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ALASKA OIL & GAS ASSOCIATION V. PRITZKER: THE COURT FORESEES A WARM FUTURE AND UPHOLDS BEARDED SEALS' ESA LISTING

I. INTRODUCTION

Climate change is any significant, long-lasting change in the climate.¹ Global warming, which is the rise in average surface temperatures due to greenhouse gas concentrations in the atmosphere, is merely one aspect of climate change.² Recent reports by the Intergovernmental Panel on Climate Change (IPCC), the National Aeronautics and Space Administration (NASA), and the National Oceanic and Atmospheric Administration (NOAA) all reveal the primary cause of global warming to be anthropogenic, and the scientific community largely agrees.³ Recent studies indicate most Americans believe in climate change and support scaling back on releasing carbon emissions.⁴ The impact of climate change is not

4. See Nadja Popovich, John Schwartz & Tatiana Schlossberg, *How Americans Think About Climate Change, in Six Maps,* N.Y. TIMES (Mar. 21, 2017), https://www.nytimes.com/interactive/2017/03/21/climate/how-americans-think-about-climate-change-in-six-maps.html?rref=Collection%2Fsectioncollection%2Fclimate & action=click&contentCollection=climate®ion=rank&module=package&ver sion=highlights&contentPlacement=9&pgtype=sectionfront (discussing results of Yale study on Climate Change). Nationally, sixty-nine percent of adults support restrictions on carbon emissions from coal power plants and seventy-five percent support general restrictions on carbon emissions. *See id.* (demonstrating public support for carbon regulation).

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^{1.} See ENVTL. PROT. AGENCY, EPA 430-R-16-004, Climate Change Indicators in the United States 3 (4th ed. 2016), https://19january2017snapshot.epa.gov/sites/pro duction/files/2016-08/documents/climate_indicators_2016.pdf [hereinafter Climate Change Indicators] (defining climate change).

^{2.} Id. (defining global warming).

^{3.} See Coral Davenport, E.P.A. Chief Doubts Consensus View of Climate Change, N.Y. TIMES (Mar. 9, 2017), https://www.nytimes.com/2017/03/09/us/politics/ epa-scott-pruitt-global-warming.html?action=click&contentCollection=Politics& module=RelatedCoverage®ion=EndOfArticle&pgtype=Article (discussing recent report on global warming). The IPCC's 2013 report concluded it was "extremely likely that more than half [of] the global warming" between 1951 and 2010 came from human emissions, such as carbon dioxide; similarly, a January 2017 report by NASA and the NOAA stated "[t]he planet's average surface temperature has risen about 2.0 degrees Fahrenheit . . . driven largely by increased carbon dioxide and other human-made emissions into the atmosphere." *Id.* (stating conclusions of scientific reports). According to Dr. Benjamin D. Santer, a climate researcher with the Energy Department, decades-long research by the scientific community proves that natural factors simply cannot be the cause of the current state of global warming. *Id.* (discussing consensus among scientists).

limited to the environment, however, and is quite extensive.⁵ An assessment published in April 2016 concluded that "[e]very American is vulnerable to the health impacts associated with climate change."⁶ Further, Arctic marine mammals, such as the bearded seal, are particularly susceptible to the effects of global warming.⁷ The Environmental Protection Agency (EPA) has classified Arctic sea ice as a climate change indicator and according to a 2016 report, Arctic sea ice is rapidly diminishing.⁸ In *Alaska Oil & Gas Association v. Pritzker*,⁹ these impacts led the Center for Biological Diversity (CBD) to petition the National Marine Fisheries Services (NMFS) for Endangered Species Act (ESA) protections for the Alaskan seal.¹⁰

Despite these reports, climate change skeptics remain.¹¹ Former President Obama's administration led global efforts to reverse

7. See CTR. FOR BIOLOGICAL DIVERSITY, Petition to List the Ringed, Bearded and Spotted Seals as Threatened or Endangered Species 1 (May 28, 2008), http://www.bio logicaldiversity.org/species/mammals/bearded_ringed_and_spotted_seals/pdfs/ CBD_ringed_bearded_spotted_petition.pdf [hereinafter Petition to List] (summarizing global warming impacts); see also Climate Change Indicators, supra note 1, at 40 (providing facts about Arctic sea ice). Global warming has caused rapid melting of Arctic sea ice, making all "ice-associated pinnipeds" in Alaskan waters vulnerable. Petition to List, supra (noting unique impact to Alaskan pinnipeds).

8. See Climate Change Indicators, supra note 1, at 40 (discussing Arctic sea ice indicator). The EPA compiled this list of thirty-seven indicators from data of government agencies, academic institutions, and other institutions to help the public understand observations related to climate change and its consequences. *Id.* at 4 (providing background on report and climate indicators). The Arctic sea ice "indicator tracks the extent, age, and melt season of sea ice in the Arctic Ocean." *Id.* at 40 (stating purpose of Arctic sea ice indicator). According to the 2016 report, sea ice extent reached an all-time low in September 2012 at forty-four percent below the 1981-2010 average; September 2015, March 2015, and March 2016 also saw record lows. *Id.* (summarizing tracking results). Additional impacts of climate change include ocean conditions and acidification; shipping, oil, and gas activities, along with their associated risks; and increased exposure to existing threats. *See Petition to List, supra* note 7, at 2 (listing climate change threats to bearded seal).

9. 840 F.3d 671 (9th Cir. 2016), cert. denied, No. 17-133, 2018 WL 491542, at *1 (U.S. Jan. 22, 2018).

10. See Petition to List, supra note 7, at ii-iii (summarizing petition to list Alas-kan seals).

11. See Alaska Oil & Gas Ass'n v. Pritzker (*Pritzker II*), 840 F.3d 671, 679 (9th Cir. 2016) (challenging agencies' use of climate change models); see also Elizabeth A. Lake & Rafe Petersen, *Projecting the Future: Ninth Circuit Upholds ESA Listing for Bearded Seals*, 47 ENVTL. L. REP. NEWS & ANALYSIS (ENVTL. LAW INST.) 10,217,

^{5.} See Climate Change Indicators, supra note 1, at 5 (explaining importance of climate change).

^{6.} *Id.* (linking climate change with human health). "Climate change can exacerbate existing health threats or create new public health challenges through a variety of pathways." *Id.* at 54 (discussing impacts on human health). Notably, health impacts depend on several other factors, such as pre-existing health conditions, poverty, and changes in ecosystems. *See id.* (acknowledging impact of nonclimate change variables on study of health risks).

the effects of climate change, but President Trump's administration has changed course.¹² In June 2017, President Trump announced the United States was withdrawing from The Paris Climate Agreement and affirmed this plan in September.¹³ This reversal, along with the administration's focus on de-regulation, leaves uncertainty regarding the future of environmental laws, including the ESA.¹⁴

This Note explores the Court of Appeals for the Ninth Circuit's decision in *Pritzker*.¹⁵ Part II discusses the facts of *Pritzker* and its procedural history.¹⁶ The legal background of the issues in *Pritzker*, including judicial standards of review and the ESA, are addressed in Part III.¹⁷ Part IV discusses the Ninth Circuit's analysis in *Pritzker*

13. See Emre Peker, White House Says It Reiterated its Stance on Paris Climate Deal, WALL STREET J. (Sept. 18, 2017, 8:12 PM), https://www.wsj.com/articles/whitehouse-says-it-reiterated-its-stance-on-paris-climate-deal-1505755040 (clarifying stance on Paris Agreement); see also Shear, supra note 12 (discussing President's decision to withdraw from Paris Climate Agreement). The Paris Climate Agreement, which was signed by 195 nations, "intended to bind the world community into battling rising temperatures in concert." Shear, supra note 12 (stating goal of Paris Climate Agreement). Under the Agreement, the United States pledged to reduce greenhouse gas emissions by 2025 "and commit[ted] up to \$3 billion in aid for poorer countries by 2020." See id. (summarizing United States' commitment under Agreement). The withdrawal of "Earth's second-largest polluter is a major blow." Id. (discussing impact of United States' withdrawal).

14. See Jeffrey H. Wood, Acting Assistant Attorney Gen., Dep't of Justice, Acting Assistant Attorney General Jeffrey H. Wood Delivers Remarks at the Texas Environmental Superconference (Aug. 4, 2017), *in* JUSTICE NEWS, https://www.justice .gov/opa/speech/acting-assistant-attorney-general-jeffrey-h-wood-delivers-remarkstexas-environmental (explaining new approach to regulations); *see also* Lake & Petersen, *supra* note 11, at 10,219 (summarizing potential administrative and legislative challenges). For a discussion on other potential changes, see *infra* notes 184-188 and accompanying text.

15. For a discussion of the Ninth Circuit's holding, see *infra* notes 41-44 and accompanying text.

16. For Pritzker fact summary, see infra notes 21-44 and accompanying text.

17. For a further discussion on the standards of review, see *infra* notes 48-72 and accompanying text. For a discussion on the statutory requirements of the ESA, see *infra* notes 73-81 and accompanying text. For a discussion on the application of the ESA, see *infra* notes 82-123 and accompanying text.

^{10,219, 47} ENVLRNA 10217 (Mar. 2017), (noting president's "distrust" of science); Davenport, *supra* note 3 (discussing EPA chief's contradictory view of climate change science).

^{12.} See THE WHITE HOUSE, The Record: President Obama on Climate and Energy 1, https://obamawhitehouse.archives.gov/sites/obamawhitehouse.archives.gov/files/achievements/theRecord_climate_0.pdf (last visited Sept. 16, 2017) (summarizing commitment to climate change); Michael D. Shear, Trump Will Withdraw U.S. from Paris Climate Agreement, N.Y. TIMES (June 1, 2017), https://www.nytimes.com/2017/06/01/climate/trump-paris-climate-agreement.html (discussing President's decision to withdraw from Paris Climate Agreement). President Trump explained the withdrawal was due to the Agreement's imposition of "wildly unfair environmental standards on American businesses and workers." Shear, supra (stating President's reason for withdrawal).

step-by-step.¹⁸ Part V analyzes the Ninth Circuit's reasoning in *Pritzker*.¹⁹ Finally, Part VI concludes with a discussion of *Pritzker*'s potential impacts.²⁰

II. BREAKING THE ICE: THE FACTS OF PRITZKER

On May 28, 2008, CBD petitioned the Secretary of Commerce to list three Alaskan seal species—including the Beringia Distinct Population Segment (DPS)—as endangered or threatened under the ESA.²¹ CBD sought protection for three seal species because, as inhabitants of Alaskan waters, they are especially vulnerable to the impacts of global warming.²² Finding the petition satisfied regulatory requirements, NMFS proceeded with conducting status reviews.²³

On December 10, 2010, NMFS published a proposed rule to list two bearded seal distinct population segments (DPSs) as threatened pursuant to the ESA.²⁴ "Threatened species" are those

18. For a summary of the Ninth Circuit's analysis, see *infra* notes 124-150 and accompanying text.

19. For an analysis of the Ninth Circuit's reasoning, see *infra* notes 151-178 and accompanying text.

20. For a further discussion on *Pritzker's* future impacts, see *infra* notes 179-193 and accompanying text.

21. See Petition to List, supra note 7, at ii (stating applicable law and petition's purpose). CBD sought protection for ringed seals, bearded seals, and spotted seals. *Id.* (introducing petition).

