



*Via Electronic and Certified Mail*

October 12, 2017

Ryan Zinke, Secretary of the Interior  
U.S. Department of the Interior  
1849 C Street, N.W.  
Washington, D.C. 20240  
secretary\_of\_the\_interior@ios.doi.gov

Jim Kurth, Acting Director  
U.S. Fish and Wildlife Service  
1849 C Street, N.W.  
Washington, D.C. 20240  
Jim\_Kurth@fws.gov

**RE: Notice of Intent to Sue for Violations of the Endangered Species Act Concerning “Not Warranted” Listing Decision for Pacific Walrus**

Dear Secretary Zinke and Acting Director Kurth:

Pursuant to 16 U.S.C. § 1540(g), this letter serves as the Center for Biological Diversity’s sixty-day notice of intent to sue the U.S. Department of the Interior, the Secretary of the Interior, the U.S. Fish and Wildlife Service (“FWS”), and its Director for violations of the Endangered Species Act (“ESA”)<sup>1</sup> in connection with the FWS’s decision that the Pacific walrus does not warrant listing as a threatened or endangered species.<sup>2</sup> The FWS’s unlawful, politically motivated decision deprives the species of needed protections in the face of climate change and melting sea ice and leaves the species at serious risk of extinction.

In 2011, the FWS determined that listing the Pacific walrus was warranted because climate change would destroy the sea ice habitat the species needs to survive within the foreseeable future. Yet, six years later, the FWS did a complete 180, determining that listing the species is not warranted despite a wealth of information demonstrating the imperiled status of the population. Indeed, the case for listing the walrus has only grown stronger since 2011, with Arctic sea ice extent hitting numerous record lows, the continued disappearance of summer sea ice from the walrus’s foraging grounds in the Chukchi Sea, and additional science projecting the dramatic loss of the walrus’s sea ice habitat through at least the end of the century.

The FWS’s about-face is arbitrary, capricious, and violates the ESA and its implementing

---

<sup>1</sup> 16 U.S.C. § 1531, *et seq.*; 50 C.F.R. § 402, *et seq.*

<sup>2</sup> 82 Fed. Reg. 46,618 (Oct. 5, 2017).

regulations. Specifically, the FWS failed to adequately explain its change in position from its 2011 determination that the walrus warrants listing under the ESA; used an arbitrarily truncated foreseeable future analysis for threats from climate change; failed to use the best available science; improperly construed uncertainty as evidence that listing the species is not warranted; failed to analyze whether any distinct population segment of the walrus warrants listing or whether the species is threatened in a significant portion of its range; and otherwise failed to conduct the proper listing analysis.

The numerous, blatant faults within the agency's decision suggest that the FWS first made the politically-driven determination to deny ESA protections for the Pacific walrus and then misconstrued or ignored the science and the facts to support that pre-determined outcome, something the ESA expressly forbids. If the FWS does not remedy the violations of law outlined in this letter within sixty days, the Center will pursue litigation in federal court to resolve the matter.

## **I. The Pacific Walrus**

The Pacific walrus (*Odobenus rosmarus divergens*) is the largest pinniped species in the Arctic. Pacific walruses are social and gregarious animals. They are readily distinguished from other Arctic pinnipeds by an ever-growing pair of tusks. Walruses use their tusks for defense, social purposes, and to help them haul out on sea ice by jabbing their tusks into the substrate and pulling themselves forward, inspiring their scientific name meaning "tooth-walking sea horse." Also unique among pinnipeds, the walrus's broad snout is covered by 600 to 700 stiff bristles that help them detect their benthic prey. The Pacific walrus primarily occurs in the shallow shelf waters of the Bering and Chukchi Seas.

Pacific walruses depend on sea ice for their essential life functions. During the winter reproductive season, the entire Pacific walrus population congregates on the broken pack ice of the Bering Sea, which it relies on for courtship, giving birth, nursing, and as a resting platform while foraging. During spring, females and young walruses follow the retreating sea ice northward and spend the summer on the sea ice edge of the Chukchi Sea, using offshore ice floes as platforms for resting, nursing, and molting. In contrast, most adult males remain in the Bering Sea during summer, principally in Bristol Bay and the Gulf of Anadyr, and use island and coastal haulouts for resting and molting.

Pacific walruses are restricted to the shallow waters of the continental shelf where their benthic bivalve prey are abundant and where they can reach the bottom while diving for food. They are dependent on haulouts for resting between foraging bouts, typically foraging for several days followed by a period of resting lasting one to two days.

Over the past decade, climate change has caused summer sea ice to disappear from the walrus's shallow foraging grounds in the Chukchi Sea. Without summer sea ice for resting, walrus mothers and calves have been forced to come ashore, where they have limited access to food, and young walruses are vulnerable to being trampled to death or attacked by predators.

Several thousand young walrus were killed in stampedes in Russia in 2007, and 133 young walrus perished in an Alaska stampede in 2009. This year, in early August, thousands of Pacific walrus were forced ashore near Point Lay, Alaska, when sea ice disappeared—the earliest haulout event ever documented by federal officials. A survey of the area on September 11 found 64 dead walrus, most of them less than a year old, which were likely trampled to death in a stampede.

