allowed for NEPA reviews in certain circumstances, those were the exception rather than the rule. As a result, the Minerals Management Service "performed no meaningful NEPA review of the potentially significant adverse environmental consequences associated with its permitting for drilling of BP's exploratory Macondo well"⁶¹ or subsequent drilling permits, and therefore none of the plans "carefully considered site-specific factors relevant to the risks presented by the drilling of the Macondo well."⁶²

⁵⁶ 85 Fed. Reg. at 1710, Item L.

⁵⁷ 84 Fed. Reg. 30,097 (June 26, 2019).

⁵⁸ Council on Environmental Quality, August 2016 <u>https://ceq.doe.gov/docs/ceq-regulations-and-guidance/nepa_final_ghg_guidance.pdf</u>

⁵⁹ Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling (The BP Oil Spill Commission Report) <u>https://www.gpo.gov/fdsys/pkg/GPO-OILCOMMISSION/pdf/GPO-OILCOMMISSION.pdf</u> at 80.

⁶⁰ Ibid. at 81.

⁶¹ Ibid. at 82.

⁶² Ibid. at 82.

On April 20, 2010, the Macondo Well Deepwater Horizon blowout killed eleven people. Not fully contained until September, the blowout spilled over 210 million gallons of oil, the worst marine oil spill in history. The Deepwater disaster killed up to 84,000 birds and 166,000 juvenile sea turtles, 2 to 5 trillion newly hatched fish, and nearly half of the local dolphin population. It impacted marshes along 350 to 720 miles of shoreline, and corals in an area of 400 to 700 square miles around the wellhead and caused \$527–\$859 million in lost recreation revenue.⁶³ Had scrupulous NEPA review been required for the project, the catastrophic event might have been avoided.

Our second example is the \$18.4 billion⁶⁴ environmentally catastrophic expansion of the Border Wall. On January 25, 2017, President Trump signed an executive order to build 1,302 miles of border wall on the U.S.–Mexican border. The Trump administration invoked an anti-terrorism act, the 2005 REAL ID Act, to make that happen without following environmental laws, including NEPA. Short-term and long-term consequences of a border wall on wildlife include increased mortality, disrupted migrations, reduced populations, and altered waterflows.⁶⁵ Imperiled species living in the borderlands include the jaguar, ocelot, Sonoran pronghorn, Mexican gray wolf, Peninsular bighorn sheep, and several varieties of ferruginous pygmy owl found nowhere else in the United States. Their survival depends on connected habitat extending southward into Mexico. Because NEPA and other laws have been waived, border wall construction is causing permanent damage to an extensive network of national parks, monuments, wildlife refuges, forests, wilderness areas, and preserves that protect essential wildlife habitat and important cultural resources on both sides of the border without any public disclosure or transparent agency decision making, let alone a full consideration of the profound and long-lasting impacts the wall will have on wildlife communities and native ecosystems.⁶⁶

The proposed regulatory changes would, if adopted, gut NEPA almost as badly as if Congress were to repeal it entirely. If finalized, the new regulations would encourage and perhaps oblige agencies to minimize the environmental reviews of any project. This would have widespread negative impacts on our nation's wildlife, ecosystems, and human communities.

No longer would the government consider the impacts of climate change or the emission or sequestration of carbon. The extraction of coal, oil, and gas from federal land could increase dramatically without a full and frank public discussion of the impacts on federal lands themselves or on the planet. Climate change could accelerate as a result, leading to widespread damage and suffering.

