I. INTRODUCTION

Energy generation sources have changed over the history of the United States due to the development of new sources and evolution in energy consumption. In the late eighteenth century, the typical energy source relied on wood and water power until the mid- to late-nineteenth century.\(^1\) As the Industrial Revolution made way through the United States, petroleum products became the primary source of energy and have remained the dominant means of energy production.\(^2\) However, as technology advances, the United States is undergoing another energy shift, in which reliance on fossil-fuel-based energy production is diminishing, opening a market that thrives on renewable energy.\(^3\) Although energy policy is influenced by more factors than the production and utilization of energy generation, there is an inevitable paradigm shift from fossil fuel reliance to renewable energy. This paper aims to address the implications of a shifting energy paradigm regarding its impact on employment distribution, energy production, and the environment with an analysis of energy policies under the Obama and Trump administrations.

II. BACKGROUND OF U.S. ENERGY POLICY

There is an energy trilemma between energy economics, affordability, and assured energy security.\(^4\) Energy policy and usage have played a significant role in policymaking throughout U.S. history. Since World War II, energy production of many resources, but

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\(^2\) Id.


specifically oil, and the resulting security concerns have come to have a great source of influence on foreign-policy and politics.\textsuperscript{5} For example, in 1945, President Roosevelt declared Saudi oil vital to U.S. security and began to provide financial support towards securing oil capacity.\textsuperscript{6} Today, the influence that energy has is evident with the relationship between the US and OPEC countries. The blur between energy and foreign-policy has dictated funding for research and development, as well as the securement of energy sources. This makes an energy shift to renewables extremely difficult and complicated.

Energy policy within the United States is generally dictated by the federal government.\textsuperscript{7} While the Department of Energy (“DOE”) and Federal Energy Regulatory Commission (“FERC”) set the national policy for energy regulation, the military has taken a leadership role in research and development of energy technologies.\textsuperscript{8} Non-military drivers of energy research and development consists of primarily privately-owned energy sectors who interact with public policy to promote economic competitiveness via affordability, and to achieve environmental goals in areas such as climate change, air pollution, and water quality.\textsuperscript{9}

On a state level, states are given federal incentives for renewable energy development. These are seen through tax credits, deductions, and exemptions, as well as grants and financing opportunities.\textsuperscript{10} Non-federal incentives include carbon pricing mechanisms, emission reduction potentials, renewable energy portfolio standards, and net metering.\textsuperscript{11} Furthermore, jurisdictions

\textsuperscript{5} Id.
\textsuperscript{8} See Nuttall, supra note 4, at 2.
\textsuperscript{9} Id.
\textsuperscript{10} See Oil Dependence and U.S. Foreign Policy, supra note 6.
are encouraged to work in conjunction with one another through multi-state or regional compacts to reduce costs such as technological costs to developing more efficient and clean energy.\textsuperscript{12} However, states possess a unique mix of electricity-generation resources and incentives tend to vary by state. For example, states such as North Carolina implemented aggressive personal and business income energy tax credits, whereas Massachusetts deployed a sales tax policy.\textsuperscript{13} For sake of relevance, this analysis will focus on federal policies and regulations.

\textbf{III. IMPLICATIONS OF SHIFTING ENERGY PRODUCTION FROM FOSSIL FUELS TO RENEWABLES}

\textbf{A. Direct and Indirect Comparisons of Fossil Fuel and Renewable Energy Spending}

The fossil fuel industry heavily relies on subsidies. $20.5 billion is spent annually on direct subsidies for fossil fuel production, not including an additional $14.5 billion in consumption subsidies.\textsuperscript{14} In direct comparison, renewable energy subsidies are a fraction of the subsidies received by the fossil fuel industry. The primary support for renewables are non-permanent investment and production tax credits that account for approximately $1.1 million, which is still minute compared to the $7.4 billion permanent fossil fuel tax breaks.\textsuperscript{15} This does not include the approximate $5.3 trillion spent on indirect subsidies to the fossil fuel industry that go towards military spending, such as protecting oil shipping routes, and mitigating adverse health impacts.\textsuperscript{16}

There are indirect energy spending comparisons between fossil fuels and renewable energy, as well. During the early twentieth century, the world shifted toward oil as the main

\textsuperscript{12} Id.
\textsuperscript{13} Id.
\textsuperscript{15} Id.
\textsuperscript{16} Id.
energy source, creating a race to energy security and geopolitical positioning.\textsuperscript{17} This became an important factor in U.S. foreign policy and U.S. military strategy and remains so today through the positioning of military resources to secure oil supplies and to maintain the stability of world oil markets.\textsuperscript{18}

Negative health externalities caused by fossil fuel production put a great economic burden on public health, adding up to more than $100 billion per year.\textsuperscript{19} Statistics show that poor, minority groups have a greater predisposition to being exposed to the health risks and costs of fossil fuel production such as fine particle pollution.\textsuperscript{20} Non-profits, such as the National Academy of Sciences, have attempted to assign a monetary value to the adverse health effects correlated to the burning of fossil fuels.\textsuperscript{21}

Although those studies have become outdated, research has now shifted to focus on reduction models that demonstrate the difference that clean energy policies can make. For example, the Environmental Protection Agency (“EPA”) developed a screening and mapping tool (“COBRA”) that assesses health and economic benefits of clean energy.\textsuperscript{22} COBRA provides an updated assessment that calculates the value of clean energy policies, and state and local governments can use the tool to assess emission estimates, air quality, and air pollution sources.\textsuperscript{23}

\textsuperscript{17} See Nuttall, supra note 4, at 8.
\textsuperscript{18} Id.
\textsuperscript{19} Id.
\textsuperscript{23} Id.
B. Energy Production

Total energy production is predicted to increase by approximately thirty-one percent from 2017 through 2050. Energy production growth is dependent on the development of technology, available resources, and market conditions. Under current projections, natural gas will make up the largest share in total energy production while renewable energy will account for the largest growth in percentage. However, despite stable production projections from 2006 to 2016, net coal generation has declined by approximately fifty percent, while generation from natural gas increased by thirty-three percent and solar by over five-thousand percent.

