

## Climate Change: Potential Impact Of Polar Bear Listing

*Wednesday, Jun 11, 2008* --- As more species are listed under the ESA, and as critical habitat is designated due to alleged impacts of global climate change, it is anticipated that environmental groups will file more ESA litigation.

On May 15, 2008, the United States Fish and Wildlife Service (FWS or Service) listed the polar bear as threatened under the Endangered Species Act (ESA).[1] The polar bear is the third species (after two species of coral) and the first mammal listed under the ESA due, in part, to the impacts of global climate change.[2]

Historically, the listing of a species under the ESA only impacts activities and projects in the area in which the species is located — potentially affecting local development or increasing local conservation requirements.

Some environmental advocates, however, assert that for listed species impacted by global climate change, this traditional construct is no longer appropriate. Environmental groups and project opponents are demanding ESA consultation for agency decisions that may result in greenhouse gas (GHG) emissions that potentially could affect species at risk due to climate change factors, regardless of the location of the emissions.

Guidance issued by the FWS rejects such consultation requirements, but this guidance also undoubtedly will face challenges by environmental groups.

This guest column provides an update regarding the relationship between the ESA and climate change, and surveys the species that have been listed due to global climate change impacts, ESA-based demands for increased species protection and additional listings, and the potential ramifications of these listings for future development projects.

### *Endangered Species Act*

The ESA was enacted in 1973 to protect plant and animal species from extinction through protection and habitat conservation. Protection under the ESA begins with a federal agency decision to list a species as endangered or threatened.

An endangered species is a species "in danger of extinction throughout all or a significant portion of its range," while a threatened species is a species "likely to become an endangered species within the foreseeable future." [3]

ESA Section 4 regulates species listing and provides two federal agencies,

the FWS and NOAA Fisheries (previously known as the National Marine Fisheries Service (NMFS)), with jurisdiction to evaluate whether a species should be listed due to threats to the species or its habitat based on five factors set out in the ESA.[4]

When listing a species, the responsible wildlife Service also must designate any critical habitat essential to the conservation of the species unless it finds that a designation is not then determinable or prudent.[5]

ESA Section 7 requires federal agencies to use their authority to further the conservation of the listed species and to ensure that any action authorized, funded or carried out by the agency is not likely to jeopardize the continued existence of any endangered or threatened species or to result in the destruction or adverse modification of designated critical habitat.[6]

To accomplish this, the ESA requires an agency planning an action to consult with one of the wildlife Services (depending upon the species involved) whenever an action may affect an ESA-listed species.

If adverse impacts to listed species will occur, the consulting wildlife agency then prepares a biological opinion in which it evaluates the effects of the proposed action on both the species and designated critical habitat based on the "best scientific and commercial data available." [7]

Section 9 prohibits any person from taking an endangered species, and includes in the definition of "take" any action that harasses or harms a species.[8]

The Services, however, may issue "incidental take" authorization pursuant to Sections 7 (for federal actions) or 10 (for private actions with no federal nexus), if they find, among other things, that the taking will be incidental to otherwise lawful activities.

Generally, the agency must find that the action (and any related "taking") will not appreciably reduce the likelihood of the survival of the species (e.g., it must be non-jeopardizing), and the applicant is required to minimize and mitigate the impacts.[9]

### *Predicted Impacts Of Global Climate Change On Ecosystems And Species*

The Intergovernmental Panel on Climate Change (IPCC)—which shared the 2007 Nobel Peace Prize with former US Vice President Al Gore for its work on global climate change—issued four reports in 2007 on global climate change as part of its Fourth Assessment Report on Climate Change.