No longer would future impacts of climate change be considered on project areas. Without informed decision making, infrastructure could be built in flood-prone areas, and housing developments in areas at risk of catastrophic fire, flooding, or landslides. Absent a "hard look" and a

⁶⁵ Peters R, Ripple WJ, Wolf C, Moskwik M, Carreón-Arroyo G, Ceballos G, Córdova A, Dirzo R, Ehrlich PR, Flesch AD, List R, Lovejoy TE, Noss RF, Pacheco J, Sarukhán JK, Soulé ME, Wilson EO, Miller JRB. 2018. Nature Divided, Scientists United: US–Mexico Border Wall Threatens Biodiversity and Binational Conservation. *BioScience* 68:740–743. DOI: <u>10.1093/biosci/biy063</u>.
⁶⁶ https://defenders.org/wall

⁶³ <u>https://response.restoration.noaa.gov/about/media/assessing-impacts-deepwater-horizon.html</u>

⁶⁴ <u>https://defenders.org/newsroom/newly-announced-expansion-of-border-wall-could-be-disastrous-wildlife</u>

cumulative effects assessment, aquifers could be depleted for agriculture or other human uses, leading to extinctions of water-dependent wildlife and losses of water for human purposes in a more drought-prone future.

No longer would government agencies be encouraged to protect coastal communities against sea level rise and increased coastal flooding by ensuring they look before they leap into short-sighted projects.

No longer would national forest plans consider long-term resilience. Instead, our forests would be open to death by a thousand clearcuts without any broad-scale analysis.

No longer would the preservation of natural areas and vital connectivity be considered, since only a project's immediate and local impacts would be evaluated in a NEPA analysis. Habitat loss and fragmentation could accelerate unnoticed, leading to species extirpations and, ultimately, extinctions.

No longer would species' range shifts in response to climate change be considered, leading to increased risks of extinction as existing habitat becomes unsuitable without adequate consideration and mitigation.

CEQ must withdraw the proposed regulations for the sake of our nation's wildlife, natural areas and resources, and future generations.

Thank you for considering our comments. Please do not hesitate to contact us with any questions.

Sincerely,

Robert G. Dreher Senior Vice President of Conservation Programs

Aimee Delach Senior Policy Analyst, Climate Adaptation

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APPENDIX A. Examples of Important Considerations of Wildlife and Habitat in Cumulative Effects Analysis

The environmental impact statements cited below are available at the U.S. Environmental Protection Agency's EIS Database.⁶⁷ Case law examples can be found at the database. maintained by the Sabine Center for Climate Change Law.⁶⁸

Coastal and Social Resiliency Initiatives for Tottenville Shoreline: Final EIS (June 2018)

Responding to the draft EIS, an EPA letter dated May 5, 2017, requested "substantial elaboration" of the cumulative effects section. Changes to the EIS addressed these comments. Indirect negative effects were judged to be "temporary and minor." Positive indirect effects included the provision of additional fish and invertebrate habitat within and among the breakwater structures, which would lead to greater utilization by game fish (black sea bass, summer flounder, bluefish, etc.). The cumulative impacts were also predicted to benefit aquatic threatened or endangered species like Atlantic sturgeon and sea turtles.

Final Environmental Impact Statement on Issuance of an Incidental Take Permit and Implementation of a Habitat Conservation Plan for the R-Project Transmission Line (November 2018)

The U.S. Fish and Wildlife Service received an application for an incidental take permit from the Nebraska Public Power District (NPPD) for its proposed new transmission line and substations (known as the R-Project) in central Nebraska. The permit would authorize the incidental take of the Federally endangered American burying beetle. In support of its application for a permit, NPPD prepared a draft HCP that outlines actions that would be taken to avoid, minimize, and mitigate impacts on the beetle.

EPA voiced concerns about the Draft EIS for impacts to the American Burying Beetle (ABB), saying these beetles "are highly sensitive to disturbances and are slow to recover, making them more vulnerable to the effects of habitat fragmentation and alteration, disturbance, and individual mortality than other species. Future energy infrastructure development projects, including wind energy development that the R-Project would facilitate, may result in long-term, moderate to high-intensity effects on the beetle." EPA recommended further consideration of the central alternative route for the transmission line, which would have significantly less environmental impact, especially on the ABB and its sandhills habitat.