There is no argument that electric generation mix in the United States is changing, driven by the transition of coal-fired power plants to natural gas and the increase in low carbon sources of energy. However, under the latest U.S. Energy Information Administration (“EIA”) modeling, the majority of U.S. electrical generation will continue to come from fossil fuels, including coal and natural gas, which will provide fifty-three percent of total U.S. generation through 2040.

C. Employment

The relevant energy employment discussed here encompasses research, development, production, construction, manufacturing, transmission, and distribution. Fuel source shifts in electric generation mirror the energy sector’s changing employment profile, resulting in a pattern showing that as the share of natural gas, solar, and wind workers increase, coal mining and other

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24 See Annual Energy Outlook of 2018, supra note 3, at 18.
25 Id.
26 Id.
28 Id.
29 Id.
related employment is declining. Employment within the fossil fuels sector declined by eight percent in the last year, with losses being largely driven by declines in oil, gas, and coal employment. The Bureau of Labor Statistics reported that coal mining and support employment declined by thirty-nine percent from March 2009 to March 2016, with a twenty-four percent decline in the last year alone. Although natural gas is categorized with fossil fuels, its production is predicted to account for nearly thirty-nine percent of U.S. energy production by 2050. However, despite the increase in natural gas employment, current trends predict that fossil fuel employment as a whole will continue to decline by an additional two percent over the next twelve months.

In terms of renewables, solar development has been the most successful, and solar industry workers currently account for the largest share of workers in the electric power generation sector. The solar industry currently employs almost 374,000 workers. Employment demands are dominated by labor in power generation facilities and construction to increase existing solar generation capacity.

IV. **Energy Policy Under the Obama Administration**

Policies such as the Clean Power Plan (“CPP”) placed regulations on pre-existing fossil fuel plants. Being the first of its kind, the CPP was unveiled in 2015 and aimed to limit carbon pollution from power plants. The CPP offered incentives for states to cut emissions and to determine feasible state emissions reduction targets. Options set forth included: (1) “investing in

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30 Id.
31 Id. at 22.
32 Id. at 40.
33 See Annual Energy Outlook of 2018, supra note 3, at 20.
35 Id. at 28.
36 Id.
renewable energy, energy efficiency, natural gas, and nuclear power”; (2) slowing the hasty transition to natural gas reliance; and (3) “shifting away from coal-fired power.”

States that joined would ultimately compete to invest in clean energy and develop technologies to reduce energy-related carbon emissions.

The CPP set a goal of thirty-two percent reduction of carbon emissions by 2030, estimated that it would save the United States $20 billion in climate-related costs, and predicted the delivery of up to $34 billion in positive health benefits. However, critics argued that the Clean Power Plan allowed the EPA to “dramatically stretch[] the EPA’s authority under the Clean Air Act.” Critics further argued that states were not given as much control as they should have had, noting that twenty-seven states, twenty-four trade associations, thirty-seven electric cooperatives, and three labor unions filed lawsuits to stop the regulation.

In addition to the CPP, the Obama Administration also allocated funding to encourage the transition of fossil fuel workers into the renewable energy sector. In May 2016, the Department of Energy (“DOE”) awarded $10 million to ten different projects through its Solar Training and Education for Professionals (“STEP”) program, which was created to help meet rising demand for “well-qualified, highly skilled installers and other industry-related professionals.” The STEP program was intended “to advance America’s solar workforce by providing innovative

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38 The Clean Power Plan, supra note 7.
39 Id.
42 Id.
training programs that will help to meet President Obama’s goal to train 75,000 [people] in solar energy by 2020.\textsuperscript{45}

STEP programs included Solar Ready Vets and Engineering for Accelerated Renewable Energy Deployment, both programs where veterans were connected to solar training institutions and engineering students were trained to add increased distributed energy to the grid, respectively.\textsuperscript{46} Further, STEP allocated money to the North American Board of Certified Energy Professionals (“NABCEP”) to provide training and qualifications for solar installers and develop industry-validated certifications to help transition coal workers into the solar industry.\textsuperscript{47}

However, the integration of displaced fossil fuel workers into the renewable energy sector offers challenges of its own due to geographic resource availability. To address this critical issue, the Obama Administration implemented the Power Plus (“Power+”) initiative that set aside $38 million to assist the influx of communities struggling with the decline of the coal industry.\textsuperscript{48} Power+ grants were designed to help "create a more vibrant economic future for coal-impacted communities by cultivating economic diversity, enhancing job training and re-employment opportunities, creating jobs in existing or new industries, and attracting new sources of investment" and have been awarded to projects in places like West Virginia and New Mexico.\textsuperscript{49}

\textsuperscript{46} Id.
\textsuperscript{48} POWER Initiative — POWER+ For The People, APPALACHIAN CITIZENS' LAW CENTER (2018), http://www.powerplusplan.org/power-initiative/.
\textsuperscript{49} Id.
V. ENERGY POLICY UNDER THE TRUMP ADMINISTRATION

Research shows that political orientation significantly influences support for energy policies. The conservative movement is known to challenge progressive social movements and the utilization of impact science, which is being demonstrated under the Trump administration.