22. See id. at 1 (providing summary of petition). Global warming causes sea ice to melt rapidly, which "threatens all Arctic marine mammals with extinction." *Id.* (explaining threat of global warming). With respect to these particular species, global warming eliminates their sea ice habitat, reduces likelihood of successful reproduction and pup survival, and impairs molting. *See id.* at 2 (explaining impact of global warming on ringed, bearded, and spotted seals).

23. See Endangered and Threatened Species; Proposed Threatened and Not Warranted Status for Subspecies and Distinct Population Segments of the Bearded Seal, 75 Fed. Reg. 77,496, 77,496 (proposed Dec. 10, 2010) (to be codified at 50 C.F.R. pt. 223) [hereinafter Proposed Rule] (citing Petitions, 50 C.F.R. § 424.14(b)(2) (2016) (providing supplementary information for proposed rule)). NMFS concluded CBD's petition presented "substantial information" on the petitioned action. See id. (providing background of proposal). A Biological Review Team (BRT) consisting of biologists and scientists conducted the status review using the "best scientific and commercial data available," as required by the ESA. Id. (discussing status review). The BRT's report was then independently peer reviewed by a group of scientists experienced "in bearded seal biology, Arctic sea ice, climate change, and ocean acidification." Id. at 77,496-97 (noting thoroughness of studies).

24. See id. at 77,496 (summarizing published action). There are two subspecies of the bearded seal: "Erignathus barbatus nauticus and Erignathus barbatus barbatus." Id. (naming identified subspecies). NMFS "conclude[d] that E. b. nauticus consists of two distinct population segments (DPSs), the Beringia DPS and the Okhotsk DPS." Id. (explaining conclusion). The proposed rule sought comments and information on listing the species. Id. (soliciting additional informa-

"species which [are] likely to become endangered within the foreseeable future."²⁵ In reaching its conclusion, NMFS adopted a new "threat-specific" approach to determine the foreseeable future for a species, under which impacts are assessed through the end of the century.²⁶ NMFS acknowledged that predictions through the end of the century, particularly from 2050-2100, depended largely on assumptions about future emissions and presented greater inherent uncertainties than the estimates for the earlier part of the century.²⁷ To account for these uncertainties, NMFS independently evaluated the performance of six models and only used those which simulated conditions similar to the observed conditions.²⁸ The Biological Review Team's (BRT's) status review revealed that sea ice, while used by bearded seals year-round, is particularly important

27. See id. at 77,503 (discussing limitations of new approach). While predictions through 2050 are based on emissions that have already occurred or will occur in the near future, predictions through the year 2100 largely depend on assumed emissions. See id. at 77,503 (discussing model projections). Any uncertainties for the timeframe through 2050 are the result of different methods of incorporating physical processes, and can be addressed by incorporating the ranges of different models. See id. (addressing limits of early century models).

tion). Because the district court denied plaintiffs relief for the Okhotsk DPS, this Note focuses on the Beringia DPS. *See* Alaska Oil & Gas Ass'n v. Pritzker (*Pritzker I*), No. 4:13-cv-18-RRB, 2014 WL 3726121, at *4 (D. Alaska July 25, 2014) (denying standing).

^{25.} See Proposed Rule, 75 Fed. Reg. at 77,497 (explaining ESA statutory provisions).

^{26.} See id. (addressing new "foreseeability" approach). In NMFS's 2008 status review for the ribbon seal, threats to the seal were only analyzed through the year 2050, but under the new approach, the foreseeability determination is "case specific and depends upon both the foreseeability of threats to the species," as well as "the species' response to those threats." *Id.* (stating revised approach). NMFS still relied on the "best scientific and commercial data available," assessing impacts based on the IPCC's Fourth Assessment Report. *Id.* (discussing basis for findings). For certain threats, including disease and parasitic outbreaks, the best scientific data available did not cover through 2100, so the analysis was limited to the timeframe covered by the available data. *Id.* (noting approach for threats with limited data).

^{28.} See id. at 77,503-04 (summarizing model selection). Although the six models were previously deemed satisfactory under medium and high emissions scenarios, the BRT conducted an independent evaluation "because habitat changes are not uniform throughout the hemisphere." Id. at 77,504 (discussing independent evaluations). NMFS used the models that met its performance criteria to project sea ice impacts through 2100. See id. (explaining model selection). Of the five different regions evaluated for the Beringia DPS, six of the models reasonably agreed with observations for the Chukchi and east Siberian Seas regions; four reasonably agreed with observations for the Beaufort and eastern Bering Seas regions; and one model was in reasonable agreement with observations for the western Bering Sea region. See id. (summarizing results of independent evaluation).

during reproductive and molting seasons.²⁹ Admitting that the bearded seal population was difficult to assess due to the "remoteness and dynamic nature of their [habitat], time spent below the surface and their broad distribution and seasonal movements," NMFS concluded the population was approximately 155,000.³⁰ Then, based on these findings, NMFS discussed the factors impacting the bearded seal's future viability.³¹ After considering the identified threats and impacts, and the inherent uncertainties of the climate models, NMFS ultimately determined the Beringia DPS was "likely to become endangered within the foreseeable future" and proposed listing the species as threatened.³²

On December 28, 2012, NMFS published its final rule listing the Beringia DPS as threatened under the ESA.³³ NMFS again ad-

30. *See* Proposed Rule, 75 Fed. Reg. at 77,501-02 (discussing bearded seal population). NMFS estimated the current population of the Beringia DPS to be approximately 155,000 based on data analysis of various aerial surveys. *See id.* at 77,502 (stating current population estimate).

31. See id. at 77,502 (applying law to findings). Having focused its risk assessment on the impacts to the bearded seal's habitat, NMFS concluded the seal's primary threat was factor (A) of section (4)(a)(1). See id. (concluding viability threated by factor (A)). The agency's primary concern was "the likelihood that [the bearded seal's] sea ice habitat ha[d] been modified by the warming climate," coupled with "the scientific consensus projections [] for continued and perhaps accelerated warming in the foreseeable future." *Id.* (providing specific basis for conclusion). These concerns led NMFS to conclude its assessment must focus on "observed and projected changes in sea ice, ocean temperature, ocean pH (acid-ity), and associated changes in bearded seal prey species" to be reliable. *Id.* (explaining basis for assessment). NMFS determined that, in order to adapt to sea ice loss, the Beringia DPS "would likely have to shift their nursing, rearing, and molting" activities to northern areas where food access was poor and there were "increased risks of disturbance, predation, and competition." *Id.* at 77,506 (summarizing impacts of threat).

32. *Id.* at 77,511-12 (proposing Beringia DPS listing). NMFS found it highly likely that sea ice reductions in the Beringia DPS's range would occur; that there was a moderate to high threat that reductions in seasonal sea ice could not only impact molting and pup maturation, but also result in the separation of resting areas from feeding habitat; and that there were moderate to high risks to the continued existence of Beringia DPS within the foreseeable future. *See id.* at 77,511 (stating conclusions). Notably, there was agreement among all independent peer reviewers regarding the necessity of sea ice during crucial life stages for the Beringia DPS's continued existence. *See Pritzker II*, 840 F.3d 671, 677 (9th Cir. 2016) (noting agreement among peer reviewers).

33. *See* Endangered and Threatened Species; Threatened Status for the Beringia & Okhotsk Distinct Population Segments of the *Erignathus barbatus nauticus* Subspecies of the Bearded Seal, 77 Fed. Reg. 76,740, 76,740 (Dec. 28, 2012) (to be codified at 50 C.F.R. pt. 223) [hereinafter Final Rule] (listing Beringia DPS as

^{29.} See id. at 77,497-99 (summarizing key findings). During reproduction, sea ice protects bearded seal pups from predators, and during molting, it is used as a platform for "accelerat[ing] shedding and regrowth of hair and epidermis." *Id.* at 77,497-98 (detailing seasonal uses). The seals' habitat is further restricted to sea ice over shallow waters due to the habitats of their primary food sources. *See id.* at 77,497, 77,499 (discussing food habits).

dressed the new foreseeability approach and explained that the uncertainties were accounted for in its assessment.³⁴ Additionally, NMFS conducted a special independent peer review prior to publishing the final rule to address disagreement among peer reviewers and the ambiguities associated with climate change projections.³⁵ After considering all identified threats, potential risks and impacts, conservation efforts, and all uncertainties, NMFS again concluded that the Beringia DPS was likely to become endangered and listed it as threatened.³⁶

Following the final rule's publishing, various plaintiffs filed lawsuits challenging the listing.³⁷ The plaintiffs raised several claims, including: (1) "the listing decision was not based on the 'best scientific and commercial data available'" as required by the ESA; (2) the bearded seal population was "plentiful;" (3) "a lack of reliable population data made it impossible to determine an extinction threshold;" (4) the predictive models used were too specula-

34. See id. at 76,741 (addressing limitations of new approach). NMFS reaffirmed its belief that this approach allows for a "more robust analysis" and explained it was consistent with the Department of the Interior's guidance. See id. (noting confidence in new approach).

35. See id. at 76,750 (explaining steps taken to inform listing determination). NMFS hired three scientists to conduct the special peer review based on their "marine mammal expertise and specific knowledge of bearded seals." *Id.* at 76,750-51 (discussing special peer review). NMFS included in the final rule a summary of comments received during the notice period, as well as its responses to these comments. *See id.* at 76,751-67 (addressing public and peer comments). In a response to one of these comments, NMFS explained a 2010 study indicated that "sea ice loss has been reported" at faster rates than the predictive models expected. *See id.* at 76,753 (acknowledging increased rate of sea ice loss). One commenter even raised concerns that impacts were underestimated because studies showing climate change's effects had been substantially greater than projected. *See id.* at 76,759 (responding to public comments).

36. See id. at 76,748 (summarizing listing determinations). NMFS found it was highly likely that sea ice reductions in the Beringia DPS's range would occur within the foreseeable future; there was a moderate to high threat that reductions in seasonal sea ice would result in separation of resting areas from feeding habitat; there was a moderate to high threat of reductions in sea ice for molting, and a moderate threat of reductions in sea ice for pup maturation; and that there were moderate to high risks to the continued existence of Beringia DPS within the foreseeable future. See id. (stating conclusions). In sum, access to sea ice in shallow waters was crucial to the survival of the Beringia DPS, and without it, they would have to make significant adjustments. See id. at 76,744 (summarizing impact of threats).