## **II. Listing Species Under the ESA**

As the Supreme Court has recognized, the ESA represents “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.”<sup>3</sup> Congress enacted the ESA “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species.”<sup>4</sup>

To accomplish these goals, the ESA directs the Secretary of the Interior, through the FWS, to list species it determines are endangered or threatened.<sup>5</sup> A species is “endangered” if it “is in danger of extinction throughout all or a significant portion of its range.”<sup>6</sup> A species is “threatened” if it is “likely to become an endangered species within the foreseeable future.”<sup>7</sup> The definition of “species” includes “subspecies” and “distinct population segments of any species of vertebrate fish or wildlife which interbreeds when mature.”<sup>8</sup>

Section 4 of the ESA establishes a detailed process by which the FWS must add to or modify the list of threatened and endangered species through notice and comment rulemaking.<sup>9</sup> Specifically, in making all listing determinations, the FWS must assess five categories of threats:

- (A) the present or threatened destruction, modification or curtailment of a species’ habitat or range;
- (B) overutilization for commercial, recreational, scientific or educational purposes;
- (C) predation or disease;
- (D) the inadequacy of existing regulatory mechanisms; and
- (E) other manmade or natural factors affecting the species’ continued existence.<sup>10</sup>

If a species meets the definition of “endangered” or “threatened” because of any one or more of these five factors, the ESA *requires* the FWS to list the species.<sup>11</sup>

---

<sup>3</sup> *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978).

<sup>4</sup> 16 U.S.C. § 1531(b).

<sup>5</sup> *Id.* § 1533(a).

<sup>6</sup> *Id.* § 1532(6).

<sup>7</sup> *Id.* § 1532(20).

<sup>8</sup> *Id.* § 1532(16)

<sup>9</sup> *Id.* § 1533.

<sup>10</sup> 16 U.S.C. § 1533(a)(1).

<sup>11</sup> *Id.*; 50 C.F.R. § 424.11(c); *see also Federation of Fly Fishers v. Daley*, 131 F. Supp. 2d 1158, at 1164 (N.D. Cal. 2000) (“[t]hese factors are listed in the disjunctive; any one or a combination can be sufficient for a finding that a particular species is endangered or threatened.”)

The ESA also mandates that the FWS make listing determinations “solely on the basis of the best scientific and commercial data available.”<sup>12</sup> In light of this explicit statutory directive, courts have consistently held that the “standard does not require that [the FWS] act only when it can justify its decision with absolute confidence.”<sup>13</sup> Rather, “[e]ven if the available scientific and commercial data were quite inconclusive, [the FWS] may—indeed must—still rely on it.”<sup>14</sup> Mandating reliance upon the best available science, as opposed to scientific certainty, “is in keeping with congressional intent” that the FWS “take preventive measures *before* a species is ‘conclusively’ headed for extinction.”<sup>15</sup>

Requiring the FWS to base its listing decisions “solely” on the best available science also means that the FWS cannot consider economics or politics in deciding whether to list a species. As courts have explained, “the ESA clearly bars economic considerations from having a seat at the table when the listing determination is being made.”<sup>16</sup> Similarly, the standard “requires [the FWS] to disregard politics” in making listing decisions.<sup>17</sup> In fact, “the word ‘solely’ is intended to remove from the process of the listing or delisting of species *any factor* not related to the biological status of the species.”<sup>18</sup>

### **III. The Center’s Petition to List the Walrus and the FWS’s 2011 Warranted Finding**

In February 2008, the Center petitioned the FWS to list the Pacific walrus as a threatened or endangered species under the ESA because the best available science showed that climate change would destroy the sea ice habitat the species needs to survive. The petition highlighted the importance of sea ice for walrus’ essential life functions, including courtship, giving birth, nursing calves, completing molt, resting between foraging bouts, passive transport to new foraging areas; as well as providing isolation from terrestrial predators and disturbance, proximity to food resources over the shelf, and increased space and reduced competition for haulout sites.

The petition also detailed the extensive scientific information demonstrating that climate change is causing, and will continue to cause, a dramatic loss of the sea ice habitat walrus need to survive. For example, the petition explained that summer sea ice extent in the Chukchi Sea experienced significant declines in June through November, when females and young depend on the sea ice edge; and that the Chukchi shelf was effectively ice-free during the summer in five of the six years from 2002-2007. The petition also explained how the loss of sea ice is expected to continue, and likely accelerate throughout this century, with the models predicting ice-free summers as early as 2030 and winter sea ice loss in the Bering Sea under a mid-level emissions scenario at 40% by 2050.

---

<sup>12</sup> 16 U.S.C. § 1533(b)(1)(A).

<sup>13</sup> *Ariz. Cattle Growers’ Ass’n v. Salazar*, 606 F.3d 1160, 1164 (9th Cir. 2010), *cert denied*, 131 S. Ct. 1471 (2011).

<sup>14</sup> *Sw. Ctr. for Biological Diversity v. Babbitt*, 215 F.3d 58, 60 (D.C. Cir. 2000).

<sup>15</sup> *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679-80 (D.D.C. 1997).

<sup>16</sup> *N.M. Cattle Growers Ass’n v. U.S. Fish & Wildlife Serv.*, 248 F.3d 1277, 1285 (10th Cir. 2001).

<sup>17</sup> *Save Our Springs v. Babbitt*, 27 F. Supp. 2d 739, 747 (W.D. Tex. 1997).

<sup>18</sup> *N.M. Cattle Growers Ass’n*, 248 F.3d at 1284-85 (citing H.R. Rep. No. 97-567, pt. 1, at 29 (1982), *emphasis added*).

The Center's petition also explained that the loss of sea ice was already having significant impacts on the Pacific walrus. For example, the loss of summer sea ice in the Chukchi Sea was forcing females and young walrus from the sea ice edge to land-based haulouts, leading to high mortality rates from stampedes, abandonment of calves at sea, and increasing physiological stress. The petition further explained that climate change will continue to degrade and eliminate the Pacific walrus's critical sea ice habitat, decrease prey availability, alter interactions with predators and disease, and increase human disturbance. Specifically, the petition explained that climate change will negatively impact the Pacific walrus by: (1) causing a loss of summer sea ice and significant reductions in winter sea ice, which will deprive the Pacific walrus of access to large portions of its foraging habitat on the Chukchi and Bering Sea shelves; (2) likely increasing physiological stress due to the loss of sea ice haulouts since this will preclude them from resting at sea during foraging trips, and from nursing their young and molting on safe, offshore sea ice floes; (3) likely increasing calf mortality as a result of increased metabolic stress during foraging trips and higher risk of abandonment; (4) increasing concentrations at land-based haulouts, which will likely lead to high walrus mortality and injury from trampling during stampedes; (5) decreasing prey availability; and (6) increasing human disturbance through increased shipping and increased oil and gas development, among other threats. The petition requested that in the event the FWS found that the Pacific walrus did not warrant protection under the ESA, that the FWS evaluate whether walrus within the Bering and Chukchi Seas constitute a distinct population segment of the full walrus species and/or represent a significant portion of the species range and are therefore eligible for listing on such basis.