One report, titled "Physical Science Basis," concluded that the Earth is unequivocally warming, as evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising mean sea level.[10]

Another IPCC report, titled "Climate Change Impacts, Adaptation, and Vulnerability," concluded that during this century, pressures due to climate change and associated disturbances such as drought, flooding, ocean acidification, fire, and invasions of non-native species and disease will likely overcome the natural resilience of many ecosystems.[11]

As a result, the IPCC predicts an estimated 20-30% of plant and animal species will be subject to an increased chance of extinction. On May 15, 2008, the journal *Nature* published an article supporting and supplementing the IPCC's findings, concluding that "anthropogenic climate change is having a significant impact on physical and biological systems globally and in some continents." [12]

Two courts have discussed the "tipping point" theory, advocated by some scientists, which posits that at a certain point, abrupt, non-linear changes in climate and ecosystems will result in drastic consequences, including rapid species extinctions and significant changes in the composition and function of ecosystems.[13]

These and similar predictions have led to numerous petitions to list species under the ESA and associated ESA litigation.

### *Three Species Deemed Threatened Due In Part To Global Climate Change, But Critical Habitat Not Yet Designated*

To date, three species have been listed under the ESA due, in part, to threats of global climate change—two coral species[14] and the polar bear, all of which have been listed as "threatened."

Environmental groups are pressing to list a wide variety of other species across a broad geographic range, such as the yellow-billed loon, 12 species of penguins, the ribbon seal, the Bonneville cutthroat trout, the Pacific North loggerhead sea turtle, American pika, Ashy storm petrel and the Pacific walrus.[15]

To date, however, the wildlife Services have not acted regarding these species and in some instances, environmental groups have filed or threatened litigation seeking to force the Services to act.[16] Thus, additional listings may occur in the not-so-distant future.

Indeed, plaintiffs initially petitioned the FWS to list the polar bear as threatened in February 2005, claiming melting Arctic ice due to global climate change was impairing the bears' habitat.

Plaintiffs sued the FWS twice to enforce different statutory deadlines regarding the listing, before a federal district court ordered the federal government to publish the final polar bear listing determination on or before May 15, 2008.[17]

On May 15, 2008, the FWS subsequently published the final listing of the

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polar bear as threatened under the ESA.[18]

Specifically, the final rule finds that "changes in sea ice habitat negatively impact polar bears by increasing the energetic demands of movement in seeking prey, causing seasonal redistribution of substantial portions of populations into marginal ice or terrestrial habitats with limited values for feeding, and increasing the susceptibility of bears to other stressors, some of which follow." [19]

These impacts will interact with expected reductions in productivity for most seal species, decreasing food availability for polar bears.

The FWS did not designate critical habitat.

The rule states that polar sea ice provides an essential conservation function for the key "life history functions, including hunting, feeding, travel, and nurturing cubs," but finds too much uncertainty as to which specific ice and land areas in Alaska "might be essential to the conservation of the polar bear." [20]

As a result, the Service concluded that critical habitat was not determinable at that time. [21]

This finding gives the FWS an additional year to publish a final regulation designating such habitat, to the extent possible. [22]

### *Potential Ramifications On Projects Or Actions That Emit GHG*

To date, the wildlife Services only have listed species impacted, in part, by global climate change as threatened, not endangered. This can be an important distinction because once a species is listed as endangered, any "take"—which includes any action that harasses or harms the endangered species—automatically is prohibited without incidental take authorization. [23]

On the other hand, these prohibitions do not automatically apply to threatened species. Instead, the Services must promulgate regulations under Section 4(d) of the ESA, detailing actions that are "necessary and advisable to provide for the conservation of the species." [24]

Historically, the Services have adopted blanket rules for threatened species, applying the same take prohibitions as those applied to endangered species; however, tailored rules are becoming more common and the Services are using them for species impacted by global climate change. [25]

No Section 4(d) rule, including the polar bear 4(d) rule, has cited reduction of GHG emissions as necessary or advisable to conserve the species. [26]

Just a day after the polar bear was listed, environmental plaintiffs groups filed suit claiming that the 4(d) rule for the polar bear impermissibly and "effectively waive[d] many of the protections the polar bear would have

received through its listing under the Endangered Species Act"[27] because the 4(d) rule "purports to exempt all greenhouse gas emitting projects from the authority of Section 7."

The FWS' decision not to identify critical habitat in the face of declining sea ice also will likely provide fertile ground for potential legal challenges.