The Trump Administration has made their support for fossil fuel production obvious. In early 2017, the Trump administration swiftly moved to repeal various Obama-era coal and fossil fuel-related environmental regulations. The first of these included a rule aimed at keeping pollutants out of streams in areas near mountaintop removal coal-mining sites. Next, President Trump quickly repealed the CPP, replacing it with the Affordable Clean Energy Rule (“ACE”). Components of ACE include emission-reduction through setting “heat-rate improvements” for coal power plants and state-set limits of power-plant emissions. Critics argue that ACE sets a low bar for emission regulation where heat rate improvements do not apply to gas plants and that miniscule efficiency improvements may only slightly reduce emissions. Furthermore, critics state that ACE allows states to “set weaker standards, or no standards at all, letting old, inefficient coal-fired power plants continue to emit carbon pollution unchecked.”

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51 Arron M. McCright & Riley E. Dunlap, Anti-Reflexivity: The American Conservative Movement’s Success in Undermining Climate Science and Policy, 27 THEORY CULTURE & SOCIETY 100, 105 (May 2010).
55 Id.
56 Id.
57 Id.
VI. CONCLUSION

Ultimately, U.S. energy production is nowhere near being dominated by renewable resources. Although zero-reliance on fossil fuels is currently unfeasible, this reliance can be significantly reduced if the U.S. pursues renewable energy as wholeheartedly as it once did with fossil fuels.

Many who oppose the idea of transitioning from fossil fuels, particularly coal, to renewable energy, center their argument on the high cost and capital investment of transitioning to and building new infrastructure. This argument is flawed, since the current direct and indirect negative externalities and monetary expenses associated with fossil fuels are not considered. National subsidies to oil, gas and coal producers amount to $20 billion annually in the U.S., not including the additional indirect monetary impacts discussed earlier.

Fossil fuels have significant negative externalities, and data presented by the EIA suggests an inevitable shift to cleaner, renewable energy production. The costs of retraining the majority of coal employees to solar workers is estimated to cost $180 million or a worst-case scenario of $1.87 billion, which still would only be 0.0052% to 0.0543% of the annual Federal Budget. The energy market is dictated by technology, available resources, and market conditions. Through a combination of reductions in technology costs and implementation of policies that encourage the use of renewables at the federal and state levels, generation costs will continue to decrease, which will continue to drive the adoption of renewable generation up.

58 See Roberts, supra note 14.
59 Id.
62 Id.
PROPOSED CHANGES TO THE ENDANGERED SPECIES ACT

Noëlle Mouton

I. INTRODUCTION

Since its inception in 1973, the Endangered Species Act (ESA) has protected more than 1,600 endangered and threatened species of plants and animals in the United States, including the American Alligator, California Condor, Eastern Red Wolf, American Gray Wolf, Grizzly Bear, and Bald Eagle, just to name a few. Each of these and many others immeasurably impact our ecosystem, from keeping other animal species and vegetation in check to establishing the surrounding geography and landscape.

Over the past several years, amendments to the ESA have continued to undermine its vitality. The biggest changes have occurred during the current administration and are likely to be approved in the coming months, now that the 60-day public comment period has ended. While the rollbacks proposed are numerous, there are two substantial changes that would have the largest impact on the current application of the ESA. The first major change would be to cease the practice of treating species classified as “threatened” with the same protection as those species classified as “endangered.” The second detrimental revision would make it possible to

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include cost factors when determining the classification of species.\textsuperscript{7} Both of these substantial changes could have an irreversible effect on the existence of many species with struggling numbers.

This paper will first provide some background information on the current procedures of classifying and protecting plant and animal species as outlined by the ESA. Then it will discuss the proposed changes, focusing on these two major changes in detail, and analyze their potential effects on the current process and their future consequences.

\textbf{II. BACKGROUND}

The ESA was signed into law by President Nixon in 1973 to provide protection for threatened and endangered species and habitats\textsuperscript{8} from destruction, pollution, pesticides, predation, disease, and any other natural or man-made factors that could potentially contribute to their extinction.\textsuperscript{9} According to the U.S. Fish and Wildlife Service, its purpose is to “protect and recover imperiled species and the ecosystems upon which they depend.”\textsuperscript{10} In addition to the Interior Department’s U.S. Fish and Wildlife Service (FWS), the Commerce Department’s National Marine Fisheries Service (NMFS) is the other agency that administers the ESA.\textsuperscript{11} Generally, the FWS handles terrestrial and freshwater species while NMFS covers classification and protection of marine life.\textsuperscript{12}

\textsuperscript{7} Id.
Under the ESA, there are five elements that the FWS and NMFS consider when listing a species as threatened or endangered: “(1) the present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; or (5) other natural or manmade factors affecting its continued existence.”\(^{13}\) If a species is found to be on the brink of extinction upon scientific and commercial data analysis, then the species is listed as “endangered.”\(^{14}\) If a species is likely to become endangered in the foreseeable future, then it is classified as “threatened.”\(^{15}\) The protection of threatened and endangered animal species generally includes prohibiting “take” of the species, meaning prohibition of any individual to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect.”\(^{16}\) The recovery plan for each species is individually determined by biologists, experts, Federal, State, and local agencies, and other organizations with relevant interest, and is enforced however those experts or agencies determine fit.\(^{17}\) In the 45 years that the ESA has been in effect, over 1,600 species have been protected, and 51 species have been delisted after their numbers substantially increased.\(^{18}\) While these numbers are impressive, they still show that there is a long way to go before the preservation has been ensured for the remaining species on the list.