The FWS failed to make the requisite 90-day finding on the Center's petition required by the ESA, so in December 2008, the Center filed litigation in federal district court in Alaska to compel the agency to comply with its statutory duty to respond to the petition.<sup>19</sup> Pursuant to a settlement agreement, the FWS issued a 90-day finding in September 2009, in which it found the petition presented substantial information indicating the petitioned action may be warranted, and began a status review to determine if listing the species was in fact warranted.<sup>20</sup> However, the FWS again failed to comply with its statutory deadline to complete the status review and issue its 12-month determination, and the court approved an amended settlement agreement which required the FWS to issue its 12-month finding by January 31, 2011.<sup>21</sup>

On February 10, 2011, the FWS issued a 12-month determination finding that listing the Pacific walrus as threatened or endangered was warranted. In reaching this decision, the FWS relied on climate change science through 2100 to find that, "[b]y late century, substantial declines in Bering Sea ice extent are projected for all months, with losses ranging from 57% in April, to 100% loss of sea ice in November."<sup>22</sup> And "[t]he onset of substantial freezing in the Bering Sea is projected to be delayed until January by late century, with little or no ice projected to remain in May by the end of the century."<sup>23</sup> The FWS also found that the models demonstrate that by the end of the 21st century, the Chukchi Sea would be ice-free for a period of several

---

<sup>19</sup> 74 Fed. Reg. 46,548 (Sept. 10, 2009).

<sup>20</sup> *Id.*

<sup>21</sup> 76 Fed. Reg. 7,634 (Feb. 10, 2011).

<sup>22</sup> *Id.* at 7,643.

<sup>23</sup> *Id.*

months.<sup>24</sup> The FWS found that “[t]he best scientific information available gives us a high level of confidence that despite some uncertainty among the models ... sea-ice loss in the range of the Pacific walrus has a high likelihood of continuing.”<sup>25</sup>

The FWS then found that such losses will, in turn, make walruses increasingly dependent on coastal haulouts, which would increase threats to walruses in numerous ways. For example, increased dependence on coastal haulouts would cause localized prey depletion; increased energetic costs to reach prey, resulting in decreased body condition; calf abandonment; increased mortality from stampedes, especially to females, juveniles, and calves; and increased exposure to predation and hunting.<sup>26</sup> The FWS found that these threats will result in a declining population over time, and consequently, that the destruction, modification, and curtailment of sea ice habitat from climate change threatens the Pacific walrus.<sup>27</sup>

However, the FWS concluded that listing the species was precluded by other listing priorities, and added the Pacific walrus to the list of candidate species. The FWS subsequently entered into another settlement agreement with the Center over species lingering on the candidate list. This settlement agreement required the FWS to submit a proposed rule or not-warranted finding for the Pacific walrus to the Federal Register by September 30, 2017. The FWS then issued a 12-month determination published on October 5, 2017 in which it reversed course and found that the Pacific walrus does not warrant listing under the ESA.

#### **IV. The FWS’s Decision Not to List the Pacific Walrus Violates the ESA**

The FWS’s decision not to list the Pacific walrus violates the ESA. The FWS failed to adequately explain its change in position from its 2011 determination that listing the walrus is warranted; used an arbitrarily truncated foreseeable future analysis; failed to use the best available science; improperly construed uncertainty as evidence that listing the species is not warranted; failed to analyze if any distinct population segment of the Pacific walrus warrants listing or if the species is threatened in a significant portion of its range; and otherwise failed to conduct the proper listing analysis.

##### **A. The FWS Failed To Adequately Explain Its Change in Position from its 2011 Decision that the Pacific Walrus Warrants Listing Under the ESA**

The FWS’s not warranted decision failed to adequately explain the agency’s change in position from its 2011 decision that the Pacific walrus warrants listing under the ESA. Like any other agency decision, when the FWS makes listing decisions, it “must examine the relevant data and articulate a satisfactory explanation for its action, including a rational connection between the facts found and the choice made.”<sup>28</sup> And it is a basic tenet of administrative law that when an agency changes course, it “is obligated to supply a reasoned analysis for the change beyond that

---

<sup>24</sup> *Id.* at 7,646-47.

<sup>25</sup> *Id.* at 7,644.

<sup>26</sup> *Id.* at 7,649.

<sup>27</sup> *Id.*

<sup>28</sup> *Humane Soc’y of the U.S. v. Locke*, 626 F.3d 1040, 1048 (9th Cir. 2010) (citations omitted).

which may be required when an agency does not act in the first instance.”<sup>29</sup> The agency is required to provide “a more detailed justification than what would suffice for a new policy created on a blank slate” when its new decision “rests upon factual findings that contradict those which underlay its prior policy.”<sup>30</sup>

In 2011, the FWS found that listing the Pacific walrus as threatened or endangered was warranted but precluded by other listing priorities. The FWS reached this determination after examining the best available science regarding threats to the species, including climate change and sea ice loss projections from the Intergovernmental Panel on Climate Change (“IPCC”), a foremost world authority on climate change. The FWS concluded that the Pacific walrus is threatened by the destruction, modification, or curtailment of its sea ice habitat and that there are inadequate regulatory mechanisms to address this threat.