USFWS did not require the re-routing suggested by EPA, agreeing with NPPD that the central route would cost more and take longer than NPPD's preferred route, even though it would have far less impact on the ABB. NPPD would have to avoid, minimize, and mitigate expected take (including purchasing 600 acres of beetle habitat). USFWS completed a cumulative effects section, and wrote, "when combined with other past, present, and reasonably foreseeable future actions, the project would cumulatively contribute long-term, low- to moderate-intensity impacts" on wetlands,

⁶⁷ https://cdxnodengn.epa.gov/cdx-enepa-public/action/eis/search. Accessed Jan.-Feb. 2020.

⁶⁸ http://climatecasechart.com/us-climate-change-litigation/. Accessed Jan.-Feb. 2020.

vegetation, wildlife, habitat, and land use. Some of these impacts came from past and present activities, and more could be expected from future activities.

Diné Citizens Against Ruining Our Environment, et al., v. U.S. Bureau of Land Management The plaintiffs challenged BLM's decisions to approve at least 255 drilling applications into the Mancos Shale/Gallup formations, for violations of NEPA. They held that BLM's decisions evidenced a continuing pattern of approving individual drilling permits into the Mancos Shale through piecemeal, boilerplate environmental assessments (EA's), without considering the cumulative impacts of development across the Greater Chaco Landscape. In 2019, the U.S. Court of Appeals for the Tenth Circuit agreed, holding that BLM violated NEPA by failing to consider the cumulative impacts from 3,960 foreseeable Mancos Shale wells projected over the next twenty years. Mancos Shale development could result in ongoing and significant environmental and public health impacts which have not been sufficiently analyzed, including from the use of vast quantities of water resources in an arid region and the increased emission of hazardous air pollutants. The court required BLM "to conduct a proper NEPA analysis" instead of EA's.

APPENDIX B. Examples of Considerations of Greenhouse Gas Emissions in Environmental Impact Statements, and Legal Cases Involving Failure to Do So

Tongass Land and Resource Management Plan: Final Environmental Impact Statement (Jan. 2008) The final 2008 Tongass Forest Plan included protection of over 90% of the existing productive oldgrowth habitat, where most of the above-ground carbon was stored. It also included protections for soils on steep slopes, to help retain carbon stored as organic material in soils where timber harvest and road building occurred.

Tongass Land and Resource Management Plan Amendment: Final EIS (June 2016)

Like the 2008 plan, the. All the alternatives explored include standards and guidelines that protect soils, which would help retain carbon stored as organic material in the soil. Burning slash is not practiced, which retains much more carbon stored on the forest floor and in the upper layers of soil, compared to sites that are burned.

Final Environmental Impact Statement/Environmental Impact Report for the South Sacramento Habitat Conservation Plan (05/21/2018)

The proposed Habitat Conservation Plan (HCP) would decrease greenhouse gas emissions by preventing urban development that would otherwise occur.

Long-Term Experimental and Management Plan (LTEMP) for the Operation of Glen Canyon Dam: Final EIS (10/14/2016)

The EIS included greenhouse gas emissions and cumulative impacts between the different alternatives.

Montana Environmental Information Center v. U.S. Office of Surface Mining (2015)

In this case, the federal district court for the District of Montana ruled that the U.S. Office of Surface Mining Reclamation and Enforcement's (OSM's) environmental review of a proposed coal mining plan was insufficient. The court found that OSM failed to properly

consider indirect and cumulative effects of coal transportation and combustion and foreseeable greenhouse gas emissions. The court found that OSM's quantification of such emissions was not sufficient, and that OSM should also have quantified the economic costs associated with emissions since it had quantified the mine's economic benefits. In addition, the court said OSM had improperly decided not to prepare an EIS despite "significant uncertainty about the critical issues," citing OSM's failure to adequately evaluate the mine's context beyond the local and regional levels and its failure to consider its coal transportation and air pollution effects.