**III. Changes in Protection of “Threatened” versus “Endangered” Species**

Under the ESA, “[w]henever any species is listed as a threatened species . . . the Secretary shall issue such regulations as he deems necessary and advisable to provide for the

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\(^{13}\) 16 U.S.C. § 1533(a)(1).

\(^{14}\) 16 U.S.C. § 1533(b).


\(^{17}\) ESA Basics, *supra* note 12, at 1.

\(^{18}\) Phippen, *supra* note 1.
conservation of such species." Additionally, under the Recovery Plans provision of the ESA, threatened and endangered species are both equally entitled to a species-specific plan that would promote the conservation of the species “to the maximum extent practicable.” This demonstrates that the importance of affording protection to threatened species is of equal importance to the protection of endangered species. According to the FWS, “[o]nce we add an animal or plant to the List, protective measures apply,” including prohibition of take, implementation of recovery plans and habitat developments, and acquisition of Federal aid. Noticeably, there is no distinction under section 4 between threatened and endangered species, as they are both on the list, and the same factors are used in determining classification of both. Furthermore, the Protective Regulations Section 4(d) Rule of the ESA has been known as the “blanket rule” since 1978 because it specifies that “threatened species get all of the protections that endangered species automatically get through section 9.” Section 9 prohibits all take, import, export, delivery, receipt, sale, and transport of listed species. Unless a particular scientific reason establishes a special provision for a particular species that warrants exclusion of some of the provisions of Section 9, all of the Section 9 protection is applied. Thus, although the FWS is given the opportunity to make the regulations a bit more flexible for threatened species if supported by the research, the agency’s default action is to treat threatened species

25 Endangered Species Act Special Rules, supra note 23.
with the same protection offered to endangered species in the hopes that they will be delisted as opposed to reclassified as endangered in the future,\textsuperscript{26} which is the purpose of the ESA.\textsuperscript{27}

The rollbacks proposed by the Trump administration on July 19\textsuperscript{th} would completely reverse the blanket rule.\textsuperscript{28} While the proposed changes would not negatively affect species already listed, they would stipulate that every species listed as threatened in the future would not have the same inherent protections as those species classified as endangered.\textsuperscript{29} While some argue that management will be better tailored for each species,\textsuperscript{30} it will be much more difficult for species to be listed, since they will now only be afforded protections on a case-by-case basis instead of automatically receiving all of the section 9 protections.\textsuperscript{31}

Furthermore, many additional resources will be required to provide for an individual rule for each listed species, making the process less efficient and most likely preventing future species from being listed.\textsuperscript{32} This would also require additional funding, which is difficult to obtain.

The “foreseeable future” designations used to determine whether a species should be classified as threatened would now also be determined on an individual basis.\textsuperscript{33} This means that the term “foreseeable future” will take on a much narrower interpretation of the language than previously used, adding a more specified framework that “foreseeable” must fall in, which might

\textsuperscript{26} Id.
\textsuperscript{27} About the Endangered Species Protection Program, supra note 11.
\textsuperscript{29} Id.
\textsuperscript{31} Phippen, supra note 1.
\textsuperscript{32} Laura Bies, TWS Submits Comments on Proposed ESA Changes, WILDLIFE SOC’Y. (Sept. 25, 2018), http://wildlife.org/tws-submits-comments-on-proposed-esa-changes/.
\textsuperscript{33} Jarman, supra note 28.
delay protection for species that need it. The current interpretations of threatened species are clearer, more efficient in practice, and better fulfill the purpose of the ESA by offering greater protections to endangered species as well as species that are likely to become endangered in the foreseeable future.

IV. OTHER SIGNIFICANT ROLLBACKS

In addition to revoking the blanket rule, the Trump administration is also proposing to change the meaning of “critical habitat” under section 4 as well. According to the ESA, critical habitat is defined as “specific areas within the geographical area occupied by the species . . . [and] outside the geographical area occupied by the species… upon a determination by the Secretary that such areas are essential for the conservation of the species.” The proposed changes alter two facets of that definition. First, the changes would require administration to initially evaluate only the areas that the species in question currently inhabits. Second, the potential critical habitats currently uninhabited by the species would have to be proven to provide “substantial benefits” to the conservation of the species to be included.