37. See Pritzker II, 840 F.3d 671, 674-75 (9th Cir. 2016) (providing procedural background). The plaintiffs relevant to this case are Alaska Oil and Gas Association (AOGA), the State of Alaska, and North Slope Borough. See id. (listing plaintiffs).

threatened). Although the proposed rule's deadline for public comments and information was February 8, 2011, NMFS extended the deadline at the public's request. *See id.* at 76,750 (explaining public comment period). During the public comment period, NMFS received over five thousand written comment submissions and heard testimony from forty-one people. *See id.* (noting public response).

tive; (5) NMFS changed its approach to listing determinations involving Arctic sea ice; and (6) NMFS failed to establish the nexus between sea ice extent and the Beringia DPS's survival.³⁸ The United States District Court for the District of Alaska concluded the listing decision was "arbitrary and capricious" because NMFS relied on volatile "long-term climate projections" and had insufficient data on the bearded seal's population trends.³⁹ On July 25, 2014, the district court granted summary judgment in favor of the plain-tiffs and vacated NMFS's listing decision.⁴⁰

NMFS and CBD appealed, and the United States Court of Appeals for the Ninth Circuit heard arguments on August 4, 2016.⁴¹ The issue decided by the Ninth Circuit was "[w]hen NMFS determines that a species that is not presently endangered will lose its habitat due to climate change by the end of the century, may NMFS list that species as threatened under the Endangered Species Act?"⁴² The Ninth Circuit upheld the Beringia DPS listing "[i]n light of the robustness of NMFS's rulemaking process, as well as [the] highly deferential standard of review."⁴³ The court reversed the district court's judgment on October 24, 2016.⁴⁴

III. UNDERSTANDING THE HABITAT: LEGAL BACKGROUND OF *PRITZKER*

Although the plaintiffs in *Pritzker* challenged NMFS's compliance with the ESA statutory framework, the climate change controversy was central to their complaint.⁴⁵ Integral to the court's holding were the judicial standards of review under the Administrative Procedure Act (APA) and established case law.⁴⁶ The Ninth

^{38.} *See id.* at 675 (stating plaintiffs' claims). The State of Alaska also challenged NMFS's response to its public comments and claimed NMFS "failed to comply with the ESA's state cooperation provisions." *Id.* (stating procedural claim). The procedural claim is not addressed in this Note.

^{39.} See id. (citing Pritzker I, 2014 WL 3726121, at *3-4) (explaining lower court's holding). The district court also granted Alaska summary judgment on the claim NMFS did not comply with the state cooperation provisions. See id. (granting summary judgment on procedural claim).

^{40.} *See Pritzker I*, 2014 WL 3726121, at *16 (ordering final rule be vacated). The district court remanded the listing to NMFS to "correct the aforementioned substantive and procedural deficiencies." *Id.* (remanding for corrections).

^{41.} See Pritzker II, 840 F.3d at 675 (stating basis for Ninth Circuit proceeding).

^{42.} Id. at 674 (stating issue presented).

^{43.} Id. at 685 (summarizing findings).

^{44.} See id. at 686 (reversing district court).

^{45.} See id. at 679 (explaining plaintiffs' true intentions). For a further discussion on climate change, see *supra* notes 1-14 and accompanying text.

^{46.} See Pritzker II, 840 F.3d at 685 (upholding final listing rule).

Circuit also placed heavy emphasis on NMFS's compliance with the "letter and spirit of the ESA" framework.⁴⁷

A. Standards of Review

Judicial standards of review for agency actions, including ESA listing decisions, are governed by the APA.⁴⁸ The APA instructs reviewing courts to set aside agency actions that are found to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."⁴⁹ The Supreme Court provided guidance on this standard in the landmark case *Motor Vehicle Manufacturers Association of the United States, Inc. v. State Farm Mutual Automobile Insurance Co.* (*State Farm*).⁵⁰ The *State Farm* Court explained reviewing courts are to determine whether the agency "articulate[d] a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made,'" but must not "supply a reasoned basis for the agency's action that the agency itself has not given."⁵¹ The Court also made it clear that the deferential and narrow "arbitrary and capricious" standard prohibits courts from "substitut[ing] its judgment for that of the agency."⁵²

In FCC v. Fox Television Stations, Inc.,⁵³ the Court rejected the courts of appeals' interpretations of State Farm.⁵⁴ The Second Cir-

52. *Id.* (describing scope of review under arbitrary and capricious standard). Under this standard, an agency's decision may be arbitrary or capricious

Id. (giving examples of arbitrary and capricious actions).

^{47.} See id. (concluding NMFS adhered to ESA requirements).

^{48. 5} U.S.C. § 706 (2012) (setting forth reviewing court's role in evaluating agency actions); *see also* Alaska Oil & Gas Ass'n v. Jewell, 815 F.3d 544, 550 (9th Cir. 2016) (citing *In re* Polar Bear Endangered Species Act Listing and Section 4(d) Rule Litig. (*In re Polar Bear*), 709 F.3d 1, 8 (D.C. Cir. 2013)) (stating applicable standard).

^{49.} § 706(2)(A) (explaining appropriate circumstances for setting aside agency actions).

^{50. 463} U.S. 29, 41-43 (1983) (considering "arbitrary and capricious" standard of review).

^{51.} *Id.* at 43 (first quoting Burlington Truck Lines v. United States, 371 U.S. 156, 168 (1962); and then quoting SEC v. Chenery Corp., 332 U.S. 194, 196 (1947)) (explaining scope of review). So long as the "agency's path may reasonably be discerned," the agency's decision should be upheld. *Id.* at 43 (quoting Bowman Transp. Inc. v. Arkansas-Best Freight System, 419 U.S. 281, 286 (1974)) (noting circumstances in which agency decisions should be upheld).

if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

^{53. 556} U.S. 502 (2009).

^{54.} FCC v. Fox Television Stations, Inc., 556 U.S. 502, 514 (2009) (rejecting "heightened standard" for policy changes).

cuit, along with the D.C. Circuit, had interpreted *State Farm* as requiring a heightened standard for changes in agency policy.⁵⁵ The Court explained an agency may not change a policy without explanation, or "simply disregard" those policies on the books, but it is sufficient "that the new policy is permissible under the statute, [and] that there are good reasons for it."⁵⁶

Courts also afford agencies deference in interpreting and administering statutes.⁵⁷ The Supreme Court first provided this deference in *Skidmore v. Swift & Co..*⁵⁸ In holding that agency decisions and interpretations constitute a "body of experience and informed judgment to which courts and litigants may properly resort for guidance," the *Skidmore* Court noted the weight afforded these decisions varied with the circumstances.⁵⁹

Forty years later, in *Chevron v. Natural Resources Defense Council, Inc.*,⁶⁰ the Supreme Court established a two-prong test for determining when agency interpretations should be given controlling weight.⁶¹ The *Chevron* Court explained reviewing courts must first

57. See United States v. Mead Corp., 533 U.S. 218, 227-28 (2001) (discussing deference afforded agency interpretations).

58. 323 U.S. 134, 139 (1944) (discussing influence of administrative interpretations).

60. 467 U.S. 837 (1984).

61. See id. at 842-44 (explaining two-part test for determining appropriate deference).

^{55.} *See id.* at 514 (explaining courts of appeals' interpretations). The Second Circuit had interpreted *State Farm* as requiring agencies to precisely explain why the new policy was better than the old and what had changed since the original policy; the D.C. Circuit required a similar heightened review for changes in agency policy. *Id.* (noting flawed interpretations of appellate courts).

^{56.} *Id.* at 515-16 (explaining required showing). The Court explained the APA statute did not distinguish between initial agency actions and subsequent changes. *See id.* (rejecting understanding of appellate courts). While *State Farm* did hold that agencies must explain changes in policy, it generally does not require a heightened standard. *See id.* (clarifying *State Farm* holding). Heightened standards apply when an agency's policy contradicts the prior policy, but that is due to the new policy's undermining the old—not the change itself. *See id.* (noting basis for heightened standard). The Court ultimately upheld the FCC's policy without affording any additional deference under either *Chevron* or *Skidmore. See id.* at 530 (reversing Second Circuit).

^{59.} *Id.* at 139-40 (holding administrative documents influential in judicial decision making). In conducting its analysis, the Court pointed out that administrative decisions have no legal basis and are not based in fact, nor are they binding on the judiciary. *See id.* (considering value of agency interpretations). Nevertheless, the Court recognized an administrator's policies "are made in pursuance of official duty, based upon more specialized experience and broader investigations and information," in order to provide guidance in enforcing laws. *Id.* at 139-40 (acknowledging special circumstances of agency policies). The weight afforded to these documents should be based on their thoroughness, validity, consistency, and any other factors "which give it power to persuade." *Id.* (stating factors for consideration).

determine "whether Congress has directly spoken to" or is silent on the issue.⁶² Where Congress is silent, the reviewing court must determine whether the agency's interpretation is "a permissible construction of the statute."⁶³ So long as the agency's interpretation is not "arbitrary, capricious, or manifestly contrary to the statute," it should be accepted by the court.⁶⁴

In United States v. Mead Corp.,⁶⁵ the Court further clarified when a statute is entitled to Chevron deference.⁶⁶ In Mead Corp., the Court held Chevron deference is appropriate where the interpretation "was promulgated in the exercise of" the agency's general rulemaking authority.⁶⁷ Although the classification ruling at issue in Mead Corp. did not qualify for Chevron deference, the Court explained this conclusion did not "place [it] outside the pale of any deference whatever," as Skidmore deference may be due.⁶⁸ The Court did not decide whether Skidmore deference was owed, but did provide guidance on the circumstances considered in determining a "fair measure of deference" and the "spectrum of judicial re-

66. Id. at 226 (stating reason for granting certiorari).

67. *Id.* at 226-27 (clarifying when statutes qualify for *Chevron* deference). Delegation is demonstrated by the agency's power to adjudicate, create "notice-and-comment rulemaking," or any other comparable indication of congressional intent. *Id.* (providing examples of delegation).

^{62.} *Id.* at 842-43 (stating first step). Where Congress has precisely expressed its intent, it must be given full effect. *Id.* (directing courts to respect Congress's intent).

^{63.} *See id.* at 843 (explaining impact of first determination). The court recognized an agency's power in administering programs "necessarily requires the formulation of policy and the making of rules" to fill gaps. *Id.* (acknowledging rule-making power of agencies).

^{64.} See *id.* at 843-44 (considering agency authority). The Court explained that gaps left by Congress are "an express delegation of authority to the agency to elucidate a specific provision . . . by regulation." *Id.* (recognizing delegation of authority).

^{65. 533} U.S. 218 (2001).

^{68.} See id. at 234 (concluding *Chevron* deference not applicable). In issuing classification rulings, Customs does not employ a "notice-and-comment" practice, nor is the ruling given broad general effect; rather, these rulings are "conclusive only as between [Customs] and the importer to whom it was issued." *Id.* at 233 (noting limited effect of Customs rulings). Further, as nothing in the statute indicates Congress intended for these classifications to be treated as "rulemaking with force of law," the Court concluded that "classification rulings are best treated like 'interpretations contained in policy statements, agency manuals, and enforcement guidelines." *Id.* at 234 (quoting Christensen v. Harris County, 529 U.S. 576, 587 (2000)) (rejecting applicability of *Chevron*). The Court made clear *Chevron* did not overrule *Skidmore*, and that these types of interpretations may still qualify for deference due to agencies' "specialized experience and broader investigations and information." *Id.* (rejecting dissent's argument).

sponses."⁶⁹ Seven years later, in *Federal Express Corp. v. Holowecki*,⁷⁰ the Court considered what "measure of respect" an agency's interpretation is entitled to under *Skidmore*.⁷¹ The Court deferred to the agency interpretation at issue in *Holowecki*, emphasizing that it had been binding on agency staff for at least five years and allowed the agency to fulfill its enforcement duties.⁷²

B. The Endangered Species Act

Congress enacted the Federal ESA in 1973, seeking to "reverse the trend toward species extinction, whatever the cost."⁷³ The ESA protects species that are "in danger of extinction," as well as those "likely to become . . . endangered . . . within the foreseeable fu-

70. 552 U.S. 389 (2008).