WildEarth Guardians v. Jewell et al. (2015)

In this case, WildEarth Guardians alleged that the federal government improperly approved mining plans for the development of federally owned coal in Colorado, New Mexico, and Wyoming. They accused the Secretary of the Interior, the Department of the Interior, and the Office of Surface Mining, Reclamation and Enforcement of engaging in an "ongoing pattern and practice of uninformed decision-making." The complaint included seven claims for relief under NEPA, including failure to consider direct, indirect, and cumulative climate impacts resulting from mining, burning, and transporting coal, and failure to consider the climate impacts of similar and cumulative actions. WildEarth Guardians contended that the defendants should have used the social cost of carbon protocol to address the costs of reasonably foreseeable carbon dioxide emissions. The parties agreed to settlement discussions in Colorado. The Wyoming and New Mexico claims were transferred to the federal courts in those states.

High Country Conservation Advocates v. United States Forest Service

The plaintiffs charged that expansion of a coal mine in Colorado violated NEPA by overlooking the societal costs of mining and burning the coal. The plaintiff estimated that the social cost of the mine's carbon dioxide and methane pollution would be between \$1.2-\$2.2 billion. The federal district court for the District of Colorado ruled that the United States Forest Service (USFS) and the Bureau of Land Management (BLM) did not take the required "hard look" under NEPA at the impacts of increased greenhouse gas emissions. The court faulted the agencies for failing to use the "social cost of carbon protocol" developed by a federal interagency working group in the analysis of the lease modification's impacts. The draft environmental review documents had included an assessment of social costs of carbon related to disturbance of forested areas and methane emissions from mining, but the discussions were removed in the FEIS, apparently because use of the protocol was deemed controversial. The court found the explanation for omitting the social cost of carbon protocol from the FEIS to be arbitrary and capricious. The court also rejected the agencies' justifications for not quantifying methane emissions from mining associated with the Colorado Roadless Rule and for not estimating greenhouse gas emissions associated with combustion of the mined coal. Among other things, the court said that the detailed economic analysis of the benefits of expanded mining was at odds with defendants' arguments that future emissions associated with the mining were too speculative to support a quantitative analysis. The court issued a final order that stopped the proposed expansion of coal mining. The parties were unable to agree, so the court stepped in. In vacating the federal actions, the court noted that vacatur was the "normal remedy" for NEPA violations and that equitable considerations did not weigh in favor of a more limited remedy such as the tailored temporary injunctions requested by the defendants.

WildEarth Guardians v. United States Bureau of Land Management

The Tenth Circuit Court of Appeals ruled that the U.S. Bureau of Land Management (BLM) acted arbitrarily and capriciously when it concluded that issuance of four coal leases in Wyoming's Powder River Basin would not increase greenhouse gas emissions. The court held that BLM's reliance on a "perfect substitution assumption"—that the same amount of coal would be sourced from elsewhere if BLM did not issue the leases—lacked support in the record. The court stated, "even if we could conclude that the agency had enough data before it to choose between the preferred and no action alternatives, we would still conclude this perfect substitution assumption arbitrary and capricious because the assumption itself is irrational (i.e., contrary to basic supply and demand principles)."

Challenges to Restarting of Federal Coal Leasing Program

California, New Mexico, New York, and Washington sued Secretary of the Interior Ryan Zinke, the U.S. Bureau of Land Management, and the U.S. Department of the Interior in the federal district court for the District of Montana, seeking to stop the defendants from restarting the federal coal leasing program. The states asked the court to set aside Secretarial Order 3348, in which Secretary Zinke revoked a secretarial order issued by his predecessor Sally Jewell that ordered a programmatic environmental impact review of the coal leasing program and placed a moratorium on new coal leases pending the completion of the review. The states alleged that the defendants had failed to comply with the National Environmental Policy Act, the Mineral Leasing Act, the Federal Land Policy and Management Act, and the Administrative Procedure Act. The states asserted that they had been leaders in working to reduce greenhouse gas emissions and to impede climate change and that they had a significant interest in ensuring that the federal coal leasing program did not undermine these efforts. The states also alleged that they had experienced and would continue to experience the adverse impacts of climate change. They asserted that previously conducted environmental reviews of the coal leasing program did not consider and evaluate the program's climate change impacts. On May 31, 2017, the states' action was consolidated with a lawsuit brought by the Northern Cheyenne Tribe and environmental groups.

