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Sustainable Development Law & Policy

Exploring How Today's Development Affects Future Generations Around the Globe

In This Issue:

Regulatory Schemes in Local, State, and Federal Governments

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American University Washington College of Law

Program on Environmental and Energy Law

Editors' Note

Dear Readers,

For more than two decades, the *Sustainable Development Law and Policy Brief (SDLP)* remains true to its mission of providing innovative solutions to some of the most important legal issues related to environmental law, energy law, and natural resources law. We are honored to be the Editors-in-Chief during these unprecedented times in our history, as we witnessed a historical presidential election and now enter the third year of the COVID-19 global pandemic. Despite these unparalleled times, the *SDLP* staff brought our readership another great issue.

In this issue, our authors provide an in-depth analysis into current regulations and the potential direction and solutions these regulations may take in the future. From ocean pollution, to the National Environmental Protection Act (NEPA), to tiny homes, and wildlife management, the challenges addressed in this issue have a rather narrow focus, but potentially broad impacts on our environment, both domestically and globally. The Keylon article outlines the impacts of NEPA in the time of the Trump Administration and how the Biden Administration has taken steps to restore NEPA regulations to pre-Trump standards. Keylon also takes it one step further and poses ways in which the Biden Administration can strengthen NEPA standards that would go beyond the pre-Trump standards. The Chu article describes society's addiction to plastic and the damage it reaps on the health of our planet and the health of humans. Chu discusses these problems by calling on local, state, and federal governments to address the issues of plastics and waste, while simultaneously encouraging individuals to use their voice to enact change. Both articles provide hopeful and possible solutions by building on already-existing frameworks.

We would like to thank all the article and feature authors for their insights and dedication to raising important legal issues. Also, we would like to thank the professors, executive board, staff, and publisher of *SDLP* for making this publication possible. *SDLP* is a team endeavor, and a team has never been more important than in the times of COVID-19, so everyone's work is appreciated. Finally, we would like to thank our readers, whose involvement and investment in *SDLP* are the reasons that we have been able to create this publication for more than twenty years.

Sincerely,

Juliette Jackson & Bailey Nickoloff

Features:

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About SDLP

The Sustainable Development Law & Policy Brief (ISSN 1552-3721) is a student-run initiative at American University Washington College of Law that is published twice each academic year. The *Brief* embraces an interdisciplinary focus to provide a broad view of current legal, political, and social developments. It was founded to provide a forum for those interested in promoting sustainable economic development, conservation, environmental justice, and biodiversity throughout the world.

Because our publication focuses on reconciling the tensions found within our ecosystem, it spans a broad range of environmental issues such as sustainable development; trade; renewable energy; environmental justice; air, water, and noise regulation; climate change; land use, conservation, and property rights; resource use and regulation; and animal protection.

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Rulemaking Doubletake: An Opportunity to Repair and Strengthen the National Environmental Policy Act

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Introduction

In the middle of the twentieth century, there was a turning point in the United States and around the world in the understanding of the human relationship with the natural environment and natural resources.[1] It was a shift from a perspective of natural resources endlessly available for exploitation to a perspective that natural resources are finite, and conservation and preservation are necessary to ensure that these resources are available for future generations.[2] The accumulation of chronic environmental degradation, such as the unchecked proliferation of pesticides and other toxic chemicals, pollution to the nation's waters, loss of land to erosion, the loss of public open spaces to development, etc. as well as major events such as the oil spill in Santa Barbara and the Cuyahoga River fire, spurred this shift in perspective.[3] This elevated concern for the environment and natural resources led to the passage of the National Environmental Policy Act of 1969 ("NEPA"), which President Nixon signed into law on January 1, 1970 to launch the Decade of the Environment.[4]

NEPA declares that it is the national policy for the federal government to use "all practical means and measures" to ensure a sustainable balance between humans and the environment for "present and future generations,"[5] and it requires all federal agencies to examine the environmental impacts of their actions, to consider alternative actions, and to make that information available to the public.[6] NEPA also established the Council on Environmental Quality ("CEQ") under the Executive Office of the President to lead research and policy on environmental quality issues and to ensure federal agencies are meeting their requirements under NEPA to consider the environmental impacts of their actions.[7]

Since its passage, Congress, the courts, and, most recently, the Trump Administration have undermined and weakened NEPA.[8] Shortly after passing NEPA, Congress began chipping away at it legislatively.[9] In 1973, following litigation to enjoin the construction of an Alaskan pipeline for violations of NEPA and the Mineral Leasing Act, Congress passed legislation exempting the project from NEPA requirements.[10] Since then, Congress has passed a multitude of legislation exempting individual projects, as well as entire types of projects, from the NEPA requirements.[11] Most recently Congress passed the Infrastructure Investment and Jobs Act in 2021 containing provisions designed to "streamline" and restrict the application of NEPA.[12]

Over the past fifty years, there have been numerous court cases interpreting the application of NEPA and the CEQ NEPA regulations, many of which have eroded NEPA's effectiveness in ensuring that the congressional intent and spirit of the national policy is met.[13] The courts have interpreted NEPA to be limited to setting procedural requirements to ensure that federal agencies make informed decisions by taking a "hard look" before they act, rather than imposing any substantive requirements for the federal government to make wise decisions.[14] The courts have also barred the application of NEPA to non-discretionary federal actions and narrowly interpreted when a non-federal action with a federal component, such as grant funding or permitting, triggers NEPA requirements.[15] Perhaps the most damaging of all, the courts have held that even when failure to meet NEPA requirements is the basis of a challenge, the plaintiff must meet four additional requirements to obtain a preliminary injunction.[16] This ruling sets a precedent under which defendants are encouraged to hurry-up-and-build while the court case is proceeding.[17]

The Trump Administration dealt NEPA a further blow when it initiated a rulemaking to revise the CEQ NEPA regulations.[18] The new rulemaking codified many of the previous court decisions weakening the effectiveness of NEPA and undertook to further "streamline" its implementation.[19] Major changes include eliminating the requirement for federal agencies to look at the cumulative impacts of the proposed action, limiting what is considered a major federal action for the purposes of NEPA, limiting the requirement for consideration of alternatives to the proposed projects, allowing the project proponents rather than the federal agency to develop the required NEPA Environmental Impact Statement ("EIS"), and setting hard limits on the page length of EISs.[20] The Biden Administration has subsequently issued an interim final rulemaking extending the deadline by which federal agencies must develop or revise their NEPA procedures to comply with the 2020 Trump Administration NEPA Rule.[21] The Biden Administration has also initiated the first phase of a two phased NEPA rulemaking process with the objective of "restoring basic community safeguards" in the NEPA process.[22]

This article argues that congressional legislation, court decisions, and the Trump Administration's 2020 rulemaking weakened the effectiveness of NEPA and undermined Congress' intent under the national policy set out by NEPA. Part I discusses the history, purpose, and key provisions of NEPA. Part II analyzes the impacts of subsequent congressional legislation on NEPA's effectiveness to meet Congress's original intent under the national policy. Part III covers major court decisions that have weakened the implementation of NEPA. Part IV examines the major impacts of the Trump Administration's rulemaking revising the CEQ regulations. Part V considers two options—setting aside the Trump Administration rulemaking through judicial review[23] and reversing the changes under the Trump Administration rulemaking and addressing the court and congressional decisions that have limited the scope and available remedies under NEPA through the Biden Administration's two phased rulemaking process.[24]

I. The National Environmental Policy Act: History, Purpose, Requirements, Process, and Key Provisions

A. The History and Purpose of NEPA

Following a decade of increased environmental awareness and major environmental disasters, President Nixon signed NEPA into law on January 1, 1970.[25] NEPA is often called the Magna Carta of environmental law because it declares that it is the national policy for the federal government to use "all practical means and measures" to ensure a sustainable balance

between humans and the environment for "present and future generations."[26] NEPA further requires all federal agencies to examine the environmental impacts of all "major [f]ederal actions significantly affecting the quality of the human environment," to consider alternatives, and to make that information available to the public through the existing agency public notice-and-comment process under the Administrative Procedure Act ("APA").[27] NEPA also established the Council on Environmental Quality ("CEQ") under the Executive Office of the President to conduct and advise on environmental quality issues and review federal programs and activities to ensure they are meeting the goals of NEPA.[28]

On March 5, 1970, President Nixon issued Executive Order 11,514 directing CEQ to establish guidelines for federal agencies on NEPA's requirement to provide a thorough statement on the environmental impacts of proposed legislation and federal actions.[29] CEQ issued guidelines on how to "assist agencies in implementing not only the letter, but the spirit, of the Act"—emphasizing NEPA's objective to ensure informed decision making.[30]

In 1977, President Carter strengthened CEQ's role through Executive Order 11,991, which directed CEQ to establish standard regulations for all federal agencies to guide their implementation of NEPA procedures.[31] CEQ initiated a rulemaking process and finalized the NEPA regulations in 1978, establishing binding regulation upon the federal agencies for implementing the procedural requirements under NEPA.[32] The binding regulations ensure that all federal agencies are meeting minimum environmental review requirements under NEPA.[33] CEQ made minor amendments to the NEPA regulations in 1986 and again in 2005.[34]

More recently, the Trump Administration issued Executive Order 13,807 directing CEQ to review the NEPA regulations to modernize, simplify, and accelerate the NEPA process.[35] To accomplish this, CEQ initiated a rulemaking process and released an Advanced Notice of Proposed Rulemaking[36] and later a Notice of Proposed Rulemaking.[37] The regulations were finalized on July 16, 2020 with the issuance of a Final Rule, which went into effect on September 14, 2020.[38] In its efforts to "streamline" NEPA implementation, the new rulemaking significantly weakens the effectiveness of NEPA by eliminating or restricting key provisions of the 1978 binding regulations, which had been well engrained in the NEPA processes and court precedent.[39]

B. Process, Requirements, and Key Provisions of NEPA

The foundational provision of NEPA, Section 102, requires all federal agencies to develop a detailed statement analyzing the impact and potential alternatives for all proposed legislation or other major actions which have a significant effect on the environment.[40] The 1978 CEQ regulations expanded upon this language by defining key terms and outlining when NEPA requirements are triggered as well as the processes for meeting the requirements under this section.[41] The 1978 CEQ regulations clarify that NEPA is triggered when there is an actual proposal for a major federal action and define "major [f]ederal action" as one "with effects that may be major and which are potentially subject to federal control and responsibility."[42] The regulations further elaborate that a major federal action may include federal rules and regulations, formal plans, the creation of new programs, and specific projects, among other actions.[43]

Once a proposal for a major federal action triggers NEPA, the CEQ regulations require the federal agency to assess whether the action requires the development of an EIS, a lesser Environmental Assessment ("EA"), or if it falls under a Categorical Exclusion ("CE") and does not require an EIS or an EA.[44] The CEQ NEPA regulations require federal agencies to submit for approval to CEQ criteria for identifying actions that they take which require an EIS, EA, or neither under a CE.[45]

In determining whether an EIS, EA, or CE applies, the federal agency must look at whether the proposed major federal action will or may *significantly* affect the quality of the human environment or "the natural and physical environment and the relationship of people with that environment."[46] The analysis of "significantly" is critical to determining whether a major federal action falls under a CE, requires an EA, or requires an EIS.[47] A CE will apply when there is no significant effect, while an EA may be prepared—to determine if an EIS is required—if there may be a significant effect, and an EIS is required if there will be a significant effect.[48]

To determine if there is or may be a significant effect, the federal agency must consider both the context of the proposed action as well as the intensity of the effect.[49] The CEQ regulations outline ten factors that the federal agency should evaluate in assessing intensity including assessment of impacts on endangered or threatened species and their habitat, effects on unique geographical areas, effects on public health and safety, and whether the action is controversial, will set a precedent for future actions with significant effects, or the action combined with other actions may have a cumulatively significant impact.[50] CEQ defines these cumulative impacts as "impact[s] on the environment [that] result[] from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."[51]

If a federal agency determines that a proposed action does not fall under a CE but is unsure if there will be a significant effect, it may develop an EA prior to a full EIS to determine if there will be a significant effect.[52] An EA requires only a brief analysis of evidence sufficient to determine whether the agency must prepare an EIS.[53] While the CEQ regulations state that federal agencies in the development of EAs must involve "to the extent practicable" environmental agencies, applicants, and the public, each agency may set their own procedures.[54] Therefore, in many cases the public is unable to review and comment on the EA, unlike the more substantive EIS which requires public review.[55] After a federal agency completes an EA, it must decide either that there is a significant effect and develop an EIS or that there is not a significant effect and make available to the public a Finding Of No Significant Impact ("FONSI").[56]

If the agency determines that an EIS must be developed, with or without a preceding EA, it must prepare an EIS that includes the purpose and need for the proposed action, an analysis of the environmental impacts of the proposed action, and a comparison with the environmental impacts of all reasonable alternatives to the proposal; including a no action alternative and alternatives outside of the agency's jurisdiction.[57] This analysis must address the areas that will be affected by the proposed action and alternatives and the direct and indirect environmental consequences of each, including whether they will affect long-term productivity of the environment or will have any irreversible impacts.[58]

The NEPA EIS requirements ensure that all federal agencies take a "hard look" at the environmental impacts of their actions before acting.[59] A "hard look" requires the federal agencies to consider the impacts of their proposed action and all reasonable alternatives; however, it does not impose a substantive requirement to select options with fewer environmental impacts or to implement measures to mitigate foreseeable environmental impacts of the selected option.[60] Ultimately, the NEPA EIS only imposes a requirement on the federal government to make an informed decision, not to make a decision that will have the best environmental outcome.[61]

Throughout the EIS process, there are numerous points where the public has an opportunity to comment on proposed federal actions.[62] When it is determined that an EIS must be developed, the federal agency must publish a notice of intent in the Federal Register to begin the scoping process for the EIS.[63] The agency must also provide notice of related hearings and public meetings related to the preparation of the EIS.[64] The agency must circulate the draft EIS for public comment, and assess and consider all comments individually and collectively, then issue responses to the comments in the final EIS.[65] The agency must publicly circulate the final EIS and may request public comment on it prior to issuing a final decision.[66] Additionally, if the agency makes a substantial change to the proposed action or there is significant new information or circumstances impacting the proposed action and its impacts, the federal agency must prepare and circulate for public comment a supplemental draft or final EIS.[67]

Upon completion of the final EIS and at the time of decision, the federal agency must prepare and publish a public record of decision ("ROD") and notify the public of their rights to appeal the decision.[68] Additionally, the CEQ regulations set out minimum timing requirements on the mandated public comment periods.[69] The substantial requirements for public notice-and-comment make clear that the purpose of NEPA is not only to require agencies to consider the environmental impacts of their proposed actions, but also to inform the public, other agencies, and Congress about the environmental impacts of the actions to hold agencies accountable for the impacts of their actions.[70]

II. Congress Acts To Restrict NEPA

Shortly after passing NEPA, Congress began to chip away at the newly enacted law with blanket and project specific exemptions.[71] The first exemption to NEPA occurred in 1973, just three years after its enactment.[72] Following a legal challenge to the trans-Alaska pipeline for violation of NEPA and the Mineral Leasing Act, Congress passed the Trans-Alaska Pipeline Authorization Act, which exempted the project from NEPA and "judicial review under any law."[73] Senator Henry Jackson, who introduced NEPA, opposed the exemption, stating that it set a dangerous precedent under which requests for, and issuances of, exemptions on a projectby-project basis would be numerous.[74]

Senator Jackson was indeed correct that the Trans-Alaska Pipeline legislation would set a precedent for exemptions with many more to come.[75] For example, in 1980, Congress passed legislation exempting the construction of the Tellico Dam in Tennessee from NEPA requirements after it had stalled due to the threat the project posed to an endangered species.[76] In 1986, Congress exempted the construction of the H-3 highway in Hawaii from NEPA.[77] Then in 1988, Congress exempted the construction of an observatory for the University of Arizona on Mount Graham from NEPA review, notwithstanding the listing of the Mount Graham red squirrel on the endangered species list.[78]

In addition to project specific exemptions, Congress has enacted numerous broad exceptions covering entire types of activities.[79] Many of the exemptions have been applied under other environmental statutes, for example, exemptions for actions taken by an agency in accordance with the Clean Water Act and Clean Air Act.[80] However, others are driven by commercial or national security interests.[81]

For example, under the Interstate Commerce Commission Termination Act of 1995, the licensing of commercial space launch vehicles is not considered a major federal action as long as the Department of the Army issues a permit and the Army Corps of Engineers finds that the activity has no significant impact.[82] An example of a national security interest exemption is the exemption of the Secretary of any military department from having to prepare an EIS for low-level flight training under the Fiscal Year 2001 National Defense Authorization Act.[83] Also exempted for national security interests are NEPA requirements for decisions on the construction of segments of the U.S.-Mexico border wall under the Illegal Immigration Reform and Immigration Responsibility Act of 1996.[84]

More recently, Congress added additional restrictions to NEPA under the Infrastructure Investment and Jobs Act.[85] The law includes several provisions designed to "streamline" and restrict the application of NEPA including codifying some of the provisions under the Trump Administration's CEQ NEPA Regulations.[86] The law includes provisions to limit the time and level of review under NEPA by establishing a presumptive 200-page limit for the alternative analysis portion of an EIS, reducing the time lead agencies have to invite other agencies to participate in the environmental review, restricting the time for

NEPA review to two years from publication from the notice of intent, requiring issuance of a ROD within ninety days of the final EIS.[87] Other provisions limit when NEPA review applies by establishing new CEs for oil and gas pipeline gathering lines on federal and Tribal lands, excluding projects that receive less than six million dollars in federal assistance and are less than thirty-five million dollars for the entire project, and authorizing project sponsors and federal land management agencies to use Federal Highway Administration CEs.[88]

The exemption of specific projects and exemptions of entire types of activities from NEPA review requirements undermine the intent of NEPA to ensure that federal agencies are considering the impacts of *all* major federal actions before taking the actions.[89] It further denies the public the opportunity to review and comment on the actions which is one of the fundamental purposes of the NEPA review process.[90]

III. The Courts Restrict The Scope Of NEPA Application and Available Remedies

For over fifty years, the courts have been interpreting and applying NEPA and the CEQ NEPA regulations.[91] In many of these cases, the courts have strengthened and reinforced NEPA with their holdings, while in others they have dealt substantial blows to the applicability, enforcement, and ultimately the effectiveness of NEPA.[92]

Over the years, there have been decisions that have ensured that NEPA has teeth, but also numerous decisions which have blunted the strength and effectiveness of the law and the CEQ regulations.[93] The courts have affirmed that the procedural provisions of NEPA mandate that all federal agencies must take a "hard look" at the environmental impacts of their actions, while at the same time dismissing any requirement of the federal agencies under NEPA to uphold the substantive goals of the national policy.[94] Similarly, the courts have held that the federal agency must consider all reasonable alternatives, that this is not limited solely to alternative measures within the agency's jurisdiction, and that mitigation measures should be considered; however, the courts have also held that there is no substantive requirement to select an alternative with less environmental impact nor to require the implementation of mitigating measures.[95] Additionally, the courts have held that NEPA does not provide for a private cause of action; however, injured individuals may bring a cause of action for NEPA violations under the APA.[96] Under the APA review, the court looks at whether the federal agency has adequately considered the environmental impacts of the proposed action and whether its action was arbitrary and capricious, which has added some additional strength to the procedural requirements under NEPA.[97] The courts have also given strength to key provisions of NEPA and the CEQ regulations, such as the requirement for the consideration of cumulative impacts, stating that when considering cumulative impacts of a project, the federal agency must consider *all* reasonably foreseeable contemplated actions, not only those that are actually occurring or proposed.[98]

There are two key areas where the courts have made decisions that significantly weakened the effectiveness of NEPA: decisions on when NEPA applies and decisions limiting access to preliminary injunctions.[99]

A. Court Decisions Restricting When NEPA Applies

Court decisions that have restricted NEPAs application, weakening its effectiveness, can be split into two categories: decisions determining that NEPA does not apply to an entire type of action and "small federal handle" decisions limiting the application of NEPA where the federal action only covers a small portion of a larger project.[100]

Under the first category, there are several ways in which the courts have decided that NEPA does not apply to an entire type of action. First, the court has exempted from NEPA non-action or status quo decisions of federal agencies, even if they may have significant environmental effects.[101] Thus, an agency's decision to not take an action does not trigger NEPA requirements.[102] Additionally, agency decisions maintaining the status quo, including the decision to continue activities—such as continuing a coal leasing program under an old EIS or rebuilding an existing bridge that has collapsed—do not trigger NEPA requirements.[103]

The courts have also determined that when an agency lacks discretion on an action, such as when Congress directs it to take action, the agency does not need to conduct NEPA reviews.[104] While an agency taking a non-discretionary action is unable to alter its decision based on the findings in the EIS, the exemption of nondiscretionary actions still subverts two purposes of NEPA—to ensure that the federal agencies are informed about the environmental impacts of their actions and that the public is informed about the environmental impacts of federal actions.[105]

The "functional equivalency" doctrine further limits the scope of NEPA's application to certain types of agency action.[106] Under this doctrine, courts have found that several environmental statutes require analysis that are similar enough to those of NEPA and an EIS that they are functionally equivalent to these requirements.[107] Where a statute, such as the Endangered Species Act, Ocean Dumping Act, Resource Conservation and Recovery Act, and Safe Drinking Water Act, requires its own environmental review actions that are functionally equivalent to those under NEPA; the court has found that the federal agency does not additionally need to conduct a NEPA review, even though these statutes do not explicitly waive NEPA review.[108] The exemption of non-action, status quo, non-discretionary, and functional equivalent actions—which may have significant environmental impacts—from NEPA review requirements, similar to congressional legislative exemptions, undermine the intent of NEPA to ensure that federal agencies are considering the impacts of these actions before taking the actions.[109] It further denies the public the opportunity to review and comment on the actions.[110]

Under the second, "small federal handle" category, courts have restricted when actions with a federal component are

considered a major federal action.[111] Small federal handle analysis looks at whether a federal action in a state or local project provides a sufficient nexus to require NEPA review and, if so, whether that review should cover the entire project, "federalizing" the project, or whether it should be limited solely to the federal action.[112]

In determining whether a federal action "federalizes" the project, the court uses the "enablement theory" and analyzes: "(1) the degree of discretion exercised by the agency over the federal portion of the project; (2) whether the federal government has given any direct financial aid to the project; and (3) whether 'the overall federal involvement with the project (is) sufficient to turn essentially private action into federal action.'"[113] In determining whether a federal action is sufficient to federalize an entire project, the courts have tended toward a high bar of federal involvement to trigger NEPA requirements.[114]