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34 Id. (Explaining that the framework for foreseeable might be subject to individual or political bias by stating that “[c]limate change projections showed significant impacts to the species’ habitats, but opponents claimed the projections were not reliable enough for ESA determinations. Since many species could be affected by environmental changes, the question of whether or not climate change is considered “the foreseeable future” could impact future listing decisions.”).
35 Listing a Species as a Threatened or Endangered Species, supra note 21, at 1.
36 Jarman, supra note 28.
39 Jarman, supra note 28.
it difficult to provide habitats for species that may have been forced out of their native habitats due to the various factors that the ESA is supposed to protect against.40

An additional rollback that creates yet another hurdle for species to be listed is a proposal that would allow states to determine whether species are threatened or endangered.41 While this initially may seem like an expansion on the range of species listings, the state and local governments will not have access to the federal scientific research reports available to the FWS and NMFS due to lack of funding.42 Further, the state data may also not be representative of the species information as a whole.43 While this may encourage cooperation between federal and state and local governments, it may also prevent the most accurate species information from being used in determination of the species listing and make it more difficult for species in need to be listed.44 According to section 4, “[t]he Secretary shall make determinations required by subsection (a)(1) solely on the basis of the best scientific and commercial data available to him.”45 Thus, only the information available to the Secretary can be used to make species determinations, even if it is not the most accurate information.

Although there are several other changes being proposed as well, such as removing the Gray Wolf from the list46 and placing attorney fee stipulations in place that will make it more difficult for individuals to sue on behalf of ESA,47 the next proposal discussed is potentially the most significant.

40 Id.
42 Phippen, supra note 1.
43 See id.
V. ECONOMIC IMPACTS ON DETERMINING CLASSIFICATION OF SPECIES

The current administration is proposing changes to the process of determining the classification of species as threatened or endangered. Currently under the ESA, the determination of species classification is as follows:

The Secretary shall make determinations required by subsection (a)(1) solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species and after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species . . .

The key here is that determination is based “solely” on scientific and commercial data. This is further specified in the Code of Federal Regulations, which specifies that the determination is based on the data collected “without reference to possible economic or other impacts of such determination.” While the current determination of listed species does not allow for the consideration of economic factors, the current administration plans to completely reverse that provision.

This amendment would not simply allow calculations of cost analysis to factor into the determination of species listings, but it would actually require the review of these costs in each species listing decision. It would also allow the FWS and NMFS to “decline to list the species as a result of those economic impacts.” Although both the FWS and NMFS say they will not use the cost benefit analysis in their determinations of species listings, the language change in the act itself will certainly make it more difficult to get species listed.

50 Fears, supra note 6.
52 Id.
53 Jarman, supra note 28.
The proposal states, “[s]pecies listings, however, impact our national economy and can restrict the ability of State and local entities to provide for the public health and safety.”54 The proposal also states that the listing of species can hinder the development of land, so the cost of this development should be factored into the consideration of the species listing.55 However, the purpose of the ESA is to protect animals from the destruction of habitat, not to compare this goal with the possible generated income of the developed land.56 If this were the case, then the species would almost always come second because the income created from developing land will nearly always be greater than the income created from saving a species.

Practically, it is impossible to place a monetary value on the worth of preventing extinction of a species. Thus, the cost of providing habitat and protection for a threatened or endangered species would always prove to cost more than the species’ determined monetary “worth.” That is not a practical statistical analysis, and the proposal does not provide any sort of feasible way of calculating this cost comparison.57

In addition, this proposal contradicts how the U.S. Supreme Court has ruled in favor of endangered and threatened species in the past when land development was taking place.58 In Babbitt v. Sweet Home Chapter of Communities for a Great Oregon,59 the plaintiffs sued the Secretary of the Interior in federal court, saying that the FWS had interpreted the word “harm” under the ESA too broadly and negatively impacted their business.60 The current interpretation prevented the business from building homes that would bring in substantial income to boost the

55 Id.
56 Listing a Species as a Threatened or Endangered Species, supra note 21, at 1.
60 See Babbitt, 515 U.S. at 692.
community’s economy because the development interfered with the habitats of the Northern Spotted Owl and Red-Cockaded Woodpecker, even though there was no evidence of directly resulting harm.61 The Supreme Court ruled in favor of the FWS, saying that harm to threatened and endangered species also encompasses destruction of those species’ habitat.62 They did not take the economic factors of the land development into account.63

In another U.S. Supreme Court case, *Tennessee Valley Authority v. Hill*,64 the Tellico Dam project was halted because the recently listed Snail Darter was found in the water that would be affected by the dam.65 The court ultimately concluded that construction could not continue because it would jeopardize the existence of the species.66 In that decision, the court ruled that the value of endangered species is “incalculable.”67

The newly proposed requirement of cost-benefit analysis clearly bypasses one of the ESA’s crucial goals.68 Congress passed the ESA, with the recognition “that our rich natural heritage is of ‘esthetic, ecological, educational, recreational, and scientific value to our Nation and its people.’”69 This goal in and of itself demonstrates the intrinsic importance of the land and wildlife that comprise and bring value to our nation.

61 Id. at 696-698.
62 Id. at 708.
63 Id.
65 *Tenn. Valley Auth.*, 437 U.S. at 162.
66 Id. at 173 (Stating that the no jeopardy language of the act “admits of no exception,” and “[t]o sustain that position, however, we would be forced to ignore the ordinary meaning of plain language. It has not been shown, for example, how TVA can close the gates of the Tellico Dam without “carrying out” an action that has been “authorized” and “funded” by a federal agency. Nor can we understand how such action will “insure” that the snail darter’s habitat is not disrupted.”).
67 Id. at 178.
VI. CONCLUSION

As stated by a former president of the FWS, Jamie Rappaport Clark, “Unfortunately, the sweeping changes being proposed by the Trump administration include provisions that would undercut the effectiveness of the ESA and put species at risk of extinction….The signal being sent by the Trump administration is clear: Protecting America’s wildlife and wild lands is simply not on their agenda.” With such extensive proposals set out to weaken the act that affords great protection for our ecosystem, the resulting consequences will be catastrophic. If our country continues to develop at the expense of the flora, fauna, and wildlife surrounding us, we are destroying biodiversity that has immeasurable intrinsic value.