71. See id. at 399 (applying Skidmore). The interpretation, which was in the Equal Employment Opportunity Commission's (EEOC's) compliance manual and internal memoranda, interpreted both the regulations and statute at issue. See id. (considering interpretation at issue). The statements did not qualify for Chevron deference, but did constitute "a body of experience and informed judgment to which courts and litigants may properly resort for guidance." Id. (quoting Bragdon v. Abbott, 524 U.S. 624, 642 (1998)) (first citing Alaska Dept. of Envtl. Conservation v. EPA, 540 U.S. 461, 487-88 (2004); and then citing Mead Corp., 533 U.S. at 227-39) (distinguishing from Chevron).

72. See id. at 399-401 (first citing Mead Corp, 533 U.S. at 228; and then citing Good Samaritan Hosp. v. Shalala, 508 U.S. 402, 417 (1993)) (analyzing degree of deference due). The Court acknowledged the interpretation had been inconsistently enforced over the five-year period, but explained "undoubted deficiencies in the agency's administration . . . are not enough . . . to deprive the agency of all judicial deference." *Id.* at 399-400 (considering weight of interpretation). Finding the plaintiff's interpretation did not allow the EEOC to fulfill its enforcement duties, the Court deemed the agency's interpretation binding. *See id.* at 401-02 (deferring to agency).

73. Alaska Oil & Gas Ass'n v. Jewell, 815 F.3d 544, 551 (9th Cir. 2016) (quoting Tennessee Valley Auth. v. Hill, 437 U.S. 153, 184 (1978)) (explaining Congress's intent in enacting ESA); *accord* 16 U.S.C. § 1531(b) (2012) (stating ESA's purpose). The Act initially only included those species threatened by "worldwide extinction," but the 1973 version extended "protection for species in danger of extinction throughout 'a significant portion of its range.'" Def. of Wildlife v. Norton, 258 F.3d 1136, 1144 (9th Cir. 2001) (discussing ESA's legislative history). The Ninth Circuit explained this language was added "in order to encourage greater cooperation between federal and state agencies," and to provide the Secretary greater flexibility in managing wildlife. *Id.* (discussing purpose of amended statute).

^{69.} See id. at 227-28, 238-39 (discussing Skidmore). The Court stated courts should consider "the degree of the agency's care, its consistency, formality, and relative expertness, and . . . the persuasiveness of the agency's position" when making this determination. *Id.* at 228, 238-39 (citing Skidmore v. Swift & Co., 323 U.S. at 139-40) (footnotes omitted) (listing weight considerations). Judicial responses vary from "great respect . . . to near indifference." *Id.* (first citing Aluminum Co. of America v. Central Lincoln Peoples' Util. Dist., 467 U.S. 380, 389-90 (1984); and then citing Bowen v. Georgetown Univ. Hosp., 488 U.S. 204, 212-13 (1988)) (explaining weight spectrum).

ture."⁷⁴ To qualify for the ESA's protections, a species must be identified and listed as "threatened" or "endangered" by either the Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS).⁷⁵ Listings may be triggered either by independent agency initiative or upon receipt of a petition from an interested party.⁷⁶ Within one year of finding the petitioned action warranted, the agency must publish a proposed rule, with a final rule published within one year of the proposed rule.⁷⁷

Section 4 of the ESA sets forth the process for making listing determinations.⁷⁸ Pursuant to this section, NMFS must conclude that one of five factors makes the species likely to become endangered within the foreseeable future before listing it as threatened.⁷⁹ These five factors are: "(A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors

^{74. 16} U.S.C. §§ 1532(6), (20) (2012) (defining "endangered species" and "threatened species"). Species means "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." 16 U.S.C. § 1532(16) (defining "species").

^{75.} See generally § 1533 (2012) (setting forth process for determining endangered and threatened species); see also Nw. Ecosystem All. v. U.S. Fish & Wildlife Serv., 475 F.3d 1136, 1137 (9th Cir. 2007) (explaining listing process). The Act delegated authority to the Secretaries of Commerce and the Interior, who later authorized FWS and NMFS to administer the statute. See 16 U.S.C. § 1532(15) (defining "secretary"); 50 C.F.R. § 402.01(b) (2017) (delegating authority to FWS and NMFS).

^{76.} See Nw. Ecosystem All., 475 F.3d at 1137 (explaining ESA listing process). The Service may list on its own initiative through "notice-and-comment rule-making," or in response to a petition by "[a]ny interested person." *Id.* (first citing 16 U.S.C. § 1533(b)(5); then citing 5 U.S.C. § 553(e) (2012); and then citing 16 U.S.C. § 1533(b)(3)(A)) (explaining listing process). If petitioned, the receiving agency must "promptly determine whether the petition is supported by 'substantial scientific or commercial information.'" *Id.* (quoting 16 U.S.C. § 1533(b)(3)(A)) (explaining listing process).

^{77.} See id. at 1137-38 (citing 16 U.S.C. \S 1533(b)(3)(A), (b)(3)(B)) (explaining process upon finding petition warranted); 50 C.F.R. § 424.17 (2017) (discussing time limits and required actions). The proposed rule must describe the proposed action, summarize the supporting data, and establish the relationship between the data and proposed action. 50 C.F.R. § 424.16 (2017) (providing procedures for proposing rules). Alternatively, the agency may withdraw the proposed rule or publish a notice of extension. See 50 C.F.R. § 424.17 (discussing alternatives).

^{78.} See 16 U.S.C. § 1533 (providing rules for determining endangered and threatened species).

^{79.} See id. \$ 1532(20); 1533(a)(1), (b)(1)(A) (providing requirements for listing species as threatened).

affecting its continued existence."⁸⁰ Importantly, the listing determination must be made "solely on the basis of the best scientific and commercial data available" after a species status review.⁸¹

C. Applying ESA's Requirements

Plaintiffs bringing ESA claims frequently argue there is insufficient evidence of the connection between habitat loss and the species' likelihood of survival.⁸² In *Defenders of Wildlife v. Norton*,⁸³ the Ninth Circuit addressed this issue.⁸⁴ In that case, the court held that evidence of habitat loss alone was insufficient to qualify a species for listing.⁸⁵ While agencies have a "wide degree of discretion," the court explained this discretion does not preempt the requirement that the agency sufficiently explain its actions.⁸⁶

The D.C. Circuit Court of Appeals addressed this issue recently in the landmark case *In re Polar Bear Endangered Species Act Listing and Section 4(d) Rule Litigation (In re Polar Bear)*.⁸⁷ The court upheld the polar bear listing at issue in that case, distinguishing it from *Defenders of Wildlife*.⁸⁸ Unlike the notice in *Defenders of Wildlife*, the D.C. Circuit found the polar bear listing "provide[d] 'a discernible path'" and "firmly 'articulate[d] a rational connection between the facts found and the choices made.'"⁸⁹

84. See Def. of Wildlife v. Norton, 258 F.3d 1136, 1143 (9th Cir. 2001) (considering quantitative approach to listing determinations).

85. See id. (rejecting proposed "predetermined percentage" definition).

86. *See id.* at 1145 (finding agency action arbitrary and capricious). The court noted the agency's failure to explain its conclusion not only prevented them from adhering to the deferential standard of review, but was also a sufficient basis for reversing the agency's action. *See id.* at 1145-46 (first citing Asarco, Inc. v. EPA, 616 F.2d 1153, 1159 (9th Cir. 1980); and then citing People of State of Cal. v. FCC, 39 F.3d 919, 925 (9th Cir. 1994)) (explaining impact of failing to explain actions).

87. In re Polar Bear, 709 F.3d 1, 9 (D.C. Cir. 2013) (considering adequacy of agency's explanation).

89. *See id.* at 10 (first quoting Am. Radio Relay League, Inc. v. FCC, 524 F.3d 227, 241 (D.C. Cir. 2008); and then quoting Keating v. FERC, 569 F.3d 427, 433 (D.C. Cir. 2009)) (rejecting plaintiffs' claim). The court found the agency "considered and explained how the loss of sea ice harms the polar bear," and observed trends of areas with the most significant habitat loss. *Id.* at 9 (finding for agency).

^{80.} See id. § 1533(a)(1)(A)-(E) (outlining factors for determining whether species is endangered or threatened). Likelihood of endangerment may be based on any one factor, or a combination of factors. See Pritzker II, 840 F.3d 671, 684 (9th Cir. 2016) (discussing ESA requirement).

^{81.} See 16 U.S.C. § 1533(b)(1)(A) (requiring determination be based on best available science).

^{82.} See Pritzker II, 840 F.3d at 682 (stating next claim).

^{83. 258} F.3d 1136 (9th Cir. 2001).

^{88.} See id. at 10 (distinguishing from Def. of Wildlife).

While the statute's text and legislative history provide guidance on most of the terms, Congress left other terms undefined.⁹⁰ When the agency's interpretation of these terms are challenged, a reviewing court "may not substitute its own construction of a statutory provision for a reasonable interpretation . . . of an agency," but may "impose its own construction . . . in the absence of an administrative interpretation."⁹¹ The undefined terms addressed by the Ninth Circuit in *Pritzker* include "best scientific and commercial data available," "foreseeable future," and "likely."⁹²

1. "Best-Available Science"

Section 4 of the ESA requires listing determinations be made based solely on "the best scientific and commercial data available."⁹³ What constitutes "best-available science," however, has been left to the courts to decide.⁹⁴ Judicial review of this requirement is highly deferential, as this determination belongs to an agency's "special expertise."⁹⁵ As a result, the court will uphold an agency's scientific determinations so long as the agency "provides a reasonable explanation for adopting its approach and discloses the limitations of that approach."⁹⁶

As a general matter, the court upheld the use of climate change factors as the "best available science" in *Alaska Oil* \mathcal{E} Gas

^{90.} See, e.g., In re Polar Bear, 709 F.3d at 14 (noting "likely" undefined by Act or regulation); see also Nw. Ecosystem All. v. U.S. Fish & Wildlife Serv., 475 F.3d 1136, 1141 (9th Cir. 2007) (finding "distinct population segment" undefined).

^{91.} See Chevron v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 843-44 (1984) (explaining whose interpretation prevails under *Chevron*). For a further discussion on *Chevron*, see *supra* notes 60-64 and accompanying text.

^{92.} For a discussion on these terms, see *infra* notes 93-123 and accompanying text.

^{93. 16} U.S.C. § 1533(b)(1)(A) (stating basis for making determinations). For a further discussion on listing determination requirements, see *supra* notes 78-81 and accompanying text.

^{94.} See Claire M. Horan, Case Comment, Defenders of Wildlife v. Jewell (D. Mont. 2016), 41 HARV. ENVTL. L. REV. 297, 302-03 (2017) (discussing "best available science" requirement). Congress added the "best scientific and commercial data available" language in 1982, intending to reduce deliberation time, but did not define the phrase anywhere. See id. (noting oversight by Congress). The legislative history also provides minimal insight into Congress's intended meaning. See id. (discussing lack of direction from Congress).