Similarly, environmental plaintiffs groups are expected to argue that listing species impacted by global climate change (and any similar future critical habitat designation) triggers ESA consultation requirements at a minimum on agency actions that emit or otherwise permit GHG emissions.[28]

The Section 7 consultation regulations require the agency to describe (1) the "action to be considered," (2) the "specific area that may be affected by the action," and (3) "the manner in which the action may affect any listed species or critical habitat and an analysis of any cumulative impacts." [29]

If an action results in GHG emissions, then under certain environmentalists' interpretation, the "specific area" the action may impact would be the entire globe and any species or species' critical habitat that could be impacted by global climate change resulting from those emissions.

To date, although some suits, which are discussed further later in this guest column, have challenged agencies for failing to consider the impacts an agency action and global climate change may have on listed species, no suit has directly challenged GHG emissions as violative of the ESA, likely because any potential impacts from GHG emissions are too remote and attenuated.

FWS Director Dale Hall endorsed this argument prior to the polar bear listing, stating: "If we can't make a direct line from the emission to a take through a scientific trail, we won't be able to say it occurred ... It would be extremely hard to tie a direct take from emissions to a take of the species." [30]

Additionally, the U.S. Department of the Interior has sought to limit the impact of the polar bear listing (and any other listing due, in part, to global climate change).

When announcing the polar bear listing, Secretary of the Interior Dirk Kempthorne stated that the listing "should not open the door to use the ESA to regulate [GHG] emissions from automobiles, power plants, and other sources," and that such action would be a "wholly inappropriate" use of the statute.[31]

As noted in the polar bear 4(d) rule, [f]or those effects beyond the footprint of the action, [Service] regulations at 50 CFR 402.02 require that they both be "caused by the action under consultation" and "reasonably certain to occur."

That is, effects are only appropriately considered in a section 7 analysis if there is a causal connection between the proposed action and a discernible

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effect to the species or critical habitat that is reasonably certain to occur.

One must be able to "connect the dots" between the proposed action, an effect, and an impact to the species and there must be a reasonable certainty that the effect will occur.[32]

Consistent with this legal interpretation, both the FWS and the U.S. Geological Survey issued guidance seeking to put sideboards on the potential effects of the polar bear listing, with the FWS stating that "[t]he best scientific data available today do not allow us to draw a causal connection between GHG emissions from a given facility and effects posed to listed species or their habitats, nor are there sufficient data to establish that such impacts are reasonably certain to occur.

"Without sufficient data to establish the required causal connection—to the level of reasonable certainty—between a new facility's GHG emissions and impacts to listed species or critical habitat, section 7 consultation would not be required to address impacts of a facilities GHG emissions."[33]

The FWS also rejected the notion that "literally every agency action that contributes greenhouse gases to the atmosphere would ... result in consultation with respect to every listed species or critical habitat that may be affected by climate change" because there is "currently no way to determine how the emissions from a specific project under consultation both influence climate change and then subsequently affect specific listed species or critical habitat."[34]

The FWS concluded that it "does not anticipate that the listing of the polar bear as a threatened species will result in the initiation of new section 7 consultations on proposed permits or licenses for facilities that would emit GHGs in the conterminous 48 states."[35]

The FWS also concluded that "the future effects of any emissions that may result from the consumption of petroleum products refined from crude oil pumped from a particular North Slope drilling site would not constitute 'indirect effects' and, therefore, would not be considered during the section 7 consultation process."[36]

As noted previously, one day after the polar bear listing, the Center for Biological Diversity sued the FWS.

Plaintiffs groups also likely will file additional early litigation that may attempt to control GHG emissions with the ESA.

This litigation likely will focus on large-scale GHG emitters and arctic oil and gas leasing that plaintiffs will claim cause GHG emissions, rather than more attenuated local actions.