But, apart from stating it made a warranted determination in 2011, the FWS’s 2017 not warranted determination does not acknowledge the 2011 warranted determination at all. Therefore it cannot possibly offer an adequate explanation for the FWS’s change in position. The only explanation the FWS offered is found in a fact sheet accompanying the 12-month determination. To the extent such a fact sheet can even constitute the required explanation, it falls far short of providing an adequate one. For example, the fact sheet states that one important difference between the 2011 and 2017 decisions is that the walrus population is approaching stability.<sup>31</sup> But, as explained below, such explanation ignores available information indicating that the walrus population is not stabilizing, but in fact may be declining. Regardless, the pertinent question in analyzing whether to list a species as threatened or endangered is not how many individual animals exist now or whether the population is currently stable or declining. Rather, the deciding factor is how the species will fare *in the future*.<sup>32</sup>

The FWS’s failure to explain its change in position is particularly striking considering the science supporting the walrus listing has only grown stronger since the FWS’s 2011 warranted determination. For example, as summarized in a 2014 review, sea ice “extent is decreasing, ice is thinning, multiyear ice is covering less of the Arctic Ocean, melt is occurring earlier, albedo is decreasing, and the Arctic is absorbing more energy due to this sea ice decline.”<sup>33</sup> Additionally, September sea ice extent declined by 13.4% per decade between 1979 and 2015<sup>34</sup> and summer

---

<sup>29</sup> *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983).

<sup>30</sup> *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).

<sup>31</sup> FWS, Pacific Walrus 12-month Finding Questions and Answers, [https://www.fws.gov/alaska/fisheries/mmm/walrus/pdf/Pacific\\_Walrus\\_Decision\\_Q&A%20\\_FINAL.pdf](https://www.fws.gov/alaska/fisheries/mmm/walrus/pdf/Pacific_Walrus_Decision_Q&A%20_FINAL.pdf).

<sup>32</sup> See 16 U.S.C. § 1532(17) (“threatened” species means a “species which is likely to become an endangered species within the foreseeable future”); *id.* § 1532(6) (“endangered” if it “is in danger of extinction throughout all or a significant portion of its range”).

<sup>33</sup> Meier, W.N. et al. 2014. Arctic sea ice in transformation: A review of recent observed changes and impacts on biology and human activity. *Rev. Geophys* 51: 185–217; Wood, K.R. et al. 2015. A decade of environmental change in the Pacific Arctic region. *Progress in Oceanography* 136: 12-31.

<sup>34</sup> NSIDC [National Snow and Ice Data Center]. 2015. 2015 Melt Season In Review. 6 October 2015. <http://nsidc.org/arcticseaicenews/2015/10>.

sea ice extent is now only half of what it was a few decades ago.<sup>35</sup> The nine lowest measures of September sea ice over the satellite record have all occurred in the last nine years.<sup>36</sup>

The Chukchi Sea is experiencing some of the most dramatic losses with essentially ice-free conditions in summer in recent years.<sup>37</sup> For example, between August and October 2012, sea ice concentration in the Chukchi Sea between 70 and 80°N fell below 20%, with a record minimum concentration of only 5% on September 2, 2012. Thick multiyear sea ice older than two years has almost entirely disappeared, replaced by thin and more mobile first-year ice.<sup>38</sup>

Declines in sea ice are happening faster than climate models have projected. The IPCC's Fourth Assessment Report and improved Fifth Assessment Report models both underestimate the observed trend in September sea ice, with the underestimation becoming more pronounced in recent years.<sup>39</sup> A recent review reported that Arctic summer sea ice is expected to virtually disappear in the next few decades, with estimates of 2020 or earlier, 2030 on average, and 2040 or later based on three modeling approaches.<sup>40</sup> Winter sea ice is also declining faster than IPCC climate models have projected.<sup>41</sup> March and April sea ice cover in the Bering Sea is projected to decline by -43% by 2050 under a mid-range emissions scenario.<sup>42</sup>

Sea ice thickness has declined by approximately 40% on average in recent decades due in large part to the loss of older, thicker ice, with variation among regions.<sup>43</sup> A recent study using subsurface, aircraft, and satellite observations estimated a 34% decline in annual mean ice thickness over the Arctic Basin just during the recent period 2000-2012, and a 50% decline in September ice thickness over this period.<sup>44</sup> During the longer period from 1975-2012, annual mean ice thickness in the central Arctic Basin decreased by 65% overall and by 85% in September.<sup>45</sup> In the Chukchi Sea, a separate study estimated that sea ice thickness declined by -64% between 1958 and 2007.<sup>46</sup> Additionally, the sea ice melt season is lengthening as sea ice melts earlier in spring and forms later in autumn.<sup>47</sup>

---

<sup>35</sup> Stroeve, J. et al. 2008. Arctic sea ice extent plummets in 2007. *EOS Transactions*, AGU 89:13-14.

<sup>36</sup> NSIDC. 2015.

<sup>37</sup> Wood, K.R. et al. 2015.

<sup>38</sup> *Id.*

<sup>39</sup> Meier, W.N. et al. 2014.

<sup>40</sup> Overland, J.E. and M. Wang. 2013. When will the summer Arctic be nearly sea ice free? *Geophysical Research Letters* 40: 2097-2101.

<sup>41</sup> Stroeve, J. et al. 2007. Arctic sea ice decline: Faster than forecast. *Geophysical Research Letters* 34: L09501.

<sup>42</sup> Wang, M. et al. 2010. Climate projections for selected large marine ecosystems. *Journal of Marine Systems* 79: 258-266.

<sup>43</sup> Meier, W.N. et al. 2014.

<sup>44</sup> Lindsay, R. and A. Schweiger. 2015. Arctic sea ice thickness loss determined using subsurface, aircraft, and satellite observations. *Cryosphere* 9: 269-283.