^{95.} See San Luis & Delta-Mendota Water Auth. v. Jewell, 747 F.3d 581, 602 (9th Cir. 2014) (explaining best science requirement). When reviewing scientific decisions, "a reviewing court must generally be at its most deferential." *Id.* (quoting Baltimore Gas & Elec. Co. v. NRDC, 462 U.S. 87, 103 (1983)) (directing courts to be deferential). Importantly, "best available" does not mean "best possible." *Id.* (clarifying meaning).

^{96.} See Pritzker II, 840 F.3d at 679 (discussing deference owed in determining "best available science").

Association v. Jewell.⁹⁷ Relying on In re Polar Bear, the Ninth Circuit in Jewell rejected plaintiffs' claim that "future climate change is not an appropriate consideration under the ESA" and held FWS properly considered climate change in designating critical habitat.⁹⁸ The Ninth Circuit also rejected the district court's requirement that FWS prove current polar bear use of the designated units through accurate scientific data as "directly counter to the Act's conservation purposes."⁹⁹ Explaining the Act's goal is to protect the species' future, and that the Act does not require perfection, only the best science available, the court upheld FWS's approach in designating critical habitat.¹⁰⁰

The Ninth Circuit considered FWS's scientific determinations in Northwest Ecosystem Alliance v. United States Fish & Wildlife Services.¹⁰¹ There, the plaintiff challenged FWS's interpretation of a peer review study, arguing the study's finding of unique haplotypes rendered the Washington squirrel population "markedly" different.¹⁰² FWS concluded the Washington population was not "markedly" different because the genetic differences were "counterbalanced" by the lack of private alleles, the close relation to Oregon haplotypes, and the reduced genetic diversity of the

^{97.} Alaska Oil & Gas Ass'n v. Jewell, 815 F.3d 544, 558 (9th Cir. 2016) (approving consideration of climate change factors in designating critical habitat).

^{98.} *Jewell*, 815 F.3d at 558-60 (adopting D.C. Circuit's holding). "The very climatic factors that Plaintiffs now criticize are those that the D.C. Circuit took into account in approving the listing of polar bears as threatened." *Id.* at 558 (citing *In re Polar Bear*, 709 F.3d 1, 4-6 (D.C. Circ. 2013)) (finding plaintiffs' arguments moot). In *In re Polar Bear*, the D.C. Circuit upheld the listing of polar bears as threatened under the ESA. 709 F.3d at 9 (upholding threatened species listing). In reaching this conclusion, the court considered FWS's use of climate change studies and reports. *See id.* at 4-6 (explaining background for FWS's listing decision).

^{99.} See Jewell, 815 F.3d at 555 (agreeing with FWS). FWS designated three areas for critical habitat after determining they contained primary constituent elements (PCEs) essential to polar bear conservation. See id. (providing background). The three areas FWS identified were sea ice habitat, terrestrial denning habitat, and barrier island habitat. See id. (noting areas designated). In requiring a height-ened standard of specificity, the district court suggested that only those areas actually used for denning could be designated, as opposed to those areas suitable for denning. Id. (rejecting strict interpretation).

^{100.} See id. at 555-56 (citing San Luis & Delta-Mendota Water Auth. v. Jewell, 747 F.3d 581, 602 (9th Cir. 2014)) (explaining ESA requirements). The court stated the proper focus is not the current existence of the species, but rather the primary constituent elements required for species' preservation. See id. at 556 (clarifying proper focus).

^{101. 475} F.3d 1136 (9th Cir. 2007).

^{102.} Nw. Ecosystem All. v. U.S. Fish & Wildlife Serv., 475 F.3d 1136, 1149-50 (9th Cir. 2007) (considering third factor challenged by plaintiff).

Washington populations.¹⁰³ Explaining that FWS "articulated reasoned connections between the record and its conclusion," the court rejected the plaintiff's claim and deferred to the agency's interpretation of "complex scientific data."¹⁰⁴

The D.C. Circuit also considered the science used by FWS in the *In re Polar Bear* case.¹⁰⁵ There, the court explained that courts generally "defer to agency modeling of complex phenomena."¹⁰⁶ The court further noted a model's limits and imperfections are not a sufficient basis for overruling agency decisions, so long as the agency justifies its use of the models.¹⁰⁷ Finding that FWS acknowledged the limitations of the models used, and that the models were used for a limited purpose, the court upheld the agency's narrow reliance on the United States Geological Survey (USGS) models.¹⁰⁸

2. "Foreseeable Future"

To list a species as threatened, NMFS must conclude the species is likely to become endangered within the "foreseeable future."¹⁰⁹ Congress neglected to define the term "foreseeable future" and legislative history provides little insight into this phrase.¹¹⁰ Several federal courts have upheld agency interpreta-

103. *See id.* (explaining FWS's findings). FWS also noted the study results may have been impacted by such factors as inbreeding and small sample size. *See id.* at 1150 (considering FWS's reasoning).

104. See id. at 1150 (upholding FWS's denial of petition). The court concluded FWS's genetic analysis was neither arbitrary nor capricious and upheld the agency's denial of the petition. *Id.* (finding for agency).

105. 709 F.3d 1, 12-13 (D.C. Cir. 2013) (turning to plaintiffs' third claim).

106. *Id.* at 13 (quoting Appalachian Power Co. v. EPA, 249 F.3d 1032, 1053-54 (D.C. Cir. 2001) (per curiam)) (explaining deferential standard).

107. See id. (quoting Appalachian Power Co., 249 F.3d at 1052) (rejecting imperfection as basis for remanding agency decisions).

108. See id. at 13-14 (finding FWS's reliance neither arbitrary nor capricious). FWS explained its methodology in using the models in the Listing Rule and published the full Amstrup Report prior to publishing the final rule. See id. at 13 (citing Determination of Threatened Status for the Polar Bear (Ursus maritimus) Throughout Its Range, 73 Fed. Reg. 28,212, 28,272-75, 28,235 (May 15, 2008)) (considering FWS's reasoning). Further, the Listing Rule repeatedly stated FWS only used the models to "confir[m] 'the general direction and magnitude' of the population trends" forecast by other evidence. *Id.* (quoting Determination of Threatened Status, 73 Fed. Reg. at 28,276) (providing support for conclusion).

109. See 16 U.S.C. § 1532(20) (defining "threatened species"). For a further discussion on listing determination requirements, see *supra* notes 78-81 and accompanying text.

110. See OFFICE OF THE SOLICITOR, U.S. DEP'T OF THE INTERIOR, M-37021, Memorandum on the Meaning of "Foreseeable Future" in Section 3(20) of the Endangered Species Act 12 (Jan. 16, 2009), https://www.doi.gov/solicitor/opin ions [hereinafter Solicitor's Memo] (providing guidance for "foreseeable future" determinations). Beginning with the bearded seal petition, NMFS adopted this approach. See Final Rule, 77 Fed. Reg. 76,740, 76,753 (Dec. 28, 2012) (to be codi-

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tions of this factor as "based upon the best data available for a particular species and its habitat."¹¹¹ For example, *In re Polar Bear* rejected a preference for a different time frame as irrelevant.¹¹² The D.C. Circuit found FWS's determination "justifiabl[y] and clearly articulated" the polar bear's primary habitat because it was based on reliable projections of sea ice loss.¹¹³

To address this gap, the Department of the Interior provided internal guidance on making the "foreseeable future" determination in 2009.¹¹⁴ The Solicitor General explained in this memorandum that "foreseeable future" determinations are to be made on a case-by-case basis, using the best data available.¹¹⁵ The Solicitor ex-

112. 709 F.3d at 15-16 (analyzing "foreseeability" challenge). Appellants did not challenge the models, data, or process used, but rather, claimed FWS did not justify its determination for the forty-five-year time frame. *See id.* (clarifying appellants' claim).

113. See id. at 15-16 (considering FWS's explanation). Critical to the "foreseeable future" determination is the timeframe for which available scientific data is reliable in assessing the effect of threats to the species. See id. at 15 (citing Determination of Threatened Status, 73 Fed. Reg. at 28,253) (explaining "foreseeable future" approach). Using "the most widely accepted climate models," FWS found there was general agreement about sea ice trends until around 2040-2050. See id. at 15-16 (noting reliance on "best available" science). The court found FWS did not rely on factors which Congress did not intend it consider, overlook any important aspects, or offer a contradictory explanation, nor was its explanation "so implausible that it could not be ascribed to a difference in view or the product of agency expertise." Id. (quoting State Farm, 463 U.S. 29, 43 (1983)) (upholding FWS's finding).

114. See Solicitor's Memo, supra note 110, at 1 (summarizing memorandum's purpose). The Solicitor defined the "foreseeable future" as "the extent to which the Secretary can reasonably rely on predictions about the future." *Id.* (providing definition).

115. See id. at 12-14 (stating conclusions). In reaching this conclusion, the Solicitor considered the phrase's ordinary meaning and context, legislative history, and general administrative law principles. *Id.* at 12 (looking to variety of sources for phrase's meaning). The Solicitor explained that findings for each species should be unique, based on an amalgam of information on the species, including future population trends and threats, as well as the consequences of those trends and threats. *See id.* at 13 (detailing case-specific approach). The Solicitor only found two cases directly addressing the meaning of this phrase and while they did not discuss the issue in detail, they were "broadly consistent" with the Solicitor's analysis. *Id.* at 10-11 (first citing Oregon Nat. Res. Council v. Daley, 6 F. Supp. 2d

fied at 50 C.F.R. pt. 223) (noting new approach consistent with Solicitor General's guidance). For further discussion on NMFS's adoption of this approach, see *supra* notes 26-28, 33-35 and accompanying text.

^{111.} See Pritzker II, 840 F.3d 671, 681 (first citing *In re Polar Bear*, 709 F.3d at 10-11, 15-16 (upholding NMFS's determination of timeline based on threats to the species, its habitat, and best available science); then citing W. Watersheds Project v. Ashe, 948 F. Supp. 2d 1166, 1180 (D. Idaho 2013) (holding agency interpretation typically based on timeframes over which best science available can be reliably assessed); and then citing Ctr. for Biological Diversity v. Lubchenco, 758 F. Supp. 2d 945, 967 (N.D. Cal. 2010) (noting "foreseeable future" determination varies by species)) (considering view of other federal courts).

pressly declined to adopt a uniform timeframe, but explained the foreseeable future should "extend[] only so far as those predictions are reliable."¹¹⁶ The Solicitor's conclusion also stressed the agency "articulate a reasoned explanation as to why reliable predictions can be made, and to the extent that the Secretary quantifies the foreseeable future, a basis for that particular point in the future versus others."¹¹⁷

3. "Likely"

To list a species as threatened, NMFS must also find the species is *likely* to become endangered within the foreseeable future.¹¹⁸ Similar to "foreseeable future," the phrase "likely to become endangered" was left undefined by Congress.¹¹⁹ In *Defenders of Wildlife v. Norton*, the Ninth Circuit explicitly rejected a quantitative approach proposed by the plaintiffs, explaining that if a "bright line percentage" were appropriate, Congress could have included that percentage in the statute's text.¹²⁰ Similarly, the D.C. Circuit refused to impose a quantitative definition and upheld FWS's interpretation in *In re Polar Bear*.¹²¹ Applying the "fundamental canon of statutory construction" that undefined terms are interpreted as having their

117. Id. at 16 (stressing APA requirements). For a further discussion on the APA standard, see *supra* notes 48-56 and accompanying text.