The federal district court for the District of Montana ruled that the Trump administration's lifting of a moratorium on coal leasing triggered the need to comply with NEPA. The Bureau of Land Management released a draft environmental assessment (EA) on May 22, 2019. This matter was still being settled as of July 31, 2019.

Living Rivers, Southern Utah Wilderness Alliance, and Center For Biological Diversity v. BLM In eight separate decisions, BLM offered 130 oil and gas leases covering 175,357 acres of public lands in Utah, without analyzing the greenhouse gas and climate change impacts of those decisions. BLM did not analyze the direct, indirect, or cumulative climate change impacts from its leasing decisions, a violation of NEPA.

Utah Physicians for a Healthy Environment v. U.S. Bureau of Land Management

Six environmental and conservation organizations filed a lawsuit in the federal district court for the District of Utah challenging a federal coal lease sale on public land in Utah. The complaint alleged that the lease would allow an existing coal mine on private lands located approximately 10 miles from Bryce Canyon National Park to expand to include federal lands. The complaint—which asserted claims under the National Environmental Policy Act (NEPA)—included allegations that the federal defendants failed to assess direct, indirect, and cumulative impacts from greenhouse gas

emissions. In particular, the complaint asserted that although the defendants quantified economic benefits associated with expansion of the mine, they failed to use available tools to quantify the direct or indirect impacts of greenhouse gas emissions associated with the mine. The complaint also alleged that the defendants failed to consider the project's cumulative greenhouse gas impacts together with other coal mining projects considered and approved by the defendants.

APPENDIX C. Analyses and Court Cases That Demonstrate the Importance of Accounting for the effects of Climate Change on the Proposed Project

Eastern Collier Multiple Species Incidental Take Permit Applications and Habitat Conservation Plan: Draft Environmental Impact Statement (Sep. 2018)

The DEIS cited projected effects of climate change in the study area, including higher temperatures, increased hot days, changes in rainfall, stronger hurricanes, increased drought periods, and increased fire frequency. The DEIS stated that low-density development (5-acre lots) would be more vulnerable to the effects of climate change than the Proposed Action Alternative. Development within the RLSP SRAs would implement zoning practices that mitigate human risk from climate change. The covered activities area would include stormwater controls, which would reduce flooding, and centralized emergency management services, which would facilitate faster responses to disasters. The management of natural areas would include fuel load reduction by prescribed burning and mechanical vegetation control. Fire breaks would also be maintained where needed.

Tongass Land and Resource Management Plan: Final EIS (Jan. 2008)

The EIS prepared for the 2008 Tongass Forest Plan Amendment included planning for the effects of climate change. The plan concluded that the best course of action was continued management of the Tongass for resiliency in ecosystem functions. To do so, it would retain Tongass as a mostly intact ecosystem, protecting over 90% of productive old-growth habitat. It also included a robust monitoring plan that would allow for adaptive management as the effects of climate change became more certain. This would also include indirect changes related to insects, disease, pathogens, and windthrow.

Tongass Land and Resource Management Plan Amendment: Final EIS (June 2016)

The EIS stated that in addition to the effects of timber harvest on a forest's ability to sequester carbon, climate change and its projected warming trend may also affect subsurface carbon sequestration in Southeast Alaska. Carbon stored in soils may be released to the atmosphere in the form of carbon dioxide or methane, as the climate warms, due to increased soil respiration. Climate change is projected to increase average temperatures; increase the frequency of flooding and rain-on-snow events; elevate the snowline and reduce the snowpack; change the timing and magnitude of stream flow, freshwater thermal regimes, and riverine nutrient exports; shrink alpine habitats; shift suitable habitat boundaries for vegetation and wildlife communities; adversely affect species with rare ecological niches or limited dispersibility; increase invasive species, pests, and diseases; and impact salmon distribution and productivity. Other effects could include increased loss of trees from insects, disease, windthrow, and/or fire. The most widespread insect and disease damage has been to yellow-cedar, and this could increase as the climate warms.