<sup>45</sup> *Id.*

<sup>46</sup> Kwok, R., and D. A. Rothrock. 2009. Decline in Arctic sea ice thickness from submarine and ICES at records: 1958-2008. *Geophysical Research Letters* 36: L15501.

<sup>47</sup> Parkinson, C.L. 2014. Spatially mapped reductions in the length of the Arctic sea ice season, *Geophysical Research Letters* 41: 4316-4322.



And in June 2017, the U.S. Global Change Research Program—an entity comprised of the nation’s top climate scientists—completed a final draft report “designed to be an authoritative assessment of the science of climate change, with a focus on the United States.”<sup>48</sup> The report confirms that the Arctic “is warming at a rate approximately twice as fast as the global average;”<sup>49</sup> that “Arctic-wide ice loss is expected to continue through the 21st century, *very likely* resulting in nearly sea ice-free late summers by the 2040s (*very high confidence*);”<sup>49</sup> and that “multiple lines of evidence provide *very high confidence* of enhanced Arctic warming with potentially significant impacts on coastal communities and marine ecosystems.”<sup>50</sup>

The FWS’s failure to adequately explain its change in position that listing the Pacific walrus is warranted violates the ESA and fundamental principles of administrative law, particularly in light of new scientific information indicating that sea ice loss is occurring more rapidly and more extensively than previously believed.

## **B. The FWS Used an Improper, Truncated Foreseeable Future Analysis**

The FWS improperly defined the “foreseeable future” for threats from climate change to the Pacific walrus as 2060, or 43 years from the present. Such determination is contrary to the best available science, contrary to the FWS’s prior 12-month determination for Pacific walrus in which it analyzed threats from climate change through 2100, and contrary to law.

Under the ESA, the FWS must list a species as “threatened” if it “is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”<sup>51</sup> Although the ESA does not define the term “foreseeable future,” the FWS must use a definition that is reasonable, that ensures protection of the petitioned species, and that gives the benefit of the doubt regarding any scientific uncertainty to the species.<sup>52</sup>

The FWS’s definition of foreseeable future as only the next 43 years is contrary to the plain language of the term “foreseeable future.”<sup>53</sup> The ordinary meaning of “foreseeable” in the context of the “foreseeable future” is “lying within the range for which forecasts are possible.”<sup>54</sup> Thus, the ordinary meaning of the term “foreseeable future” is directly tied to the range of time in which forecasts regarding the Pacific walrus are *possible*.

Forecasting threats to walrus through the end of the century is not only entirely possible, but in fact has already been done in climate models widely recognized as the international scientific consensus on climate change. For example, the IPCC’s Fourth Assessment Report, published in 2007, provides climate change projections through 2100 under a range of plausible

---

<sup>48</sup> U.S. Global Change Research Program, Climate Science Special Report (CSSR), Fifth-Order Draft (5OD) at 1 (June 28, 2017).

<sup>49</sup> *Id.* at 443.

<sup>50</sup> *Id.* at 458; *see also id.* at 30, 273, 447-48, 457 & 460 (describing evidence).

<sup>51</sup> 16 U.S.C. § 1532(20).

<sup>52</sup> *See Oregon Natural Res. Council v. Daley*, 6 F. Supp. 2d 1139, 1151 (D. Or. 1998).

<sup>53</sup> *See Asgrow Seed Co. v. Winterboer*, 513 U.S. 179, 187 (1995) (in the absence of a statutory or regulatory definition, the phrase must be defined using its ordinary meaning).

<sup>54</sup> Merriam-Webster, at <http://www.merriam-webster.com/dictionary/Foreseeable> (accessed Oct. 6, 2017).

emissions scenarios using 23 models by 14 modeling groups from 10 countries to project future climate conditions. Similarly, the IPCC's updated and improved Fifth Assessment Report, published in 2013, also projects climate change impacts and sea ice loss through 2100.<sup>55</sup>

Consistent with the clear statutory requirement and the available climate change science, both the National Marine Fisheries Service (“NMFS”)—the FWS's sister agency with jurisdiction over most marine mammals, including Arctic ice seals—and the FWS itself have relied on climate change impacts through the end of the century in making listing decisions under the ESA. For example, in determining the bearded seal is a threatened species, NMFS defined the foreseeable future for threats from sea ice loss as 2100 because the best available climate change science projected impacts through 2100.<sup>56</sup> NMFS has also assessed threats to ribbon seals using a foreseeable future of 2100;<sup>57</sup> and has also used the full IPCC scenarios out to 2100 in its listing decision for 82 coral species.<sup>58</sup> Indeed, NMFS's guidance on considering climate change impacts in listing decisions states that the agency should “project effects over the longest possible period for which credible projections are available in order to ensure the best available science is fully considered.”<sup>59</sup> And in the FWS's 2011 12-month determination for the Pacific walrus, the FWS specifically analyzed threats to the species from sea ice loss through 2100 because climate change science supported that time frame.<sup>60</sup>

The FWS's decision to truncate the foreseeable future analysis at 2060 in its 2017 12-month determination violates the ESA. And the agency's failure to explain why 2100 no longer constitutes the foreseeable future in analyzing threats from climate change on the Pacific walrus violates basic tenets of administrative law.

### **C. The FWS's Decision Is Not Based on the Best Available Science and the FWS Invented a Statutory Standard that Improperly Raises the Bar for Listing Decisions**

The FWS's decision is not based on the best available science. In making its 12-month determination, the FWS failed to consider models widely accepted as the international scientific consensus on climate change, and ignored other evidence demonstrating the threats posed by the loss of the Pacific walrus's sea ice habitat and other negative impacts from climate change. Such failures violate the ESA.

For example, the FWS ignored the available evidence of threats to the Pacific walrus beyond 2060, including studies documenting the widespread destruction of the Pacific walrus

---

<sup>55</sup> Flato, G., et al. 2013: Evaluation of Climate Models. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)].