118. See 16 U.S.C. § 1532(20) (defining "threatened species"). For a further discussion on listing determination requirements, see *supra* notes 78-81 and accompanying text.

119. See Pritzker II, 840 F.3d 671, 684 (9th Cir. 2016) (finding Congress silent on term's meaning).

120. See Def. of Wildlife v. Norton, 258 F.3d 1136, 1143-44 (9th Cir. 2001) (explaining problems with proposed quantitative approach); accord Solicitor's Memo, supra note 110, at 13 (explaining Congress did not set uniform timeframe). The court in *Def. of Wildlife* further noted it was unreasonable "to assume that the loss of a predetermined percentage" should automatically "qualify a species for listing," and stated a case-by-case approach was preferred. See Def. of Wildlife, 258 F.3d at 1143 (stating preference for case-by-case approach).

121. See In re Polar Bear, 709 F.3d 1, 15-16 (D.C. Cir. 2013) (finding interpretation consistent with word's ordinary meaning). Appellants claimed FWS had adopted the Intergovernmental Panel on Climate Change's (IPCC) definition of "likely" when it referenced the definition in response to a peer review question. *See id.* at 14 (stating appellants' claim). Reading the section in context, the court concluded the reference concerned "the agency's confidence in the climate forecasts," not its prediction of polar bear survival. *See id.* at 14-15 (rejecting appellants' argument).

^{1139 (}D. Or. 1998); and then citing Western Watersheds Project v. Foss, 2005 U.S. Dist. Lexis 45753 (D. Idaho Aug. 19, 2005)) (discussing case law).

^{116.} *Id.* at 13 (stating conclusions). The Solicitor explained that "Congress purposefully did not set a uniform time frame . . . nor did Congress intend that the Secretary set a uniform time frame." *Id.* (refusing to set standard time frame). Data must "provide a reasonable degree of confidence," though it need not be certain. *Id.* (rejecting certainty as ESA requirement).

common meaning, the court rejected the plaintiffs' claim that the agency intended any other meaning of the term.¹²² The court further explained that agencies are free to rely on common English usage in rulemaking and are not required to adopt "specialized definitions."¹²³

IV. Predictive Reasoning: The Ninth Circuit's Analysis in *Pritzker*

The Ninth Circuit deferred heavily to NMFS in conducting its *de novo* review to determine whether the listing decision was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."¹²⁴ Before diving into the facts leading to NMFS's determination, the court briefly explained the APA's "deferential and narrow" standard of review.¹²⁵ Stressing the deference afforded the agency throughout the opinion, the court upheld the listing decision as neither arbitrary nor capricious.¹²⁶

A. Climate Change Models as "Best Available Science"

As an initial matter, the court rejected the plaintiffs' attempt to undermine the use of climate change models.¹²⁷ Relying on its recent decision in *Alaska Oil & Gas Association v. Jewell*, the court called the argument "unavailing."¹²⁸ Turning to NMFS's use of cli-

126. See id. at 685 (finding listing decision reasonable).

127. See id. at 679 (considering plaintiffs' first challenge). Plaintiffs specifically claimed NMFS relied on climate models which can predict neither the degree, nor the effects, of climate change beyond 2050. See id. (stating plaintiffs' claim). The court, however, stated that while plaintiffs challenged "long-term climate projections, they [sought] to undermine NMFS's use of climate change projections as the basis for ESA listings." See id. (calling argument "unavailing").

128. See id. (citing Jewell, 815 F.3d at 558-59) (rejecting underlying claim). In Jewell, the court "adopted the D.C. Circuit's holding that the IPCC climate models constitute[] the 'best available science' and reasonably support[] the determination that a species reliant on sea ice likely would become endangered in the foreseeable future." *Id.* (first citing Jewell, 815 F.3d at 558-59; and then citing *In re Polar Bear*, 709 F.3d 1, 4-6, 9-11 (D.C. Cir. 2013)) (adopting D.C. Circuit holding). For a further discussion on Jewell's adoption of *In re Polar Bear*, see *supra* notes 97-100 and accompanying text.

^{122.} See id. at 15 (quoting Perrin v. United States, 444 U.S. 37, 42 (1979)) (considering FWS's interpretation).

^{123.} See *id.* (upholding FWS's interpretation). Appellants were unable to cite a single case in which an ESA listing decision was vacated because the agency failed to specially define "likely," and the court did not find the lack of a specific definition impeded its ability to review the decision. *See id.* (explaining conclusion).

^{124.} Pritzker II, 840 F.3d 671, 675 (9th Cir. 2016) (first quoting 5 U.S.C. 706(2); and then quoting Alaska Oil & Gas Ass'n v. Jewell, 815 F.3d 544, 554 (9th Cir. 2016)) (stating applicable standard of review).

^{125.} See id. at 675-76 (explaining standard of review). For a discussion on the APA standard of review, see *supra* notes 48-56 and accompanying text.

mate models, the court conducted an extensive analysis of the evidence supporting NMFS's reliance on the projections.¹²⁹ The court explained listing decisions need not be based on "ironclad and absolute" science.¹³⁰ Instead, courts "'must defer to the agency's interpretation of complex scientific data' so long as the agency provides a reasonable explanation for adopting its approach and discloses the limitations of that approach."¹³¹ The court deferred to NMFS and upheld its determination after finding the agency both acknowledged the volatility of the IPCC models and explained how it accounted for the models' "less reliable predictive value" in the proposed rule.¹³²

B. The Listing Decision

Having found NMFS reasonable in relying on the IPCC climate change projections, the Ninth Circuit turned to the agency's listing decision.¹³³ The plaintiffs asserted three principal arguments in challenging NMFS's decision to list the bearded seals as threatened: (1) NMFS departed from its standard "foreseeable future" analysis; (2) NMFS did not provide sufficient evidence to establish a nexus between habitat loss and survival of the bearded seal; and (3) NMFS failed to demonstrate that the Beringia DPS was likely to become endangered in the foreseeable future.¹³⁴ In rejecting these arguments, the court also took issue with the district court's attempt to impose higher standards than the ESA requires.¹³⁵

^{129.} See Pritzker II, 840 F.3d at 679-81 (analyzing NMFS's reliance on IPCC models).

^{130.} *See id.* at 680 (citing San Luis & Delta-Mendota Water Auth. v. Jewell, 747 F.3d 581, 602 (9th Cir. 2014)) (discussing value of volatile projections).

^{131.} See id. at 679-80 (quoting Nw. Ecosystem All. v. U.S. Fish & Wildlife Serv., 475 F.3d 1136, 1150 (9th Cir. 2007)) (citing San Luis & Delta-Mendota Water Auth., 747 F.3d at 602) (discussing requirements of ESA and deferential standard).

^{132.} See id. at 678-81 (upholding NMFS's conclusion). NMFS focused its analysis on the impact of warmer temperatures on the Beringia DPS "[b]ecause CBD's petition cited global warming as the primary threat to bearded seals." *Id.* at 678 (providing background). While IPCC's models through 2050 were based on present-day emissions data, the models for 2050-2100 involved unknown factors, such as "technological improvement, [and] changes in climate policy." *Id.* (explaining concerns presented by models). NMFS accounted for this uncertainty by comparing projections to observational data to determine the models' reliability. *See id.* (discussing NMFS's validation process). For a further discussion on the proposed rule, see *supra* notes 24-32 and accompanying text.

^{133.} See id. at 681 (introducing listing decision challenge).

^{134.} See Pritzker II, 840 F.3d at 681-84 (addressing plaintiffs' arguments).

^{135.} For a further discussion on the Ninth Circuit's issues with the district court's holding, see *infra* notes 140-147 and accompanying text.

1. "Foreseeable Future"

Agreeing with plaintiffs that NMFS deviated from its standard "foreseeable future" interpretation, the Ninth Circuit considered the agency's new approach.¹³⁶ The court, applying the deferential *Skidmore* standard of review, explained the "agency must provide a reasoned explanation for adoption of its new policy—including an acknowledgement that it is changing its position and if appropriate, any new factual findings that may inform that change."¹³⁷ Because the Solicitor General's memorandum thoroughly explained the reasons for adopting a "threat-specific" approach, and NMFS acknowledged the change in approach for the bearded seal species, the court concluded NMFS's adoption of the new approach was neither arbitrary nor capricious.¹³⁸

2. Rational Connection

The court then turned to NMFS's reasoning for listing the Beringia DPS as threatened.¹³⁹ The Ninth Circuit first rejected the district court's conclusion, explaining the court's request for "a predicted 'population reduction,' 'extinction threshold,' or 'probability of reaching that threshold'" was "at odds with the ESA."¹⁴⁰ Relying on *Jewell*, the court rejected narrow constructions

138. See id. at 682 (first citing Final Rule, 77 Fed. Reg. at 76,753; and then citing Solicitor's Memo, *supra* note 110, at 4, 8-9) (considering explanation for new approach). For a discussion of NMFS's acknowledgement in the final rule, see *supra* notes 34-35 and accompanying text. For a discussion on the Solicitor General's internal memorandum, see *supra* notes 114-117 and accompanying text.

139. See id. at 682-83 (proceeding to plaintiffs' second claim). Plaintiffs claimed NMFS put forth insufficient evidence to prove the loss of sea ice placed the bearded seal at risk for extinction. See id. (stating second claim).

140. See id. at 683 (quoting Pritzker I, No. 4:13-cv-18-RRB, 2014 WL 3726121, at *15 (D. Alaska July 25, 2014)) (rejecting district court's conclusion). The district court concluded NMFS had "no reasonable basis for listing the Beringia DPS" because it was unable to provide these predictions. *Id.* (discussing district court con-

^{136.} See Pritzker II, 840 F.3d at 681 (considering plaintiffs' first argument). NMFS argued the "foreseeable future" determination is made for each particular species, based on its habitat and the best available science. See id. at 681 (stating agency argument). For a discussion on the "foreseeable future" determination, see *supra* notes 109-117 and accompanying text.

^{137.} See id. at 681-82 (citing FCC v. Fox Television Stations, Inc., 556 U.S. 502, 513-15 (2009)) (explaining applicable standard of review). "An internal guidance document that reflects an agency's 'body of experience and informed judgment,' but that is not promulgated through rulemaking, is typically afforded *Skidmore* deference." *Id.* (first citing Fed. Express Corp. v. Holowecki, 552 U.S. 389, 399 (2008); and then citing United States v. Mead Corp., 533 U.S. 218, 230-32 (2001)) (finding *Skidmore* applicable). For a further discussion on *Fox Television Stations*, see *supra* notes 53-56 and accompanying text. For a further discussion on *Fed. Express Corp.*, see *supra* notes 70-72 and accompanying text.

of the ESA because requiring "highly specific information for which data simply [does] not exist" inhibits the Act's ability to achieve its goal of protecting species' futures.¹⁴¹ Turning to the plaintiffs' argument, the court relied on *In re Polar Bear* to distinguish the Beringia DPS rule from the flat-tailed horned lizard rule at issue in *Defenders of Wildlife*.¹⁴² While *Defenders of Wildlife* held that evidence of habitat loss alone is an insufficient basis for listing a species as threatened, NMFS "drew upon existing research to explain how habitat loss would likely endanger the bearded seal," which adequately supports listing a species.¹⁴³ Finding NMFS manifested its consideration of the relevant factors "and articulated a rational connection between the facts found and the choices made," the court upheld the explanation as adequate.¹⁴⁴

3. Likelihood of Endangerment

The Ninth Circuit turned to plaintiffs' third and final claim, that NMFS was required to prove that the magnitude of climate change impacts would render the Beringia DPS threatened by the end of the century.¹⁴⁵ The court rejected the plaintiffs' interpretation of the ESA's "likelihood" requirement as inaccurate and held the district court erred in requiring "specific quantitative

142. See id. at 683 (citing In re Polar Bear, 709 F.3d 1, 9-10 (D.C. Cir. 2013)) (considering plaintiffs' argument). Plaintiffs argued NMFS should have adopted a "wait and see" approach for the bearded seal. *Id.* (stating plaintiffs' claim). For a discussion on In re Polar Bear, see supra notes 87-89 and accompanying text.