Plaintiffs also undoubtedly will continue to bring suits challenging biological opinions for failing to consider potential impacts regarding other listed

species on global climate change or synergistic impacts of a project and global climate change on listed species, as these suits have enjoyed some success to date.[37]

Specifically, two of these suits, related to protection of listed fish species in California's Sacramento-San Joaquin Delta, have had enormous ramifications on development, business, and agriculture in California, creating large uncertainty regarding water supplies to approximately two-thirds of all Californians, at least in the short term, because the court issued an injunction conditioning the operation of water pumps in the Delta in an effort to protect the fish species until the FWS and NMFS issue new biological opinions.[38]

Suits of this nature are anticipated to have greater potential effect on local projects, either directly or in an ancillary manner.

### *Conclusion*

The ESA has not traditionally been used to regulate air quality or global activities. As more species are listed, however, and as critical habitat is designated due to alleged impacts of global climate change, it is anticipated that environmental groups will file more ESA litigation.

These suits likely will attempt to regulate GHG emissions through the ESA, as well as demand that consultations and biological opinions on agency actions consider the impact not only of the project, but of any interaction between impacts of the project and anticipated impacts of global climate change on the listed species.

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[1] 16 U.S.C. § 1531 et seq.

[2] Global climate change refers to changes in average climatic conditions globally, including temperature, wind patterns, precipitation patterns, ocean salinity, sea levels, and storms due to increases in level of greenhouse gases in the atmosphere.

[3] 16 U.S.C. § 1532(6), (20).

[4] 16 U.S.C. § 1533(a)(1). Generally speaking, the FWS has jurisdiction over terrestrial and avian wildlife, along with freshwater species, while NOAA Fisheries has jurisdiction over most marine species.

[5] See 16 U.S.C. § 1533(a)(3)(A)(i), (b)(6)(C)(ii); see also 50 C.F.R. § 424.12(a). Unlike ESA-listing decisions, critical habitat designations take the

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economic impacts into consideration in addition to best science. 16 U.S.C. § 1533(b).

[6] 16 U.S.C. § 1536(a).

[7] *Id.* See also 50 C.F.R. § 402 (consultation regulations). Section 7 consultation regulations direct the wildlife Service's review of the effects of the proposed action on the direct and indirect effects and any activities that are interrelated or interdependent with the proposed action. "Indirect" effects are caused by the proposed action, later in time, and are "reasonably certain to occur." 50 C.F.R. § 402.02.

The direct, indirect, and cumulative effects are then analyzed along with the status of the species and the environmental baseline to determine whether the action jeopardizes the continued existence of the species or results in the destruction or adverse modification of critical habitat.

[8] 16 U.S.C. § 1538(a)(1)(B); 16 U.S.C. § 1532(19); 50 C.F.R. § 17.3 (FWS definitions of harm, harass); 50 C.F.R. § 222.102 (NMFS definitions).

[9] 16 U.S.C. §§ 1536(b)(4) (federal actions), 1539(a)(1)(B), (a)(2)(B) (other actions with no federal nexus). See also 50 C.F.R. § 402.02 (definitions).

[10] Intergovernmental Panel on Climate Change, Fourth Assessment Report, Climate Change 2007: The Physical Science Basis, Summary for Policy Makers 5 (2007), available at [www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf).

[11] Intergovernmental Panel on Climate Change, Fourth Assessment Report, Climate Change 2007: Impacts, Adaptation and Vulnerability, Summary for Policy Makers 8-10 (2007), available at [www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf).

[12] Cynthia Rosenzweig et al., Attributing Physical and Biological Impacts To Anthropogenic Climate Change, 453 NATURE 353, 353-57 (2008).

[13] See *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 508 F.3d 508, 554 (9th Cir. 2007); *Green Mt. Chrysler Plymouth Dodge Jeep v. Crombie*, 508 F. Supp. 2d 295, 313-15 (D. Vt. 2007).

[14] Final Listing Determinations for Elkhorn Coral and Staghorn Coral, 71 Fed. Reg. 26,852 (May 9, 2006). These coral species were the first to receive protection under the ESA in part due to the effects of global climate change, including increases in global air and sea temperatures which cause a phenomena called coral bleaching, as well as increases in atmospheric carbon dioxide levels that dissolve into the sea, acidifying the ocean waters and decreasing the ability of corals to calcify. See 71 Fed. Reg. at 26,852, 26,858-59.