As mentioned earlier, this plan retains most of the existing mature and old-growth forest. All the alternatives explored protect stream buffers and other riparian areas, which would help mitigate potential effects of climate change on hydrologic regimes and fish. Reforestation is primarily by natural regeneration, but some areas are planted. Future replanting could increase site diversity, which would decrease disease and pest transmission, or increase the abundance of yellow-cedar, which is declining.

South Shore of Staten Island Coastal Storm Risk Management Project: Final Environmental Impact Statement (Sep. 2016)

The United States Army Corps of Engineers (USACE) proposed a plan to manage the risk of damages from coastal storm flooding along a portion of Staten Island. It would limit the inland extent of storm surges, provide long-term shoreline erosion protection, and reduce tidal flooding of the local communities, especially during storm events. The plan is designed to stop coastal flooding during the most restrictive combination of storm event and sea level change studied. Beyond the 50-year period-of-analysis, the robust design of the Plan may support the added loads of structural expansion or adaptation to meet the needs of future sea level change. It would minimize adverse impacts to floodplains, and avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

Coastal and Social Resiliency Initiatives for Tottenville Shoreline: Draft EIS (Mar. 2017)

This project was designed to improve the resiliency of communities against the impacts of flooding and risks associated with climate change, by reducing coastal erosion and the impact of waves during severe coastal storm events. The plans included oyster nurseries and shoreline restoration. The preferred plan included breakwaters that would also provide fish habitat.

Final Integrated City of Norfolk Coastal Storm Risk Management Feasibility Study: Final EIS (11/16/2018).

The U.S. Army Corps of Engineering (USACE), Norfolk District and the City of Norfolk proposed to construct structural, non-structural, and Natural and Nature-Based Features to manage coastal storm risk in the City of Norfolk, Virginia. The study incorporated existing and future flood probabilities and potential future climate change to perform statistical analyses and hydrodynamic modeling. The goal was to "anticipate, prepare for, respond to, and adapt to changing conditions and to withstand and recover rapidly from disruptions with minimal damage."

Besides protecting human populations, the plan sought to protect endangered and threatened species like the piping plover, red knot, and loggerhead sea turtles, all of which are threatened by habitat loss and other effects of climate change as well as other stressors. It also sought to protect marine mammals, migratory birds, and state-listed species.

Eastern Collier Multiple Species Incidental Take Permit Applications and Habitat Conservation Plan: Draft Environmental Impact Statement (Sep. 2018)

The covered area for this application fell within the Southwest Florida Landscape Conservation Design (LCD). LCDs are cooperative landscape conservation processes that identify ecologically connected networks of terrestrial, freshwater, coastal, and marine conservation areas and conservation priority areas that are likely to be resilient to climate change and support native

biodiversity (and related ecosystem services) under changing conditions. LCDs are intended to be an adaptive management process at a regional landscape scale.

Final Environmental Impact Statement/Environmental Impact Report for the South Sacramento Habitat Conservation Plan (05/21/2018)

The proposed HCP would create a preserve system that is more resilient to climate change.

Bruneau-Owyhee Sage-grouse Habitat Project Final EIS (2/09/2018)

Juniper clearing in the project area would emit 0.17-0.21 Tg of CO₂e, depending on the alternative, with the preferred alternative being the highest. However, the preferred alternative would provide the most sage-grouse habitat and greatest connectivity. Management is also needed to prevent cheatgrass invasion, which would reduce suitable habitat and increase long-term GHG emissions.

Measure M (M2) Natural Community Conservation Plan/Habitat Conservation Plan (3/31/2017) Landscape Goal 3 in this HCP states that Orange County Transportation Authority (OCTA) will protect, enhance, and/or restore natural landscapes (including core habitat areas) within a range of environmental gradients and contiguous to other protected areas to allow for shifting species distributions in response to catastrophic events (e.g., fire, prolonged drought) or changed circumstances (e.g., climate change). Climate change may affect hydrology and exacerbate the size and intensity of future fires. It could also alter habitat conditions and favor some invasive, nonnative species and diseases over native species.