When the courts have found that a federal action does not federalize an entire project, the courts often determine that the federal action by itself is not a major federal action requiring NEPA review.[115] For example, in *Save the Bay, Inc. v. USACE*,[116] the court looked at whether the approval of a federal permit for an effluent pipeline into a local marsh from a titanium dioxide manufacturing facility would define the federal action as the permit for the pipeline only or would include the construction of the entire facility.[117] The court determined that the federal action was only the federal permit for the pipeline and that this was not in itself significant enough to constitute a major federal action.[118] The high bar for determining when a federal action federalizes an entire project, and the finding that on its own a federal action may not be significant enough to constitute a major federal action, essentially exempts numerous projects with a federal role and significant environmental impact from environmental review under NEPA, undermining the purpose of the national policy. This allows agencies to avoid consideration of the environmental impacts of these actions before taking them and denies the public an opportunity to review and comment on these actions.[119]

The court precedent restricting when NEPA applies to major federal actions significantly impacting the environment is directly in conflict with the language and intent of the statute.[120] NEPA does not say that environmental impact review is required for major federal actions which significantly affect the environment *except* if it is an action maintaining the status quo, it is being reviewed under another environmental statute, is an action mandated by Congress, or is not substantially enabling a private action.[121] NEPA says that *all* major federal actions that significantly impact the environment must be reviewed.[122] Thus, the court decisions discussed here are carving out exceptions unintended by Congress that undermine the intent and ultimately the application of NEPA.[123]

B. Court Decisions Restricting the Use of Preliminary Injunctions

The 1978 CEQ regulations have made clear that actions that should be covered under an EIS should not proceed absent the completion of the EIS and ROD.[124] The regulations provide that a federal agency shall not take any action concerning a proposed action that would have an adverse environmental impact or limit the choice of reasonable alternatives prior to the issuance of the ROD.[125] It provides that a federal agency shall not take any major federal actions covered under a programmatic EIS while such statement is being developed unless the action can be independently justified, is accompanied by its own EIS, and will not affect the ultimate decision on the programmatic EIS.[126]

While the regulations clearly imply the intent that no major federal action should go forward prior to completion of the NEPA process, the regulations are silent as to whether a major federal action may proceed while the question of whether there has been a NEPA violation is being considered in the courts; possibly because the drafters did not contemplate that there would continue to be substantial NEPA litigation following the issuance of the 1978 CEQ regulations.[127] This silence has left the courts to impose their own interpretation and, rather than aligning with the general precedent of the CEQ regulations that a major federal action should not proceed prior to final determination; the Supreme Court in *Winter v. Natural Resources Defense Council*[128] applied the standard requirements for preliminary injunction.[129] These standard preliminary injunction requirements are based on the belief that an injunction, even preliminary, is an "extraordinary remedy that may only be awarded upon a clear showing that the plaintiff is entitled to such relief."[130]

Prior to *Winter*, a preliminary injunction was the standard while the courts determined if there was a NEPA violation and until any discovered violation was cured.[131] This standard applied an equitable balancing, or a sliding scale test which presumed that environmental injury is an irreparable injury and thus would favor the issuance of a preliminary injunction.[132] Post *Winter*, the plaintiff must show: 1) they are likely to succeed on the merits of the case; 2) without the injunction they would suffer irreparable harm; 3) the balance of equities is in their favor; and 4) the injunction is in the public interest.[133] While there was initially a presumption of irreparable damage when an agency failed to thoroughly evaluate the environmental impacts of its proposed actions, the Supreme Court overturned this presumption in *Amoco Production Co. v. Village of Gambell, AK*.[134] In *Amoco*, Alaskan Native Villages sought an injunction against exploratory oil and gas activities in Norton Sound and the Navarin Basin, arguing that the Secretary of Interior in authorizing the activities had failed to comply with requirements under the Alaska National Interest Lands Conservation Act.[135]

The Court determined that the presumption of irreparable damage where there is a violation under a statute requiring an

environmental evaluation goes against traditional equitable principles of an injunction. The Court further determined that allowing such a violation to continue would not undermine the purpose of the statute so there should be no presumption of irreparable damage and the traditional equitable principles should apply.[136] Many courts have interpreted the Supreme Court's decision in *Winter* as precluding the equitable or sliding scale standard and requiring a strict application of the four factor test,[137] while other courts maintain that *Winter* did not displace the equitable or sliding scale approach or that this flexible approach is consistent with *Winter*.[138] *National Parks Conservation Association v. Semonite*[139] exemplifies how the application of standard preliminary injunction requirements, absent the flexible equitable or sliding scale approach, weakens NEPA.[140] In this case, Virginia Electric and Power Company applied to the Army Corps of Engineers for a permit to construct an electrical switching station, transmission lines, and numerous steel transmission towers stretching across the James River, through the middle of the Jamestown historic district, and through other historic resources managed by the National Park Service.[141] The Army Corps of Engineers issued the permit after conducting an EA and determining that there would be no significant environmental effect on the human environment, so an EIS was not required.[142] The National Parks Conservation Association (NPCA), on behalf of its members, brought suit for violation of NEPA and the APA and sought a preliminary injunction.[143] The preliminary injunction was denied, with the court holding that NPCA "failed to establish a likelihood of irreparable harm prior to this case being decided on the merits."[144] The court then granted the Army Corps of Engineers' motion for summary judgment.[145] NPCA filed an appeal seeking a preliminary injunction, which was again denied, with the court holding NPCA had failed to establish that they were likely to succeed on the merits, that there was a likelihood of irreparable harm, and that the public interest strongly favored an injunction.[146]

Less than a year and a half after the initial request for a preliminary injunction was denied, the appeals court determined that the Army Corps of Engineers did violate NEPA in issuing the permit and reversed and remanded to the district court with instructions to vacate the permit and direct the Army Corps of Engineers to prepare an EIS.[147] However, because there was no preliminary injunction in place while the case was being litigated, Virginia Electric and Power Company proceeded under the permit to construct the project, and by the time the court had determined that the Army Corps of Engineers had violated NEPA, the entire project had already been completed.[148] The court was faced with a completed project in violation of NEPA, and having relied on the argument that the towers could and would be removed if they were found to be in violation of NEPA when denying the preliminary injunction on appeal, determined that it would be inappropriate to vacate the permit and require the towers to be removed.[149] The court only required the Army Corps of Engineers to complete an EIS for the already completed project.[150] The outcome of this case demonstrates how the current application of preliminary injunctions entirely subverts the purpose of NEPA to ensure that federal agencies take a "hard look" at the environmental impacts *prior* to taking action.[151] The Supreme Court in *Amoco* stated that "Environmental injury, by its nature, can seldom be adequately remedied by money damages and is often permanent or at least of long duration, i.e., irreparable" but by denying a preliminary injunction, federal agencies and their non-federal partners are encouraged to hurry up and build while NEPA claims are being litigated and betting that vacatur will not be awarded if a NEPA violation is found after the project is completed.[152] Without a preliminary injunction where it is argued that there is a violation of NEPA, the plaintiff's case may prove futile because the damage to the environment will already be done.[153] By denying preliminary injunction and subsequently denying vacatur, the holding in this case essentially reduces NEPA to an exercise in paperwork rather than an action to ensure that federal agencies do not act prior to analyzing the impacts on the environment of the action.[154]

IV. The Trump Administration Eliminates and Restricts Key NEPA Provisions

After nearly forty years of implementation and precedent based on the 1978 CEQ NEPA regulations with only relatively minor revisions, the Trump Administration initiated an overhaul of the regulations with the objective of simplifying and "streamlining" them.[155] On August 24, 2017, President Trump issued Executive Order 13,807 directing CEQ to review the NEPA regulations and modernize, simplify, and accelerate the NEPA process.[156] CEQ then began the rulemaking process, releasing an Advanced Notice of Proposed Rulemaking ("ANPR") with a thirty-day comment period.[157] CEQ received over 12,500 comments on its ANPR and extended the comment period.[158] CEQ then published a Notice of Proposed Rulemaking with a sixty-day comment period.[159] During the comment period CEQ held two public hearings, one in Washington, and one in Colorado.[160] CEQ received approximately 1,145,571 comments on the proposed rule, including hundreds of requests for extension of the comment deadline and additional hearings in additional locations, neither of which were granted.[161] The Final rule was issued on July 16, 2020 and went into effect on September 14, 2020.[162]

The new rulemaking makes numerous and significant changes to the 1978 CEQ regulations. This Part covers several of those changes which have most significantly weakened the effectiveness of NEPA.[163]

A. Limiting the Application of NEPA

The Trump Administration CEQ rulemaking codified many of the court jurisprudence restrictions on the application of NEPA under a new Part 1501.1 NEPA Thresholds.[164] Under this section, the new regulations outline considerations for determining whether NEPA applies, including if the proposed action is in whole or part non-discretionary and if it falls under another statute which has requirements that serve the function of

compliance with NEPA.[165] These two provisions are essentially equivalent to the court precedent that non-discretionary actions and actions subject to functionally equivalent review are exempt from NEPA requirements.[166]

The Trump rulemaking revisions to the definition of "major [f]ederal action" also codify judicial precedent restricting the application of NEPA.[167] The new definition states that nondiscretionary decisions are not major federal actions.[168] It further states that non-federal projects with minimal federal funding or involvement, as well as loans and other forms of financial assistance where the federal agency does not exercise sufficient control and responsibility over the outcome of a project, are not major federal actions.[169] This definition reflects an intent to cement and codify the courts' jurisprudence regarding "small federal handle" to limit when NEPA applies to projects with federal and non-federal components.[170] The definition also goes a step further and states that extraterritorial activities or decisions with effects located entirely outside of the United States are not major federal actions.[171] This definition goes against court precedent that NEPA does apply to major federal actions when they occur outside of the U.S.[172] The codification of the courts jurisprudence on functional equivalence, non-discretionary, and "small federal handle" exemptions together with the expansion of exemptions to include extraterritorial federal actions combine to cement harmful precedent that goes against the intent of NEPA for federal agencies to review the impacts of *all* major federal actions significantly affecting the environment and denies the public the opportunity to review and comment on these actions.[173]

B. Revision of the Requirements to Consider Alternatives

The Trump Administration CEQ rulemaking significantly modifies the consideration of alternatives in an EIS.[174] The new regulations modify the provision from a requirement to "rigorously explore and objectively evaluate all reasonable alternatives" to requiring only that agencies "evaluate reasonable alternatives to the proposed action" and to "limit their consideration to a reasonable number of alternatives."[175] The new regulations further define "reasonable alternative," a term that was previously undefined in the regulations, as "a reasonable range of alternatives that are technically and economically feasible, meet the purpose and need for the proposed action, and where applicable meet the goal of the applicant."[176] These changes will restrict the consideration of alternatives in EISs, overturning decades of court precedent and weakening "the heart" of the EIS, which is for federal agencies to take a "hard look" by considering the impacts of their proposed action and *all reasonable* alternatives.[177]

C. Removal of the Definition of Cumulative Impacts and Redefining "Significantly Affecting"

The Trump Administration CEQ rulemaking reverses decades of court precedent requiring the consideration of cumulative impacts when assessing the environmental impacts of a proposed action.[178] The new regulations not only remove the definition of cumulative effects but also state that effects are not significant if they are "remote in time, geographically remote, or the result of a lengthy causal claim."[179] This new regulatory language will restrict consideration of longer term environmental impacts or impacts which occur as a composite of multiple independent actors, such as how the action will contribute to climate change and its environmental impacts.[180]

D. Revisions to Encourage the Use of Categorical Exclusions

The 1978 CEQ regulations provided for the use of CEs for categories of actions that do not individually or cumulatively have a significant impact.[181] However, a normally categorically excluded activity might require an EA or EIS if it may have a significant environmental impact.[182] For example, federal coastal habitat restoration projects which do not involve debris removal or substantial sediment placement are categorically excluded but may still require an EA or EIS if they are done in an area with endangered species critical habitat such as nesting grounds for endangered sea turtles.[183] The Trump Administration rulemaking seeks to expand the use of CEs by allowing actions that would normally fall under a CE but may have a significant impact to still be categorically excluded if the "agency determines that there are circumstances that lessen the impact or other conditions sufficient to avoid significant effects."[184] The increased emphasis on the use of CEs allows for activities that would normally undergo more substantial review under an EA or EIS to be exempted from such review.[185] Similar to the congressional and court established exceptions, the expanded use of CEs creates additional carve outs of activities which do not require review further undermining the intent of NEPA for *all* major federal actions with significant environmental effects to undergo review and for the information to be made available to ensure that federal agencies are making informed decisions.[186]

V. Recommendations

NEPA has been dealt many blows over the past fifty years from Congress and the courts, but it has survived as a critical procedural tool to ensure that federal agencies consider the environmental impacts of their actions and to provide a platform for informing and meaningfully engaging with the public on actions affecting the environment.[187] The Trump Administration has added a new blow with its Final CEQ rulemaking, which both codifies court jurisprudence which has weakened NEPA and introduces additional changes, in some cases reversing decades of court precedent.[188] These changes have ultimately weakened NEPA and have hampered the ability for it to achieve the national policy that the federal government use "all practical means and measures" to ensure a sustainable balance between humans and the environment for "present and future generations."[189] To preserve the intent of NEPA, the courts and the Biden Administration should take action to reverse the Trump Administration CEQ NEPA regulations and, where

possible, consider actions to reverse the harmful precedents set by both Congress and the courts.[190]

There are two possible avenues by which the Trump Administration NEPA regulations may be overturned. The first is through litigation in the courts to determine that the rulemaking was "arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law" under the APA and the second is for the Biden Administration to revise the regulations to reverse the Trump Administration changes as well as to implement additional improvements through the initiated NEPA rulemaking process.[191] This Part discusses both of these options and ultimately recommends that the Biden Administration reverse the Trump Administration changes and implement additional NEPA improvements through the initiated two phased NEPA rulemaking process.

A. Consideration of Court Ruling Overturning the Trump Administration Rulemaking

The court should set aside the Trump Administration CEQ NEPA rulemaking for violations under the APA.[192] Litigants are bringing both substantive claims that CEQ is not entitled to *Chevron* deference because the revisions made are in direct conflict with the express intent of Congress and court precedent, as well as claims that the rulemaking was arbitrary and capricious under the APA for failing to consider relevant factors during the rulemaking process.[193] The litigants should succeed on both claims.

Under *Chevron*, the first question is whether Congress' intent was clear.[194] If so, then there is no room for discretion; however, if Congress is unclear, then the agency has discretion to make a reasonable interpretation of the statute.[195] In this case, the new regulations are clearly in direct conflict with both the 1978 NEPA regulations and the court precedent interpreting NEPA and these regulations, particularly regarding the requirement for agencies to take a "hard look" at the environmental impacts of proposed actions and to consider all reasonable alternatives to such action and to consider cumulative impacts.[196] In addition, the rulemaking contradicts court precedent that NEPA does apply to extraterritorial major federal actions.[197] The Supreme Court has continually held that where there is *stare decisis* it trumps any deference to the agency under *Chevron* so the court should find that where the Trump Administration rulemaking conflicts with *stare decisis,* the rulemaking is not valid.[198]

In addition, the litigants' assertions that CEQ acted arbitrarily and capriciously in failing to consider relevant factors during the rulemaking process should succeed.[199] In making its decision, CEQ relied upon a goal of reducing delay and fostering an economic benefit, rather than advancing the purposes of NEPA to ensure that both the federal government and the public are informed about the environmental impacts of major federal actions contrary to its legal requirement.[200] It failed to consider the impacts of the rulemaking as a major federal action, which will significantly harm the environment and failed to adequately consider alternative actions.[201] It also failed to take into consideration reliance on the 1978 regulations and court precedent, and it failed to provide sufficient explanations to justify its actions and decisions throughout the decision making process.[202] It further failed to meet its requirement to respond to all significant comments raised in the public comment processes and to address these concerns in the final rule.[203] The plaintiffs in the pending cases have provided significant evidence in the record to support these claims, and the courts should find that CEQ acted arbitrarily and capriciously.[204]

Should the NEPA rulemaking be found to be arbitrary and capricious by the courts, the rulemaking would be set aside but the congressional and court precedent will still stand, including the new provisions under the Infrastructure Investment and Jobs Act.[205] Ultimately, only a new rulemaking by the Biden Administration would both overturn the harmful impacts of the Trump Administration rulemaking and enable action to address harmful court precedent. As of publication of this article, the Biden Administration has issued an interim final rulemaking extending the deadline by which federal agencies must develop or revise their NEPA procedures to comply with the 2020 Trump Administration NEPA Rule.[206] The Biden Administration has also initiated the first phase of a two phased NEPA rulemaking process with the objective of "restoring basic community safeguards" in the NEPA process.[207] As a result, the courts have stayed the majority of the cases pending Biden Administration action.[208] While one of the cases was dismissed by the district court as unripe and the plaintiffs have subsequently appealed.[209]

B. Recommendation That the Biden Administration Initiate a New NEPA Rulemaking Process

The Biden Administration should reverse the Trump Administration rulemaking and strengthen NEPA by filling in the gaps left by the 1978 regulations through its two phased NEPA rulemaking process.[210] The Biden Administration interim rule delaying implementation requirements provides a temporary reprieve from the harmful effects of the Trump Administration NEPA rule. However, the Biden Administration can, and should, directly and comprehensively address the Trump Administration rule's harmful provisions and problematic court precedent.[211]

President Biden initiated consideration of the rulemaking process with the issuance of Executive Order 13,990, which rescinded the former President Trump's Executive Order 13,807 directing CEQ review of NEPA.[212] Executive Order 13,990 also directed CEQ and the Director of the White House Office of Management and Budget to determine if a replacement executive order, and subsequently a replacement rulemaking should be issued.[213] Subsequently, the Biden Administration initiated a two phased rulemaking process with the publication of a Notice of Proposed Rulemaking ("NPRM") to "restore basic community safeguards" in the NEPA process.[214]

The Biden Administration states in the NPRM that the objective of the first phase of the rulemaking process is to address provisions that "pose significant near-term interpretation or implementation challenges" which would impact agencies

during the period before the second phase is completed, provisions that should be reverted to the 1978 NEPA regulations approach, and provisions that likely will not be further revised under the second phase.[215] The proposed changes in the first phase include restoring the language requiring federal agencies to look at the cumulative impacts of proposed decisions,[216] to allow agencies to establish their own NEPA procedures with the CEQ Regulations as the minimum requirements,[217] and to remove language restraining consideration of alternatives.[218] In the second phase, the Administration will take a more broad look at the 2020 NEPA regulations to assess further revisions necessary to ensure an effective and efficient NEPA process while maintaining the intent of NEPA.[219]

In the new two phased rulemaking, the Biden Administration should reverse the revisions made by the Trump Administration rulemaking and consider additional revisions to strengthen NEPA. In addition to reversing the 2020 NEPA provisions eliminating cumulative impacts, restricting the consideration of alternatives, and restricting agencies from implementing additional NEPA procedures in the first phase of rulemaking, the Biden Administration should consider the following additional reversions and revisions for the second phase.[220]

First, the Biden Administration should reverse the codification exemptions for non-discretionary actions and further require the review of non-discretionary actions to ensure that both the federal agency and the public are informed about the impacts of these actions. This will ensure that the intent of NEPA for federal agencies to look at the environmental impacts of *all* major federal actions before they act and to inform the public are met.[221] The Biden Administration should also provide clear direction on when a non-federal action with a federal component is federalized, both to provide clarity on when a federal action federalizes a project and to ensure that projects with federal components that have significant environmental impacts are not being exempted from NEPA review. The new rule should require: 1) when a project cannot go forward without the federal action, the project is federalized; and 2) if the project under the NEPA significant effect analysis or the results of an EA is determined to have a significant environmental effect, then it is federalized and considered a major federal action no matter the size of the federal agency's role.[222] These changes would counter existing court precedent and may be challenged in the courts as contrary to the principle of *stare decisis*.[223] However, such challenge would likely not succeed because while the general rule is that *stare decisis* trumps *Chevron* deference, the Supreme Court has also recognized that *stare decisis* is not an "inexorable command" and precedent may be overturned by rulemakings by administrative agencies where they are properly exercising their delegated authority to interpret statutes they administer and the interpretation is "neither arbitrary, capricious, nor in clear conflict with the meaning of the statute."[224] In this case CEQ has the delegated authority to interpret NEPA, the change is neither arbitrary nor capricious, and it adheres to the clear intent of NEPA; therefore, the court should give CEQ *Chevron* deference to issue this regulation.[225]

The Trump Administration rulemaking was driven by a desire to "streamline" and simplify the NEPA processes, and this is likely to remain a strong interest of industry; thus, the Biden administration should consider revisions that will provide options for reducing the burden of NEPA while maintaining the requirements to take a hard look at the environmental impacts of federal actions.[226] For example, programmatic EISs are authorized under both the 1978 and 2020 NEPA regulations.[227] Rather than promoting and expanding the use of CEs, which eliminate the requirement to look at environmental impacts, the Biden Administration should promote and expand the use of programmatic EISs, which conduct a review of the environmental impacts of a variety of activities and undergo the public notice-and-comment process.[228] Once the EIS is completed, the activities that fall within the programmatic EIS do not require further review unless they differ from the actions assessed under the programmatic EIS.[229] However, regulatory action to limit the use of CEs as newly required under the Infrastructure Investment and Jobs Act since Congress has clearly spoken in this case and CEQ would not have deference under Chevron.[230]

In addition, the Biden Administration should issue regulations providing for injunctive relief to restrict major federal actions from proceeding while decisions on NEPA violations are pending in litigation.[231] This change would clarify an ambiguity in court precedent arising after *Winter* regarding the weight given to the irreparable harm to the environment likely to occur without a preliminary injunction and where money damages cannot adequately remedy the injury.[232] This will provide clarity across jurisdictions, adhere to the intent of NEPA that major federal actions should not proceed *prior* to completion of required environmental reviews, and ensure that there is not an incentive to "hurry up and build" while litigation is ongoing.[233] Such a change may be as contrary to the principle of *stare decisis*.[234] However, because there is ambiguity in the rulings on the issue across jurisdictions, CEQ has the delegated authority to interpret NEPA, the change is neither arbitrary nor capricious, and it adheres to the clear intent of NEPA, CEQ should be given *Chevron* deference to issue this regulation.[235]

Conclusion

NEPA provides a critical procedural tool to ensure that federal agencies take a hard look at the environmental impacts of their actions to provide the public with information and opportunities for meaningful engagement.[236] The effectiveness of NEPA has been weakened over the past fifty years by congressional actions, court decisions, and most recently the Trump Administration's CEQ NEPA rulemaking limiting when NEPA applies, and the extent of the environmental analysis required when it does.[237]

Actions should be taken by the Courts and the Biden Administration to reverse the damage done by the Trump Administration rulemaking and, where possible, to provide for provisions to strengthen NEPA to ensure it is able to achieve

the national policy that the federal government use "all practical means and measures" to ensure a sustainable balance between humans and the environment for "present and future generations."[238] While the courts may be able to set aside the rulemaking as arbitrary and capricious, this will only serve to reverse the most recent harm inflicted by the Trump Administration.[239] To accomplish both this reversal and to strengthen NEPA by addressing actions taken by Congress and decisions of the court that have weakened NEPA, the Biden Administration should use the initiated two phased rulemaking process to both reverse the harmful provisions of the 2020 Trump Administration NEPA rulemaking and consider provisions to eliminate exemptions and restrictions which have hampered the application of NEPA and to restrict, if possible, the ability for projects to move forward while litigation is ongoing regarding NEPA violations.[240]

Endnotes

1 *See The Modern Environmental Movement*, Earth Days, https://www.pbs.org/wgbh/americanexperience/features/earth-days-modern-environmental-movement/ (last visited Oct. 29, 2021) (outlining a timeline of major events resulting in increased concern regarding the environment including the health impacts from air pollutants and toxic chemicals, increased ocean exploration, and publication of seminal environmental works).