[15] See generally Center for Biological Diversity Web site, available at [www.biologicaldiversity.org](http://www.biologicaldiversity.org).

[16] See, e.g., *Ctr. for Biological Diversity v. Kempthorne*, No. C 07-6406 (N.D. Cal., filed Dec. 19, 2007); Press Release, Center for Biological Diversity, Bush Administration Delays Protection of Penguins Threatened by Global Warming; Conservation Group Will Sue (Dec. 3, 2007), available at [www.biologicaldiversity.org/swcbd/PRESS/penguins-12-03-2007.html](http://www.biologicaldiversity.org/swcbd/PRESS/penguins-12-03-2007.html).

[17] *Ctr. For Biological Diversity v. Kempthorne*, No. 08-CV-01339 (N.D. Cal., filed Mar. 10, 2008), April 28, 2008 Order; see also *Ctr. for Biological Diversity v. Norton*, No. C-05-5191 (N.D. Cal., filed Dec. 15, 2005).

[18] Determination of Threatened Status for the Polar Bear (*Ursus maritimus*) Throughout Its Range, 73 Fed. Reg. 28,212 (May 15, 2008).

[19] 73 Fed. Reg. 28,212, 28,275. The court waived the 30-day notice period; so the rule took effect immediately upon publication in the Federal Register. *Ctr. For Biological Diversity v. Kempthorne*, No. 08-CV-01339 (N.D. Cal., filed Mar. 10, 2008), April 28, 2008 Order.

[20] 73 Fed. Reg. 28,251, 28,298. Similarly, when listing the coral species, the NMFS did not designate critical habitat due to the "extremely complex biological and physical requirements" of the two species. See 71 Fed. Reg. at 26,860.

On Feb. 6, 2008, the NMFS proposed designating almost 5,000 square miles of reef off the coasts of Florida, Puerto Rico, and the US Virgin Islands as critical habitat.

The proposed rule defines the critical habitat as the substrate only and classifies water temperature as a stressor that can harm corals, rather than a habitat feature that can provide a conservation function. 73 Fed. Reg. 6895, 6900 (Feb. 6, 2008). The public comment period closed May 6, 2008.

[21] 73 Fed. Reg. 28,251, 28,298.

[22] See 16 U.S.C. § 1533(b)(6)(C)(ii).

[23] 16 U.S.C. § 1538 (listing prohibited acts with respect to any endangered species).

[24] 16 U.S.C. § 1533(d).

[25] See 50 C.F.R. § 17.31; Madeline Jun Kass, Threatened Extinction of Plain Vanilla 4(d) Rules, 16 NAT. RESOURCES & ENV'T 78, 78 (Fall 2001).

[26] See e.g., Special Rule for the Polar Bear, 73 Fed. Reg. 28,306 (May 15, 2008).

[27] Press Release, Center for Biological Diversity, Environmental Groups Seek Full Protection for Polar Bear Court Challenge Filed to Overturn Bush Administration "Special Rule" That Undercuts Protection for Polar Bear (May 20, 2000; Ctr. for Biological Diversity v. Kempthorne, No. 08-CV-01339 (N.D. Cal., filed Mar. 10, 2008), May 16, 2008 First Amended Complaint. The State of Alaska also has threatened to sue the US Dept. of Interior to overturn the listing.

[28] For example, the Center for Biological Diversity has stated that "listing of these corals would require [GHG] emitting industries to consider the well-being and recovery of these corals before they are given permits to pollute." Center for Biological Diversity, Caribbean Coral, available at [www.biologicaldiversity.org/swcbd/SPECIES/coral/index.html](http://www.biologicaldiversity.org/swcbd/SPECIES/coral/index.html); see also Mark Clayton, New Tool to Fight Global Warming: Endangered Species Act?, CHRISTIAN SCIENCE MONITOR, Sept. 7, 2007, § 3, at 3 available at [www.csmonitor.com/2007.0907/p03s03-usgn.html](http://www.csmonitor.com/2007.0907/p03s03-usgn.html) (designation of critical habitat for the climate-threatened corals "actually moves the entire Endangered Species Act onto a firm legal foundation for challenging global warming pollution."); GREENWIRE, FWS Curbs Scientists' Discussions Of Polar Bears, Melting Ice (Mar. 8, 2007) ("Environmentalists say the listing should force the government to more strictly regulate industrial carbon emissions.").

