CLIMATE CHANGE™
LAW & POLICY REPORTER

FEATURE ARTICLE

SQUARE PEGS AND A ROUND HOLE: WHY THE ENDANGERED SPECIES ACT IS ILL-SUITED TO ADDRESS EMISSIONS OF GHGS AND THE EFFECTS OF GLOBAL CLIMATE CHANGE

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Through a series of administrative petitions and lawsuits, non-governmental organizations (NGOs) have sought to use the Endangered Species Act (ESA) to regulate greenhouse gas (GHG) emissions. The ESA uses broad terms, as was the norm for many early environmental statutes, to create a national program protecting threatened and endangered species. But the ESA was never intended to address global climate change, and is ill-suited for that purpose. While the primary targets of the NGOs' advocacy efforts to date are private developments, the obligations of the ESA fall predominantly on the federal government. Imposing ESA obligations in an attempt to address GHG emissions and the impacts of global climate change could result in unworkable obligations for federal agencies, leading to costly and unreasonable delays for projects undertaken directly by the federal government, as well as those requiring federal authorization, funding, or participation. If the United States is to address global climate change, it is better accomplished through a program designed for that purpose.

This article: (1) discusses briefly the relevant statutory and regulatory background, (2) reviews various NGOs' efforts to use the ESA to address global climate change, and the Bush and Obama administrations' responses, and (3) explains the legal hurdles the NGOs face, and why the ESA is ill-suited to address issues relating to global climate change.

Legal Framework

The ESA was enacted in 1973 to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." This objective is addressed primarily through three mechanisms: (1) listing species as "threatened" or "endangered" under § 4; (2) prohibiting the "take" of listed species under § 9; and (3) requiring federal agencies to consult with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) (collectively: the Services) to ensure their actions will not jeopardize the continued existence of listed species or result in destruction or adverse modification of designated critical habitat, pursuant to § 7.

Listing and Critical Habitat Designation

Section 4 of the ESA requires the Services to determine whether any species is "endangered" or "threatened." "Endangered species" means "any species which is in danger of extinction throughout all or a significant portion of its range." "Threatened species" means "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Listing determinations should be based solely on the "best scientific and commercial data available." Upon listing, the Services are required to designate critical habitat for the species, after taking into consideration economic, national security, and other relevant factors, although historically this has rarely occurred. *See*, "Critical Habitat Designations: Questions and Answers" (May 2003), *available at* http://www.fws.gov/endangered/pdfs/Criticalhabitat/CH_qanda.pdf.

The projected threats from global climate change are not expected to occur until many decades into the future, and even then only assuming no significant intervening actions to address those potential threats.

The Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4), a synthesis of the available science related to climate change, is premised on various projected emissions scenarios in the future. *See generally,* Intergovernmental Panel on Climate Change Fourth Assessment Report, *available at* http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf. The IPCC acknowledges that these threats may not materialize over the next century if greenhouse gas emissions are addressed domestically or internationally.

Some groups have argued that species should be listed under the ESA solely, or predominantly, as a result of threats from global climate change. But it seems difficult to argue that these threats, which are not alleged to occur for many decades in the future, constitute a current threat making the species "in danger of extinction," as is required for an endangered listing. Likewise, there is a significant question as to whether these threats occur within the "foreseeable future," as that term has been interpreted under the ESA, as is required for a threatened listing. The Solicitor of the Department of the Interior (DOI) recently concluded that:

> …the foreseeable future describes the extent to which the Secretary can, in making determinations about the future conservation status of the species, reasonably rely on predictions about the future.

Memorandum from the Solicitor, DOI, to Acting Director, FWS, "The Meaning of 'Foreseeable Future'" in § 3(20) of the ESA (Opinion M-37021), at 14 (Jan. 16, 2009).

Take Prohibition

Section 9 prohibits the "take"" of any listed endangered species. "Take" includes harassing, harming, pursuing, shooting, wounding, killing, capturing, or collecting listed species or attempting to engage in such conduct. The Services have generally extended the statutory take prohibition to threatened species, in the absence of a special rule under § 4(d), which allows the Services to tailor the level of protection. Pursuant to this section, for threatened species the Services can prohibit certain actions, while exempting others from the take prohibition.

Consultation Requirement

Under § 7, each federal action agency must, in consultation with the Services, "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification" of designated critical habitat. The Services' implementing regulations provide for both formal and informal consultation. In general, if the action agency determines that its action may affect a listed species or critical habitat, it must consult with the Services. Informal consultation is sufficient if the action is not likely to adversely affect any listed species or critical habitat, and the Services concur with that determination in writing.