<sup>56</sup> 77 Fed. Reg. 76,740 (Dec. 28, 2012).

<sup>57</sup> 78 Fed. Reg. 41,371 (July 10, 2013).

<sup>58</sup> 77 Fed. Reg. 73,220 (Dec. 7, 2012).

<sup>59</sup> NMFS, Revised Guidance for Treatment of Climate Change in NMFS Endangered Species Act Decisions, June 17, 2017, [http://www.nmfs.noaa.gov/pr/pdfs/pr\\_climate\\_change\\_guidance\\_june\\_2016.pdf](http://www.nmfs.noaa.gov/pr/pdfs/pr_climate_change_guidance_june_2016.pdf).

<sup>60</sup> See, e.g., 76 Fed. Reg. at 7,643, 7,646-47.

habitat through 2100. Indeed, the FWS expressly stated that it was not considering impacts beyond 2060 in its listing decision. This information includes the IPCC models as reflected in its Fifth Assessment Report which analyze climate change impacts and loss of sea ice in the Bering and Chukchi Seas through 2100 and other studies that not only confirm the downward trend demonstrated in the models, but indicate the models likely underestimate the loss of sea ice. For example, a study from Douglas in 2010 indicates that by late century, declines in Bering Sea ice extent are projected for all months, with losses ranging from 57% in April to 100% loss of sea ice in November.<sup>61</sup> The study notes that the average number of ice-free month in the Bering Sea is projected to be 8.5 months by the end of the century.<sup>62</sup> Further, the available information indicates that there is almost total agreement in the models that the Chukchi Sea will be completely ice-free in the summer and fall by the end of the century.<sup>63</sup>

The FWS attempts to explain its decision to ignore conclusions concerning the impacts of climate change on the Pacific walrus beyond 2060 because such conclusions are not based on “reliable prediction.”<sup>64</sup> But this standard does not appear in the ESA or its implementing regulations and runs contrary to the plain language of the ESA. The ESA requires the FWS to make listing decisions solely on the best available science. As such, the FWS “may not ignore evidence simply because it falls short of absolute scientific certainty.”<sup>65</sup> Indeed, “[a]pplication of such a stringent standard violates the plain terms of the [ESA].”<sup>66</sup>

In addition to failing to rely on the best available science regarding climate change impacts after 2060, the FWS also ignored available information on climate change impacts through 2060. For example, the FWS determined that the areas where Pacific walrus occur will, in combination, be sufficient during the core breeding and birthing periods out to 2060. This conclusion ignores available information indicating that Pacific walrus generally breed and give birth only on sea ice in the Bering Sea, and that March and April sea ice cover is projected to decline by -43% by 2050 under a mid-range emissions scenario.<sup>67</sup> Similarly, the FWS ignored recent information indicating that Arctic summer sea ice is expected to virtually disappear in the next few decades, with estimates of 2020 or earlier, 2030 on average, and 2040 or later based on three modeling approaches.<sup>68</sup>

The FWS’s 12-month finding also misrepresents or ignores key findings from the status assessment and the studies it cites. For example, the FWS concluded that Pacific walrus have a “demonstrated ability . . . to change behavior or to adapt to greater uses of land” and that Pacific

---

<sup>61</sup> See, e.g., Douglas, D.C., 2010, Arctic sea ice decline: Projected changes in timing and extent of sea ice in the Bering and Chukchi Seas: U.S. Geological Survey OpenFile Report 2010-1176.

<sup>62</sup> *Id.*

<sup>63</sup> *Id.*

<sup>64</sup> 82 Fed. Reg. at 46,643-44.

<sup>65</sup> *Nw. Ecosystem Alliance v. U.S. Fish and Wildlife Serv.*, 475 F.3d 1136, 1147 (9th Cir. 2007).

<sup>66</sup> *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679 (D.D.C. 1997).

<sup>67</sup> Wang, M. et al. 2010. Climate projections for selected large marine ecosystems. *Journal of Marine Systems* 79: 258-266.

<sup>68</sup> Overland, J.E. and M. Wang. 2013. When will the summer Arctic be nearly sea ice free? *Geophysical Research Letters* 40: 2097-2101.

walrus can shift their range in response to changing habitats.<sup>69</sup> However, the available evidence indicates that as the Pacific walrus loses the sea ice over its foraging grounds, the walrus's response of congregating on shore has higher energetic costs and higher mortality risk compared to being on sea ice.<sup>70</sup> Furthermore, walrus have not responded to sea ice loss by spreading themselves in smaller groups among a larger number of haulout sites, but continue to use a small number of haulout sites with a high risk of trampling risk.<sup>71</sup> Similarly, the available evidence indicates that Pacific walrus have not responded to loss of summer sea ice in the Chukchi Sea by shifting their range to ice-covered areas in the Canadian Arctic Archipelago or Siberian-Laptev Sea.<sup>72</sup> The status assessment notes that this fact suggests other factors are restricting the range expansion of the Pacific walrus in response to climate change and reduced redundancy.<sup>73</sup> The FWS's 12-month determination improperly ignores this information.