2 Adam Rome, *Conservation, Preservation, and Environmental Activism: A Survey of the Historical Literature*, Nat'l Park Serv. (Jan. 16, 2003), https://www.nps.gov/parkhistory/hisnps/NPSThinking/nps-oah.htm.

3 115 Cong. Rec. S19,008, 19,010 (daily ed. July 10, 1969); Lorraine Boissoneault, *The Cuyahoga River Caught Fire at Least a Dozen Times, but No One Cared Until 1969*, Smithsonian Mag. (June 19, 2019), https://www.smithsonianmag.com/history/cuyahoga-river-caught-fire-least-dozen-times-.

4 Denis Binder, *NEPA at 50: Standing Tall*, 23 Chap. L. Rev. 1, 6 (2020); Michael C. Blumm, *Environmental Law at 50: A Cutting-Edge Journal Examining the Central Issues of Our Time*, 50 Env't L. Rep. 1, 3–4 (2020); *see also* Fitzhugh Green, *From the FSJ Archive: Decade of the Environment*, Foreign Serv. J. (July/Aug. 2017), https://www.afsa.org/fsj-archive-decade-environment (discussing the objective of the Decade of the Environment to bring attention to environmental issues nationally and on international platforms as well as accomplishments attributed to the Decade of the Environment).

5 *See* Blumm, *supra* note 4, at 4–5; 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860–61 (daily ed. June 5, 1969) (statement of Sen. Jackson); National Environmental Policy Act (NEPA), 42 U.S.C. § 4331(a).

6 *See* NEPA, 42 U.S.C. § 4332(c) (stating that agencies must make the environmental impact statements (EIS's) required under NEPA available to the public pursuant to the Administrative Procedure Act); Administrative Procedure Act (APA), 5 U.S.C. §§ 551 et seq. (providing requirements for agencies to make information available to the public); 115 Cong. Rec. S19,008 § 102 (daily ed. July 10, 1969) (stating the requirements of federal agencies under NEPA); 115 Cong. Rec. S14,860 (daily ed. June 5, 1969) (statement of Sen. Jackson).

7 NEPA, 42 U.S.C. §§ 4341–47 (including additional requirements for CEQ to develop recommendations on national policies to foster environmental quality, to document and define changes in the natural environment, to analyze trends and underlying causes, and to provide an annual report on the state of the environment); 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860–61 (daily ed. June 5, 1969) (statement of Sen. Jackson).

8 Sam Kalen, *NEPA's Trajectory: Our Waning Environmental Charter from Nixon to Trump?*, 50 Env't L. Rep. 10,398 (2020).

9 *Id.* at 10,403–04, 10,406 (discussing Congress passing legislation limiting NEPA review requirements for types of projects and individual projects).

10 Victor M. Sher & Carol Sue Hunting, *Eroding the Landscape, Eroding the Laws: Congressional Exemptions from Judicial Review of Environmental Laws*, 15 Harv. Env't L. Rev. 435, 438–40 (1991).

11 *Id.* at 435–52 (analyzing multiple situations in which Congress passed legislation to exempt projects from NEPA requirements, such as construction of the Alaska Pipeline and logging of the Siuslaw National Forest).

12 *See* Infrastructure Investment and Jobs Act, Pub. L. No. 117–58 (2021); Reza Zarghamee et al., *Biden's Infrastructure Bill and Promise of NEPA Reform*, Pillsbury Law (Aug. 23, 2021), https://www.pillsburylaw.com/en/news-and-insights/biden-infrastructure-bill-nepa-reform.html.

13 *See* Binder, *supra* note 4, at 14; NEPA, 42 U.S.C. § 4331.

14 Kleppe v. Sierra Club, 427 U.S. 390, 409–10 (1976); Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351–53 (1989) (requiring agencies to take a "hard look," which requires the federal agencies to consider the impacts of their proposed action and all reasonable alternatives without imposing a substantive requirement to select options with less environmental impacts or to implement measures to mitigate foreseeable environmental impacts of the selected option).

15 *See* Flint Ridge Dev. Co. v. Scenic Rivers Ass'n of Okla., 426 U.S. 776, 791 (1976); Save the Bay, Inc. v. USACE, 610 F.2d 322, 327 (5th Cir. 1980); Winnebago Tribe of Neb. v. Ray, 621 F.2d 269, 272 (8th Cir. 1980); Macht v. Skinner, 916 F.2d 13, 19–20 (D.C. Cir. 1990).

16 *See* Winter v. Nat. Res. Def. Council, 555 U.S. 7, 20 (2008) (outlining the requirements for injunctive relief—the plaintiff must show: 1) they are likely to succeed on the merits of the case; 2) without the injunction they would suffer irreparable harm; 3) the balance of equities is in their favor; and 4) the injunction is in the public interest).

17 *See* Nat'l Parks Conservation Ass'n v. Semonite, 2018 WL 3838809, at *3 (D.D.C. 2018) (denying preliminary injunction); Nat'l Parks Conservation Ass'n v. Semonite, 916 F.3d 1075 (D.C. Cir. 2019) (holding that the Army Corps of Engineers violated NEPA); Nat'l Parks Conservation Ass'n v. Semonite, 422 F. Supp. 3d 92 (D.D.C. 2019) (holding that since Virginia Electric and Power Company already completed the project, vacater was inappropriate).

18 *See* Kalen, *supra* note 8, at 10,406; *see also* Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304 (July 16, 2020) (to be codified at 40 C.F.R. §§ 1500–18).

19 *CEQ NEPA Regulations*, Council on Env't Quality, https://ceq.doe.gov/laws-regulations/regulations.html (last visited Oct. 28, 2021); Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1684, 1700 (proposed Jan. 10, 2020) (to be codified at 40 C.F.R. §§ 1500–18).

20 Michael Hazel et al., *NEPA Overhaul: Trump Administration Finalizes Landmark Rule Reform*, JDSupra (July 20, 2020), https://www.jdsupra.com/legalnews/nepa-overhaul-trump-administration-19845/.

21 *See* Maya Weber, *Eyeing Changes, White House Gives Agencies Two-Year Extension on NEPA*, S&P GlobalPlatts (June 28, 2021), https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/062821-eyeing-changes-white-house-gives-agencies-two-year-extension-on-nepa; Deadline for Agencies To Propose Updates to National Environmental Policy Act Procedures, 86 Fed. Reg. 34,154 (June 29, 2021) (to be codified 40 C.F.R. § 1507).

22 *See* Press Release, The White House, CEQ Proposes to Restore Basic Community Safeguards During Federal Environmental Reviews (Oct. 6, 2021), https://www.whitehouse.gov/ceq/news-updates/2021/10/06/ceq-proposes-to-restore-basic-community-safeguards-during-federal-environmental-reviews/; National Environmental Policy Act Implementing Regulations Revisions, 86 Fed. Reg. 55,757 (Oct. 7, 2021) (to be codified 40 C.F.R. §§ 1502, 1507–08) (providing notice of the phase one proposed rulemaking).

23 Wild Va. v. CEQ, 2020 WL 5494519, at *4 (D.W.D. Va. Sept. 11, 2020) (noting the following three other cases challenging the rule: California v. CEQ, No. 3:20-cv-06057-RS (N.D. Cal. filed Aug. 28, 2020); Env't Just. Health All. v. CEQ, No. 1:20-cv-06143-CM (S.D.N.Y. filed Aug. 6, 2020);

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Paving a Path To Independent Tiny Living: An Introduction to Roadblocks

*Jaclyn Troutner**

Introduction

"Tiny living" is a growing trend in which small-scale, eco-conscious housing is used as an alternative means for home-ownership. Tiny homes are smaller than the average detached home with the appearance and character of a traditional free-standing residential home. They are one-story, single-occupant dwellings and usually constructed on a trailer base for towing.[1] State-of-the-art building techniques provide a lower environmental burden and utility cost per square foot.[2] Due to their smaller size, tiny homes are cheaper with an average price of $52,000, opening a wider door to home ownership.[3] The typical design is to include all the standard amenities and aesthetical elements of the typical single-family home, but with a focus on hyper-efficiency in space utilization, all in about 225 square feet.[4] The smaller size provides opportunity for a luxury aesthetic detached from the traditional enclosed apartment structure or condominium.

Tiny homes are single-occupant dwellings, meaning they are stand-alone structures with permanent provisions for sleeping, cooking, eating, living, and sanitation.[5] However, tiny homes are substantially smaller than a typical house, leading to confusion as to how to classify the structure within a jurisdiction's existing building codes and zoning restrictions.[6]

Coding Fit for Habitation

Jurisdictions adopt and enforce codes to provide a minimum consistency of safety to protect building occupants and nearby properties from fire, structural failure, or building use.[7] Jurisdictions adopt codes that define structural requirements for dwellings such as ceiling height and egress minimums.[8] The development of codes and classification types are usually done by third-party regulatory authorities, such as the International Code Council or the International Conference of Building Officials, at no cost to municipalities.[9] A jurisdiction can adopt code classification standards drafted by the third party regulatory authorities for local application.[10] As a model code, the International Building Code ("IBC") is intended to be adopted in accordance with the laws and procedures of a governmental jurisdiction, and some jurisdictions amend the code in the process to reflect local practices and laws.[11]

Coding A Model Solution

The code applicable to a dwelling will depend on how the jurisdiction chooses to classify the dwelling. For example, if a jurisdiction classifies a dwelling as a single-family home, the residential code requirements for a single-family home will apply, resulting in ceiling and doorway height minimums that are impractical, if not impossible, to accommodate in the tiny home's small size.[12]

The Tiny Home Appendix Q Coding Classification was a direct response to this problem by tiny home enthusiasts, architects, and other stockholders.[13] The 2018 International Residential Code created Appendix Q for jurisdictional adoption.[14] Appendix Q defines a tiny home as a dwelling that is 400 square feet or less in floor area, excluding lofts.[15] Appendix Q specifically tailors its set of code requirements to ensure that the house is safe for occupancy.[16] Appendix Q incorporates many typical code requirements, such as multiple egress locations, minimum calling heights, and handrails, while relaxing some otherwise specific requirements to acknowledge the home's smaller size.[17]

Appendix Q was then modified in 2021 to create Appendix AQ, which is to be included in the 2021 International Residential Codes.[18] However, a jurisdiction that adopted Appendix Q does not automatically adopt the changes from appendix AQ—the jurisdiction must vote to adopt Appendix AQ as a replacement for Appendix Q.[19]

Individual jurisdictions in thirty states have adopted Appendix Q as a dwelling classification type.[20] However, some jurisdictions have restrictions on where an Appendix Q tiny home can be placed or have additional coding modifications. Tiny homeowners may need to adhere to municipal utility connection and concrete foundation requirements rather than refusing to tie their tiny home to the land.[21] Though such a tolerance may pose an annoyance for individuals who wish to live "off grid," the existence of tiny recognition with code requirements places the existence of the classification on the table for future amendments.

Adopting tiny home codes and classifications in one jurisdiction can be a building block to the spread of tiny home acceptance throughout a state or area.[22] In the same way that states can model their building codes from international code organizations, municipalities can model their own adoption off those before them.[23] Finally, tiny owners sacrificing an entirely

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off-grid lifestyle can help speed the process of classification allowance in general zones.

Classification and Zoning Roadblocks

Zoning regulations may address many issues that could affect the placement or use of a tiny home. This could include what type of structure classification can be placed on a lot, or lot size, sewage, water, and electrical requirements.[24] Even when up to a municipality's code, dwellers struggle to find a location to "park" their tiny home due to zoning restrictions.

Most jurisdictions do not recognize a tiny home as an independently permanent home. For example, some jurisdictions permit a tiny home to exist on a plot of land so long as it is classified as an Accessory Dwelling Unit ("ADU"). The ADU classification requires that the tiny home be on a plot of land that is shared with a "primary residence" (such as a traditional single family home) that is owned by the owner of the tiny home.[25] For example, tiny homes in Washington, D.C. can only be used as an ADU on the land of a larger, self-owned property.[26] The ADU requirement is contrary to the actual goal of a tiny home—instead of owning one small home on a self-owned plot of land, the tiny home owner must have two homes with the tiny home being akin to a guest house rather than an independently recognized dwelling. Even if a deal is made with a neighbor, the ADU classification leaves tiny home owners dependent on renting land and at the will of the property owner, both greatly reducing the independence and cost-savings desired in tiny home ownership.

Other jurisdictions classify tiny homes as Recreational Vehicles ("RV") due to the standard practice of building the tiny home on a towable trailer base. The RV classification is problematic as it is not unusual for residentially zoned lots to have ordinances that limit the amount of time an individual can "park" an RV on a property.[27] An unlucky tiny homeowner may be accused of "camping" because their "RV" has been on a residential plot for too long, and thereby risk eviction from their own land.[28]

Tiny home communities, where all dwellings in a neighborhood are tiny homes, have sought commercial zoning as RV campgrounds so as to incorporate long-term tiny home parking without classification concerns for neighborhood residents. In this method, a trailer-based tiny home is classified as an RV to be parked on commercially zoned land tolerable to "camping." Lakeview, Oregon, has an RV campground that offers tiny home lots of land for purchase at $12,500, or for rent at $400 a month.[29] Communities such as Tiny Tranquility in Portland, Oregon, offer plots of land for long term rental around $700 a month.[30] Though rental of land may be attractive to travelers, it is contradictory to long-term investment of homeownership by perpetuating housing costs that would have been otherwise spent in apartment rental or mortgage. Land rental is a non-permanent solution to individuals that wish to put down roots in a single area and keep their cost of living down. Renting also limits the usage rights of the land itself—the owner of the land may restrict the renter from modifying the landscaping of the land.

Specialized Zoning

Creating tiny home-specific zoning is possible, but it requires a greater number of coordinating elements, such as public interest, available and useable land, and possibly private-developer interest. In the same way that a skyscraper would visually stick out amongst farmland, a tiny home may visually disrupt a suburban neighborhood of homes of a similar, "standard" size and appearance.[31] Single Room Occupancy ("SRO") cottage communities in Washington, Alaska, New York, and Ohio have found success in using specific land zoning for SRO-coded dwellings to allow tiny living without disrupting the communities already present.[32]

In Washington, tiny homes have found success under a new category of dwelling unit—SRO units.[33] The Olympia, Washington Municipal Code defined SROs as "[a] single room occupancy sleeping unit [which] must be at least 120 square feet and have unencumbered access to both sanitary, classification as an "facilities and a full, common kitchen facility."[34] Olympia designated "SRO specific land" with specialized code and appearance regulations. Similarly, Quixote Village of Olympia used the SRO definition to create a specific zoning density requirement—thirty SROs for a two-acre plot maximum, keeping population and property tax rates up for the area.[35] The definition of SRO and "SRO specific land" may assist more uniform zoning requirements between states to ease tiny dweller's needs for "parking" their homes.

Incorporating Tiny Homes as Independent Housing in Existing Zoning

Formally classifying tiny homes as an alternative and equivalent means of living to traditional housing offers tiny homeowners a method to live in a tiny home within municipalities without violating housing codes.

Some municipalities have welcomed the tiny home as an independent residential dwelling through the adoption of specialized classification. The municipality of Spur, Texas classified tiny homes as a "Tiny Home on Wheels" (THOW) and allowed THOW's to be parked on residential lots. The THOW recognition incorporates the reality that most tiny homes are manufactured to include wheels and be towable but have a visual and functional character closer to a traditional home than an RV or camping trailer. Using the THOW classification as a foundation, Spur then included enforced requirements for THOW parking on independently owned plots in Spur, such as connection to city utilities, cement foundation, removal of the home's wheels once on the lot, and a driveway leading to a public-access road.[36] The wheel removal and driveway requirements recognize the mobile origins of the tiny home, while enforcing incorporation of the home into the rest of the city through utility connection. As "the first tiny home friendly town," Spur encourages the sale of private lots specifically for individuals to park their tiny home.[37] Spur's encouragement of tiny living is a response to its interest in population and economic growth.[38]

In contrast, the town of Briley, Michigan has created a simpler approach. Briley created a classification for tiny homes as an "Economy Efficient Dwelling."[39] The Economy Efficient Dwelling must be no smaller than 240 square feet with a minimum height of twelve feet, and a minimum length of twenty feet.[40] The dwelling must also adhere to Michigan building and sanitary codes and qualify for a certificate of occupancy.[41] The Economically Efficient Dwelling Classification is the most comparable classification to the traditional single family home, recognizing the tiny home as an independent structure while codifying the small character of the home.

Conclusion

No matter the method, local level tiny home friendly ordinances will only occur if there is current and longstanding interest within the jurisdiction. There is little financial or community incentive for municipalities to initiate the effort of introducing, polling, and considering code and zoning adjustment if there is not a locally high demand. It will be up to tiny home enthusiasts to organize and encourage municipalities to adopt codes that recognize the tiny home as an independent dwelling and permit the tiny home to independently exist on residentially zoned land.

Endnotes

1 Paul Lagasse, *The International Residential Code has a Big Vision for Tiny Homes*, Bldg. Safety J. (Feb. 24, 2018), https://www.iccsafe.org/building-safety-journal/bsj-dives/the-international-residential-code-has-a-big-vision-for-tiny-houses/; *see also 2020 Profile of Home Buyers and Sellers*, Nat'l Ass'n of Realtors 7 (Nov. 2020), https://cdn.nar.realtor/sites/default/files/documents/2020-profile-of-home-buyers-and-sellers-11-11-2020.pdf (for comparison, the average home is 1,900 square feet with three bedrooms and the average trailer home is 400 square feet); *Affordable Alternative or Passing Fad? A Study of the 'Tiny Home' Market in 2021*, Porch Rsch. (Aug. 4, 2021), https://porch.com/advice/state-of-tiny-home-market (touting the tiny home's reduced carbon footprint); *see also* Mike Pfeiffer, *Adoptable Appendices in the Residential International Code for Cob Construction and Tiny House*. Bldg. Safety J. (Sept. 27, 2021), https://www.iccsafe.org/building-safety-journal/bsj-technical/adoptable-appendices-in-the-international-residential-code-for-cob-construction-and-tiny-houses/ (stating Tiny homes are typically constructed in a factory setting — often called "off-site" or "modular" construction — and transported to the site and placed on a permanent foundation).

2 Maria Saxton, *When People Downsize to Tiny homes, They Adopt More Environmentally Friendly Lifestyles*, The Conversation (Apr. 10, 2019, 6:49 AM), https://theconversation.com/when-people-downsize-to-tiny-houses-they-adopt-more-environmentally-friendly-lifestyles-112485 (finding the ecological footprint of the average tiny home is 3.87 global hectares (gha); a traditional home's footprint is 8.4 gha, Tiny Homes emit an average of 2,000 pounds of greenhouse gasses each year; traditional homes emit 28,000 pounds.).

3 *See Affordable Alternative or Passing Fad? A Study of the 'Tiny Home' Market in 2021*, Porch Rsch. (Aug. 4, 2021), https://porch.com/advice/state-of-tiny-home-market.

4 *See* I Khajehzadeh & B Vale, *How New Zealanders Distribute Their Daily Time Between Home Indoors, Home Outdoors and Out of Home*, 12 Kōtuitui: N.Z. J. of Soc. Sci. Online 17, 26-7 (July 25, 2016), https://www.tandfonline.com/doi/citedby/10.1080/1177083X.2016.1187636?scroll=top&needAccess=true (acknowledging that the majority of people spend time in the kitchen, personal bedroom, or around the television, resulting in wasted resources on construction, and energy consumption is double what a family would need if their house only had the rooms that they actually use); *see also Affordable Alternative or Passing Fad? A Study of the 'Tiny Home' Market in 2021*, Porch Rsch. (Aug. 4, 2021), https://porch.com/advice/state-of-tiny-home-market (stating that the average size of a tiny home in the United States is 225 feet).

5 Matt Bailey et al., *Applying Building Codes to Tiny Homes*, Nat'l Fire Prot. Ass'n. 7 (Mar. 2017), https://www.nfpa.org/-/media/Files/White-papers/WhitePaperTinyHomes.ashx.

6 *See id.* (emphasizing that codes do not recognize tiny homes as accessory structures for dwelling purposes and that this can cause code-related issues).

7 *Id.* at 4.

8 The Int' Blng. Code, *Adoptions of the IBC,* Int'l Code Council, https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/ibc/ (last visited Nov. 7, 2021) (The *International Building Code* is in use or adopted in 50 states, the District of Columbia, Guam, Northern Marianas Islands, New York City, the U.S. Virgin Islands and Puerto Rico.).

9 *Id.*

10 *Id.*

11 *Id.*

12 Paul Lagasse, *The International Residential Code has a Big Vision for Tiny House*, Bldg. Safety J. (Feb. 24, 2018), https://www.iccsafe.org/building-safety-journal/bsj-dives/the-international-residential-code-has-a-big-vision-for-tiny-houses/.

13 Paul Lagasse, *The International Residential Code has a Big Vision for Tiny House*, Bldg. Safety J. (Feb. 24, 2018), https://www.iccsafe.org/building-safety-journal/bsj-dives/the-international-residential-code-has-a-big-vision-for-tiny-houses/.

14 *Id.*

15 *2018 International Residential Code*, Appendix AQ Tiny House §§ AQ101-05 (2018),

16 Paul Lagasse, *The International Residential Code has a Big Vision for Tiny Home*, Bldg. Safety J. (Feb. 24, 2018), https://www.iccsafe.org/building-safety-journal/bsj-dives/the-international-residential-code-has-a-big-vision-for-tiny-houses/.