According to the director of government affairs at the Center for Biological Diversity, Brett Hartl, “If these [proposed] regulations had been in place in the 1970s, the bald eagle and the gray whale would be extinct today.” There is no monetary value that can be placed on the worth of a species; the preservation of each species has been rendered priceless by courts in the past. By the time we truly realize the impact each species has on our ecosystem, it will be too late to preserve them.

Although the threat of these changes is ominous, they have not yet been enacted into law. With all of the opposing feedback from scientists, biologists, experts, and the general public, the Trump administration might be forced to scale back on these drastic changes in order to gain support, or might be required to heed the public comments of experts and abandon its proposed changes to the ESA completely.

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70 Fears, supra note 6.
71 Id.
72 Tenn. Valley Auth., 437 U.S. at 178.
73 Phippen, supra note 1.
74 Scientists Voice Opposition to Changes in US Endangered Species Act, supra note 5.
COOPERATIVE FEDERALISM: ITS INFLUENCE ON ENVIRONMENTAL REGULATION & POTENTIAL IMPACTS UNDER THE TRUMP ADMINISTRATION POST-PARIS CLIMATE AGREEMENT

Julia Prieto

How is cooperative federalism changing as states act on climate change in the Trump-era and post-Paris Climate Agreement? This paper explains how cooperative federalism has influenced environmental regulation and assesses recent potential changes to the model under the Trump Administration. First, this paper will introduce the traditional concept of cooperative federalism and its roots in the Clean Water Act. Second, it will give two examples of successful traditional cooperative federalism schemes in environmental law. Third, this paper will suggest that there is a shift in the cooperative federalism paradigm under the Trump Administration. Finally, the paper will discuss how states are maintaining the traditional cooperative federalism scheme in their reaction to President Trump’s decision to withdraw from the Paris Climate Agreement. Ultimately, it offers an understanding of how cooperative federalism became associated with environmental regulation and how its impact continues to shape federal and state legislation.

I. INTRODUCTION TO COOPERATIVE FEDERALISM

Cooperative federalism is the working relationship between the federal government and the states in which the Federal government sets a national standard or rule, and the states have the liberty to “implement those standards within their borders.”¹ The traditional form of

cooperative federalism allows the states to exceed the standards, so long as the state is following the minimum requirements established at the federal level.\(^2\)

Cooperative federalism in the realm of environmental regulation was firmly introduced under the Clean Water Act of 1977 (“CWA”).\(^3\) Under the CWA, the federal standards on pollution were intended to create a regulatory base, not a limit; and states were permitted to set stricter standards for restricting pollution than the federal government or neighboring states did.\(^4\) The intention was to allow states “to impose higher standards on their own sources [of pollution].”\(^5\) As the traditional cooperative federalism model expanded to other environmental statutes, it was seen that the federal government often later adopted standards that the states have pioneered on their own.\(^6\) As such, traditional cooperative federalism allows states to make choices regarding environmental regulation and provides regulatory frameworks for the federal government to follow.\(^7\)

The concept that “the ‘cooperative federalism’ structure of the Clean Water Act serve[s] as a regulatory floor, not a ceiling”\(^8\) provides a legal framework to assess how far the liberty of setting ‘ceiling’ actually extends to the states, or whether states have become limited by the ‘regulatory floor’.

\(^2\) See id.
\(^3\) 33 U.S.C. § 1251.
\(^5\) Id.
\(^7\) See id.
\(^8\) Bell v. Cheswick Generating Station, 734 F.3d 188, 197-98 (6th Cir. 2013).
II. HOW TRADITIONAL COOPERATIVE FEDERALISM WORKS

Two examples of how cooperative federalism was meant to work come from the Northeast. In 2005, Vermont faced a court battle to determine the efficacy of cooperative federalism and to define the scope of the role of federal and state governments in implementing regulations.\(^9\) Earlier that year, Vermont put forth an amendment that adopted California’s most recent auto emissions standards.\(^10\) These regulations were implemented to limit greenhouse gas emissions from vehicles “as part of a comprehensive strategy to reduce GHG emissions in the state, recognizing that these emissions contribute to global warming.”\(^11\) Automakers who did not agree with Vermont’s implementation of the policy sued, claiming that the Environmental Protection Agency (“EPA”) had not yet waived federal preemption for California.\(^12\) The United States District Court for the District of Vermont ruled in favor of Vermont because “unless [the] EPA finds that California’s determination is arbitrary and capricious, the state doesn’t need the standards to meet compelling and extraordinary conditions.”\(^13\)

This case is an illustration of how cooperative federalism was used to ensure states had power to enact environmental regulation. The Act specifically explains the role states and the federal government have in writing and enforcing environmental regulations:

The CWA carefully defines the role of both the source and affected States, and specifically provides for a process whereby their interests will be considered and balanced by the source State and the EPA. This delineation of authority represents Congress’ considered judgment as to the best method of serving the public interest and reconciling the often competing concerns of those affected by the pollution. It would be extraordinary for Congress,

\(^10\) Id. at 338.
\(^11\) Id. at 339.
\(^12\) Id. at 344.
\(^13\) Id.
after devising an elaborate permit system that sets clear standards, to
tolerate common-law suits that have the potential to undermine this
regulatory structure.  