[29] 50 C.F.R. § 402.14.

[30] GREENWIRE, FWS Chief Urges Swift US Action On Warming (Jan. 17, 2008).

[31] Secretary Dirk Kempthorne, Remarks at Press Conference on Polar Bear Listing (May 14, 2008), available at [www.fws.gov/home/feature/2008/polarbear012308/polarbears promo.html](http://www.fws.gov/home/feature/2008/polarbear012308/polarbears promo.html).

[32] 73 Fed. Reg. 28,312. The FWS specifically relied on *Arizona Cattlegrowers Assc'n v. US Fish and Wildlife Service*, 273 F.3d 1229 (9th Cir. 2001), which held that the FWS had to demonstrate a causal link between the action under consultation (the issuance of cattle grazing permits with cattle actually grazing in certain areas) and the effect (take of listed fish in streams), which had to be reasonable certain to occur. The Ninth Circuit noted that "speculation" with regard to take "is not a sufficient rational connection to survive judicial review." *Arizona Cattlegrowers*, 273 F.3d at 1247.

[33] Memorandum from Dale Hall, Director, FWS, to Regional Directors, Regions 1-8, Expectations for Consultations on Actions that Would Emit Greenhouse Gases, (May 14, 2008), available at [www.doi.gov/issues/polar\\_bears/GHG%20Final.pdf](http://www.doi.gov/issues/polar_bears/GHG%20Final.pdf); see also Memorandum from Mark D. Myers, Director, US Geological Service to Director, Fish and Wildlife, The Challenges of Linking Carbon Emissions, Atmospheric Greenhouse Gas Concentrations, Global Warming, and Consequential Impacts, available at

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[www.doi.gov/issues/polar\\_bears/challengesoflinkingcarbonemissions3.pdf](http://www.doi.gov/issues/polar_bears/challengesoflinkingcarbonemissions3.pdf) ("[C]urrent science and models cannot link individual actions that contribute to atmospheric carbon levels to specific responses of species, including polar bears.") Secretary Dirk Kempthorne, Remarks at Press Conference on Polar Bear Listing (May 14, 2008), available at [www.fws.gov/home/feature/2008/polarbear012308/polarbears promo.html](http://www.fws.gov/home/feature/2008/polarbear012308/polarbears promo.html).

[34] 73 Fed. Reg. 28,313.

[35] 73 Fed. Reg. 28,300.

[36] *Id.* ("[T]here is no traceable nexus between the ultimate consumption of the petroleum product and any particular effect to a polar bear or its habitat.").

[37] *Natural Res. Def. Council v. Kempthorne*, 506 F. Supp. 2d. 322 (E.D. Cal. 2007); *Native Village of Point Hope v. Kempthorne*, No. 1:08-cv-00004 (D. Alaska, filed Jan. 31, 2008); *Pacific Coast Federation of Fishermen's Assc'ns v. Gutierrez*, No. 06-CV-00245, Order (E.D. Cal., April 16, 2008).

[38] See Paul N. Singarella and Janice M. Schneider, Latham & Watkins Client Alert, *Delta Water Supplies to Two-Thirds of All Californians May Be Restricted By Endangered Species Act Injunction* (Jan. 8, 2008), available at [www.lw.com](http://www.lw.com). See also *Native Village of Point Hope v. Kempthorne*, No. 1:08-cv-00004 (D. Alaska filed Jan. 31, 2008) (ESA challenge to Minerals Management Service's decision to offer approximately 30 million acres of public lands on the outer continental shelf of the Chukchi Sea for oil and gas leasing on climate change grounds).