If a federal action may adversely affect a listed species, then formal consultation is required. During formal consultation, the action agency must provide the Services with the best scientific and commercial data available regarding the action's effects on listed species and critical habitat. The Services must evaluate the current status of the listed species or critical habitat, assess the effects of the proposed action, and formulate a biological opinion as to whether the action is "likely to jeopardize" the continued existence of the species or result in the destruction or adverse modification of critical habitat.

If the Services issue a "no jeopardy" opinion, they must include reasonable and prudent measures that the action agency can adopt to minimize impacts, and may also include an incidental take authorization. "Incidental take" is a take that results from, but is not the purpose of, carrying out an otherwise lawful activity. An incidental take authorization must contain clear terms and conditions designed to reduce the impact of the anticipated take to the species.

If the Services issue a "jeopardy" opinion, they must discuss with the action agency the availability of reasonable and prudent alternatives that the agency and any applicant can take to avoid violating § 7. If no alternatives exist that would avoid jeopardy or destruction or adverse modification of critical habitat, then the action may not go forward unless exempted by the Endangered Species Act Committee.

The ESA and Global Climate Change

NGOs' pursuit of global climate change regulation under the ESA essentially began during the

Bush administration in 2004, when the Center for Biological Diversity ("CBD") successfully petitioned the NMFS to list elkhorn and staghorn corals based on threats from global climate change, among other issues. Since then, CBD and others have filed petitions to list scores of other species based on similar arguments. The Bush administration's response to this initiative centered around two regulatory actions that sought to limit the use of the ESA for these purposes: (1) the polar bear listing and 4(d) rules, and (2) a rule amending the § 7 consultation regulations. The Obama administration appears to be wrestling with the issue of what role the ESA should play in this debate. It rescinded the Bush administration's final § 7 rule, but is defending the polar bear listing and 4(d) rules in court. Further, it has taken arguably inconsistent approaches in other listing decisions where global climate change is alleged to be a threat.

Polar Bear Listing and 4(d) Rules

On May 15, 2008, DOI issued a final rule listing the polar bear as "threatened," based in part on the premise that GHG emissions have caused and will continue to cause a decline in the polar bear's sea ice habitat. *See*, 1 *Climate Change L. & Pol'y Rptr.* 83 (July 2008); 1 *Climate Change L. & Pol'y Rptr.* 99 (Aug./Sept. 2008). DOI, however, declined to apply the general take prohibition to the polar bear, and issued a rule under § 4(d) that provides incidental take of polar bears resulting from activities outside the current range, such as emissions of GHGs, would not be prohibited. Further, the Director of the FWS clarified in an accompanying guidance memorandum that:

> …the Service does not anticipate that the mere fact that a Federal agency authorizes a project that is likely to emit GHG will require the initiation of § 7 consultation.

Section 7 Consultation Rule

On December 11, 2008, the Services issued a final rule largely codifying existing practices governing federal agencies' consultation obligations under § 7 of the ESA. But the rule also clarified the triggers for consultation and the scope of effects considered for actions resulting in GHG emissions. The final rule also allowed, in certain situations, federal action agencies to determine when an action that "may affect" a listed species or critical habitat is "not likely to adversely affect" such species or habitat, without consulting with the Services.

Under the final rule, federal agencies did not need to consult on an action if the direct and indirect effects are not anticipated to result in a take and:

> (1) Such action has no effect on a listed species or critical habitat; or
> (2) The effects of such action are manifested through global processes and: ... (i) Cannot be reliably predicted or measured at the scale of a listed species' current range, or (ii) Would result at most in an extremely small, insignificant impact on a listed species or critical habitat, or (iii) Are such that the potential risk of harm to a listed species or critical habitat is remote; or
> (3) The effects of such action on a listed species or critical habitat: ...(i) Are not capable of being measured or detected in a manner that permits meaningful evaluation; or (ii) Are wholly beneficial.

The rule also clarified the scope of effects to be considered during consultation. The definition of "effects of the action" was amended to define "indirect effects" as "those for which the proposed action is an essential cause, and that are later in time, but still are reasonably certain to occur." If an effect will occur whether or not the action takes place, "the action is not an essential cause of the indirect effect." This formulation of "essential cause" incorporated the need not only for "but for" causation, but also "proximate" causation, as required under general tort law principles. The rule further provided that such effects must be "reasonably certain to occur based on "clear and substantial information." These changes were intended to make clear consultation was not triggered simply because an action results in emissions of GHGs.