143. See id. at 683 (first citing Def. of Wildlife v. Norton, 258 F.3d 1136, 1143 (9th Cir. 2001); and then citing *In re Polar Bear*, 709 F.3d at 9-10) (distinguishing bearded seal listing). For a discussion on *Def. of Wildlife*, see *supra* notes 83-86 and accompanying text.

144. See id. at 683-84 (quoting Nw. Ecosystem All., 475 F.3d at 1140) (upholding NMFS's explanation).

145. *See id.* at 684 (citing 16 U.S.C. § 1532(20)) (concluding plaintiffs misinterpreted ESA). Specifically, plaintiffs said NMFS needed to prove climate change's impact would "place[]the species 'in danger of extinction' by the year 2100." *Id.* (stating plaintiffs' contention). For a further discussion of the ESA "likelihood" requirement, see *supra* notes 118-123 and accompanying text.

clusion). The Ninth Circuit explained this "request for unobtainable, highly specified data would require NMFS to wait until it had quantitative data reflecting a species' decline, its population tipping point, and the exact year in which that tipping point would occur before it could adopt conservation policies to prevent that species' decline." *Id.* (rejecting district court's conclusion).

^{141.} Pritzker II, 840 F.3d at 683 (quoting Alaska Oil & Gas Ass'n v. Jewell, 815 F.3d 544, 555 (9th Cir. 2016)) (supporting rejection of district court's approach). "[N]arrow construction . . . runs directly counter to the Act's conservation purposes." *Id.* (quoting *Jewell*, 815 F.3d at 555) (explaining ESA's objectives). For a further discussion on *Jewell*, see *supra* notes 97-100 and accompanying text.

targets."¹⁴⁶ Explaining that the ESA does not require this determination be based on quantified losses, risk magnitudes, or extinction thresholds, the court upheld NMFS's "common meaning" interpretation of "likely."¹⁴⁷

The Ninth Circuit, therefore, concluded that NMFS thoroughly assessed the "best available scientific and commercial data," and considered public comments prior to listing the Beringia DPS as threatened.¹⁴⁸ Further, in reaching its decision, NMFS "complied with the letter and spirit of the ESA," and provided multiple opportunities for public contribution.¹⁴⁹ Because there was ample evidence to support NMFS's decision to list the Beringia DPS as threatened, the court concluded the final rule was neither arbitrary nor capricious.¹⁵⁰

V. Explanation or Prediction: Analyzing the Ninth Circuit's Reasoning in *Pritzker*

In light of the Ninth Circuit's decision in *Jewell* just months earlier, its reversal of the district court in *Pritzker* was predictable.¹⁵¹ Although consistent overall, the court's analysis presents some im-

147. See *id.* (first citing *In re Polar Bear*, 709 F.3d at 14-15; and then citing *Def. of Wildlife*, 258 F.3d at 1141-43) (agreeing with D.C. Circuit's holding). NMFS interpreted the term as "more likely than not." *Id.* (stating agency's interpretation). In reaching its conclusion, the court considered definitions found in the Merriam-Webster Dictionary, Oxford English Dictionary, and Black's Law Dictionary. *See id.* (relying on lexicons).

148. See id. at 684-85 (explaining overall conclusion). In reaching this conclusion, the court acknowledged the data available on the bearded seal is limited. See id. (acknowledging limits of data).

149. *See id.* (discussing NMFS's approach). For a further discussion on the "notice and opportunity" provided to the public, see *supra* notes 33-35 and accompanying text.

150. See id. at 685 (upholding NMFS's listing decision).

^{146.} See Pritzker II, 840 F.3d at 684 (rejecting plaintiffs' third claim and district court's holding). The district court held NMFS was required to demonstrate "'predicted population reduction,' define an 'extinction threshold,' and provide information on the 'probability of reaching that threshold within a specified time.'" *Id.* (stating district court's holding). The ESA, however, only requires an "agency determine the likelihood of a species' endangerment based on one or more [of the five] statutory factors." *Id.* (citing 16 U.S.C. § 1533(a)(1)) (explaining ESA requirement). For a discussion on the five statutory factors, see *supra* notes 79-80 and accompanying text.

^{151.} See Alaska Oil & Gas Ass'n v. Jewell, 815 F.3d 544, 550 (9th Cir. 2016) (finding agency's critical habitat designation neither arbitrary nor capricious). Jewell provided the basis for reversing many of the district court's conclusions. See, e.g., Pritzker II, 840 F.3d at 679 (noting Jewell's adoption of IPCC climate models as "best available science"); Id. at 680 (explaining plaintiffs' demanded more than ESA required); Id. at 683 (rejecting district court's interpretation of ESA).

portant considerations.¹⁵² While not detrimental to the court's holding, the opinion could have benefitted from a more thorough framing of the highly deferential APA standard of review at the outset.¹⁵³ Additionally, the court overlooked the *Chevron* doctrine in considering some of NMFS's interpretations.¹⁵⁴ Finally, some of the court's statements concerning the Solicitor General's memorandum raise questions.¹⁵⁵

A. Agency Deference

The district court considered applicability of *Chevron* deference at the outset, but the Ninth Circuit stated only the APA standard of review before discussing the facts.¹⁵⁶ While this approach is in line with precedent, there were other opportunities at which the court could have considered the *Chevron* framework, as other circuit courts have.¹⁵⁷ For example, the court could have applied *Chevron* in considering NMFS's interpretation of the term "likely," as NMFS promulgated the Listing Rule pursuant to its congressionally-delegated rulemaking authority.¹⁵⁸ The court found the phrase "likely

154. See, e.g., Pritzker II, 840 F.3d at 684 (foregoing deference in considering agency's interpretation). The court did apply *Skidmore* in considering the foreseeable future interpretation, however. *Id.* at 681-82 (affording deference in analyzing "foreseeable future" approach). For a discussion on *Chevron* deference, see *supra* notes 60-64 and accompanying text.

155. See id. at 682 (stating purpose of memorandum).

156. Compare Pritzker I, 2014 WL 3726121, at *2 (applying *Chevron* two step test), with Pritzker II, 840 F.3d at 675 (stating applicable standard of review).

157. See Jewell, 815 F.3d at 554 (explaining standard of review for ESA listings); Nw. Ecosystem All., 475 F.3d at 1140 (recognizing agency listing decisions subject to APA standard of review); see also In re Polar Bear, 709 F.3d at 8 (explaining ESA listings subject to arbitrary and capricious review). But see Def. of Wildlife v. Norton, 258 F.3d 1136, 1145 n. 11 (noting Chevron not applicable); Nw. Ecosystem All., 475 F.3d at 1141-43 (considering whether policy entitled to Chevron deference).

158. See Alanna Kearney, Note, The Battle May be Over, but What About the War? Examining the ESA in the Crusade Against Global Warming After In re Polar Bear Endangered Species Act Listing and Section 4(d) Rule Litigation, 25 VILL. ENVTL. L.J. 529, 561-62 (2014) (explaining "likely" issue within Chevron's ambit); cf. United States v.

^{152.} See, e.g., Nw. Ecosystem All. v. U.S. Fish & Wildlife Serv., 475 F.3d 1136, 1150 (9th Cir. 2007) (holding agency's denial neither arbitrary nor capricious); In re Polar Bear, 709 F.3d 1, 9 (D.C. Cir. 2013) (upholding polar bear listing).

^{153.} Compare Pritzker II, 840 F.3d at 675 (explaining *de novo* review), with Jewell, 815 F.3d at 554-55 (explaining standard of review). In Jewell, the court provided a lengthy and extensive explanation of the deferential APA standard, incorporating the Supreme Court framework and internal circuit precedent. See Jewell, 815 F.3d at 554-55 (first citing Ariz. Cattle Growers' Ass'n v. Salazar, 606 F.3d 1160, 1163 (9th Cir. 2010); then citing Motor Vehicle Mfrs. Ass'n of the United States, Inc. v. State Farm Mut. Auto. Ins. Co. (State Farm), 463 U.S. 29, 43 (1983); then citing River Runners for Wilderness v. Martin, 593 F.3d 1064, 1067, 1070 (9th Cir. 2010); and then citing Nw. Ecosystem All. v. U.S. Fish & Wildlife Serv., 475 F.3d 1136, 1140 (9th Cir. 2007)) (explaining standard of review).

to become endangered" undefined by the ESA or regulation, answering *Chevron*'s first step in the negative.¹⁵⁹ Then, the court would have considered whether NMFS's interpretation was "a permissible construction of the statute" in light of Congress's intent in enacting the ESA.¹⁶⁰ Affording *Chevron* deference would have allowed the court to uphold the agency's interpretation on the basis of the Act's goal and would have provided for a stronger conclusion, instead of relying on dictionary definitions.¹⁶¹

Unlike other federal courts that have addressed the issue, the Ninth Circuit found NMFS's new policy interpreting "foreseeable future" was entitled to *Skidmore* deference.¹⁶² The D.C. Circuit had recently upheld the same case-by-case approach in *In re Polar Bear*, but it did so under *State Farm*'s "deferential and narrow" standard.¹⁶³ The court could have relied on the D.C. Circuit's holding, but instead conducted its own more thorough analysis and afforded NMFS additional deference.¹⁶⁴ The support provided by *Skidmore* is possibly the reason that this case has been hailed a win for climate

Mead Corp., 533 U.S. 218, 231 (2001) (finding Customs ruling letter ineligible for *Chevron* deference). The Court explained that classification rulings "present a case far removed not only from notice-and-comment process, but from any other circumstances reasonably suggesting" *Chevron* deference was owed. *Mead Corp.*, 533 U.S. at 231 (refusing to afford *Chevron* deference). For a further discussion on *Mead Corp.*, see *supra* notes 66-69 and accompanying text.

^{159.} See Pritzker II, 840 F.3d at 684 (finding "likely" undefined by statute); Chevron v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 842-43 (1984) (explaining first step under *Chevron*). For a further discussion on *Chevron*, see *supra* notes 60-64 and accompanying text.

^{160.} *Chevron*, 467 U.S. at 843 (explaining second prong of test). Instead, the Ninth Circuit looked to dictionary definitions of the term. *See Pritzker II*, 840 F.3d at 684 (upholding "common meaning" interpretation). For a further discussion on *Chevron*, see *supra* notes 60-64 and accompanying text.