17 *2018 International Residential Code*, Appendix AQ Tiny House §§ AQ101-05 (2018), https://codes.iccsafe.org/content/IRC2018/appendix-q-tiny-houses?site_type=public (last accessed Nov. 7, 2021).

18 *2021 International Residential Code*, Appendix AQ Tiny House § AQ106 (2021) https://codes.iccsafe.org/content/IRC2021P1/appendix-aq-tiny-houses (adding an Energy Conservation section for the allowable air leakage and ventilation rates) (last accessed Nov. 7, 2021).

19 *2018 International Residential Code*, Appendix AQ Tiny House §§ AQ101-05 (2018), https://codes.iccsafe.org/content/IRC2018/appendix-q-tiny-houses?site_type=public (last accessed Nov. 7, 2021).

20 *See generally Appendix Q: State by State*, Tiny Home Industry Ass'n. (August 1,2019) https://tinyhomeindustryassociation.org/appendix-q-state-by-state/ (providing a state-by-state analysis of jurisdictions that adopted Appendix Q Codes).

21 *See id.*; *see also* Paul Lagasse, *The International Residential Code has a Big Vision for Tiny House*, Bldg. Safety J. (Feb. 24, 2018), https://www.iccsafe.org/building-safety-journal/bsj-dives/the-international-residential-code-has-a-big-vision-for-tiny-houses/.

22 Paul Lagasse, *The International Residential Code has a Big Vision for Tiny House*, Bldg. Safety J. (Feb. 24, 2018), https://www.iccsafe.org/building-safety-journal/bsj-dives/the-international-residential-code-has-a-big-vision-for-tiny-houses/.

23 The Int' Blng. Code, *Adoptions of the IBC*, Int'l Code Council, https://www.iccsafe.org/products-and-services/i-codes/2018-i-codes/ibc/ (last visited Nov. 7, 2021).

24 Matt Bailey et al., *Applying Building Codes to Tiny Homes*, Nat'l Fire Prot. Ass'n. 4 (Mar. 2017), https://www.nfpa.org/-/media/Files/White-papers/WhitePaperTinyHomes.ashx.

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Bison, Tribes, and Brucellosis in the Interagency Bison Management Plan

*Bailey Nickoloff**

Introduction

It would be in the best interest of the Interagency Bison Management Plan ("IBMP") and its affiliated agencies to allow Tribal governments and Tribal members to hunt bison within Yellowstone National Park ("YNP"). This would help to reduce the spread of brucellosis, reduce the environmental impacts from bison in YNP, and honor the treaties signed between the United States and Tribal governments. These agencies can accomplish this by implementing treaty hunting rights in a new Environmental Impact Statement ("EIS") and within an existing legal framework.

Background: Historical Information on the American Bison

Historically, the American Bison are vitally important to many of the Indigenous people of the United States.[1] At the beginning of the 19th century, millions of bison roamed the American West with herds stretching from Canada to Mexico.[2] During the same century, as railroads expanded and waves of settlers moved westward through the plains, the settlers and the United States government killed an estimated fifty million bison for food and sport.[3] A more sinister goal of the slaughter was to eliminate the Indigenous peoples' source of food, thus driving them from the land and accelerating westward expansion.[4] What was once a strong and healthy bison population numbered in the millions was then estimated to be less than 1,000 toward the end of the 19th century.[5]

In 1902, only two dozen bison were left in YNP.[6] Since that time, conservation efforts helped the bison population rebound to what is now approximately 500,000 across North America.[7] Roughly 5,000 of these bison now live in YNP, which is the largest population living on public lands.[8]

The Interagency Bison Management Plan and its Issues

One of the most successful conservation efforts concerning the Yellowstone Bison is the IBMP.[9] In 2000, the Department of the Interior ("DOI") released a Record of Decision ("ROD") creating the IBMP, which consists of several government, state, and tribal agencies, including the National Park Service ("NPS"), United States Department of Agriculture ("USDA")-Forest Service ("USFS"), USDA-Animal & Plant Health Inspection Service ("APHIS"), Montana Department of Livestock, and Montana Fish Wildlife & Parks, the Confederated Salish Kootenai Tribe, the Nez Perce Tribe, and the InterTribal Buffalo Council.[10]

Every year, these agencies meet to discuss bison populations and determine how many bison to remove from YNP so as to maintain a viable population based on biology, genetics, and ecology.[11] Removal methods include hazing (herding), issuing hunting permits through the Montana Fish, Wildlife & Parks along the Montana border of YNP, allowing tribes to exercise their treaty hunting rights in the Greater Yellowstone Area ("GYA"), and culling through consignment to slaughter or quarantine facilities.[12] Another major goal of the IBMP is to keep the Yellowstone Bison brucellosis-free, thus keeping the bison healthy and preventing the spread to cattle that graze in the GYA.[13]

In recent years, the IBMP's management of bison in the GYA and YNP, and the spread of brucellosis from bison to cattle, has been a major subject of controversy and litigation.[14] For example, hunting is limited to areas outside the park because hunting within YNP is strictly prohibited by the NPS.[15] Due to the limited area and time in which tribes and hunters can cull bison, it raises safety concerns for those who live on the borders of the park where the bison roam.[16] Residents who live near the slaughter express potential harm from disease from rotting bison corpses and damage to their property from hunter's stray bullets.[17] Additionally, those who criticize the IBMP argue that too many bison currently reside in the park, causing damage to the environment and ecosystem.[18] Furthermore, a 2017 study from the National Academies of Sciences, Engineering, and Medicine found that elk were the main culprit in spreading brucellosis to livestock within the GYA, and not bison, calling into question the need for the IBMP and the challenges of managing wild elk.[19]

Possible Solutions: Securing Tribal Treaty Hunting Rights to Yellowstone National Park Bison

However, the IBMP's solutions to these problems come with their own issues. Environmental groups would like to see bison roam freely on public lands in Montana, thus creating more room for the bison to roam; however, this is often met with hostility from ranchers who graze their livestock near YNP.[20] While elk are the main culprit in spreading brucellosis to cattle, the remote possibility of the spread of the disease from bison to livestock leaves ranchers weary of allowing bison on Montana

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public lands.[21] Another solution is allowing tribes to exercise their treaty hunting rights within YNP, thus reducing the risk of harm from hunting activities at YNP boarders and helping to maintain viable bison populations in the park; however, as previously mentioned, YNP and its agencies prohibit hunting within the park, despite the agencies recognizing tribal treaty hunting rights.[22] The NPS argues that if it were to allow hunting within the park's exterior boundaries, it would alter the behavior of the bison, causing aesthetic harm to visitors who come to see the bison.[23]

The complexities of these issues have not gone unnoticed by the IBMP agencies. As of the writing of this paper, the DOI agreed to initiate an additional EIS to supplement its original ROD from 2000.[24] One solution the DOI and its partnering agencies can consider in the new EIS is allowing tribes to exercise their treaty hunting rights in YNP. The DOI and the NPS could allow tribal hunting in YNP, and the recent Supreme Court ruling in *Herrera v. Wyoming* provides a promising outlook to allow tribal hunting in the National Park System.[25] While the *Herrera* court dealt with the Bighorn National Forest (an area managed by USFS), it may be in the Tribes' best interest to consult with the DOI to determine their eligibility to hunt in YNP. Additionally, in September 2021, the NPS issued twelve hunting permits for the North Rim of Grand Canyon National Park—the first time the agency allowed hunting in a National Park.[26] This additional fact reinforces the DOI's and the NPS's ability to issue hunting permits and regulate hunting, generally.

Conclusion

The DOI has the ability to issue hunting permits and, arguably, can give priority of these permits to tribal members. While this plan would be slightly different from the DOI's plan in Grand Canyon National Park, the model and method of issuing permits would be similar. This is something the DOI and the NPS should consider for their forthcoming EIS, as it would help maintain the goals of the IBMP and, more importantly, would honor the treaties between the United States and Tribal governments.

Endnotes

1 *See* Melinda Martin et al., *Bison Research for the Native American Community*, N.D. State Univ., https://www.ag.ndsu.edu/archive/carringt/bison/native_american.htm (last visited Sept. 9, 2021) (stating that Plains Indians were almost entirely dependent on the bison for food, shelter, and clothing; also noting that the bison are spiritually and culturally significant to Plains Indians).

2 *See The Buffalo War*, PBS, https://www.pbs.org/buffalowar/buffalo.html (last visited Sept. 9, 2021).

3 *See* Martin, *supra* note 1 (acknowledging that the Native Americans lived harmoniously with the American Bison and had a strong spiritual connection with the animal long before European settlers moved west and the railroad expanded); *see also American Bison*, Nat'l Geographic, https://www.nationalgeographic.com/animals/mammals/facts/american-bison?loggedin=true (last visited Sept. 9, 2021) (stating that killing such a large number of bison deprived Plains Indian societies of their most valuable asset).

4 *See History of Bison Management in Yellowstone*, Nat'l Park Serv., https://www.nps.gov/articles/bison-history-yellowstone.htm (last visited Sept. 9, 2021) (admitting that the U.S. army had a goal to remove Native Americans from the land by removing their main food source).

5 *Bison by the Number*, Nat'l Bison Ass'n, https://bisoncentral.com/bison-by-the-numbers/ (last visited Sept. 9, 2021).

6 *Bison Management*, Nat'l Park Serv., https://www.nps.gov/yell/learn/management/bison-management.htm (last visited Sept. 9, 2021).

7 *See American Bison*, *supra* note 3 (noting that many of these 500,000 bison live on preserves or are owned by ranchers who raise them for meat).

8 *See* Johnathan Hettinger, *Study Says Yellowstone's Bison are Exerting an Unhealthily Heavy Footprint*, Mont. Free Press (Apr. 9, 2020), https://montanafreepress.org/2020/04/09/study-says-yellowstone-bison-are-exerting-an-unhealthily-heavy-footprint/ (discussing whether or not the Park's current plan of maintaining a bison population of 3,500 to 5,000 is reasonable for the park); *see also 15 Facts About Our National Mammal: The American Bison*, U.S. Dep't of the Interior Blog (May 9, 2016), https://www.doi.gov/blog/15-facts-about-our-national-mammal-american-bison#:~:text=As%20of%20July%202015%2C%20Yellowstone's,Yellowstone%20National%20Park%20in%20Wyoming. (estimating that in 2015, 4,900 bison roamed Yellowstone National Park and are free of cattle ancestry).

9 *See generally* Interagency Bison Mgmt. Plan, http://www.ibmp.info (last visited Sept. 9, 2021) (providing a general overview of the IBMP and its participating agencies).

10 *See id.* (noting that the tribal governments and entities began co-managing Yellowstone bison after the 2000 ROD).

11 *See Bison Management*, *supra* note 6 (agreeing that since 2013, the number of bison in NYP should stabilize around 4,900); *see also* Interagency Bison Mgmt. Plan, 2020 Annual Report of the Interagency Bison Management Plan 3-4 (2020), http://www.ibmp.info/Library/AnnualReports/2020IBMP_AnnualReport_final.pdf (providing a list of objectives in maintaining bison populations in Yellowstone National Park).

12 *See generally* id. *2020 Annual Report of the Interagency Bison Management Plan*, Interagency Bison Mgmt. Plan at 3 (2020), http://www.ibmp.info/Library/AnnualReports/2020IBMP_AnnualReport_final.pdf (laying out several methods in which the IBMP uses to remove bison from YNP).

13 *See id.* at 3 (recognizing that one of the IBMP's goals is to protect Montana ranchers' interests in keeping their cattle brucellosis free); *see also Brucellosis and Yellowstone Bison*, Animal and Plant Health Inspection Serv. U.S. Dep't of Agric. at 1, https://www.aphis.usda.gov/animal_health/animal_dis_spec/cattle/downloads/cattle-bison.pdf (last visited Sept. 9, 2020) (highlighting the seriousness of brucellosis and its impact on both humans and livestock).

14 *See* Brief of Petitioner-Appellant at 12, Cottonwood Env't Law Ctr. v. Bernhardt, No. 19-35150 (9th Cir. June 4, 2019) (arguing that elk are the main culprit in spreading brucellosis to cattle and not bison).

15 *See id.* at 2 (complaining that hunters of Yellowstone bison "are concentrated in too small an area . . ."); *see also Bison Management supra*, note 6.

16 *See* Complaint at 5, Neighbors Against Bison Slaughter v. Nat'l Park Serv. (D.D.C 2019), https://www.doi.gov/sites/doi.gov/files/agreements-settlements/document/neighbors-v-park-service-complaint.pdf (complaining that the National Park Service's abandonment of their duties to manage Yellowstone bison has put hunters, residents, owners in danger from hunting, and that the current plan turns a "quarter mile-square area" into a killing field).

17 *Id.*

18 *See* Robert L. Beschta et al., *Bison Limit Ecosystem in Northern Yellowstone*, 23 Food Webs 1, Elsevier, 2 (Jan. 15, 2020), https://www.documentcloud.org/documents/6834324-2020-Bison-Limit-Ecosystem-Recovery-in.html (observing that Lamar Valley's biodiversity has decreased along with the increase in the bison population within YNP).

19 *See* Nat'l Acad. of Sci., Eng'g, and Med., *Revisiting Brucellosis in Greater Yellowstone Area* 1-2 (May 2017) (suggesting that reducing populations of wild elk and bison, as well as continuing to maintain "spatial and

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Underserved Communities Trashed by Plastic: Slowing the Proliferation of Petroleum-based Products Through Stewardship Laws and Enhanced Back-end Regulatory Solutions

*Joan F. Chu**

Table of Contents

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Introduction

Plastic pollution has attracted a tremendous amount of attention and press coverage in early 2021 as evidenced in news stories; an episode of John Oliver's show, "Last Week Tonight"; and a viral tweet from Greta Thunberg highlighting a study linking plastic pollution to human penises shrinking.[1] These eye-catching pieces stemmed from Dr. Shanna H. Swan's work that culminated in her book, *Count Down: How Our Modern World Is Threatening Sperm Counts, Altering Male and Female Reproductive Development, and Imperiling the Future of the Human Race.*[2] Other articles have highlighted plastic pollution's impact on polar bears, which causes their penis bones to lose density and become vulnerable to fracturing when they attempt to procreate.[3] The severity of plastic pollution has reached a critical tipping point. Plastic pollution is not just changing lifestyles; it is changing humans and nature on a biological level.

The production and consumption of plastic is unsustainable for three reasons. First, the production of plastic is tied to fossil fuels, which are finite resources.[4] Second, the emissions associated with plastic production and disposal contribute significantly to climate change.[5] Third, plastic is unsustainable because it has no good place to go. Even when it can be recycled, which is not necessarily a given, it is often downcycled.[6] This means that plastic recycled today is often turned into a product that cannot be recycled later.[7] It is waste.

The costs of fossil fuel extraction are evident in the large volume of oil and gas exploration and production undertaken nationwide. Production and incineration of plastics emits toxic chemicals into the air. According to a Center for International Environmental Law ("CIEL") report, in 2030, emissions from the plastic lifecycle could hit 1.34 gigatons annually.[8] CIEL notes that emissions-wise that figure equates to roughly 295 new 500-megawatt coal-fired power plants.[9] Even plastics that make it to a recycling center are rarely given a second life. It is estimated that only 2.5% of U.S. plastics are ever recycled.[10] The vast majority of plastic waste either accumulates in landfills or is incinerated, which contributes to increased CO2 emissions, exacerbates climate change and disproportionately impacts communities of color and the underserved.[11]

Recently, however, incinerator production has declined due to economic conditions and issues related to maintaining facilities.[12] If incineration facilities are to be phased out, then the U.S. must determine the best paths forward to address the increased accumulation of plastic waste through the prism of climate justice.[13] Recycling as it is practiced today is not an option.

The plastic industry misled the public when it asserted that products were recyclable.[14] The industry framed plastic pollution as an issue created by *consumers* who did not recycle, and *not by the manufacturers* who continued to produce plastic products that could not or would not be recycled because recycling was impractical or possible only in theory.[15] Nevertheless, plastic products were slapped with the universally recognizable recycling symbol: the triangular, three-arrowed, Mobius strip logo. This is not the first time industry has deliberately misled the public regarding the hazards of fossil fuel based products.[16] The oil and gas industry was one of the first entities to understand the implications of climate change; however, instead of being part of the solution, they dug their heels in and vigorously opposed policies designed to mitigate environmental harms stemming from climate change and the nation's reliance on fossil fuels.[17] It is unsurprising that the plastic industry is employing a similar tactic.

One possible regulatory response to the plastic waste issue would be comprehensive front-end regulation (*i.e.,* labeling).[18] Even considering past regulatory progress and victories in the courts regarding labeling, altering current consumer behaviors will be challenging when it comes to plastic usage and consumption. Just as tobacco and alcohol products are labeled to reflect health and safety implications, proper labeling of plastics might inform consumers that certain plastics are indeed not recyclable, either because their chemical makeup precludes it or because it is simply too expensive to recycle them.

Consumers should be informed that the plastic products they consume will end up in a landfill or incinerator, as this is material information regarding the purchased product. The problem with a front-end regulatory approach is that it once again places the onus on consumers who are traditionally and historically the ones with the least flexibility and power. Consumers make their own decisions but not under conditions and frameworks of their own choosing. They buy what is readily available, and the resulting waste ultimately is disposed in communities that are already overburdened and underserved.[19]

Back-end regulation is the primary focus of this article. This regulatory strategy requires producers, manufacturers, and/or sellers to take responsibility for the product after the consumer is done with it and its useful life has expired. Back-end regulation can deter manufacturers from producing plastics beyond what the environment can bear. Until plastics production is financially unappealing, it will continue unabated. By holding producers responsible for what they generate, it may be possible to protect the environment and relieve the burden on marginalized populations forced to shoulder the burden of plastic.

The plastics industry is best positioned to minimize the harmful impact that their products have on communities. The major problem the U.S. faces is deciding how best to manage existing plastic waste and doing so in a way that protects vulnerable populations and disincentivizes plastic proliferation. Even if the U.S. ceased all plastic production tomorrow, the nation would still be left holding the proverbial, and likely plastic, bag.

As long as there are no economic incentives for manufacturers to reconsider plastic production, little will change. Plastic waste poses both short-term (*i.e.,* harmful incineration fumes and residual ash) and long-term hazards (*i.e.,* CO2 emissions from incineration and accumulation of plastic trash–both in landfills and on the land/seascape) to low-income communities and underserved communities of color that typically live close to landfills and incinerators.[20] This article addresses how best to manage plastic waste in a way that meets climate justice principles and standards.

Part I of this article discusses the ways plastic waste contributes to climate change and the harm and risk it poses to underserved communities in the U.S. Part II reviews the current legal framework that is in place to address waste management issues. It explores how the Federal government addresses social justice concerns and environmental challenges posed by waste generation through the Resource Conservation and Recovery Act ("RCRA"). Part II also examines how California, Maine, and Maryland are pushing stewardship laws as a way to hold private entities accountable for the waste they generate. Part III explores solutions to the plastic waste problem while incorporating climate justice principles through effective plastic waste management. It recommends adoption of stewardship laws at the state and federal level as valuable tools to address the challenges and harms posed by plastics. Such laws embody core principles of climate justice and ensure that vulnerable populations are not the first to be sacrificed as the nation begins to grapple with the visible and imminent climate crisis.

I. Background: Plastic, Plastic Everywhere

Climate change is the greatest existential threat to the global community. It is real and it is happening now, yet it is in dispute by some.[21] Theories of a sun-centric solar system and spherical earth were also in dispute at one time, and those world views took centuries to become widely accepted. [22] Yet the world does not have a moment to lose in accepting the reality of climate change. Global temperatures and seas are rising, glaciers and ice caps are melting, flooding and storm events (*i.e.,* hurricanes, tsunamis, tornados) are on the rise both in frequency and intensity.[23] Additionally, the premise that climate change is human-induced has triggered debate between scientists and the ill-informed.[24]

Researchers from both the National Aeronautics and Space Administration ("NASA") and the National Oceanic and Atmospheric Administration ("NOAA") have determined that current climate change events are more than 95% likely to be caused by anthropogenic factors.[25] Neither academics nor the petroleum industry questions that climate change is real and largely resulting from the human consumption of fossil fuels. Oil and gas manufacturers knew of the potentially dire environmental consequences in the late 1960s – and even they were worried.[26] By the 1980s, ExxonMobil was actively funding a "climate denial" campaign to keep consumers ignorant, or at least skeptical, of climate change.[27] In the meantime, the world was cooking, and the poorest and most vulnerable were the first into the pot.

A. Climate Change and Plastic: The Reality We See

Plastics play a special role in the climate change crisis. Plastic is cheap, in immediate economic terms. It is virtually impossible to avoid inadvertently purchasing some plastic product when leaving a store. It has become a part of our everyday lives – plastic is ubiquitous.[28] Plastic is obsequious, literally "oily," and a welcome servant in our modern world. Its convenience and flexibility have made it indispensable – again literally, we cannot get rid of it. However, perhaps the biggest problem with plastic is that its relationship to climate change is hidden from the consumer.[29] At every stage in its lifecycle, plastics are problematic for the climate.[30] A resolution to the current crisis may be found through a better understanding of where plastics come from, what they do in the environment, and where they end up, because they do not just "go away."