The Obama Administration's Apparent Struggle with the Role of the ESA in the Climate Change Debate

Secretary of the Interior Ken Salazar and other senior DOI officials have stated publicly that the ESA is not an appropriate mechanism to address climate change. Nonetheless, pursuant to a special grant of authority from Congress, the new administration

withdrew the Bush administration's final § 7 rule that would have expressly relieved federal agencies of the obligation to consult on GHG emissions, and sought comment on whether changes to the consultation regulations were needed.

Four days after withdrawing the § 7 rule, Secretary Salazar announced that DOI would not use the same Congressional grant of authority to withdraw the polar bear § 4(d) rule, and the new administration has continued to defend that rule in litigation. In his accompanying statement, Secretary Salazar commented that:

> …the [ESA] is not the proper mechanism for controlling our nation's carbon emissions. Instead, we need a comprehensive energy and climate strategy that curbs climate change and its impacts—including the loss of sea ice.

With respect to listing decisions, the FWS recently declined to list the ashy storm petrel in response to a petition alleging threats from global climate change. The Services are, however, currently considering numerous other listing petitions for species allegedly threatened by climate change. In some of these decisions, the Services have found that currently available climate change models are not yet capable of making meaningful predictions of climate change for specific, local areas, a position consistent with the § 7 rule that the new administration withdrew. In other decisions, however, where the petitions cite to scientific literature predicting changed conditions in specific areas negatively affecting a species, the Services have found that listing may be warranted.

Challenges with Using the ESA to Address Climate Change

Using the ESA to Address Global Climate Change Faces Significant Legal Hurdles

"Take" under Section 9 and the obligation to consult under § 7 require a close causal connection between the gency action and the purported effects.

To constitute a "take" or trigger consultation under the ESA, an action must be both the "but for" and "proximate" cause of an effect on a listed species. In *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687 (1995), the Supreme Court acknowledged that the ESA may be read to "incorporate ordinary requirements of proximate causation and foreseeability." The Court also characterized as "strong" the argument that "activities that cause minimal or unforeseeable harm will not violate the [a]ct." In her concurring opinion, Justice O'Connor stated that:

> …[i]n the absence of congressional abrogation of traditional principles of causation, then, private parties should be held liable . . . only if their habitat-modifying actions proximately cause death or injury to protected animals.

The requirement for both "but for" and "proximate" cause is consistent with existing ESA guidance. The Services' Joint Consultation Handbook specifically requires "but for" causation. A 2003 ESA guidance document sets forth the "proximate" or "essential" cause requirement, stating that: "[w]hen [an action] is *essential* in causing an effect to the species, the effect should be viewed as an indirect effect subject to consultation if it is reasonably certain to occur." This approach is also consistent with Supreme Court cases interpreting causation requirements under the National Environmental Policy Act (NEPA). *See, DOT v. Public Citizen*, 541 U.S. 752, 767 (2004) (holding that "a 'but for' causal relationship is insufficient to make an agency responsible for a particular effect under NEPA and the relevant regulations. … NEPA requires 'a reasonably close causal relationship' between the environmental effect and the alleged cause" analogous to "the 'familiar doctrine of proximate cause from tort law.'").

To trigger consultation under existing regulations and guidance, the effects of an action must also be "reasonably certain to occur" based on "clear and convincing information." ESA regulations define "effects of the action" to include "indirect effects," which "are later in time, but still are reasonably certain to occur." As the Services explained in 1986, "'reasonably certain to occur' does not mean that there is a guarantee'" that some further governmental or private action will occur, but "there must exist more than a mere possibility" that further governmental or private action will occur. Other guidance provides that:

> …'[r]easonably certain to occur' requires the existence of clear and convincing information establishing that an effect that will be caused by the proposed action is reasonably certain to occur.

Parties seeking to use the ESA to address effects of global climate change also face significant legal hurdles establishing the requisite causal connection. The Solicitor of the DOI issued a formal opinion that this causal link could not be established:

> [T]he requisite causal connections cannot be made between the emissions of GHGs from a proposed agency action and specific localized climate change as it impacts listed species or critical habitat. Given the nature of the complex and independent processes active in the atmosphere and the ocean acting on GHGs, the causal link simply cannot currently be made between emissions from a proposed action and specific effects on a listed species or its critical habitat.

Memorandum from the Solicitor, DOI, to the Secretary, DOI, "Guidance on the Applicability of the ESA's Consultation Requirements to Proposed Actions Involving the Emission of GHGs" (Opinion M-37017), at 6 (Oct. 3, 2008).

Accordingly, the Solicitor concluded that:

> …where the effects at issue result from climate change potentially induced by GHGs, a proposed action that will involve the emission of GHG cannot pass the 'may affect' test, and is not subject to consultation under the ESA and its implementing regulations.

