COMMENT

WHALE WARS: RECONCILING SCIENCE, PUBLIC OPINION, AND THE PUBLIC DISPLAY INDUSTRY UNDER THE MARINE MAMMAL PROTECTION ACT

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Baby beluga in the deep blue sea/Swim so wild and you swim so free
— Raffi, "Baby Beluga"[1]

INTRODUCTION

The Georgia Aquarium (Aquarium) is one of the world's largest aquariums, known for its display of whale sharks, otters, dolphins, and belugas.[2] Although the Aquarium boasts state-of-the-art facilities, belugas, like most cetaceans,[3] are ill-suited for captivity.[4] Captive belugas suffer

1. RAFFI, BABY BELUGA (A&M Records 1980).

2. *See* Georgia Aquarium, Application for a Permit to Import Certain Marine Mammals for Public Display under the Marine Mammal Protection Act, File No. 17324, at H-1 (June 15, 2012), *available at* http://www.nmfs.noaa.gov/pr/permits/sci_res_pdfs/17324_final_application.pdf [hereinafter GEORGIA AQUARIUM]; Taylor Goldblatt, *25 Best Aquariums in America*, US CITY TRAVELER (Mar. 10, 2014), http://www.uscitytraveler.com/25-best-aquariums-in-america/.

3. "Cetacean" is any member of the order (Cetacea) encompassing whales, dolphins, and porpoises. RANDALL R. REEVES ET AL., NAT'L AUDUBON SOC'Y, GUIDE TO MARINE MAMMALS OF THE WORLD 180 (2002) (describing cetaceans).

4. *See* Lori Marino & Toni Frohoff, *Towards a New Paradigm of Non-Captive Research on Cetacean Cognition*, 6 PLOS ONE 1, 2–4 (2011), http://www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0024121&representation=PDF (summarizing the research to date on the impacts of captivity on cetacean behavior, disease, and mortality).

from shortened life spans and decreased reproductive success.[5] As a result, the Aquarium is under intense pressure to replenish its shrinking stock. Wary of applying for a permit to capture belugas in the waters of the United States or the high seas[6] and forbidden from capturing belugas in Canadian seas,[7] marine parks have turned to Russia as the last source of beluga whales for public display.[8]

The Marine Mammal Protection Act (MMPA) requires the National Oceanic and Atmospheric Agency (NOAA or the Agency) to review applications for the importation of marine mammals to ensure that the proposed action complies with various statutory and regulatory criteria.[9] The Aquarium submitted its "Application for a Permit to Import Certain Marine Mammals for Public Display under the Marine Mammal Protection Act" to the Agency on June 15, 2012.[10] It was the first application to import wild-caught cetaceans in over twenty years.[11] The

5. *See* Anpule, *Georgia Aquarium Applies to Import 18 Wild-Caught Belugas—Who Would be First to Reach the U.S. in 20 Years*, ANIMAL PEOPLE (Aug. 20, 2012), http://www.animalpeoplenews.org/anp/2012/08/20/georgia-aquarium-applies-to-import-18-wild-caught-belugas-who-would-be-first-to-reach-the-u-s-in-20-years/ [hereinafter ANIMAL PEOPLE] (citing the unsuccessful beluga breeding program as a main impetus behind the Georgia Aquarium's (Aquarium's) import application).

6. Contrary to popular belief, marine mammal capture is not illegal in the United States. 16 U.S.C. § 1374 (2012). Generally, marine parks prefer to obtain new animals for their collections by rescuing marine mammals and subsequently declaring them to be "unfit for release," importing marine mammals from collections held overseas, or breeding marine mammals from their existing collections. Jason Garcia, *SeaWorld and Others Trying to Import Beluga Whales Caught in Wild*, ORLANDO SENTINEL (Oct. 3, 2012, 7:30 PM), http://articles.orlandosentinel.com/2012-10-03/business/os-seaworld-beluga-whales-20121003_1_beluga-whales-seaworld-parks-entertainment-marine-mammals (stating that marine parks fear political and consumer backlash should they apply for a permit to capture the animals in United States waters). Beluga rescues are exceedingly rare, and beluga breeding programs have been largely unsuccessful. ANIMAL PEOPLE, *supra* note 5.

7. Canada banned live captures for public display in 1992. *See* Convention on International Trade in Endangered Species (CITES) Secretariat, Notification to the Parties No. 723, Canada: Ban on Export of Live-Captured Belugas (Mar. 1, 1993), http://cites.org/sites/default/files/eng/notif/1993/723.shtml; *see also* JON LIEN, A REVIEW OF LIVE-CAPTURE AND CAPTIVITY OF MARINE MAMMALS IN CANADA 5 (1999) (official report to Canada's Department of Fisheries and Oceans).

8. *See* Kenneth Brower, *The Great White Whale Fight*, NAT'L GEOGRAPHIC (May 31, 2013), http://news.nationalgeographic.com/news/2013/13/130531-beluga-whale-dolphin-marine-mammal-georgia-aquarium-capture-free-willie-narwhal/ (discussing Russia's place as the last country to permit cetacean captures for public display). "Public display" is defined as "an activity that provides opportunities for the public to view living marine mammals at a facility holding marine mammals captive." 50 C.F.R. § 216.3 (2013).