1. Where Plastics Come From

Plastics are primarily derived from non-renewable fossil fuels: coal, oil, and especially natural gas.[31] These resources are the result of heat and pressure on organic matter that was deposited in geologic (primarily shale) strata ten perhaps 300 or 400 million years ago.[32] That fossil fuels come from natural plant and animal remains, however, does not make them readily renewable. They are called fossil fuels not just because of their ancient origins but because specific fossilized organisms are found in the sedimentary rock layers with coal, oil, and gas.[33] Before drilling or mining ensues, oil and gas exploration usually entails an analysis of core samples to identify indicator species of fossils confirming that a given site is worthy of resource extraction.[34] The fossil fuel extraction process itself, a precursor to plastic production, uses fossil fuel.[35] In the recovery phase, methane, a potent greenhouse gas, is often released.[36] As such, at its very inception, plastic production exacerbates climate change impacts.[37]

Human-made plastics have been around for nearly two centuries. The earliest plastics were created from plant fibers, specifically cellulose from plant cell walls. The first plastic, nitrocellulose, was the creation of Henri Braconnot (1780–1855).[38] His discovery in 1833 ultimately led to the production of plastic billiard balls as a substitute for scarce ivory.[39] Celluloid, another plant-based plastic, was produced by Alexander Parkes (1813–1890) and exhibited in London in 1862.[40] Plastic discoveries and production exploded shortly thereafter. In 1909, Leo Hendrik Baekeland was first to coin the term "plastics," and the rest is history.[41]

In chemical composition, plastic is classified as a polymer (from Greek—"many parts").[42] There are naturally occurring polymers such as rubber latex (a plant exudate typically from the rubber tree), silk fiber (from spiders and silkworms) and cellulose (from plants).[43] Human-contrived polymers have come from reconfigurations of renewable plant fibers (*e.g.,* cellophane and rayon), and from non-renewable fossil fuel sources (plastics).[44] Polymers are repeating molecular units that are linked to create one-dimensional chains, two-dimensional plains, or three-dimensional solids.[45] The backbone of the plastic polymer is carbon with attached hydrogen atoms (*i.e.,* a hydrocarbon), but can also include oxygen, nitrogen, sulfur, chlorine, fluorine, phosphorous, and silicon.[46] Single chain (linear) plastics are categorized as *thermoplastic* and can be readily melted.[47] Two-dimensional plastics are planar and flexible, and can be used as membranes and filters.[48] Three-dimensional plastics are generally hard, brittle synthetics that cannot be melted down and still maintain the integrity of the plastic.[49] These *thermoset* plastics will burn, not melt, and are virtually impossible to recycle.[50]

The molecular structure of plastics is an important characteristic in determining the "recyclability" of the material. Anytime a plastic is reheated or melted for recycling it loses a bit of its original plasticity.[51] Thermoplastics can be recycled, but not indefinitely—unlike glass for instance.[52] Due to this characteristic, each time plastic is recycled it is one step closer to the landfill. Another indicator of recyclability is transparency.[53] Amorphous plastics are single chain polymers that often appear transparent (*e.g.,* a clear plastic soda bottle).[54] These plastics are soft and pliable and can be recycled. Three-dimensional, crystalline plastics are generally hard and opaque (*e.g.,* Bakelite cookware) and not good candidates for recycling.[55]

Whereas in the transportation realm gas and diesel vehicles are making way for greener options, fossil fuel-dependent plastic production is ramping up.[56] This may well be the result of the oil and gas industry not wanting to lose market share; increased plastic production is an industry survival strategy, but at the cost of our survival. Fossil fuels and plastics today as inextricably linked and increased production of the latter will sustain a demand for petroleum.

2. What Plastics Do

The chemical structure of a plastic largely determines what it can be used for and what it can do. Plastics can be flexible or ridged, clear or opaque, and their utility extends virtually as far as the imagination. The extent to which plastics form crystalline structures, hydrocarbon cross-linkages can make them stronger and more chemically stable and resistant to breaking down in the environment.[57] These features are great for car parts, heart valves, and prosthetic joints for instance, but they are not easily degradable.[58] After their usefulness has expired, they will still be around centuries later.[59]

Over time, plastics break down into smaller plastics. The worst-case scenario is that the plastic waste generated finds its way into the ocean where it can be ingested by wildlife causing serious health and reproduction concerns.[60] Plastic particulate can also make its way into the food system or be released into the air.[61] The best-case scenario is that the plastic waste is dumped in a landfill, where it breaks down into ever smaller pieces of plastic and hopefully does not leach toxic chemicals.[62]

Look on the back of a plastic container and you will likely see a Mobius strip with numbers one through seven in the center. The numbers assigned to plastics correspond to the specific chemical resin from which the plastic is made (*i.e.,* the specific kind of hydrocarbon bond within the plastic).[63] Each number represents a unique resin used to make the plastic. For example, plastic that is labeled as one, Polyethylene Terephthalate, can be used for clothing, carpet fiber, bottles, food container, and molded plastics in general.[64] Environmental concerns aside, Polyethylene Terephthalate has certain characteristics that make it a desirable material. It is clear, tough, heat resistant, impermeable to gas and liquid.[65] Various/mixed plastics that are typically labeled with a seven are used in layered plastic packaging, resins, and nylon.[66] Plastics are in everything from clothing and electrical insulation to surgical tubing and chip bags. It is embedded into every aspect of life. Given that so much of daily life and consumptive habits are dependent on the services that plastic provides, it is difficult to live without it.

3. Where Plastic Goes

At the end of its life, plastic is classified as municipal solid waste ("MSW") and the majority of plastic waste goes to landfills.[67] Unlike glass and metal, which are infinitely recyclable, there are only so many times plastic can be recycled before it becomes waste. The U.S. Environmental Protection Agency ("EPA") estimates that in 2018, approximately thirty-six million tons of plastic-MSW was generated.[68] Of this, just over three million tons were recycled, and six million tons were sent to incinerators for energy generation.[69] The majority of the waste, however, was sent to landfills—a staggering twenty-seven million tons of plastic trash, amounting to "18.5[%] of all MSW landfilled."[70]

The plastic waste that is incinerated or disposed of through combustion is also problematic. Given that plastic production is on the rise, as landfills fill up, more plastic waste could head to incinerators, however it is unlikely that incinerators will be the prime candidate to handle plastics waste.[71] These facilities emit greenhouse gases, which only exacerbates climate change and poses waste management issues especially to at-risk communities. *Where* plastic waste goes really matters, especially in terms of climate justice. Because both incinerators and landfills are located disproportionately near communities of color, these neighborhoods bear the brunt of the harmful effects of toxic emissions and runaway landfill leachate.[72] Fortunately, the practice of incinerating plastics as a means to address plastic waste generation is becoming less accepted in the U.S. and incineration operations are closing.[73] Therefore, it is even more necessary to examine how landfills are going to manage and maintain the plastic waste being diverted to their facilities.

Today's landfills are constructed to mitigate a number of potential harms to the environment.[74] Landfills are engineered to protect groundwater and soil and reduce the impact of landfill air emissions.[75] While great strides have been taken to improve waste management and landfill construction, the simple truth remains — landfills leak.[76] And although both federal and state governments have rules and regulations on landfill management, oversight is lacking and the idea of a truly safe landfill is a legal fiction at best, if not a myth at worst.[77] This is not to demonize the worthy pursuit of creating safer landfills; it is only to highlight that reliance on the idea that humans can trust landfills to take care of the waste is misguided.

At the end of their lifecycle, plastics that are properly disposed of will still end up in a landfill because only a tiny percent of plastic can be recycled on a never-ending loop. Once there, the plastic waste accumulates, and the surrounding community must rely on proper landfill management to protect it from leachate. However, as the Conservation Law Foundation noted, even the EPA acknowledges that "No liner… can keep all liquids out of the ground for all time. Eventually liners will either degrade, tear, or crack and will allow liquid to migrate out of the

unit," – and not just any liquid mind you, but *toxic* effluent.[78] Contaminants from plastic include phthalates, polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH), organochlorine pesticides (OCP), Polybrominated diphenyl ethers (PBDE), Alkylphenols, Bisphenol A (BPA), and Metals (*i.e.* Cadmium, Zinc, Aluminum).[79] These toxins are associated with endocrine/fertility disruption, physiologic malformation, allergies/asthma, neural disruption, and immune system impairment, and some are carcinogens.[80] While plastic provides convenience with regards to day-to-day activities, as it breaks down, plastics pose a serious long-term threat to the environment and to human and non-human animals.[81]

B. Climate Justice and Plastic: The Reality We Want

The plastic products Americans buy, use, and throw away must go somewhere. That "somewhere" matters because risk is not equally distributed within society. Landfills are often placed in low-income areas, and communities of color.[82] Foisting complex waste management decisions on communities already overburdened and underserved is precisely the kind of issue that climate corrective justice is designed to address.[83] Numerous articles have cited the disproportionate impact current waste management practices have on underserved communities.[84] Since the 1970s, the nation has known that communities of color were more likely to have landfills and other undesirable fixtures in their community.[85]

To individuals not living near landfills, it may not sound like an overly burdensome fixture; however, given that incineration is disfavored, landfills will likely see an increase in plastics being diverted to them forcing marginalized communities to shoulder the burden at a greater rate. An EPA report on municipal solid waste found that waste generation had increased from 8.2%in 1990 to 12.2% in 2018.[86] It is no wonder that states are becoming concerned with the prospect of landfills filling up, and that they are struggling to find alternatives to MSW management.[87] Communities that host landfills will be buried in plastics if nothing is done to curb the nation's plastic addiction.

Concerns about running out of space at landfills are not the only concerns for these communities when considering the harms that an increase in plastic waste poses.[88] Plastics sitting in landfills create health risks to the surrounding communities.[89] Leachate from MSW facilities may contaminate groundwater and soil and plastics can exacerbate the potential harm.[90] Plastic is derived from non-renewable fossil fuels and the chemicals used to produce plastic are hazardous.[91] A study published in 2011 found that the chemicals used in plastic production "may be released during the production, use and disposal of the plastic product."[92] Additionally, an article in *Nature* found that "many plastics may be chemically harmful in some contexts — either because they are themselves potentially toxic or because they absorb other pollutants."[93] Essentially, plastics may interact with other harmful waste in the landfill and should there be a breach, serious environmental harm would ensue. Plastic polymers may break down into monomers, which can be carcinogens.[94] Moreover, there are myriad non-plastic related environmental and climate problems from landfills, such as nuisance odors and emission of greenhouse gases from decomposing organic matter.[95]

Environmental racism has become so pervasive that the United Nations (UN) has singled out the United States in a recent report highlighting the horrendous environmental racism in Louisiana's "Cancer Alley," so called because it is home to "nearly 150 oil refineries, plastics plants and chemical facilities."[96] While the focus of this article is not on plastic plants and their significant impact on climate change and vulnerable communities, underserved communities are being harmed on both the front end and back end of the plastic lifecycle. This reality underscores that environmental injustice and exposure to environmental hazards is a serious and ongoing problem that will not go away on its own, much like plastics.

Climate justice, which falls within the broader environmental justice movement, is a call to action.[97] It is that demand, not for passive acquiescence of the *status quo*, but for an active pursuit of fairness, that must animate and inform the goal of the climate justice movement. The environmental justice framework can be viewed from four aspects: distributive justice, procedural justice, corrective justice, and social justice.[98] While environmental justice is a difficult concept to define, it can generally be understood as a results-based premise, with a normative equitable end state.[99] It is from this fundamental understanding that climate justice can be considered in light of each of the aforementioned aspects.

Distributive justice can be understood as equal treatment.[100] Equal treatment in this context is not a race to the bottom (*e.g., "My community is forced to live next to toxic waste facility so your community should have to be home to one, too."*), rather it is about equal protection and the sharing of benefits and reducing overall risk for all.[101]

Procedural justice, as the name suggests, relates to the procedures used when making decisions.[102] Lack of meaningful stakeholder engagement in the decision-making process means that concerns and interests of certain populations may go unaddressed leading to inequitable and unfair outcomes.

Corrective justice focuses on "fairness in punishment and remedying harm inflicted on individuals and communities."[103] Ensuring that the parties responsible for the harm inflicted are correctly identified and held to account is key to the climate justice framework.

Lastly, social justice can be understood as an umbrella term encompassing elements of racial, economic, and social concerns channeled through the lens of environmental and climate issues.[104] Initiatives such as The Green New Deal are examples of how environmental issues cannot be fully addressed without acknowledging the other frameworks and systems society operates within (*i.e.,* economic profit driven systems, institutional racism, and sexism within government).[105] These concepts will be explored further in Part II of this article as they are woven into the management of plastic waste at the state level through stewardship laws.

II. Legal Framework: Omnipresent Garbage

When thinking about how best to ameliorate the risks and harms associated with plastic waste, it is important to examine existing regulatory frameworks. Identifying gaps in these frameworks is essential to avoid regulatory redundancies and promote effective problem solving. This section addresses the current state of waste management regulation at the federal and state levels and examine emerging trends in waste management to equitably manage plastic waste by holding producers responsible for the waste they manufactured.

A. Federal Regulation of Municipal Solid Waste: RCRA

For decades, the Federal Government has been acutely aware of the concerns MSW poses to the nation. In 1976, the Resource Conservation and Recovery Act (RCRA)[106] was enacted.[107] RCRA is the primary federal statute that governs solid waste management.[108] RCRA has been amended three times since its inception.[109] The underlying issue RCRA was designed to address is the "growing volume of municipal and industrial waste."[110]

RCRA was created to regulate solid and hazardous waste in response to congressional findings that the continuing production of "packaging, and marketing of consumer products" resulted in rapidly increasing waste generation, and that as a result of changing methods of manufacturing, the characteristics of waste being generated have also changed.[111] Interestingly, Congress also noted that the "economic and population growth of our Nation" have led to an increase in demand for goods resulting in "a rising tide of scrap, discarded, and waste materials."[112] Most importantly, for the purposes of this article, Congress found that the above findings would pose "serious financial, management, intergovernmental, and technical problems in the disposal of solid wastes resulting from the industrial, commercial, domestic, and other activities carried on in such areas."[113] Congress also found that "the problems of waste disposal…have become a matter national in scope and in concern and necessitate Federal action . . . ."[114]

Congress was clear in articulating its findings and concern regarding the hazards of increasing waste generation. Notably, RCRA contains a component that is designed to prevent "future environmental problems…caused by waste."[115] The EPA, the agency tasked with implementing and enforcing RCRA, noted that RCRA, as applied today,

> . . . has largely focused on building the … municipal solid waste programs, and fostering a strong societal commitment to recycling and pollution prevention. Ensuring responsible waste management practices is a far-reaching and challenging task that engages EPA headquarters, regions, state agencies, tribes and local governments, as well as everyone who generates waste.[116]

Given this commitment to waste prevention and management, it is necessary to examine how RCRA and the EPA's regulations make good on achieving these ends.

Section 6901 explicitly acknowledges that land is "too valuable a national resource to be needlessly polluted by discarded materials…"[117] Section 6901(b)(8) provides that "alternatives to existing methods of land disposal must be developed since many of the cities in the United States will be running out of suitable solid waste disposal sites within five years unless immediate action is taken."[118]

This language reveals that Congress possessed at least a basic understanding that landfills will reach capacity at the current rate of consumption, and action must be taken to ensure that the nation, particularly those that live in closer proximity to landfills, are not living in refuse. What is needed is a prevention strategy, rather than mere risk mitigation efforts. Increasing the number of landfills is not a strategy for prevention, which is a goal that EPA explicitly declares RCRA to be created to achieve.[119] The solution to pollution is not dilution, so too here, the solution to plastic municipal solid waste is not redirecting it to newly created landfills. That only creates another possible vector for contamination of groundwater, soil, and release to the air. That is not a management strategy, but it is more akin to an antiquated practice that serves neither the environment, the American taxpayer, nor most urgently, marginalized groups. Creating more landfills just creates more sacrifice zones.[120]

EPA has been a proponent of addressing environmental justice issues through waste management.[121] In 2010, *Inside EPA Weekly Report* released a piece highlighting Mathy Stanislaus, then head of EPA's Office of Solid Waste & Emergency Response, and his statements on waste management and the need to address environmental justice issues, of which climate justice is a subset.[122] In remarks delivered at a symposium, "Strengthening Environmental Justice Research and Decision Making," Stanislaus stated that "the real problem that emerged from the environmental justice movement is, how do you make the decision to prevent harm, even in the absence of conclusive evidence? I challenge you all, in your deliberations, to consider how to operationalize the precautionary principle."[123] Stanislaus told *Inside EPA*, in a brief interview after his remarks, that the agency has not determined how it might take the precautionary principle[124] and craft it into an official policy, but rather, he was imploring the gathered stakeholders to offer ideas for how to operationalize the concept of preventative regulation.[125] "Obviously, it's an open question," Stanislaus said.[126]

B. State Stewardship Laws

While EPA may not have fully operationalized principles of environmental and climate justice, Stanislaus' instincts that stakeholders would brainstorm solutions was not far off. Many states have adopted Extended Producer Responsibility ("EPR") laws (also known as Stewardship Laws) that serve responsible waste management ends while incorporating principles of climate justice. [127] EPR laws will be explored in more detail in this section.

In thinking about how to develop a more effective federal waste management regulatory framework, states are proving to be a good guide. Many states have stewardship/ EPR laws

to help address the pressing matter of waste management.[128] A notable feature of stewardship laws is the emphasis on placing responsibility squarely at the feet of industry.[129] Manufacturers are responsible for demonstrating that they have the capability and means to manage the end-of-life phase of the products they introduce into the stream of commerce.[130] While at least nineteen states have some form of stewardship laws in place, this section will examine stewardship laws from three states: (1) California's carpet and mattress reclamation laws, (2) Maine's paint stewardship law, and (3) Maryland's ongoing efforts to establish stewardship laws.[131]

California is arguably at the forefront of climate change policy and law, making the state a prime example of how the cradle-to-grave philosophy can be operationalized to incorporate climate justice principles, namely distributive, corrective, and social justice. California's Public Resource Code ("PRC") addresses product stewardship for carpets.[132] The purpose of stewardship laws "is to increase the postconsumer waste that is diverted from landfills."[133] The carpet stewardship laws establish that a Memorandum of Understanding ("MOU") be developed for carpet stewardship.[134] The MOU is to be negotiated by the carpet industry, state government, and other stakeholders.[135] Most importantly, a stewardship plan must be developed by the carpet industry within California detailing how the industry will help divert waste away from landfills.[136] If it meets state-designated targets and goals, then it is approved.[137]

Chapter 21 of the PRC, "Used Mattress Recovery and Recycling Act," is another mechanism by which California is holding manufacturers accountable for the products they put into the market.[138] Like the carpet product stewardship laws, the Used Mattress Recovery and Recycling Act requires producers to create a recovery plan to take back mattresses. The program is to be financed by the producers.[139] Consumers will not incur added charges for having mattresses recovered by the manufacturers, although presumably that cost would be internalized through the upfront cost of the mattress.[140]

It may be a stretch to say that carpet and mattress waste is comparable to plastic waste. Plastic is much more persistent problem due to its omnipresence; however, the underlying motivations behind the carpet stewardship law is transferable to plastics. While carpet may pose a concern to landfills in terms of bulk and heft, plastics are arguably even more concerning because of the sheer volume of waste. One plastic Coke bottle may seem like nothing but think of it in terms of its ubiquity. It is virtually impossible to go into a store and not leave without a plastic product. Stewardship laws aimed at plastics are a means to help landfill management cope with the overwhelming volume of plastic waste.

Like California, Maine also has taken steps to address municipal solid waste management challenges by adopting stewardship laws of its own. M.R.S. Title 38, Ch. 24, Subch. 3

relates to waste reduction and recycling.[141] Specifically, section 2144 establishes a stewardship program for architectural paint.[142] The paint stewardship program operates in a similar fashion to the California laws. Paint producers must create and submit management programs to the state showing that they are able to care for their products at the end-of-life stage.[143] These stewardship plans must include a "description of how the program will collect, transport, recycle and process post-consumer paint from entities covered by the program for end-of-life management…"[144]

In Maryland in 2014, then-Governor Martin O'Malley and Lieutenant Governor Anthony Brown, released a "Zero Waste Maryland" draft plan report in an effort to divert waste from landfills.[145] The purpose of Zero Waste Maryland was to virtually eliminate waste sent to landfills and incinerators.[146] Additionally, the initiative declared that "[p]roducts that cannot be redesigned or recycled should be replaced with alternatives."[147] According to the report, in 2012 "more than 12.3 million tons of solid waste and 211 billion gallons of municipal wastewater" was generated in the state.[148] Only 45.4% of that waste, which was mostly comprised of municipal solid waste, was recycled in 2012.[149] Out of an abundance of concern regarding landfill capacity, the state was poised to set an ambitious goal of going essentially waste free by 2040.[150] However, by 2017, the plan died in committee and even a modest proposal in the Maryland legislature to adopt a mattress recycling bill was defeated in 2019.[151]

While Maryland lags behind states like California and Maine with regard to waste management, the push for stewardship laws in the state is far from over. In 2021, MD HB36 was introduced.[152] The proposed bill eventually died in committee but would have required producers

> . . . of certain packaging, containers, and paper products to individually or as part of a stewardship organization [to] submit a covered materials and products stewardship plan to the Department of the Environment for approval; prohibiting, on or after a October 1, 2024, a producer of covered materials and products from selling or distributing covered materials and products unless the producer individually or as part of a stewardship organization has an approved stewardship plan.153

Although HB36 never became law, such initiatives are an encouraging sign that states are willing to take on plastic waste through comprehensive back-end regulation.

States are leading the charge when it comes to combating the troubling realities of waste generation, as evidenced by the momentum and support behind stewardship laws. From a historical standpoint, it makes sense that states are driving change and reshaping waste management since they have historically been the entity managing solid waste.[154] Even RCRA's congressional findings declared that "the collection and disposal of solid wastes should continue to be primarily the function of State, regional, and local agencies."[155] It follows that when the time comes for increased Federal regulation of plastic waste, Congress and the EPA will have no shortage of stewardship laws on which to model future statutes and regulations.

III. Proposals and Recommendations: Flip the Script

Plastic waste in the U.S. has long been framed as a problem created by the consumer and that narrative has proven most convenient for the plastics industry. It is now time to flip the script and shift the focus to the sellers, not the buyers. To that end there are three ways that the government and citizens can tackle plastic waste while advancing the principles of climate justice.

A. Federal Regulation

The far-reaching impacts of plastic generation necessitates federal regulation. States are beginning to take the issue of waste management more seriously and it is only a matter of time before pressure is applied to the federal government to take steps to create a cohesive waste management framework. The solution to waste management cannot be to make more landfills. Land is a precious resource that provides a multitude of services: agricultural (food/ livestock/ textile production), wildlife habitat, and flooding/ desertification mitigation. Vegetated land also serves as a carbon sink to help sequester greenhouse gases from the atmosphere.[156]

State stewardship laws are a crucial step towards holding manufactures responsible for the waste they produce; however, state legislation creates a patchwork when what is needed is a uniform approach. State and local governments are dealing with waste management issues that are becoming increasingly complex. There is a significant role for the federal government to play in regulating plastic waste to address and minimize adverse consequences of plastic waste generation. That said, state action in the form of stewardship laws can complement federal regulation. Stewardship laws are needed at the federal level to prevent the plastics industry from pivoting away from the problem and leaving the public to pick up the plastic bottles in their wake.