^{161.} Cf. Kearney, supra note 158, at 562-63 (noting court's failure to address overarching issue by avoiding Chevron).

^{162.} See Pritzker II, 840 F.3d at 681-82 (finding Skidmore deference applicable). The court explained that "internal guidance document[s] that reflect[] an agency's 'body of experience and informed judgment,' but that [are] not promulgated through rulemaking, [are] typically afforded Skidmore deference." *Id.* (first citing Fed. Express Corp. v. Holowecki, 552 U.S. 389, 399 (2008); then citing Alaska Dep't of Envtl. Conservation v. EPA, 540 U.S. 461, 488 (2004); and then citing United States v. Mead Corp., 533 U.S. 218, 230-32 (2001)) (stating standard of review).

^{163.} See Kearney, supra note 158, at 562 (calling D.C. Circuit's finding "problematic"). Kearney argued that the D.C. Circuit should have applied *Chevron* in reaching its conclusion on the "foreseeable future" issue. See id. (proposing better rationale for conclusion).

^{164.} See Pritzker II, 840 F.3d at 681-82 (noting D.C. Circuit's agreement with NMFS's interpretation).

change, specifically as it pertains to the foreseeable future analysis.¹⁶⁵

In light of *Federal Express Corp. v. Holowecki*, the court's conclusion that the policy was entitled to *Skidmore* deference was appropriate, even absent the *Chevron* analysis.¹⁶⁶ The court's application of this deferential standard, however, overlooked some of the determinations required by *Skidmore*.¹⁶⁷ Specifically, the court did not determine what "measure of respect" the policy was entitled to under *Mead Corp.* and *Federal Express Corp.*.¹⁶⁸ Upholding the change in policy on grounds that the change was "well-reasoned," the court's analysis instead looked like *State Farm*'s "satisfactory explanation."¹⁶⁹

B. The Solicitor General's Guidance

Two of the court's statements concerning the Solicitor General's internal guidance appear to misconstrue statements contained in the memorandum.¹⁷⁰ First, the Solicitor General did not expressly acknowledge that its interpretation represented a change in agency policy.¹⁷¹ Rather, the Solicitor General recognized that its guidance was a new policy altogether.¹⁷² This misstatement did not impact the court's conclusion, however, as the Solicitor General "provide[d] a thorough and reasoned explanation" in support of the new approach, as required by *State Farm* and *Fox Television Stations*.¹⁷³

The Ninth Circuit's statement regarding the purpose of the Solicitor General's guidance is more concerning, even under the def-

169. *See* Kearney, *supra* note 158, at 562 (disagreeing with D.C. Circuit's application of *State Farm* in foreseeability analysis).

170. See Pritzker II, 840 F.3d at 682 (addressing internal policy on foreseeable future).

171. Contra id. (stating solicitor acknowledged change in policy).

172. See Solicitor's Memo, supra note 110, at 4 (acknowledging previous lack of guidance).

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^{165.} See Lake & Petersen, supra note 11, at 10,217, 10,219 (discussing impacts of Pritzker).

^{166.} See Fed. Express Corp. v. Holowecki, 552 U.S. 389, 399 (2008) (assuming internal agency interpretations not entitled to *Chevron*). For a further discussion on *Fed. Express Corp.*, see *supra* notes 70-72 and accompanying text.

^{167.} For a discussion on *Skidmore*, see *supra* notes 57-59 and accompanying text.

^{168.} For a discussion of *Mead Corp.*, see *supra* notes 66-69 and accompanying text. For a discussion of *Fed. Express Corp.*, see *supra* notes 70-72 and accompanying text.

^{173.} See Pritzker II, 840 F.3d at 682 (finding Solicitor General's explanation thorough). For a discussion on *State Farm*, see *supra* notes 50-52 and accompanying text. For a discussion on *Fox Television Stations*, see *supra* notes 53-56 and accompanying text.

erential and narrow standard of review.¹⁷⁴ Contrary to the opinion, the Solicitor General does not expressly state that the reason for the new approach is to conform with federal appellate decisions.¹⁷⁵ Instead, the Solicitor General merely referenced the cases as supporting the conclusion that listing determinations are not to be speculative.¹⁷⁶ Further, the "Guidance" section of the memorandum clarifies that the Solicitor General sought to conform "with the ordinary meaning of the term 'foreseeable' and the context in which it is used in the ESA."¹⁷⁷ As *State Farm* only requires "a satisfactory explanation for [agency] action including a 'rational connection between the facts found and the choice made,'" a more precise articulation of the Solicitor General's intent would not have changed the outcome of the case, so it is unclear why the court chose to state the purpose this way.¹⁷⁸

VI. THE UNPREDICTABLE: IMPACTS OF PRITZKER

By upholding the Beringia DPS listing in *Pritzker*, the Ninth Circuit concluded that species not presently endangered can be listed under the ESA due to the threats of climate change.¹⁷⁹ If other courts follow the Ninth Circuit's lead, the future could see an uptick in threatened species listings.¹⁸⁰ Some commentators argue the impacts of climate change models are limited to Arctic species, but others argue the use of long-term climate change projections combined with a near-unlimited foreseeable future timeframe could result in unnecessary threatened species listings.¹⁸¹ To avoid misuse of the ESA's protections, agencies must make listing deter-

^{174.} *See* Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) (prohibiting courts from providing reason on agency's behalf). For a further discussion on the *State Farm* framework, see *supra* notes 50-52 and accompanying text.

^{175.} Compare Solicitor's Memo, supra note 110, at 8-9 (supporting rejection of speculation with examples), with Pritzker II, 840 F.3d at 682 (stating Solicitor General's intent to conform to federal judicial standards).

^{176.} See Solicitor's Memo, *supra* note 110, at 8-9 (rejecting speculative basis for listing decisions). The Solicitor General explained these cases merely "provide[ded] important context for interpreting 'foreseeable future.'" *Id.* at 9 (supporting conclusion).

^{177.} Id. at 12 (recognizing discretionary limits).

^{178.} State Farm, 463 U.S. at 43 (explaining APA standard).

^{179.} For a further discussion of the issue addressed by the Ninth Circuit, see *supra* notes 42-43 and accompanying text.

^{180.} See Lake & Petersen, supra note 11, at 10,217, 10,219 (discussing impacts of Pritzker).

^{181.} See id. (comparing impacts of broad and narrow readings); Horan, supra note 94, at 317 (explaining climate change's direct negative impacts harder to show for most species).

minations case-by-case, based on threats to the specific species under review.¹⁸² Agencies should also consider limiting the use of long term projections to Arctic regions where the impacts of climate change are more severe.¹⁸³

Although the plaintiffs' petition for certiorari was denied by the Supreme Court on January 22, 2018, *Pritzker* still faces other challenges.¹⁸⁴ Pursuant to President Trump's "Enforcing the Regulatory Reform Agenda" Executive Order, all agencies are required to establish Regulatory Reform Task Forces to "evaluate existing regulations [] and make recommendations" for "repeal, replacement, [and] modification."¹⁸⁵ These reviews could impact the Solicitor General's guidance on the foreseeable future or the Listing Rule itself.¹⁸⁶ The legislative branch could also limit *Pritzker*'s impact by amending the ESA or by amending the APA.¹⁸⁷ Notably, Congress has already introduced legislation to overrule the deferential *Chevron* doctrine.¹⁸⁸

Even if the Ninth Circuit's holding stands, the fight is not yet over for the Beringia DPS.¹⁸⁹ Like the polar bear listing in *In re*

182. See Lake & Petersen, supra note 11, at 10,219 (limiting Pritzker's applicability).

183. See Petition to List, supra note 7, at 1 (explaining unique impact of climate change on Arctic animals); see also Horan, supra note 94, at 317 (noting colder regions more prone to climate change's impacts).

184. Alaska Oil & Gas Ass'n v. Ross, No. 17-133, 2018 WL 491542, at *1 (U.S. Jan. 22, 2018) (denying petition for certiorari). The petition for certiorari was filed July 21, 2017 and the administration filed a brief in opposition on November 27, 2017. *See Docket for 17-133*, SUPREME COURT, https://www.supremecourt.gov/search.aspx?filename=/Docket/docketfiles/html/public/17-133.html (last visited Jan. 25, 2018) (providing docket information).

185. Exec. Order No. 13,777, 82 Fed. Reg. 12,285, 12,285-86 (Feb. 24, 2017) (announcing Regulatory Reform Task Forces).

186. Wood, Acting Assistant Attorney Gen., *supra* note 14 (discussing purpose of Regulatory Reform Task Forces).

187. See Lake & Petersen, supra note 11, at 10,219 (discussing legislative challenges).

188. See id. (citing The Separation of Powers Restoration Act of 2016, H.R. 4768, 114th Cong. (2d Sess. 2016)) (explaining proposed Act). The Separation of Powers Restoration Act would amend the APA to include a *de novo* review "to render it as explicit as possible that courts, not agencies, must decide all questions of law," overturning *Chevron.* H.R. REP. No. 114-622, at 2, 9 (2016) (explaining proposed solution). The Separation of Powers Restoration Act was introduced in the Senate on July 18, 2017. *See* Separation of Powers Restoration Act of 2017, S. 1577, 115th Cong. (1st Sess. 2017) (introducing bill to amend 5 U.S.C. § 706).

189. See Press Release, Ctr. for Biological Diversity, Appeals Court Reinstates Endangered Species Act Protections for Bearded Seals (Oct. 24, 2016), https:// www.biologicaldiversity.org/news/press_releases/2016/bearded-seal-10-24-2016. html (noting importance of Ninth Circuit's decision). According to CBD, bearded seals "could be doomed to extinction" if they are not afforded the ESA's protections. *Id.* (emphasizing bearded seals' need for protection).

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Polar Bear, the Beringia DPS listing was extremely limited and could be considered an "empty gesture."¹⁹⁰ NMFS still needs to designate critical habitat for the Beringia DPS, which may result in additional litigation.¹⁹¹ Legislative and regulatory changes may also impact this determination, causing further delays in critical habitat designation.¹⁹² While *Alaska Oil & Gas Association v. Pritzker* has been hailed a win for the bearded seal and climate change science, the uncertain future of climate change laws and regulations could prove detrimental to the ESA's conservation goals.¹⁹³

Shawna Riley*

192. For a discussion on potential legal and regulatory changes, see *supra* notes 184-188 and accompanying text.

^{190.} See Kearney, supra note 158, at 565-66 (calling polar bear listing "empty gesture").

^{191.} See, e.g., Alaska Oil & Gas Ass'n v. Jewell, 815 F.3d 544, 550 (9th Cir. 2016) (challenging critical polar bear habitat designations). The polar bear threatened species listing was upheld by the D.C. Circuit in 2013. See *id.* (providing context for case). Then, after FWS approved critical habitat designations, several parties brought suit challenging those designations. See *id.* (explaining background). The District Court of Alaska granted summary judgment in favor of the challengers in 2013, but the Ninth Circuit reversed and upheld the designations in 2016. *Id.* (reversing district court).

^{193.} See Lake & Petersen, supra note 11, at 10,219 (noting uncertain future for climate change); Davenport, supra note 3 (discussing Trump campaign's plans to rollback climate change policies); see also Press Release, Ctr. for Biological Diversity, supra note 189 (noting ESA protections require addressing climate change).

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