The court in Vermont’s case recognized the ability of automakers to develop new technologies,
thereby creating more fuel-efficient cars, and acknowledged that the EPA had flexibility in
determining when waivers would be granted, giving automakers time to implement new
regulations.  

The court dictated that the Supreme Court’s acknowledgment of climate change
came with an affirmation of the EPA’s role in limiting greenhouse gas emissions. Not only
does the EPA have “the authority to monitor and regulate such emissions,” it is responsible for
“the public health and welfare, a responsibility it shares with each of the states.” Vermont,
through limiting greenhouse gas emissions from vehicles, acted in accordance with the Act’s
intentions.

Similarly, in 2013, a federal judge determined the EPA had worked carefully with the six
states in the Chesapeake Bay (“Bay”) watershed in the model of ‘cooperative federalism’
envisioned under the CWA. The EPA led this effort to stem pollution into the Bay, but it was
directly managed by states. Based on the Bay’s total maximum daily load (“TMDL”) pollution
goals were set and divided among sectors such as stormwater and agriculture. States could
determine which sectors needed to be regulated the most, thereby maintaining a balance of
control with the federal government.

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14 *Int'l Paper Co.*, 479 U.S. at 497.
16 *Id.*
17 *Id.*
18 Annie Snider, *In victory for EPA, judge upholds pollution reduction plan*, E&E NEWS (September 16, 2013),
19 *Id.*
20 *Id.*
III. A SHIFT IN THE COOPERATIVE FEDERALISM PARADIGM – COOPERATIVE FEDERALISM UNDER THE TRUMP ADMINISTRATION

The EPA’s current official stance on cooperative federalism is positive—it presents a belief in cooperation between states and the federal government to address environmental concerns. As recently as July 2018, acting EPA Administrator Andrew Wheeler maintained a belief in this premise. He “promised a federal-state partnership.”

However, just ten days after that announcement, Wheeler proposed to revoke California’s authority to regulate greenhouse gas emissions for vehicles. During the first half of 2018, the Trump Administration sought to rework the Obama-era car emission standards. The goal of the Obama Administration’s rules was to set the minimum efficiency requirements to 50 miles per gallon by 2025 and the Trump Administration’s preference was to keep the minimum fuel efficiency at 2020 standards through 2026. Additionally, the Trump administration sought to rescind California’s Clean Air Act waiver which let the state set tailpipe pollution rules that were

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21 Cooperative Federalism at EPA, ENVT. PROT. AGENCY, https://www.epa.gov/home/cooperative-federalism-epa (stating “EPA is embracing cooperative federalism and working collaboratively with states . . . to implement laws that protect human health and the environment, rather than dictating one-size-fits-all mandates from Washington.”).


23 Id.


stricter than the limits set by the federal government.27 After it was granted to California, twelve more states and D.C. implemented the stricter standards.28

Additionally, in terms of the CWA, in July 2018, Senator Barrasso introduced the “Water Quality Certification Improvement Act of 2018”29 (“WQ CIA”) that would effectively limit the state’s authority to set their own water quality standards and consequently limit their ability to approve permit applications.

This WQ CIA would change the Federal Water Pollution Control Act’s water quality certification process.30 The intention behind this amendment, as Senator Barrasso explained, was to limit the ability of states to regulate “discharges” into water sources.31 This means, as Senator Van Hollen pointed out, states could be prevented from “looking at things like water flow, sedimentation and turbidity, which can also impact water quality” and be required to grant certifications if pollution standards are met.32

Supporters of the bill argue rejections of projects like Washington’s Millennium Bulk Terminals, a 44-million-ton coal export project, would continue under the unamended language of Section 401 of the CWA.33 Senator Barrasso argues the proposed changes are necessary

27 Id.
28 Id.
30 Id.
33 Id. Section 401 of the Act concerns application requirements—under Section (a)(1), the Act required industry to receive a license or permit to operate within a state if the activity may “result in any discharge into navigable waters.” See Section 404 of the Clean Water Act, ENVTL PROT. AGENCY, https://www.epa.gov/cwa-404/clean-water-act-section-401-certification (last visited Jan. 7, 2019).
because states have overreached their authority (and made the permit application process political) by denying applications for interstate gas pipelines (NY) and coal exports (WA).  

Based on this proposed bill and rescission of California’s Clean Air Act waiver, there is now indeed a “ceiling” in the Act—or, rather, some members of the Senate believe one should exist. This concerns Congresspeople, like Senator Gillibrand, who worries states would be unable to enforce water quality standards if the certification process was altered. The changes put forth by WQcia would create a “one-size-fits all” approach – an approach the EPA purports to be against—by limiting the discharges states would be able to monitor. Similar arguments can be made for the rescission of California’s waiver as the administration seeks a national standard without any exceptions.

These recent actions show that cooperative federalism appears to be applauded, but is only used when convenient. This is significant because changing fundamental aspects of the CWA could undermine the overall role cooperative federalism has with regard to environmental regulation.