Currently, the plastics industry appears to be trying to operate in a manner to avoid regulation while still promoting the use of their products. Now that the industry has been caught in the recycling lie, they are going on a charm offensive and signaling that they are taking steps to change, thereby greenwashing a profoundly serious environmental issue. Perhaps as a preemptive move against government regulation, Coca-Cola has recently developed a recyclable paper bottle product.[157] Additionally, the American Beverage Association—comprised of the Coca-Cola Company, Keurig Dr Pepper, and PepsiCo—have launched the "Every Bottle Back" campaign, which is supposedly targeted at creating 100% recyclable plastics.[158] The problem here is that it is still fundamentally unsustainable. Even if the plastic can be recycled, it will be a lower quality plastic on second use and wind up in the landfill. The end point remains the same. It goes into the ground, or worse into other parts of the environment. The steps being taken by industry reek of rebranding and lip service to environmental and climate change concerns. Recyclable plastic is still plastic, and therefore, unsustainable and requiring effective waste management. Given that the industry has deliberately misled the public before, it tests the bounds of reason to blindly trust the private sector to self-correct, which is why Federal stewardship laws are needed.

The Federal government is well aware of the burdens waste management places on states and localities, as evidence by the congressional findings in RCRA.[159] Stewardship laws are a reasonable way to reduce the burden on communities that are struggling to take in more and more plastic waste. The Federal Government should require industry to take back and manage their plastic waste. This response would shift costs to the parties who are responsible for the waste and who are best able to bear the financial burdens associated with that waste. This approach parallels the effort underway in the courts in which states, counties, and cities are suing the fossil fuel industry to contribute their fair share of the costs that these governmental entities face in their climate adaptation efforts.[160]

Additionally, petitioning agencies tasked with waste management regulation, such as the EPA or state environmental protection entities, can also help create interim solutions while legislation is drafted. Agencies frequently issue guidance documents (interpretive rules) that do not have the full force of law but can serve to guide industry and the public toward adopting certain practices and altering behavior.[161] Guidance is also a helpful way to put the public on notice that the agency will likely be adopting new regulations in the future.[162] Agencies could encourage industry to the extent possible to reclaim the waste they produce as a "best practices" recommendation.

Agencies could also recommend that the plastic industry consider packaging alternatives that have a less environmentally harmful impact on people and wildlife. The guidance itself would not solve plastic environmental justice issues, but it would serve as a stop-gap measure to smooth the transition from what the current industry practices are today and a future where industry must collect and maintain their plastic waste to shield marginalized and vulnerable populations from the hazards of plastic waste.

Another way the federal government may adopt stewardship laws for plastic waste is through the recently proposed plastics treaty. The United Nations has signaled that a plastic pollution treaty is possible, and Secretary of State Antony Blinken has announced that the U.S. will support the treaty.[163] In the event the U.S. becomes a party to a treaty targeted at plastic waste, such an agreement would likely prompt Congress to draft legislation which could potentially include provisions requiring stewardship laws. While international law may not be the ideal vehicle to get plastic stewardship laws, because there is no real enforcement mechanism to ensure compliance, such an agreement could put social and political pressure on the U.S. to honor its commitments and move to address the nations problematic relationship with plastic.

B. Litigation as a Vehicle to Regulation

One vehicle for adopting stewardship laws is litigation. The threat of litigation may be a highly effective short-term tool in pursuing environmental justice.[164] The environmental group, Earth Island Institute, recently filed a suit against major bottle

producers such as Coca-Cola, Pepsi, and Nestle.[165] The suit claims public nuisance and breach of warranty, as well as claims of negligence.[166] This is ongoing litigation, but it can potentially pave the way for similar suits that spur governmental action to adopt comprehensive waste management laws. However, the Earth Island suit seeks to hold only top polluters accountable for their market share of plastic pollution.[167] While this is a tremendous step in advancing climate justice and waste management issues, the issue demands that the entire plastic industry be held accountable. Therefore, legislative action is still needed to incentivize industry through sticks, carrots, or both to goad them to do the right thing.

Back-end regulation provides the proper incentive structure to drive changes in behavior on the part of industry. Unless and until manufactures are held responsible for their waste, waste that Americans believe is manageable through recycling, vulnerable populations will be forced to internalize the risks associated with plastic production both in the short-term and long-term.

Barring an outright ban on plastics, adopting a lifecycle position that focuses on the back end of plastic is the best way to hold the plastic industry responsible for the problem it has created. To that end, plastic producers must be held responsible for the plastic waste generated by their industry. The costs and logistics of plastic disposal and recycling should be borne by plastic manufacturers, not consumers and municipalities. Forcing underserved and under privileged communities to internalize all the risks associated with plastic waste management and disposable while industry ramps up production in the U.S. is causing sustained damage to the environment, public health, and the economy. By implementing back-end regulatory approaches, government can make it economically impractical for industry to produce at its current rate. If industry is compelled to take back its plastic waste, that cost will likely be passed on to the consumer and some industries may be priced out of the market. Alternatively, industry may be forced to reconsider the types of plastics it is willing to manufacture if they are required to take back their waste.

C. Just Say No – Explain, Complain, Campaign

A largely overlooked, conspicuously absent aspect of scholarly analysis is asking: what can individuals do to help address plastic waste? Self-empowerment is critical to making change.

While most individuals likely want to be part of the climate change solution, not all are equally situated financially or socially. It is true that the onus must fall on those in positions of power and most responsible for the environmental damage done (*i.e.,* industries like oil and gas and plastic producers). That said, industry is driven by what consumers are willing to tolerate, so it is essential that consumers complain. Share your frustration and concern with friends, neighbors, family, and the broader community. Create discomfort with our current societal consumptive practices and advocate for non-petroleum-based options in the marketplace. It is only when we feel uncomfortable and uneasy that the status quo shifts. Creating even the smallest movement in the demand for plastic will help, whether it is on an individual, household, or community level. Organize strikes and protests to pressure the government to adopt stricter regulations on industry to slow the proliferation of plastics. Greta Thunberg's strike for climate change movement has stoked climate change awareness worldwide.[168]

Complaining can take the form of lawsuits as mentioned above. The planet sustains irreparable harm from emissions and waste generation.[169] Marginalized populations bear the brunt of this harm now, but all will eventually face the consequences of a world that has failed to move away from fossil fuels. The oil and gas industry, as well as the plastic industry, have acted out of self-interest and have gone unchecked. Filing lawsuits can be an effective tool for self-empowerment.

It could also mean writing elected representatives and advocating for stewardship laws in the state or expanding on existing stewardship laws. This plastics management issue is getting increased attention, and now is the time to capitalize on the momentum by raising awareness. The legislative process does not happen in a vacuum, and what citizens do now matters a great deal in achieving an equitable and sustainable future. In seeking to secure that future, those committed to reducing the amount of plastic in the world can look to other climate conscious parties such as the animal law and food law movements that are focused on demand reduction as a means to achieve mission success.[170]

While not the most impactful strategy, forcing a reduction in demand for plastic can be achieved on an individual level by altering consumptive behaviors and educating communities.[171] The only way to truly lose one's voice is by letting industry tell individuals that their actions are meaningless, thereby disempowering and disincentivizing individuals to make positive change. The more effective method for long-term systemic change is to directly petition government, at every level (local, state, and Federal), to adopt policies such as stewardship laws that will slow plastic production, drive up prices, and create the proper economic incentives to move away from petroleum-based products. Not everyone can vote with their wallet so mounting a pressure campaign on legislative bodies is preferred.

Additionally, attending local environmental board meetings can be an effective way to secure changes at the grassroots level. Massive plastic waste is accumulating in landfills and raising concerns over capacity. Framing stewardship laws as an effective and impactful way to reduce plastic waste burdens on municipalities and landfills will broaden the base of support in favor of stewardship laws. Because waste management has historically been the purview of local government, it is likely that local environmental boards have considered the issues at hand. Encouraging local governments to adopt stewardship policies may prompt other localities and states to follow suit.

Individuals can create change at home by making radical demands of themselves, their governments, and the offending industries. This can mean choosing not to buy unnecessary plastic products by opting for a shampoo bar over the plastic container or using toothbrushes, floss, and razors that are plastic free. By advocating for individuals, not industry, and raising awareness

within community networks and government, the demand for plastic can be reduced and pave the way for a plastic-free future while ensuring that the burdens of waste management are placed on the plastics industry.

Conclusion

Plastic production is unsustainable. In the time it has taken to research and write this article, devastating heatwaves have hit the pacific northwest, billions of sea creatures have died, and the ocean caught on fire due to oil and gas operations.[172] Tropical storm Elsa broke a record this year when it became the fifth named storm of the 2021 hurricane season.[173] Typically, a fifth named storm would occur in late August.[174] Fires are consuming the pacific northwest and fire season continues to extend later into the year.[175] The remnants of Hurricane Ida caused deadly flooding in New York and New Jersey hundreds of miles away from where it made landfall.[176] Climate change is happening now and it will continue to get worse so long as nations cling to fossil fuels. The Washington Post reported that close to one in three Americans experience a weather related disaster this summer.[177]

Plastic production is a major driver of greenhouse gas emissions, and there must be a ban on non-essential plastic, and it must happen soon.[178] In the meantime, even if plastic production stops tomorrow, it is crucial that the plastic that is already out in the market is responsibly managed. Low-income and minority populations cannot be asked to shoulder the burden of a problem they did not create and from which they have never benefitted. The plastic industry must be tied to the waste they are responsible for generating through the adoption of federal stewardship laws. Whether a federal stewardship law comes about directly from petitioning Congress, going to court, or activism at the community level, it is clear that nothing will happen unless the public makes their concern and dissatisfaction known.

Climate change is an imminent threat to our health, as is evidenced by the recent onslaught of lawsuits designed to hold the fossil fuel industry accountable for the catastrophic harm exploration and production of oil and gas has had on the environment and human and non-human entities. The U.S. must transition away from plastic like other fossil fuel-based products, but it must be done in an equitable fashion that allows for a transition period.

Plastics are inherently unsustainable and a fundamentally dangerous waste product that not only contributes to climate change but disproportionately hurts marginalized groups within the U.S.[179] Better waste management practices must be adopted, but a first step might be to begin weaning ourselves from our addiction to plastic. The goal is to reduce and eventually eliminate plastic dependency; however, the inertia behind decades of plastic use and waste generation will incur administrative costs for the end-of-life management of plastic. By holding responsible parties accountable for the waste they create, the nation can shift responsibility to the entity best suited to handle the problem (*i.e.,* the plastics manufacturers). Getting a handle on waste management means government will not only be shielding historically discounted and politically marginalized communities, it will also be a step toward securing an environmentally just future where the health, safety, and environmental well-being of all communities are worthy of protection.

Implementation of stewardship laws at the federal level would have numerous benefits, including reducing emissions from incineration, slowing landfills from reaching capacity, creating a market for stewardship planning positions within industries (*i.e.*, creating long term green jobs), and protecting the environment from the need to create more landfills to take waste (not to mention saving the taxpayer and government the financial burden of financing and managing more MSW sites).

Waste management is a multifaceted and ongoing challenge. It will require significant planning, stakeholder involvement, and building trusted relationships between government and industry, but it is possible. Stewardship laws are not just an environmental imperative; they are a moral imperative. It is a duty the nation owes to future generations, shielding them from waste management burdens that they were not responsible for but will inevitably be forced to address. By creating regulations that require plastic producers to take back and be responsible for managing the waste they create, law makers would be protecting the most vulnerable communities in the country. If the plastics industry were responsible for taking back their waste, it might discourage them from producing more since it would be an added expense; furthermore, recycled low quality plastic is not a highly desirable commodity. Without the teeth of comprehensive federal legal frameworks, industry alone cannot be trusted to reclaim their harmful products.

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[107] EPA, *History of the Resource Conservation and Recovery Act (RCRA)*, https://www.epa.gov/rcra/history-resource-conservation-and-recovery-act-rcra.
[108] *Id.*
[109] *Id*. Note that RCRA was amended in 1984, when the federal Hazardous and Solid Waste Amendments (HSWA) were added, in 1992 through the Federal Facilities Compliance Act, and in 1996 by the Land Disposal Program Flexibility Act.
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[111] 42 U.S.C. § 6901(a)(1) (2018).
[112] *Id.* at § 6901(a)(2).
[113] *Id*. at § 6901(a)(3).
[114] *Id*. at § 6901(a)(4).
[115] EPA, *RCRA Corrective Action Cleanup Enforcement*, https://www.epa.gov/enforcement/rcra-corrective-action-cleanup-enforcement.
[116] EPA, *Resource Conservation and Recovery Act (RCRA) Overview*, https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview.
[117] 42 U.S.C. § 6901(b)(1).
[118] *Id.* at § 6901(b)(8).
[119] EPA, *Resource Conservation and Recovery Act (RCRA) Overview,* https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview; s*ee also* Note, *RCRA as a Tool for Environmental Justice Communities and Others to Compel Climate Change Adaptation*, 131 Harv. L. Rev. 2409, 2411 (2018).
[120] *See generally* Jessica Roake, *Think Globally, Act Locally: Steve Lerner, 'Sacrifice Zones,' at Politics and Prose*, Wash. Post. (Sept. 22, 2010), https://www.washingtonpost.com/express/wp/2010/09/23/steve-lerner-book-sacrifice-zones/ (explaining that "sacrifice zones," is an Orwellian term, however, applied to today's society the term can mean communities that have such severe pollution induced environmental hazards that it seriously impacts public health).
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[122] *Id.*
[123] *Id.; see also* EPA, Extramural Research, *Strengthening Environmental Justice and Decision Making: A Symposium on the Science of Disproportionate Environmental Health Impacts* (Mar. 17-19, 2010), https://archive.epa.gov/ncer/ej/web/html/agenda.html.
[124] Inside Washington Publishers, *supra* note 121 (explaining that the precautionary principle is a "concept that favors regulation to protect human health in the absence of certainty on environmental risks.").
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[127] Allan Gerlat, *19 States with the Most Producer Responsibility Laws*, Waste 360 (Sept. 15, 2015), https://www.waste360.com/generators/19-states-most-producer-responsibility-laws.
[128] Gemma Alexander, *The State of Producer Responsibility in the United States*, Earth911 (July 17, 2020), https://earth911.com/business-policy/producer-responsibility-in-the-united-states/.
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[141] 38 M.R.S. § 2144 (2020), http://www.mainelegislature.org/legis/statutes/38/title38sec2144.html (creating a stewardship program for architectural paint relating to waste reduction and recycling).
[142] *Id.*
[143] *Id.*
[144] *Id.*
[145] O'Malley & Brown, *supra* note 87, at 1.
[146] *Id.* at 5, 33, 47–49, 51.
[147] *Id.* at 27.
[148] *Id.* at 1.
[149] *Id.* at 1, 12.
[150] *Id.* at 1–2.
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[152] Md. L.D. 36 (442nd Legis. 2021), https://legiscan.com/MD/bill/HB36/2021.
[153] *Id.*
[154] Michael D. Diederich, Jr., *Does Garbage Have Standing?: Democracy, Flow Control, and a Principled Constitutional Approach to Municipal Solid Waste Management*, 11 Pace Env't L. Rev. 157, 168 (1993) (citing Supreme Court cases Chem. Waste Mgmt. v. Hunt, 112 S. Ct. 2009 (1992), Philadelphia v. New Jersey, 437 U.S. 617 (1978), and Fort Gratiot Sanitary Landfill v. Mich. Dep't of Nat. Res., 504 U.S. 353 (1992)), https://digitalcommons.pace.edu/cgi/viewcontent.cgi?article=1455&context=pelr.; *see also* 42 U.S.C. § 6942(b).
[155] 42 U.S.C. § 6901(a)(4).
[156] *See* David Read et al., *The Role of Land Carbon Sinks in Mitigating Global Climate Change*, The Royal Soc'y 1, 3, 17 (July 2001), https://royalsociety.org/~/media/royal_society_content/policy/publications/2001/9996.pdf (estimating that terrestrial vegetation and soils are absorbing around 40% of current CO2 emissions); *see also* Kelly Levin, *How Effective is Land at Removing Carbon Pollution? The IPCC Weighs In*, World Res. Inst. (Aug. 8, 2019), https://www.wri.org/blog/2019/08/how-effective-land-removing-carbon-pollution-ipcc-weighs (positing "trees and other vegetation suck up carbon dioxide from the atmosphere, sequestering nearly a third of global emissions").
[157] *Coca-Cola Company Unveils Paper Bottle Prototype*, The Coca-Cola Co. (Nov. 6, 2020), https://www.coca-colacompany.com/news/coca-cola-unveils-paper-bottle-prototype (describing how the first-generation prototype consists of a paper shell with a 100% recycled plastic closure and liner inside).
[158] *Our New Initiative: Together, We're Committed to Getting Every Bottle Back*, Am. Beverage, https://www.innovationnaturally.org/plastic/ (last visited Oct. 28, 2021) (claiming that the Coca-Cola Company, Keurig Dr Pepper, and PepsiCo are committed to using less plastic and investing in efforts "to get our bottles back so we can remake them into new ones").
[159] 42 U.S.C. § 6901(a).
[160] *See generally* Dino Grandoni, *States and Cities Scramble to Sue Oil Companies Over Climate Change,* Wash. Post. (Sept. 14, 2020), https://www.washingtonpost.com/climate-environment/2020/09/14/states-cities-scramble-sue-oil-companies-over-climate-change/ (showing that half a dozen states have brought suits against oil companies, as have major U.S. cities such as Baltimore and San Francisco and smaller municipalities such as Boulder, C.O. and Hoboken, N.J.).
[161] *See* 5 U.S.C. § 553 (explaining that agency interpretive rules, sometimes referred to as "guidance" are not subject to notice-and-comment under the Administrative Procedure Act (APA)).
[162] *See id.* (explaining that rulemaking would be subject to notice-and-comment under the APA so if an agency were to promulgate a rule, stakeholders would be able to provide input and advocate for the standards they would like to be incorporated into the final rule).

[163] Ana Faguy, *U.S. to back global treaty aimed at curbing plastic pollution*, E&E News (Nov. 18, 2021), https://www.eenews.net/articles/u-s-to-back-global-treaty-aimed-at-curbing-plastic-pollution/; Valerie Volcovici, *As plastic piles up, U.S. joins effort to reach new global treaty*, (Nov. 18, 2021), https://www.eenews.net/articles/u-s-to-back-global-treaty-aimed-at-curbing-plastic-pollution/.

[164] Zoe Loftus-Farren, *Earth Island Sues 10 Companies, Including Coke, Pepsi, and Nestle, Over Plastic Use*, Earth Island J. (Feb. 26, 2020), https://www.earthisland.org/journal/index.php/articles/entry/earth-island-coke-pepsi-nestle-plastic-pollution-lawsuit/ (suggesting that suing major corporations that profit(ed) from the sale of single use plastics is a viable strategy for interested parties to recoup some of the costs of cleaning such plastics out of oceans and waterways and mitigating harm to humans and wildlife).

[165] *Id.* (announcing that Earth Island Institute filed its suit in California state court on February 20, 2020).

[166] *Id.* (explaining how Earth Island Institute's litigation strategy follows in the vein of similar efforts to hold Big Oil, Big Tobacco, and Big Pharma responsible for their knowing contribution to public harms and simultaneous effort to obscure those harms and deflect blame).

[167] *Id.* (explaining that Earth Island Institute's lawsuit targets ten major plastic-producing companies—including giants like Coca-Cola, PepsiCo, and Nestle).

[168] *See* Thunberg, *supra* note 1 (referencing a tongue-in-cheek Tweet posted by climate change activist Greta Thunberg, who has 4.9 million Twitter followers, further emphasizing the goals of environmental justice in light of serious reproductive concerns).

[169] *IPCC Report: 'Code Red' for Human Driven Global Heating, Warns UN Chief*, UN News (Aug. 9, 2021), https://news.un.org/en/story/2021/08/1097362 (detailing, among others, unprecedented levels of atmospheric CO2 concentrations and the similarly unprecedented rise of global surface temperature and global mean sea level).

[170] *See generally* Steven Greenfield & Diogo Verisimmo, *To What Extent Is Social Marketing Used in Demand Reduction Campaigns for Illegal Wildlife Products? Insights From Elephant Ivory and Rhino Horn*, 25 Soc. Mktg. Q. 40 (2019), https://journals.sagepub.com/eprint/mZT6BRqak7iFvPRQkQyq/full (highlighting the need for independent consumer research upon which to build target audience insights and the improvement of collaborations across institutions); *see also* Laura Thomas-Walters et al., *Taking a More Nuanced Look at Behavior Change for Demand Reduction in the Illegal Wildlife Trade,* 2 Conservation Sci. & Prac. e248, 2 (July 6, 2020), https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.248 (explaining how demand reduction interventions aim to influence behavior, and common approaches have focused on legal regulation or prohibition (e.g., trade bans) and law enforcement, but these are not the only ways to persuade people to stop consuming wildlife and/or shift their consumption to more sustainable choices).

[171] *See generally* Joana C. Prata et al., *Solutions and Integrated Strategies for the Control and Mitigation of Plastic and Microplastic Pollution*, 16 Int'l J. Env't Rsch. & Pub Health 2411 (July 7, 2019), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6651478/ (proposing short-term, mid-term, and long-term measures, including ten recommendations for stakeholders to reduce plastic pollution).

[172] Abha Bhattarai et al., *Heat Wave Smothers Much of West Coast in Triple-Degree Temperatures*, Wash. Post. (July 10, 2021), https://www.washingtonpost.com/nation/2021/07/10/heat-wave-california-arizona-nevada/; Antonia Noori Farzan, *Fire on Surface of Gulf of Mexico is Extinguished, but Questions About Pipeline Leak Remain*, Wash. Post. (July 3, 2021), https://www.washingtonpost.com/world/2021/07/03/mexico-pipeline-fire/; Valerie Yurk, *Pacific Northwest Heat Wave Killed More Than One Billion Sea Creatures*, Sci. Am. (July 15, 2021), https://www.scientificamerican.com/article/pacific-northwest-heat-wave-killed-more-than-1-billion-sea-creatures/.

[173] Matthew Cappucci, *Tropical Storm Elsa Forms, Becoming Earliest Fifth Named Storm on Record*, Wash. Post. (July 1, 2021), https://www.washingtonpost.com/weather/2021/07/01/tropical-storm-elsa-caribbean-florida/.

[174] *Id*.

[175] Dustin Jones, *Western Wildfires May Take Weeks to Months To Contain*, NPR (Aug. 1, 2021), https://www.npr.org/2021/08/01/1023274008/western-wildfires-oregon-california-drought.

[176] *María* Louisa Paúl et al., *Deaths Climb to at Least 44 from Northeast Floods Caused by Hurricane Ida's Remnants,* Wash. Post. (Sept. 3, 2021), https://www.washingtonpost.com/weather/2021/09/01/new-york-city-flash-flood/.

[177] Sarah Kaplan & Andrew Ba Tran, *Nearly 1 in 3 Americans Experienced a Weather Disaster this Summer*, Wash. Post., (Sept. 4, 2021), https://www.washingtonpost.com/climate-environment/2021/09/04/climate-disaster-hurricane-ida/?itid=ap_sarahkaplan (detailing the expanded reach of climate-fueled disasters into American's lives).