In addition, the FWS's 12-month finding asserts that walrus habitat needs will be met through 2060<sup>74</sup> while failing to report key conclusions from the status assessment predicting large losses of essential sea ice habitat in all seasons, scenarios, and Representative Concentration Pathways,<sup>75</sup> and that the Bayesian Belief Network model results "likely represent an underestimate of stress to the population"<sup>76</sup> from sea ice loss for several reasons: (1) "potential habitat" modeled into the future does not equate to suitable habitat nor does it take habitat quality into account;<sup>77</sup> (2) the model does not include changes in sea ice extent and concentration;<sup>78</sup> and (3) it is assumed that walrus will move with the sea ice habitat as it shifts northward from the Bering to the Chukchi Sea although this is uncertain. The FWS's finding also fails to report the status assessment's conclusion that increasing stress from sea ice loss "will likely result in a population decline" in addition to a loss of resiliency and redundancy.<sup>79</sup>

The FWS's not warranted finding and status assessment also fail to include important findings from key studies, such as Ray et al. (2016) and Taylor et al. (2017). Ray et al. (2016) documented the fragmentation and earlier break-up of Bering Sea ice during the winter-spring season that are expected to be highly disruptive for Pacific walrus reproductive, feeding, and migratory activities.<sup>80</sup> The researchers emphasized that walrus in winter-spring depend on a critical mass of sea ice habitat to optimize reproductive fitness, feeding behavior, migration, and energetic efficiency. They warned that the fragmentation of winter habitat "preconditions the walrus population toward dispersal mortality" and higher energetic costs.<sup>81</sup> Taylor et al. (2017)

---

<sup>69</sup> 82 Fed. Reg. at 46,644.

<sup>70</sup> James G. MacCracken, et al. Final Species Status Assessment for the Pacific Walrus (*Odobenus rosmarus divergens*), May 2017 (Version 1.0) ("Status Assessment") at 30.

<sup>71</sup> Status Assessment at 122.

<sup>72</sup> *Id.*

<sup>73</sup> *Id.*

<sup>74</sup> 82 Fed. Reg. at 46,643.

<sup>75</sup> Status Assessment at 92.

<sup>76</sup> *Id.* at 115.

<sup>77</sup> *Id.* at 92.

<sup>78</sup> *Id.* at 115.

<sup>79</sup> *Id.* at 120-121.

<sup>80</sup> Ray, G.C. et al. 2016. Decadal Bering Sea seascape change: consequences for Pacific walrus and indigenous hunters. *Ecological Applications* 26(1): 24-41.

<sup>81</sup> *Id.* at 24.

modeled walrus population dynamics between 1974 and 2015.<sup>82</sup> Model results indicated that the walrus population has declined since the 1980s after reaching carrying capacity. Two of three “equally plausible” models indicated that the walrus population is still declining, while the third indicated a 45% chance that the population was declining in 2015. This study contradicts the FWS’s assertion that the walrus population appears to be approaching stability.<sup>83</sup>

Additionally, the available information indicates that many Arctic coastal regions are eroding at an accelerating rate due to the combined effects of sea ice loss, increasing sea surface temperatures, increasing terrestrial permafrost degradation, rising sea levels, and increases in storm power and corresponding wave action, and that erosion will continue in the future.<sup>84</sup> But the FWS’s decision fails to consider this information or how coastal erosion will affect the Pacific walrus. The FWS’s failure to consider the best available science violates the ESA.

#### **D. The FWS Improperly Construed Uncertainty as Evidence that Listing the Pacific Walrus Is Not Warranted**

The FWS’s decision also improperly relies on uncertainty as affirmative evidence that listing the Pacific walrus is not warranted. Such an approach is contrary to the ESA.<sup>85</sup>

For example, the FWS found that while increased use of land will threaten the Pacific walrus through increased mortality from stampedes, decreased prey, increased disturbance, and increased predation (among other impacts), the Pacific walrus should not be listed under the ESA because the magnitude of the threat of increased use of land habitat is uncertain.<sup>86</sup> The FWS cannot rely on uncertainty regarding the precise size or timing of population declines to find loss of sea ice does not threaten Pacific walrus.

Additionally, the FWS acknowledged that it is uncertain whether land habitat will be of sufficient quality as compared to sea ice, but that if land habitat proves to be comparable in quality to ice habitat, including access to foraging sites, then it is likely that Pacific walrus’ habitat needs will be met. However, the FWS admits that it is not known whether Pacific walrus could adapt to carrying out mating behaviors from the coast,<sup>87</sup> and furthermore that declines in survival and recruitment and population-level effects would occur “if land habitat is inferior to ice habitat for Pacific walruses in summer and fall.”<sup>88</sup> The FWS cannot rely on uncertainty to assume that land-based habitat will be sufficient.

---

<sup>82</sup> Taylor, R.L., et al. 2017. Demography of the Pacific walrus (*Odobenus rosmarus divergens*) in a changing Arctic. *Marine Mammal Science*.

<sup>83</sup> FWS, Pacific Walrus 12-month Finding Questions and Answers,

<sup>84</sup> Jones, B.M. et al. 2009. Increase in the rate and uniformity of coastline erosion in Arctic Alaska. *Geophysical Research Letters* 36: L03503; Barnhart, K.R. et al. 2014. The effect of changing sea ice on the physical vulnerability of Arctic coasts. *Cryosphere* 8: 1777-1799; Wood, K.R. et al. 2015.

<sup>85</sup> *See, e.g., Tucson Herpetological Soc’y v. Salazar*, 566 F.3d 870, 879 (9th Cir.2009) (“if the science on population size and trends is underdeveloped and unclear, the Secretary cannot reasonably infer that the absence of evidence of population decline equates to evidence of persistence”).

<sup>86</sup> 82 Fed. Reg. at 46,644.

<sup>87</sup> Status Assessment at 122.

<sup>88</sup> 82 Fed. Reg. at 46,643.

In short, “rather than explain why” the threats posed to the Pacific walrus from the loss of its sea ice habitat in the face of climate change, “are no cause for alarm, the [FWS] simply stated there was no threat because there was no data confirming a threat.”<sup>89</sup> But “such conclusory treatment based on a dearth of information is impermissible under the APA and ESA.”<sup>90</sup>

#### **E. The FWS Failed To Analyze Whether Any Distinct Population Segment of the Pacific Walrus Warrants Listing or Whether the Species Is Threatened in a Significant Portion of its Range**

The FWS based its not warranted determination for the Pacific walrus on an analysis of the extinction risk facing the species as a whole. In so doing, it failed to properly analyze whether any distinct population segment (“DPS”) of the species might warrant listing or whether the species might be threatened or endangered in a significant portion of its range (“SPR”). Such failures render its decision unlawful.