Houston Ship Channel Expansion Channel Improvement Project, Harris, Chambers, and Galveston Counties, Texas. (August 2017)

The impacts of future climate changes on the TSP will not be significantly different than the impacts of these changes on the existing navigation channels in the No Action alternative. The increased temperature, the slight increase in heavy precipitation days, or the slight increase in drought conditions (consecutive dry days) predicted for the area will not particularly alter the efficacy of either the existing or proposed navigation channel improvements under the TSP.

North Houston Highway Improvement Project

Summary of Project Resilience: Of the potential climate change impacts evaluated in this analysis, temperature and the potential increase of flooding risk during hurricanes due to sea-level rise in conjunction with more intense hurricane rainfall are the impacts that would test the resiliency of the proposed project. Resilience features for heavy precipitation and SLR: Bridges, culverts, and cross-drainage structures would be designed to FHWA and TxDOT standards for design events up to the 100-year storm event. The project would not adversely impact existing floodplain conditions within the vicinity of the project for extreme events, (i.e., storm events in excess of a 100-year storm event). All main lanes would be designed to be passable in a 100-year storm event. The design of frontage roads would, improve drainage in current problem areas. In areas of depressed roadways, pumps would be sized to provide drainage of the 100-year precipitation, and are proposed to be designed with reconstructed elevated adjacent surface road profiles that would prevent the depressed sections from receiving riverine flooding from the bayous up to the 500-year storm event.

Aqualliance, et al. v. U.S. Bureau of Reclamation, et al.

In this case, the U.S. District Court for the Eastern District of California held that more analysis of the impacts climate change would have on a water transfer program for the Sacramento/San Joaquin Delta was required under NEPA. The court found that the final environmental impact statement/report (FEIS/R) disclosed predicted declines in snowpack and streamflow due to climate change but failed to explain why the declines would not have significant impacts.

Kunaknana v. United States Army Corps of Engineers

The plaintiffs alleged that the U.S. Army Corps of Engineers (Corps) did not comply with NEPA and Section 404 of the Clean Water Act in issuing a permit to fill wetlands in the National Petroleum Reserve in Alaska. The permit was required for ConocoPhillips Alaska, Inc. to develop a drill site. The court granted partial summary judgment to the plaintiffs to the extent of finding that the Corps had not provided a reasoned explanation for its decision not to conduct a supplemental environmental analysis. Among the issues the court considered was the extent to which the Corps should consider new information about the potential impacts of climate change on the project.

A letter from EPA to the Corps stated: "We remain particularly concerned about the potential adverse impacts to the regional surface hydrology within the Nigliq Channel and [Colville River Delta] that may be caused by the bridge and road especially during flood events. The Scenarios Network for Alaska Planning has predicted changes in temperature, precipitation, and season length (thaw to freeze up) using General Circulation models utilized by the Intergovernmental Panel on Climate Change for future climate scenarios. It is prudent to analyze this project in light of these predicted changes with respect to the potential for increased frequency of extreme events."

APPENDIX D: Interacting Impacts of Climate Change and Project Effects

Three years after the release of the 2010 "Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions,"⁶⁹ Defenders of Wildlife conducted an assessment of agencies' incorporation of this guidance into Environmental Impact Statements, with an emphasis on the interacting impacts of climate change and project effects, titled "Reasonably Foreseeable Futures."⁷⁰

More recent examples are included below:

Implications of climate change for the environmental effects of a proposed action Final Integrated City of Norfolk Coastal Storm Risk Management Feasibility Study: Final EIS (11/16/2018).

Implementation of this project was not predicted to substantially cumulatively or synergistically interact with climate change and/or other effects for most environmental aspects. However, increased storms and rising seas over time could increase the number and length of time that tide gates and storm surge barriers were closed, affecting fish and fishery resources.