[178] *See* Center for International Environmental Law, *Plastic & Climate*, *supra* note 5 (warning that industry is poised to invest billions in *expanding* plastic production).

[179] UN News, *supra* note 96 (demonstrating how federal environmental regulations have failed to protect African Americans residing in Louisiana's infamous "Cancer Alley").

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Alaska Cmty. Action on Toxics v. CEQ, No. 3:20-cv-05199-RS (N.D. Cal. filed July 29, 2020)).

[24] *See* Press Release, The White House, CEQ Proposes to Restore Basic Community Safeguards During Federal Environmental Reviews (Oct. 6, 2021), https://www.whitehouse.gov/ceq/news-updates/2021/10/06/ceq-proposes-to-restore-basic-community-safeguards-during-federal-environmental-reviews/; Exec. Order No. 13,990, 86 Fed. Reg. 7037 (Jan. 25, 2021) (repealing Executive Order 13,807 and directing the Council on Environmental Quality (CEQ) and the Office of Management and Budget (OMB) to determine if CEQ should issue a new order).

[25] Binder, *supra* note 4, at 6.

[26] *See* Blumm, *supra* note 4, at 4–5; 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860–61 (daily ed. June 5, 1969) (statement of Sen. Jackson); NEPA, 42 U.S.C. § 4331.

[27] *See* NEPA, 42 U.S.C. § 4332 (stating that agencies must make the environmental impact statements (EIS's) required under NEPA available to the public pursuant to the Administrative Procedure Act (APA)); APA, 5 U.S.C. §§ 551 et seq. (providing requirements for agencies to make information available to the public); 115 Cong. Rec. S19,008 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860 (daily ed. June 5, 1969) (statement of Sen. Jackson).

[28] NEPA, 42 U.S.C. §§ 4341–47 (including additional requirements for CEQ to develop recommendations on national policies to foster environmental quality, to document and define changes in the natural environment and analyze trends and underlying causes, and to provide an annual report on the state of the environment); 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860–61 (daily ed. June 5, 1969) (statement of Sen. Jackson).

[29] Exec. Order No. 11,514, 35 Fed. Reg. 4247, 4248 (Mar. 7, 1970).

[30] Statement on Proposed Federal Actions Affecting the Environment, 36 Fed. Reg. 7724, 7724 (Apr. 23, 1971) (to be codified at 40 C.F.R. pts. 1500–1518).

[31] Exec. Order No. 11,991, *42 Fed. Reg. 26,967, 26,967 (May 24, 1977) (to be codified at 3 C.F.R. 902 (1977) (requiring environmental impact statements be concise, clear, and to the point, and supported by evidence reflecting agency effort to address the necessary environmental analyses).*

[32] National Environmental Policy Act Regulations, 43 Fed. Reg. 55,978 (Nov. 29, 1978) (to be codified at 40 C.F.R. pts. 1500–1518); *What Is the National Environmental Policy Act?*, Env't Protection Agency, https://www.epa.gov/nepa/what-national-environmental-policy-act (last visited Jan. 30, 2021) [hereinafter *What Is NEPA?*].

[33] National Environmental Policy Act Regulations, 43 Fed. Reg. 55,978; *See What Is NEPA?*, *supra* note 32.

[34] National Environmental Policy Act Regulations; Incomplete or Unavailable Information, 51 Fed. Reg. 15,618, 15,618–20 (Apr. 25, 1986) (to be

codified at 40 C.F.R. pts. 1500–1518) (rescinding the requirement to conduct a worst case analysis when there is incomplete or unavailable information on the environmental impacts of a major federal action); Other Requirements of NEPA, 70 Fed. Reg. 41,148, 41,148 (July 18, 2005) (to be codified at 40 C.F.R. pts. 1500–1518) (making technical modifications under the filing requirements section).

[35] Exec. Order No. 13,807, 82 Fed. Reg. 40,463 (Aug. 24, 2017); *see generally* Kalen, *supra* note 8, at 10,406 (discussing motivations to promote economic development by removing environmental requirements).

[36] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 83 Fed. Reg. 28,591 (advanced notice of proposal June 20, 2018) (to be codified at 40 C.F.R. pts. 1500–1518); Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 83 Fed. Reg. 32,071 (comment extended July 11, 2018) (to be codified at 40 C.F.R. pts. 1500–1518).

[37] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1,684 (proposed Jan. 10, 2020) (to be codified at 40 C.F.R. pts. 1500–1518).

[38] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518).

[39] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518) (curtailing requirements under NEPA that federal agencies review and assess the impact of their actions on the environment by limiting public participation, rolling back requirement that agencies evaluate reasonable alternatives, and undermining government accountability by determining how and when the courts can process and decide NEPA cases); *see* Hazel, *supra* note 20.

[40] NEPA, 42 U.S.C. § 4332.

[41] CEQ Regulations, 40 C.F.R. §§ 1500–1508.28 (1978).

[42] *Id.* at §§ 1502.3, 1502.4, 1508.23, 1508.18.

[43] *Id.* at § 1508.18; *see also* Ezekial J. Williams & Kathy L. Schaeffer, *What Every Land Professional Should Know About NEPA*, 53 Mineral L. Inst. 4–15 (2007) (stating that federal actions include activities such as promulgation of an agency rule or regulation, approval of projects, issuing permits, and providing funding for activities).

[44] CEQ Regulations, 40 C.F.R. §§ 1501.3, 1501.4, 1502.3, 1502.4.

[45] *Id*. at § 1507.3.

[46] *Id*. at §§ 1501.4, 1502.3, 1502.4, 1508.27. 1508.3, 1508.8, 1508.14.

[47] *Id*. at § 1501.4.

[48] *Id*. at §§ 1501.4, 1507.3, 1508.4, 1508.9, 1508.11.

[49] *Id*. at § 1508.27.

[50] *Id.*

[51] *Id*. at § 1508.7.

[52] *Id*. at §§ 1501.4, 1508.9.

[53] *Id*. at § 1508.9.

[54] *Id.* at §§ 1501.4, 1507.3; *See* Williams & Schaeffer, *supra* note 43.

[55] *Id.* at §§ 1501.4, 1507.3; *See* Williams & Schaeffer, *supra* note 43.

[56] CEQ Regulations, 40 C.F.R. § 1501.4.

[57] *Id.* §§ 1502.13, 1502.14; Nat. Res. Def. Council, Inc. v. Morton, 458 F.2d 827, 836 (D.C. Cir. 1972); *see infra* note 70 and accompanying text.

[58] CEQ Regulations, 40 C.F.R. §§ 1502.15, 1502.16.

[59] Kleppe v. Sierra Club, 427 U.S. 390, 409 (1976) (holding agencies must take a "hard look").

[60] *See* Nat. Res. Def. Council v. Hodel, 865 F.2d 288, 294–96 (D.C. Cir. 1988); Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989).

[61] *See Kleppe*, 427 U.S. at 409; *Robertson*, 490 U.S. at 350–51.

[62] CEQ Regulations, 40 C.F.R. §§ 1501.7, 1502.19, 1503.1, 1503.4.

[63] *Id*. at § 1501.7.

[64] *Id*. at § 1506.6.

[65] *Id*. at §§ 1502.19, 1503.1, 1503.4.

[66] *Id*. at § 1503.1.

[67] *Id*. at § 1502.9.

[68] *Id*. at §§ 1505.2, 1506.10.

[69] *Id*. at § 1506.10.

[70] *See* Nat. Res. Def. Council, Inc. v. Hodel, 865 F.2d 288, 296 (D.C. Cir. 1988) (stating that an objective of the public comment process is to ensure the public, other agencies, and Congress are informed about the impact of an action "in order to spur all interested parties to rethink the wisdom of the action").

[71] *See* Binder, *supra* note 4, at 6, 29 (discussing the exceptions carved out of NEPA shortly after it was passed by Congress); *see also* Sher & Hunting, *supra* note 10, at 438–40 (discussing Congress's action to remove injunctions placed on an Alaskan pipeline); Pamela Baldwin et al., Cong. Res. Serv., Statutory Modifications of the Application of NEPA (1998); Kalen, *supra* note 8, at 10,404.

[72] Sher & Hunting, *supra* note 10, at 438–40.

[73] *See id.* (discussing the decision of the court to decline to rule on the NEPA challenge and invalidating the rule for violating the Mineral Leasing Act); Trans-Alaska Pipeline Authorization Act, Pub. L. No. 93-153, § 203, 87 Stat. 584, 584–85 (1973) (codified as amended at 43 U.S.C. § 1652(d) (1988)).

[74] *See* Sher & Hunting, *supra* note 10, at 441–44; *see also* 115 Cong. Rec. S19,008, 19,010 (daily ed. July 10, 1969). *But see* 119 Cong. Rec. 24,314 (1973) (discussing the need to expedite production of oil and gas).

[75] Baldwin et al., *supra* note 71.

[76] Sher & Hunting, *supra* note 10, at 447–48.

[77] *Id.* at 449.

[78] *Id.*

[79] *See* Baldwin et al., *supra* note 71.

[80] Kalen, *supra* note 8, at 10,404.

[81] *See* Selected Environmental Law Statutes: 2020-2021 Educational Edition, 1160–61, 1164 (Robin Kundis Craig ed., 2020-2021 ed. 2020) [hereinafter Selected Statutes]; Baldwin et al., *supra* note 71.

[82] Selected Statutes, *supra* note 81.

[83] *Id.*

[84] Kalen, *supra* note 8, at 10,404; Binder, *supra* note 4, at 29.

[85] *See* Infrastructure Investment and Jobs Act, Pub. L. No. 117–58 (2021); Zarghamee, *supra* note 12.

[86] Zarghamee, *supra* note 12; *see* Part IV.

[87] Zarghamee, *supra* note 12.

[88] Zarghamee, *supra* note 12.

[89] *See* Blumm, *supra* note 4, at 4–5; 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860-61 (daily ed. June 5, 1969) (statement of Sen. Jackson); NEPA, 42 U.S.C. § 4331.

[90] *See* Nat. Res. Def. Council, Inc. v. Hodel, 865 F.2d 288, 296 (D.C. Cir. 1988) (stating that one purpose of NEPA is "to inform Congress, other agencies, and the general public about environmental consequences of a certain action in order to spur all interested parties to rethink the wisdom of the action").

[91] *See generally* Council on Envtl. Quality, Major Cases Interpreting the National Environmental Policy Act (1997) [hereinafter Major NEPA Cases], https://ceq.doe.gov/docs/laws-regulations/Major_NEPA_Cases.pdf (providing an overview of major court decisions on NEPA); *see also* Sher & Hunting, *supra* note 10, at 449.

[92] *See infra* notes 100–154 and accompanying text. *See generally* Major NEPA Cases, *supra* note 86 (providing a detailed list of summaries and holdings of cases that involve NEPA rulings).

[93] *See* Kalen, *supra* note 8, at 10,401.

[94] Major NEPA Cases, *supra* note 91, at 1, 2, 13; Kleppe v. Sierra Club, 427 U.S. 390, 409 (1976); Calvert Cliffs' Coordinated Comm. v. Atomic Energy Comm'n, 449 F.2d 1109 (D.C. Cir. 1971), *cert. denied*, 404 U.S. 942 (1972).

[95] Major NEPA Cases, *supra* note 91, at 1, 4–5, 14–15; Nat. Res. Def. Council, Inc. v. Morton, 458 F.2d 827 (D.C. Cir. 1972); Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989); Kleppe v. Sierra Club, 427 U.S. 390, 409 (1976).

[96] Major NEPA Cases, *supra* note 91, at 1, 14, 23; Baltimore Gas & Electric Co. v. Nat. Res. Def. Council, 462 U.S. 87 (1983); Marsh v. Or. Nat. Res. Council, 490 U.S. 360 (1989); Lujan v. Nat'l Wildlife Fed'n, 497 U.S. 871 (1990).

[97] Major NEPA Cases, *supra* note 91, at 1, 14, 23; *Baltimore Gas,* 462 U.S. at 87; *Marsh*, 490 U.S. at 360; *Lujan*, 497 U.S. at 871.

[98] Major NEPA Cases, *supra* note 91, at 1, 17; CEQ Regulations, 40 C.F.R. § 1508.27; NEPA, 42 U.S.C. § 4332(C)(iv).

[99] *See* Binder, *supra* note 4, at 28–32; Major NEPA Cases, *supra* note 91, at 1, 15–16; Kalen, *supra* note 8, at 10,401. Winter v. Nat. Res. Def. Council, 555 U.S. 7, 22 (2008).

[100] *See* Binder, *supra* note 4, at 28–32 (2020); Major NEPA Cases, *supra* note 91, at 1, 15–16; Kalen, *supra* note 8, at 10,401.

[101] Binder, *supra* note 4, at 29–30; Kalen, *supra* note 8, at 10,401.

[102] Binder, *supra* note 4, at 29–30; Kalen, *supra* note 8, at 10,401.
[103] Binder, *supra* note 4, at 29–30; Kalen, *supra* note 8, at 10,401.
[104] Binder, *supra* note 4, at 28–29; Kalen, *supra* note 8, at 10,402.
[105] *See* Kalen, *supra* note 8, at 10,402.
[106] Binder, *supra* note 4, at 30; Major NEPA Cases, *supra* note 91, at 1, 25; Kalen, *supra* note 8, at 10,403–04.
[107] Binder, *supra* note 4, at 30; Major NEPA Cases, *supra* note 91, at 1, 25; Kalen, *supra* note 8, at 10,403–04.
[108] Binder, *supra* note 4, at 30; Kalen, *supra* note 8, at 10,403–04.
[109] *See* Blumm, *supra* note 4, at 4–5; 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860-61 (daily ed. June 5, 1969) (statement of Sen. Jackson); NEPA, 42 U.S.C. § 4331.
[110] *See* Nat. Res. Def. Council, Inc. v. Hodel, 865 F.2d 288, 296 (D.C. Cir. 1988).
[111] Major NEPA Cases, *supra* note 91, at 1, 15–16; Save the Bay, Inc. v. USACE, 610 F.2d 322, 327 (5th Cir. 1980); Winnebago Tribe of Neb. v. Ray, 621 F.2d 269, 272 (8th Cir. 1980); Macht v. Skinner, 916 F.2d 13 (D.C. Cir. 1990).
[112] Major NEPA Cases, *supra* note 91, at 1, 15–16; *Save the Bay*, 610 F.2d at 327; *Winnebago*, 621 F.2d at 272.
[113] *Winnebago*, 621 F.2d at 272 (quoting NAACP v. Med. Ctr., Inc., 584 F.2d 619 (3d Cir. 1978)).
[114] *See Save the Bay*, 610 F.2d at 327; *Winnebago*, 621 F.2d at 272; *Macht*, 916 F.2d at 13.
[115] *See Save the Bay*, 610 F.2d at 327; *Winnebago*, 621 F.2d at 272; *Macht*, 916 F.2d at 13.
[116] *Save the Bay*, 610 F.2d at 327 (finding that more involvement than just the pipeline is required for a "major Federal action" to exist).
[117] *Id.*
[118] *Id.* at 326–27.
[119] *See generally id.* (deciding that the federal action did not federalize the project and the federal action alone was not a major federal action so USACE did not need to complete an EIS); *Winnebago*, 621 F.2d at 272; *Macht*, 916 F.2d at 16.
[120] *See* Blumm, *supra* note 4, at 4–5 (arguing "the heart of the statute was to make federal agencies evaluate practicable alternative courses of action to foster its goals, including making federal agencies fulfil [sic] their responsibilities 'as trustee[s] of the environment for succeeding generations' and promote uses that ensure 'the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.'") (alteration in original) (citation omitted); 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860-61 (daily ed. June 5, 1969) (statement of Sen. Jackson); NEPA, 42 U.S.C. § 4331.
[121] NEPA, 42 U.S.C. § 4332.
[122] *Id*.
[123] *See* Binder, *supra* note 4, at 28–32 (2020); Kalen, *supra* note 8, at 10,401; 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860-61 (daily ed. June 5, 1969) (statement of Sen. Jackson); NEPA, 42 U.S.C. § 4331.
[124] *See* CEQ Regulations, 40 C.F.R. § 1506.1.
[125] *Id*.
[126] *Id.*
[127] *See id.; see generally* Major NEPA Cases, *supra* note 91, at 1.
[128] Winter v. Nat. Res. Def. Council, 555 U.S. 7, 22 (2008).
[129] *Id.*
[130] *Id.*
[131] Monsanto v. Geertson Seed Farm, 561 U.S. 139, 157 (2010).
[132] *See* William S. Eubanks II, *Damage Done? The Status of NEPA After Winter v. NRDC and Answers to Lingering Questions Left Open by the Court*, 33 Vt. L. Rev. 649, 652–54 (2009); *see also* Eric J. Murdock & Andrew J. Turner, *How "Extraordinary" Is Injunctive Relief in Environmental Litigation? A Practitioner's Perspective*, 42 Env't L. Rep. 10,464, 10,464–65 (2012) (discussing the application of a flexible approach to balancing injunctive relief factors in environmental cases favoring a preliminary injunction where environmental harms are alleged); Amoco Prod. Co. v. Village of Gambell, AK, 480 U.S. 531, 544–45 (1987).
[133] *Winter*, 555 U.S. at 22.
[134] *Amoco*, 480 U.S. at 544–45.
[135] *Id.* at 534–40.
[136] *Id.* at 544–45.
[137] Murdock & Turner, *supra* note 132, at 10,469.
[138] *Id.*
[139] Nat'l Parks Conservation Ass'n v. Semonite, 2018 WL 3838809 (D.D.C. 2018) (denying preliminary injunction); Nat'l Parks Conservation Ass'n v. Semonite, 916 F.3d 1075, 1088 (D.C. Cir. 2019) (holding that the Army Corps of Engineers violated NEPA); Nat'l Parks Conservation Ass'n v. Semonite, 422 F. Supp. 3d 92, 99 (D.D.C. 2019) (holding that since Virginia Electric and Power Company already completed the project, vacater was inappropriate).
[140] Nat'l Parks Conservation Ass'n v. Semonite, 2018 WL 3838809 (D.D.C. 2018) (denying preliminary injunction); Nat'l Parks Conservation Ass'n v. Semonite, 916 F.3d 1075 (D.C. Cir. 2019) (holding that the Army Corps of Engineers violated NEPA); Nat'l Parks Conservation Ass'n v. Semonite, 422 F. Supp. 3d 92 (D.D.C. 2019) (holding that since Virginia Electric and Power Company already completed the project, vacater was inappropriate).
[141] Nat'l Parks Conservation Ass'n v. Semonite, 916 F.3d at 1078.
[142] *Id.* at 1079.
[143] Nat'l Parks Conservation Ass'n v. Semonite, 282 F. Supp. 3d 284, 286–87 (D.D.C. 2017).
[144] *Id.* at 291.
[145] Nat'l Parks Conservation Ass'n v. Semonite, 311 F. Supp. 3d 350, 380-81 (D.D.C. 2018).
[146] Nat'l Parks Conservation Ass'n v. Semonite, 2018 WL 3838809, at *3 (D.D.C. 2018).
[147] Nat'l Parks Conservation Ass'n v. Semonite, 916 F.3d 1075, 1077, 1087–88 (D.C. Cir. 2019).
[148] Nat'l Parks Conservation Ass'n v. Semonite, 422 F. Supp. 3d 92, 94 (D. 2019).
[149] *Id.* at 103.
[150] *Id.* at 103–04.
[151] *See* Eubanks, *supra* note 132, at 651. *See generally* NEPA, 42 U.S.C. §§ 4331 et seq.; CEQ Regulations, 40 C.F.R. §§ 1500 et seq.
[152] Eubanks, *supra* note 132, at 653–54 (quoting Amoco); *See* Nat'l Parks Conservation Ass'n v. Semonite, 422 F. Supp. 3d 92 (D. 2019) (denying vacatur after project was completed when NEPA violation was found).
[153] Madeline Voitier*, Environmental Roadblock: Preliminary Injunction Security and the Need for Change*, 18 Loy. J. Pub. Int. L. 61, 63 (2017).
[154] *See* Nat'l Parks Conservation Ass'n v. Semonite, 2018 WL 3838809 (D.D.C. 2018) (denying preliminary injunction); Nat'l Parks Conservation Ass'n v. Semonite, 916 F.3d 1075 (D.C. Cir. 2019) (holding that the Army Corps of Engineers violated NEPA); Nat'l Parks Conservation Ass'n v. Semonite, 422 F. Supp. 3d 92 (D.D.C. 2019) (holding that since Virginia Electric and Power Company already completed the project, vacatur was inappropriate); CEQ Regulations, 40 C.F.R. § 1506.1. *See generally* Major NEPA Cases, *supra* note 91, at 1–29.
[155] *See CEQ NEPA Regulations*, *supra* note 19.
[156] Exec. Order No. 13,807, 82 Fed. Reg. 40,463 (Aug. 24, 2017).
[157] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 83 Fed. Reg. 28,591 (June 20, 2018) (to be codified at 40 C.F.R. pts. 1500–1518).
[158] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304, 43,312–13 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518); Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 83 Fed. Reg. 32,071 (July 11, 2018) (comment extended July 11, 2018) (to be codified at 40 C.F.R. pts. 1500–1518).
[159] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1684 (Jan. 10, 2020) (proposed Jan. 10, 2020) (to be codified at 40 C.F.R. pts. 1500–1518).
[160] *Id.*
[161] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304, 43,306 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518); Council on Env't Quality, Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act Final Rule Response to Comments (2020).
[162] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518).
[163] *Id.*
[164] *Id.* at 43,359–60 (July 16, 2020); *see also supra* Part III (discussing court jurisprudence restricting NEPA).