Under the FWS’s DPS policy, a population segment of a vertebrate species is discrete if it satisfies either of the following conditions:

1. It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors.
2. It is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D) of the Act.<sup>91</sup>

While the geographical barriers between the Bering Sea and the Chukchi Sea likely qualify under the first prong of the policy, there can be no dispute that Russian and Alaskan Pacific walruses are separated by an international boundary and that the two countries’ management regimes for the species differ, thereby satisfying the second prong of the policy. The FWS’s disregard of its own policy and complete failure to consider whether any DPSs of the Pacific walrus might warrant listing renders the 12-month determination arbitrary and unlawful.

Additionally, the FWS’s failure to consider whether the walrus is threatened in a significant portion of its range also renders the 12-month determination unlawful. Under the ESA, the FWS is required to list the species if it “is in danger of extinction throughout all *or a significant portion of its range*” or likely to become in danger of extinction throughout all *or a significant portion of its range* within the foreseeable future.<sup>92</sup> But the FWS did not analyze whether the Pacific walrus is threatened or endangered throughout a significant portion of its range. Instead, the FWS found “no portions of its range where potential threats are significantly concentrated or substantially greater than in other portions of its range” nor “any portions where the species may be in danger of extinction or likely to become so in the foreseeable future.”<sup>93</sup>

---

<sup>89</sup> *Defenders of Wildlife v. Jewell*, 176 F.Supp.3d 975, 1006 (D. Mont. 2016).

<sup>90</sup> *Id.*

<sup>91</sup> Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act, 61 Fed. Reg. 4722 (Feb. 7, 1996).

<sup>92</sup> 16 U.S.C. § 1532(6), (20) (emphasis added).

<sup>93</sup> 82 Fed. Reg. at 46,644.

But this finding is entirely conclusory and not supported by the available evidence. For example, the status assessment finds that the walrus's summer and fall sea ice habitat in the Chukchi Sea—where most females and calves go to feed—will decrease by 85% by 2060 and 100% by 2100. The status assessment further finds that this could lead to high concentration of walruses, with an increased risk of significant mortality event from trampling.

Moreover, the FWS's interpretation of what constitutes a SPR is unlawful. As one court recently explained, “the SPR language cannot permissibly be interpreted ‘to mean that a species is eligible for protection under the ESA’ only ‘if it faces threats in enough key portions of its range that the entire species is in danger of extinction, or will be within the foreseeable future.’”<sup>94</sup> Such an interpretation would render the ESA's reference to SPR superfluous.<sup>95</sup>

Yet the FWS's interpretation of SPR for the Pacific walrus does just that by requiring that the portion be so important to the larger species that without it, the species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all its range. The FWS's 12-month determination is therefore improper.

#### **F. The FWS Otherwise Failed To Conduct a Proper Listing Analysis**

While the primary threat to the Pacific walrus—the loss of its sea ice habitat from climate change—falls within the ESA listing factor “the present or threatened destruction, modification, or curtailment of its habitat or range,”<sup>96</sup> several other ESA listing factors are also implicated in the plight of the species. The FWS's treatment of these factors was also arbitrary.

For example, the FWS's decision acknowledges that the greatest threats to the Pacific walrus are the loss of its sea ice habitat, ocean warming, and ocean acidification caused by climate change. However, the FWS failed to adequately analyze the threats of ocean warming and ocean acidification on the Pacific walrus, or whether existing regulatory mechanisms are sufficient to address these threats. The FWS also concluded that subsistence hunting is not a threat to Pacific walruses because harvest levels have declined due to poor sea ice conditions from climate change and subsistence hunting would continue to be sustainable within the foreseeable future. However, this assumption fails to address the available evidence indicating that as the species' sea ice habitat continues to vanish, Pacific walruses will increasingly haulout on land, which will increase their susceptibility to hunting. It also ignores the status assessment's conclusion that it is impossible to predict future harvest levels,<sup>97</sup> meaning that the FWS cannot assume that harvest levels will remain low.

The FWS's decision is also arbitrary and capricious because it lacks an examination of how all of the threats to the Pacific walrus in combination may affect the species' survival. A species must be listed under the ESA if the best available science shows “that the species is

---

<sup>94</sup> *Center for Biological Diversity v. Jewell*, No. CV-14-02506-TUC-RM, 2017 Lexis 2017 U.S. Dist. LEXIS 89355, at 16-17 (D. Az. Mar. 29, 2017) (citations omitted).

<sup>95</sup> *Id.*

<sup>96</sup> 16 U.S.C. § 1533(a)(1)(A).

<sup>97</sup> Status Assessment at 104.

endangered or threatened because of any one *or a combination of* the [five listing] factors.”<sup>98</sup> Thus, the FWS must analyze threats to the Pacific walrus both individually *and cumulatively* to determine if the species is threatened or endangered.<sup>99</sup> But the FWS failed to do so.

## V. Conclusion

The FWS’s determination that listing the Pacific walrus is not warranted is arbitrary, capricious, and violates the ESA. If the FWS does not act within sixty days to correct the violations detailed in this letter, the Center will pursue litigation in federal court to resolve the matter. If you have any questions or wish to discuss this matter, please feel free to contact me.

Sincerely,

/s/ Kristen Monsell

Kristen Monsell  
Oceans Legal Director, Senior Attorney  
Center for Biological Diversity  
1212 Broadway, Ste. 800  
Oakland, CA 94612  
kmonsell@biologicaldiversity.org, 510-844-7137

---

<sup>98</sup> 50 C.F.R. § 424.11(c) (emphasis added).

<sup>99</sup> See *WildEarth Guardians v. Salazar*, 741 F. Supp. 2d 89, 102 (D.D.C 2010).