Likewise, the Environmental Protection Agency (EPA), which has expertise in modeling air emissions and their impacts, reached the same conclusion:

> The climate change research community has not yet developed tools specifically intended for evaluating or quantifying end-point impacts attributable to the emissions of GHGs from a single source, and we are not aware of any scientific literature to draw from regarding the climate effects of individual, facility-level GHG emissions.

Letter from Robert J. Meyers, Principal Deputy Assistant Administrator, Office of Air and Radiation, Endangered Species Act and GHG Emitting Activities (Oct. 3, 2008).

For example, EPA modeled global climate change impacts from a model source emitting 20 percent more GHGs than a 1500-megawatt coal-fired power plant, and concluded that "[t]he maximum global mean temperature increase resulting from the emissions occurs approximately 50 years after the facility begins emitting and ranges approximately between 0.00022 to 0.00035 degrees Celsius (°C) (0.00037 to 0.00063°F)," and determined that temperature changes of this magnitude "would be too small to physically measure or detect." *Id.*, at 6, 8.

Applying the ESA to GHG Emissions Would Waste Scarce Resources without a Concomitant Benefit to the Environment

Requiring § 7 consultation solely because of GHG emissions would convert the ESA consultation process into a mechanism for uncoordinated, piece-meal control over virtually any GHG-emitting activity. Because ESA obligations fall disproportionately on the federal government, such a requirement would create an unworkable burden for the Services. Some NGOs have suggested that § 7 consultation could be triggered under existing regulations for a broad range of GHG-emitting activities, affecting potentially thousands of federal activities. For example, comments on the proposed § 7 rule argued that consultation was needed, as a result of GHG emissions, for federal funding of highway projects, leasing fossil fuel resources, permitting electric generation, and promulgation of automobile emission standards.

Under these same arguments, however, an almost limitless span of federal actions would likewise trigger § 7 consultation, including for example:

- Federally issued permits for concentrated animal feeding operations;
- Department of Agriculture grants, loans, and loan guarantees under the Farm Bill;
- Department of Energy (DOE) grants for ethanol, renewable, and alternative energy plants and infrastructure projects;
- Section 404 permits for construction activity in wetlands or navigable waters;
- Federal Aviation Administration funding for

airports;
- Procurement contracts, including Department of Defense (DOD) aircraft, vehicle, and armament purchases;
- Government Services Administration (GSA) leases and vehicle procurements; and
- Virtually every project authorized or funded by the American Recovery and Reinvestment Act of 2009.

If consultation were required for all such activities, the Services would become immediately overwhelmed and unable to focus their limited resources on consultations for projects with truly significant effects on listed species. Moreover, from a public policy standpoint, should the ESA require the Services to dictate, or impose conditions on, which aircraft DOD procures, which energy infrastructure projects qualify for DOE grants, or which properties GSA leases? Because § 7 consultation in these contexts would have little effect on reducing threats to listed species, the added burdens would not produce any concrete benefits.

The same logic could be repeated in support of a requirement to consult for every action funded, authorized, or carried out by a federal agency that results in a discharge of nutrients to virtually any water body in the United States, such as grants or loans for agricultural activities. Every river system in the country ultimately flows into the Atlantic or Pacific Oceans, or Gulf of Mexico and Caribbean Sea, where, for example, the endangered black abalone and threatened staghorn and elkhorn corals exist. Under this tortured logic, virtually any water discharge would then be subject to ESA consultation, even where the discharge occurs thousands of miles away from the species' range.

Conclusion: If the U.S. Addresses Emissions of GHGs It Should Do So in a Framework Specifically Designed for that Purpose

Like other environmental statutes enacted in the early 1970s, such as the Nationa Environmental Policy Act and the Clean Water Act, the ESA was drafted using broadly worded provisions to accomplish sweeping environmental goals. When the ESA was enacted in 1973, few published scientific articles discussed the global climate change phenomenon. In fact, a 1974 article published in *Time* magazine predicted a global cooling phenomenon.

The ESA was never intended by its drafters as a mechanism to address issues relating to global climate change. Notwithstanding, certain NGOs have latched onto the ESA's broad terminology and attempted to use the ESA for this purpose, to date almost exclusively to target private activities requiring federal authorization or funding. If these attempts become successful, the ramifications of interpreting and applying the ESA in such a manner would be overwhelming for the federal government. Very few federal government actions, which are subject to the ESA to the same extent as private actions, do not result in changes to GHG emissions.

If the United States decides to address climate change from a regulatory standpoint, it should be pursuant to a program that considers fully the complex and interconnected policy, scientific, and economic challenges of doing so, and not through an unwarranted conversion of the ESA into a mechanism for control over virtually any activity that may result in or affect GHG emissions.

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