⁶⁹ <u>https://obamawhitehouse.archives.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf</u>

⁷⁰ https://www.defenders.org/sites/default/files/publications/reasonably-foreseeable-futures-climate-change-adaptation-and-the-national-environmental-policy-act.pdf

Vantage to Pomona Heights 230 kV Transmission Line Project: Final Environmental Impact Statement (October 21, 2016)

In EPA's comments on the Draft Supplemental EIS in February 2015, they expressed concerns about the proposed project due to its potential impacts and insufficient information on effects of climate change. They recommended that BLM coordinate with other entities to reduce impacts by the project and requested that the FEIS include up-to-date information about measures to protect water quality, biota and habitat. The FEIS was responsive to their comments, selecting the New Northern Route-Overhead Design as the preferred alternative because it would lessen impacts to environmental resources within and adjacent to the proposed power line condor. BLM also added clarifying information on water quality, and more discussion of climate change impacts.

The FEIS stated that given predicted climate change, connectivity conservation may have especially important implications in the future as species must move to adapt to changing vegetation patterns and shifting habitats. Development and agriculture have fragmented sagebrush-steppe within Washington and habitat connectivity is degraded and threatened for many species. While the most important linkage areas vary by species, each Action Alternative had potential to reduce connectivity for wildlife species. Measures to reduce effects of habitat loss, human disturbance, and predation were anticipated to minimize impairment of connectivity for wildlife species.

Environmental Impact Statement (EIS) for Authorization of Incidental Take and Implementation of the Barton Springs/Edwards Aquifer Conservation District (District or BSEACD) Habitat Conservation Plan (HCP) for take of the Covered Species: Barton Springs salamander (*Eurycea sosorum*) and Austin blind salamander (*Eurycea waterlooensis*) (May 2018)

Each of the four alternatives reviewed in this EIS included measures for managing the aquifer under drought conditions for the benefit of the covered species, and considered the cumulative impacts of climate change. A warmer and drier climate would increase the risk of lower spring flows. Decreased spring flow and increased water temperature could adversely affect habitat, food availability, and salamander behavior, in addition to producing other possible undetermined effects. Warmer water temperature would result in a reduced concentration of the dissolved oxygen critically important to the salamanders. While the salamanders have lived through significant droughts in the past, the effects of a severe and prolonged drought on the species in the future are unknown because of changes to the landscape due to human development. Severe drought, in combination with other factors such as changes in water quality, increased impervious cover, and introduction of non-native species, could make it more difficult for the species to survive. Groundwater pumping, for which the District sought an incidental take permit, may in the future occur alongside climate change, decreased water infiltration to the aquifer, potential increases in saline water encroachments into the aquifer, and increased competition for spaces and resources underground. Collectively, all these factors might negatively affect the habitat of the two salamanders, and exacerbate drought conditions to the point where they cannot survive. In addition, threats to surface habitat at a given site may not extirpate populations of these salamander species in the short-term, but this type of habitat degradation could severely limit population growth and increase a population's overall risk of extirpation from cumulative impacts of other stressors.

Bruneau-Owyhee Sage-grouse Habitat Project Final EIS (2/09/2018)

As with other areas in the Great Basin, the risk and severity of wildfires were projected to increase in the project area as a result of climate change. Predicted climate change could also increase the likelihood of cheatgrass invasion into shrublands and burnt juniper woodlands. If juniper woodlands and shrublands are converted to cheatgrass, these and adjacent areas would be more prone to fire and more difficult to restore.

Conservation Congress v. U.S. Forest Service

In Conservation Congress v. U.S. Forest Service (2013), a lawsuit filed in California federal court challenged the U.S. Forest Service's authorization of a large timber sale in Mendocino National Forest, which the plaintiff alleged would have adverse impacts on the Northern spotted owl, a species protected under the Endangered Species Act. The complaint included allegations that "[o]wl biologists theorize that Northern spotted owl populations in the Mendocino National Forest are particularly vulnerable to population declines associated with climate change, as these populations exist at the southern-most inland portion – the hottest and the driest portion of the species' range."

The federal district court for the Eastern District of California granted summary judgment to the plaintiff on claims that the defendants had not performed an adequate alternatives analysis and had failed to take a hard look under the National Environmental Policy Act. They required the defendant to retain trees of at least 20" diameter (dbh).