[165] *Supra* Part III (discussing court jurisprudence restricting NEPA).
[166] *See supra* text accompanying notes 100–123 (discussing court rulings on exemptions for non-discretionary actions and actions with functional equivalent reviews).
[167] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,403, 43,375 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518).
[168] *Id.*
[169] *Id.*
[170] *See supra* notes 111–123and accompanying text (discussing "small federal handle").
[171] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304, 43,375 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518).
[172] *See* Binder, *supra* note 4, at 30–31 (discussing court decisions that NEPA requirements apply to major federal actions which occur outside of the U.S.).
[173] *See* Binder, *supra* note 4, at 28–32; Kalen, *supra* note 8, at 10,401; 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860-61 (daily ed. June 5, 1969) (statement of Sen. Jackson); NEPA, 42 U.S.C. § 4331.
[174] CEQ Regulations, 40 C.F.R. § 1502.14 (2020); Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,403, 43,365 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518).
[175] CEQ Regulations, 40 C.F.R. § 1502.14 (2020); Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,403, 43,365 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518).
[176] Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,403, 43,376 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518).
[177] *See* Nat. Res. Def. Council v. Hodel, 865 F.2d 288, 294–96 (D.C. Cir. 1988); CEQ Regulations, 40 C.F.R. § 1502.14 (2020) (stating that the consideration of alternatives is "the heart" of the Environmental Impact Statement (EIS)); *see generally* Robert L. Glicksman & Alejandro E. Camacho, *The Trump Card: Tarnishing, Planning, Democracy, and the Environment*, 50 Env't L. Rep. 10,281 (2020) (discussing the Trump Administration's changes to NEPA regulations).
[178] Richard Glick & Oliver Jamin, *Trump Track: POTUS Upends NEPA Rules in the Name of Speed*, JDSupra (July 28, 2020), https://www.jdsupra.com/legalnews/trump-track-potus-upends-nepa-rules-in-87009/; *see supra* note 98 and accompanying text.
[179] *Id.*
[180] *Id.*; *see also* Jessica Wentz & Michael Burger, *Five Points About the Proposed Revisions to CEQ's NEPA Regulations*, Climate Law Blog (January 10, 2020), http://blogs.law.columbia.edu/climatechange/2020/01/10/five-points-about-the-proposed-revisions-to-ceqs-nepa-regulations/ (discussing the major role that the cumulative effect requirement has played in recent litigation regarding agency obligations to take into account climate change when conducting NEPA reviews of fossil fuel extraction leases and transport and infrastructure projects such as coal railways and pipelines).
[181] CEQ Regulations, 40 C.F.R. §§ 1501.4, 1508.4.
[182] CEQ Regulations, 40 C.F.R. § 1508.4.
[183] *See* CEQ Regulations, 40 C.F.R. § 1508.27 (stating significant effect factors); Nat'l Oceanic & Atmospheric Admin., Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities: Companion Manual for NOAA Administrative Order 216-6A E-6 (2017) (identifying the agency's categorical exclusions (CEs), including the exclusion of habitat restoration projects that meet specific criteria); *Sea Turtles*, Nat'l Oceanic & Atmospheric Admin., https://www.fisheries.noaa.gov/sea-turtles (last visited Oct. 2, 2021) (stating that there are six species of sea turtle in the U.S. all of which are endangered or threatened and one of the significant threats to the species is loss and degradation of nesting habitats); *see also Loggerhead Sea Turtle Terrestrial Critical Habitat for the Northwest Atlantic Ocean*, U.S. Fish & Wildlife Serv. (Feb. 7, 2018), https://www.fws.gov/northflorida/seaturtles/2014_Loggerhead_CH/Terrestrial_critical_habitat_loggerhead.html (discussing critical beach nesting habitat for one species of sea turtles).
[184] *See* Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,360 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518); Glicksman & Camacho, *supra* note 177.
[185] *See supra* notes 44–56 and accompanying text (discussing use of CEs).
[186] *See* Binder, *supra* note 4, at 28–32; Kalen, *supra* note 8, at 10,401; 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860-61 (daily ed. June 5, 1969) (statement of Sen. Jackson); NEPA, 42 U.S.C. § 4331.
[187] Kalen, *supra* note 8, at 10,398; Binder, *supra* note 4, at 50.
[188] *See supra* Part IV (discussing changes made under Trump Administration rulemaking).
[189] *See* 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860–61 (daily ed. June 5, 1969) (statement of Sen. Jackson); NEPA, 42 U.S.C. § 4331.
[190] *See supra* Parts II–IV (discussing congressional, court, and Administration actions weakening NEPA).
[191] *See* Congressional Review Act, 5 U.S.C. §§ 881 et seq.; Wild Virginia v. Council on Env't Quality, 2020 WL 5494519 *4 (D.W.D. Va. 2020) (noting the following three other cases challenging the rule); Exec. Order No. 13,990, 86 Fed. Reg. 7037 (Jan. 25, 2021); Press Release, The White House, CEQ Proposes to Restore Basic Community Safeguards During Federal Environmental Reviews (Oct. 6, 2021), https://www.whitehouse.gov/ceq/news-updates/2021/10/06/ceq-proposes-to-restore-basic-community-safeguards-during-federal-environmental-reviews/ (announcing the two phased NEPA rulemaking process); National Environmental Policy Act Implementing Regulations Revisions, 86 Fed. Reg. 55,757 (Oct. 7, 2021) (providing notice of the phase one proposed rulemaking).
[192] *See generally* Wild Va. v. CEQ, 2020 WL 5494519 (D.W.D. Va. 2020) (making arguments for setting aside the Trump Administration rulemaking).
[193] *See id.* at *3; Alaska Cmty. Action on Toxics v. CEQ, No. 3:20-cv-05199-RS (N.D. Cal. 2020); *California v. CEQ*, No. 3:20-cv-06057 (N.D. Cal. 2020); Env't Just. Health All. v. CEQ, No. 1:20-cv-06143-CM (S.D.N.Y. 2020); Iowa Citizens for Cmty Improvement v. CEQ, No. 1:20-cv-02715-TJK (D.D.C. 2020) Chevron, Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984).
[194] *Chevron*, 467 U.S. at 837.
[195] *Id.*
[196] *See* Kleppe v. Sierra Club, 427 U.S. 390, 409 (19760); Major NEPA Cases, *supra* note 91, at 1, 17; CEQ Regulations, 40 C.F.R. § 1508.27; *see generally* Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,375 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–1518).
[197] *See* Binder, *supra* note 4, at 30–32 (discussing court decisions that NEPA requirements apply to major federal actions which occur outside of the U.S.).
[198] *See* Paul A. Dame, Note, *Stare Decisis, Chevron, and Skidmore: Do Administrative Agencies Have the Power to Overrule Courts?* 44 Wm. & Mary L. Rev. 405, 424 (2002); *see generally Stare Decisis*, Black's Law Dictionary (11th ed. 2019) (defining *stare decisis* as "[t]he doctrine of precedent, under which a court must follow earlier judicial decisions when the same points arise again in litigation").
[199] *See* Wild V*a.* v. *CEQ*, 2020 WL 5494519, at *3–4 (D.W.D. Va. Sept. 11, 2020).
[200] Complaint at 162, 172–79, Wild Va. v. CEQ, No. 3:20-CV-0005 (D.W.D. Va. Sept. 11, 2020), 2020 WL 5494519 (stating that an agency rule is arbitrary and capricious "if the agency has relied on factors which Congress has not intended it to consider" (quoting Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983))); Amended Complaint at 3, Alaska Cmty. Action on Toxics v. CEQ, No. 3:20-CV-05199 (N.D. Cal. Sept. 4, 2020), 2020 WL 6441203 (stating that the Trump Administration "explicitly admitted that it placed the interests of pipelines, fossil fuel energy production, and road building over that of environmental and public health").
[201] Complaint at 160, 170–71, *Wild Va.*, 2020 WL 5494519 (No. 3:20-CV-0005); Complaint at 6, California v. CEQ, No. 3:20-CV-06057 (N.D. Cal. filed Aug. 28, 2020) (stating that CEQ "failed to review the Final Rule's significant environmental and public health impacts as required by NEPA itself").
[202] Complaint at 152, 157–60, 164–68, *Wild Va.*, 2020 WL 5494519 (No. 3:20-CV-0005) (stating that when an agency is reversing "a prior policy that 'has engendered serious reliance interests,' the agency must 'provide a more detailed justification than what would suffice for a new policy created on a blank slate' (quoting FCC v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009))); Complaint at 6, 49, California v. CEQ, No. 3:20-CV-06057 (stating that CEQ "failed to provide a rational justification for its sweeping revisions

to the 1978 regulations" and the rulemaking "ignores reliance interests on those longstanding regulations"); Amended Complaint at 3, *Alaska Cmty. Action on Toxics*, 2020 WL 6441203 (No. 3:20-CV-05199).

[203] Complaint at 162, 177–78, *Wild Virginia*, 2020 WL 5494519 (No. 3:20-CV-0005); Complaint at 81-87, Env't Just. Health All. v. CEQ, No. 1:20-CV-06143 (S.D.N.Y. filed Aug. 6, 2020); *see* Donald J. Kochan, *The Commenting Power: Agency Accountability Through Public Participation*, 70 Okla. L. Rev. 601, 602 (2018).

[204] *See generally* Complaint at 157–79, *Wild Virginia*, 2020 WL 5494519 (No. 3:20-CV-0005) (discussing support for claims); Complaint at 6, 49, *California v. CEQ*, No. 3:20-CV-06057 (discussing support for claims); Amended Complaint at 3, *Alaska Cmty. Action on Toxics*, 2020 WL 6441203 (No. 3:20-CV-05199) (discussing support for claims).

[205] *See supra* notes 71–154 and accompanying text; Infrastructure Investment and Jobs Act, Pub. L. No. 117–58 (2021); Zarghamee, *supra* note 12.

[206] Maya Weber, *Eyeing Changes, White House Gives Agencies Two-Year Extension On NEPA*, S&P Global (June 28, 2021), https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/062821-eyeing-changes-white-house-gives-agencies-two-year-extension-on-nepa; Deadline for Agencies To Propose Updates to National Environmental Policy Act Procedures, 86 Fed. Reg. 34,154 (June 29, 2021) (extending the deadline for Federal agencies to develop or revise NEPA procedures).

[207] National Environmental Policy Act Implementing Regulations Revisions, 86 Fed. Reg. 55,757, 55,759 (Oct. 7, 2021) (providing notice of the phase one proposed rulemaking); *see* Press Release, White House, CEQ Proposes to Restore Basic Community Safeguards During Federal Environmental Reviews (Oct. 6, 2021), https://www.whitehouse.gov/ceq/news-updates/2021/10/06/ceq-proposes-to-restore-basic-community-safeguards-during-federal-environmental-reviews/.

[208] Casey F. Bradford & Robert T. Denney, *Federal Court Dismisses NEPA Challenge, Leaving Trump-Era Regulations in Effect, but Stalled During Biden Reconsideration*, Jones Day (July 2021), *https://www.jonesday.com/en/insights/2021/07/federal-court-dismisses-nepa-challenge-leaving-trumpera-regulations-in-effect-but-stalled-during-biden-reconsideration*; *Alaska Cmty. Action on Toxics v. CEQ*, No. 3:20-CV-05199, 2020 WL 6441203 (N.D. Cal. Sept. 4, 2020) (stayed Feb. 12, 2021); *California v. CEQ*, No. 3:20-CV-06057 (N.D. Cal.) (stayed Feb. 12, 2021); *Env't Just. Health All. v. CEQ*, No. 3:20-CV-06143 (S.D.N.Y.) (stayed Feb. 16, 2021); *Iowa Citizens for Cmty. Improvement* v. CEQ, No. 1:20-CV-02715 (D.D.C.) (stayed Feb. 9, 2021).

[209] *Wild Va. v. CEQ*, No. 3:20-CV-00045, 2021 WL 2521561 (D.W.D. Va. June 21, 2021) (dismissed June 21, 2021); Bradford & Denney, *supra* note 208; Sebastien Malo, *Enviros ask 4th Circ to Revive Challenge to Trump-Era NEPA Reforms*, Reuters (July 30, 20211:48 PM) https://www.reuters.com/legal/litigation/enviros-ask-4th-circ-revive-challenge-trump-era-nepa-reforms-2021-07-30/.

[210] *See supra* Part III (discussing interpretations by the courts where the 1978 regulations were silent). *See generally* Exec. Order No. 13,990, 86 Fed. Reg. 7037 (Jan. 25, 2021) (beginning the process of reviewing and reversing environmental rules and orders made under the Trump Administration).

[211] *See* Exec. Order No. 11,514, 35 Fed. Reg. 4247, 4247–48 (Mar. 7, 1970) (delegating authority to CEQ to issue rulemakings for the implementation of NEPA); APA, 5 U.S.C. §§ 551 et seq.

[212] Exec. Order No. 13,990, 86 Fed. Reg. 7037, 7042 (Jan. 25, 2021).

[213] *Id*.

[214] *See* Press Release, White House, CEQ Proposes to Restore Basic Community Safeguards During Federal Environmental Reviews (Oct. 6, 2021), https://www.whitehouse.gov/ceq/news-updates/2021/10/06/ceq-proposes-to-restore-basic-community-safeguards-during-federal-environmental-reviews/; National Environmental Policy Act Implementing Regulations Revisions, 86 Fed. Reg. 55,757, 55,759–55,760 (Oct. 7, 2021) (providing notice of the phase one proposed rulemaking).

[215] National Environmental Policy Act Implementing Regulations Revisions, 86 Fed. Reg. at 55,759 (outlining the objectives of each phase of rulemaking).

[216] *Id.* at 55,762–67 (identifying specific revisions throughout the regulations necessary to reinstate the consideration of cumulative impacts and discussing the reasoning behind the changes).

[217] *Id*. at 55,761–62 (identifying revisions to revert to the 1978 regulations which allowed federal agencies to establish additional NEPA procedures and discussing the reasoning behind the changes).

[218] *Id*. at 55,760–61 (identifying revisions the purpose and need regulations to remove changes that limited consideration of alternatives to only those that advance the proposed action and the goals of the applicant and discussing the reasoning behind the changes).

[219] *Id.*

[220] *Id.* at 55,757, 55,760–67 (discussing the proposed revisions in the first phase of rulemaking).

[221] *See* Binder, *supra* note 4, at 28–29; Kalen, *supra* note 8, at 10,402.

[222] *See* Major NEPA Cases, *supra* note 91; Save the Bay, Inc. v. USACE, 610 F.2d 322, 327 (5th Cir. 1980); Winnebago Tribe of Nebraska v. Ray, 621 F.2d 269, 272 (8th Cir. 1980); *supra* notes 47–56 and accompanying text (discussing criteria for determining significant effect and when to develop an EA to determine if there is a significant effect).

[223] *See supra* notes100–123 and accompanying text.

[224] Dame, *supra* note 198, at 416, 431, 433 (quoting NBC v. Satellite Broadcasting Networks, 581 U.S. 823 (1994)).

[225] *See supra* note 118–48 and accompanying text; Dame, *supra* note 198, at 416, 431, 433; *See* Eubanks, *supra* note 132, at 651; Executive Order No. 11,991, *42 Fed. Reg. 26,967, 26,967 (May 24, 1977) (to be codified at 3 C.F.R. 902 (1977)); see generally* NEPA, 42 U.S.C. §§ 4331 et seq.; CEQ Regulations, 40 C.F.R. §§ 1500 et seq.

[226] Dave Kovaleski, *Energy Industry Associations Applaud Trump Administration Rule to Streamline NEPA*, DailyEnergyInsider, (July 17, 2020), https://dailyenergyinsider.com/news/26346-energy-industry-associations-applaud-trump-administration-rule-to-streamline-nepa/.

[227] *See* CEQ Regulations, 40 C.F.R. § 1506.1.

[228] *Environmental Compliance in the Office of Habitat Conservation*, Nat. Oceanic & Atmos. Admin., (Oct. 7, 2021) https://www.fisheries.noaa.gov/national/habitat-conservation/environmental-compliance-office-habitat-conservation (discussing an example of a Programmatic EIS, its role in NEPA compliance, how it maximizes efficiency while ensuring appropriate environmental review, and activities that fall outside of the scope of the EIS).

[229] *See id.*; CEQ Regulations, 40 C.F.R. § 1506.1.

[230] *See* Infrastructure Investment and Jobs Act, Pub. L. No. 117–58 (2021); Zarghamee, *supra* note 12; *See* Infrastructure Investment and Jobs Act, Pub. L. No. 117–58 (2021); Zarghamee, *supra* note 12.

[231] *See id.*; *supra* notes 124–54 and accompanying text.

[232] *See supra* note 124–54 and accompanying text; Eubanks, *supra* note 132, at 653 (quoting Amoco).

[233] *See* 124–54 and accompanying text; CEQ Regulations, 40 C.F.R. § 1506.1.

[234] *See supra* notes 124–54 and accompanying text.

[235] *See supra* note 124–54 and accompanying text; Dame, *supra* note 198, at 416, 431, 433; *See* Eubanks, *supra* note 132, at 651; Executive Order No. 11,991, *42 Fed. Reg. 26,967, 26,967 (May 24, 1977) (to be codified at 3 C.F.R. 902 (1977))*.

[236] Kalen, *supra* note 8, at 10,398; Binder, *supra* note 4, at 50.

[237] Kalen, *supra* note 8, at 10,398.

[238] 115 Cong. Rec. S19,008, 19,008–09 (daily ed. July 10, 1969); 115 Cong. Rec. S14,860, 14,860–61 (daily ed. June 5, 1969) (statement of Sen. Jackson); NEPA, 42 U.S.C. § 4331.

[239] *See supra* notes 155–186 and accompanying text (discussing the harmful effects of the Trump rulemaking).

[240] *See supra* notes 187–235 and accompanying text (discussing recommendations).

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[25] *Accessory Dwelling Units*, DCOZ: Zoning Handbook, https://handbook.dcoz.dc.gov/use-categories/other-uses/accessory-dwelling-units/ (last visited Nov. 7, 2021) (defining an Accessory Dwelling Unit as a dwelling unit that is secondary to the principal single household dwelling unit in terms of gross floor area, intensity of use, and physical character, but which has kitchen and bath facilities separate from the principal dwelling and may have a separate entrance.).

[26] *See* D.C. Mun. Regs. tit. 11-E, § 5000.2(b) (2021) (stating that, "[a]n accessory building shall… [b]e used for purposes that are incidental to the use of the principal building; provided that no more than one (1) principal dwelling unit shall be allowed"); *see also* Ileana Schinder, *What Montgomery County can Learn from DC's Accessory Apartment Policy*, Greater Wash. (June 26, 2019), https://ggwash.org/view/72750/dc-legalized-accessory-apartments-in-2016-heres-what-happened-next (discussing how homeowners can invest in their own ADUs).

[27] Katherine M. Vail, *Saving the American Dream: The Legalization of the Tiny House Movement*, 54 U. Louisville L. Rev. 357, 370 (2016).

[28] Frank Olito, *Tiny-house Owners are Facing Evictions or Living Under the Radar Because Their Homes are Considered Illegal in Most Parts of the US*, Insider (Dec. 14, 2020, 9:57 AM) https://www.businessinsider.com.au/tiny-house-owners-zoning-laws-2020-12.

[29] Eric Kurzynski, *Most Popular Cities in Oregon for Tiny Home Livings*, Utopian Villas: Luxurious Recreational Retreats (May 18, 2017), https://www.utopian-villas.com/popular-cities-oregon-tiny-home-living/.

[30] *Tiny-Tranquility: A Tiny House Village & Vintage Trailer Park in Waldport, Oregon*, Tiny House Talk (Apr. 22, 2018), https://tinyhousetalk.com/tiny-tranquility-a-tiny-house-village-vintage-trailer-park-in-waldport-oregon/.

[31] *Model Ordinance: Cottage Housing Development*. Leigh Valley Plan. Comm'n 4-5 (2015) https://lvpc.org/pdf/cottageHousingDev.pdf (In their analysis of single-room-occupancy (SRO) cottages, the Lehigh Valley Planning Commission noted that public resistance to tiny housing is most commonly due to concern that the housing type will ruin the "character" and property-value of the neighborhood).

[32] *Id*. at 5-7.

[33] *See generally* Ciara Turner, *It Takes a Village: Designating Tiny House Villages as Transitional Housing Campgrounds*, 50 U. Mich. J.L. Reform 931 (2017) (discussing the SROs in Olympia, Washington).

[34] *Id*. at 940.

[35] *Id*.

[36] *See generally City Proclamation*. SpurFreedom (July 17, 2021), https://www.spurfreedom.org/city-proclamation/. (Requiring that a THOW must be secured to a foundation while in city limits in response to the safety concern of high winds which could knock the house over or into someone else's home and property).

[37] *About Spur*, SpurFreedom, https://www.spurfreedom.org/sample-page/ (last visited Nov. 7, 2021).

[38] *See id*. (describing itself as having undergone a dramatic population drain to the big cities over the last few decades from a town of several thousand to 1,000 people, leaving the infrastructure of a city. Spur leadership described the town to be "in transitional stage" and "would love to come out of it ahead by ignoring the status quo and becoming a model for 21st century towns.").

[39] Briley, Mich., Township Zoning Ordnance ch. II § 201 (last amended Oct. 21, 2020), https://www.brileytownship.com/doc.zoningordinance.pdf.

[40] *Id*.

[41] *Id*.

Bison, Tribes, and Brucellosis in the Interagency Bison Management Plan

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temporal separation" during periods of high-risk transmission in the GYA is necessary).

[20] *See Letting Buffalo Roam.*, Cottonwood Env't L. Ctr., https://www.cottonwoodlaw.org/work/letting-yellowstone-bison-roam-freely (last visited Sept. 9, 2021) (aiming to allow Yellowstone bison to roam freely on public lands in Montana and fighting to allow them to do so until the Federal Government completes its new analysis); *see also Free Roaming Bison*, United Prop. Owners of Mont., http://upom.org/interior-construction/ (last visited Sept. 9, 2021) (insisting that wild bison be classified as livestock rather than wildlife, or else private property owners will bear the costs of the damages caused by free roaming bison).

[21] *See Free Roaming Bison*, *supra* note 20.

[22] *See Bison Management*, *supra* note 6.

[23] *See Bison Management*, *supra* note 6.

[24] *See Bison Management*, *supra* note 6.

[25] *See* 36 C.F.R. § 2.2(b)(2) ("Hunting may be allowed in park areas where such activity is specifically authorized as a discretionary activity under Federal statutory law if the superintendent determines that such activity is consistent with public safety and enjoyment, and sound resource management principles. Such hunting shall be allowed pursuant to special regulations."); *see generally* Herrera v. Wyoming, 139 S. Ct. 1686 (2019) (holding that the lands of the Bighorn National Forest are not categorically "occupied" for purposes of the Crow Tribe's off-reservation treaty hunting rights). *But see* Yellowstone Game Protection Act, 28 Stat. 73, 53 Cong. Ch. 72 (1894).

[26] Ulysse Bex, *Shuffle Off the Buffalo: Groups Push to Ship, not Shoot, Canyon Bison*, Cronkite News Ariz. Press (Sept. 22, 2021), https://cronkitenews.azpbs.org/2021/09/22/shuffle-off-the-buffalo-groups-push-to-ship-not-shoot-canyon-bison/?fbclid=IwAR2w_dq0yy8zp1joYsCZUnJt0fUGNqv7_mY3VgZ-Z9UbIeYrkz9gXAGVzFAk.

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