IV. COOPERATIVE FEDERALISM AND THE TRUMP ADMINISTRATION

The EPA under the Trump Administration, and some members of Congress, see a ceiling that is necessarily attached to cooperative federalism. It appears that in their minds, it can only go so far and then must be stopped. This is most clearly seen through the withdrawal from the

34 Snow, supra note 31.
35 Id.
36 Cooperative Federalism at EPA, supra note 21.
37 Snow, supra note 31.
Paris Climate Agreement\textsuperscript{38} which aimed to cut greenhouse gas emissions 26-28% by 2025.\textsuperscript{39}

Additionally, the EPA has been actively undermining any action to mitigate climate change:

On one hand, the agency is proposing to weaken federal clean car standards and pre-empt states from setting their own, tougher tailpipe pollution rules. On the other, the agency is proposing to replace President Obama’s signature climate rule and let states set their own guidelines for cutting carbon emissions from power plants.\textsuperscript{40}

Essentially, the EPA is embracing Senator Barrasso’s approach to cooperative federalism—marked with an asterisk meaning to be used when advantageous to industry.

As cooperative federalism is culled, the resulting consequences will not only affect states’ abilities to pass environmental regulations but will also result in the US continuing to contribute to increasing CO\textsubscript{2} emissions. The US’s CO\textsubscript{2} emissions in 2017 saw a slowdown in declining emissions, from an average of 1.3% between 2005 and 2016 to less than 1% in 2017.\textsuperscript{41} Most of this decline in emissions came from the power sector, “but emissions from . . . transport, buildings and industrial sectors all grew, offsetting half the decline in the power sector.”\textsuperscript{42} The goal of the Paris Agreement was to cut emissions by 26-28% by 2025, and if the current rate of emissions continues, the US will only reduce emissions by 17%.\textsuperscript{43}

The withdrawal of waivers and the rollback of regulations to address CO\textsubscript{2} emissions signals a weakening of the cooperative federalism model. As Bob Holycross, global director of sustainability and vehicle environmental matters for Ford Motor Co said, “‘[a] patchwork of

\begin{footnotesize}
\textsuperscript{38} Wittenberg, \textit{supra} note 32.
\textsuperscript{40} See Joselow, \textit{supra} note 26.
\textsuperscript{42} Id.
\textsuperscript{43} Storrow, \textit{supra} note 39.
\end{footnotesize}
regulations doesn’t work, and we need regulatory certainty, not protracted litigation.”**44

Cooperative federalism was designed to balance the interests of states as individual entities and the federal government’s responsibility to its citizens; without a clear regulatory framework, climate change will not be addressed with any urgency.

Though the Trump Administration withdrew from the Paris Climate Agreement and threatened to limit states’ power in regulating CO2 emissions, states such as California, Colorado, and even North Carolina have pledged to meet the standards set forth in the Paris Agreement. In addition, these states are doing so in a way that involves them in the global community. The U.S. Climate Alliance (“Alliance”) is a group of 16 states and Puerto Rico seeking to meet the United States’ previous proposed greenhouse gas emissions cuts under the Paris accord.**45 According to the Alliance, its key principles are: “continuing to lead on climate change…state-level climate action [that benefits] our economies and strengthen[s] our communities[and]…showing the nation and the world that ambitious climate action is achievable.”**46 Essentially, the states who have committed to the Alliance are ensuring that cooperative federalism remains a key part of environmental regulation and that it continues to be an influence as more action is taken to address climate change.

Additionally, members of the Alliance commit to three goals: (1) to implement policies that reduce greenhouse gas emissions 26-28 percent below 2005 levels, (2) monitor progress and collaborate with the global community, and (3) propose and implement policies to combat climate change at the state and federal level.**47 These commitments will likely lead to more

**44 Joselow, supra note 24.
**45 Storrow, supra note 39.
**47 Id.
regulatory battles with the federal government and there is likely to be an influx of litigation related to these issues as the tension between federal and state power continues to rise.

In a lawsuit brought earlier this year, eighteen “states contend that the EPA acted ‘arbitrarily and capriciously’ in changing course on the greenhouse gas regulations” after the EPA announced they would reassess auto emission rules set forth by the Obama Administration. 48 This is just one example of the types of litigation that could be brought in the next two to six years. Additionally, there might be an influx of litigation challenging a state’s ability to regulate emissions and pollutants that arises out of corporate and individual entities within the state, particularly where the support for federal environmental regulation is weaker.

The Trump Administration made a choice when it pulled out of the Paris Climate Agreement—it chose to ignore the increasing consensus that unchecked climate change will fundamentally alter this planet.49 State leaders have also made choices, however. On October 29, 2018, Governor Roy Cooper of North Carolina signed an executive order pledging to reduce emissions 40% by 2025.50 North Carolina has felt the effects of climate change directly,51 and hopefully its actions now will mitigate more damaging effects in the future.

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50 Office of Governor Roy Cooper, Executive Order No. 80 North Carolina’s Commitment to Address Climate Change and Transition to a Clean Energy Economy (Oct. 29, 2018), https://files.nc.gov/governor/documents/files/EO80%20NC%27s%20Commitment%20to%20Address%20Climate%20Change%20%26%20Transition%20to%20Clean%20Energy%20Economy.pdf
51 Id. at 1.