9. *See* 16 U.S.C. § 1371 (2012); 50 C.F.R. § 216.33 (2013).

10. GEORGIA AQUARIUM, *supra* note 2, at 1.

11. *NOAA Fisheries Denies Application to Import 18 Beluga Whales for Public Display*,

lengthy document meticulously addressed each statutory and regulatory requirement for importing marine mammals.[12] Despite an active public relations campaign, the public expressed nearly universal disapproval for the proposed import.[13] After nearly a year of deliberation, NOAA denied the Aquarium's request.[14]

Like most environmental management agencies, NOAA must balance competing statutory and regulatory mandates in carrying out its various missions. Here, NOAA must consider both Congress's direction to support the public display industry, and its obligation to consider both the sustainability of marine mammal populations and public opinion in its regulatory decisions. Public opposition to the public display industry has grown significantly with our evolving understanding of marine mammal intelligence and social structure.[15] While the MMPA requires the Agency to consider both public comments and the effect of an activity on the welfare of the individual animal,[16] the Agency must also base its decisions on the more objective analysis of whether a proposed activity will impact

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NOAANEWS (Aug. 6, 2013), http://www.noaanews.noaa.gov/stories2013/20130806_georgiaaquarium.html.

12. GEORGIA AQUARIUM, *supra* note 2 (addressing each statutory and regulatory requirement in 387 pages).

13. The application received nearly 9,000 public comments on Regulations.gov, the vast majority of which requested that the agency deny the permit. *See Notice; Receipt of Application for a Permit to Import Marine Mammals for Public Display Purposes (File No. 17324)*, REGULATIONS.GOV, http://www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2012-0158 (last visited Oct. 9, 2014) [hereinafter REGULATIONS.GOV].

14. *See* Memorandum from P. Michael Payne, Chief, Permits & Conservation Div., National Oceanic and Atmospheric Administration (NOAA or the Agency), to Donna S. Wieting, Dir., Office of Protected Res., NOAA 1 (Aug. 5, 2013), *available at* http://www.nmfs.noaa.gov/pr/permits/sci_res_pdfs/17324_denial_letter_final.pdf (denial letter and memorandum).

15. *See generally Findings from 2014 US National Survey on Orca Captivity*, EDGE RESEARCH 2–3 (May 26, 2014), https://uk.whales.org/sites/default/files/edge_ orca_poll_media_summary_may_2014.pdf (citing the "significant shift in opinion and consolidation of opposition" against orca captivity that occurred between 2012 and 2013 and noting that Americans are increasingly concerned with the impacts of captivity on the animals' behavior and lifespans); Letter from Jared Huffman, Member of U.S. Congress, et al., to Thomas Vilsack, Sec'y, U. S. Dep't of Agriculture (May 29, 2014), *available at* https://huffman.house.gov/sites/huffman.house.gov/files/05.29.14.Vilsack.Captive%20Marine%20Mammal%20Regulations.pdf (asking that the Department of Agriculture immediately update its regulations concerning the keeping of captive marine mammals in light of growing public concern spurred by increasing awareness of the physical and psychological impacts of captivity on cetaceans).

16. 16 U.S.C. § 1372(b)(4), (d)(2) (2012); 50 C.F.R. §§ 216.33(e)(2)(iii), 216.34(a)(1) (2013).

the wild population's recovery.[17] Accurately assessing the status of marine mammal populations is difficult in the best conditions, but becomes especially challenging in difficult climates such as the Arctic.[18] Further, scientists have yet to reach a consensus on the suitability of individual cetacean species for captivity.[19]

When faced with scientific uncertainty, agencies must make a decision based not just upon factual determinations but also upon policy choices.[20] These policy choices serve to fill the gaps left by uncertain science.[21] Consideration of public opinion can help to inform agency decisionmaking in light of imperfect information, but failure to acknowledge the policy choices for what they are tends to undercut transparency and hinder democratic participation and agency accountability in the administrative process.[22] The resulting "science charade" can severely impede reasoned decisionmaking, as policy decisions or positions that are not considered scientific, but may nevertheless be worthy of consideration, are tossed aside in favor of those that are more dressed for the part.[23] Thus, engaging in the science charade allows agencies to hide the real policies and considerations behind their decisions, essentially removing the debate from the public forum. In so doing, agencies are able to avoid addressing both the growing policy conflict and the regulatory gaps, opening the door to inconsistent

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17. 50 C.F.R. § 216.34(a)(4).

18. *See* Anna M. Magera et al., *Recovery Trends in Marine Mammal Populations*, 8 PLOS ONE 1, 2 (2013), http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0077908 ("[M]arine mammals are notoriously difficult to survey accurately for abundance"). In the remote Arctic region, the harsh climate and extreme weather conditions present additional challenges to researchers. *See* MARINE MAMMAL COMM'N, ANNUAL REPORT TO CONGRESS 48 (2012), *available at* http://www.mmc.gov/reports/annual/pdf/2012/Chapter_II_2012.pdf (citing the challenges associated with assessing marine mammal stocks that inhabit "remote and challenging environments").

19. *Compare* Laurence Couquiaud, *A Survey of the Environments of Cetaceans in Human Care*, 31 AQUATIC MAMMALS 283, 297 (2005) ("In captivity, not all cetacean species have been kept routinely or with equal success."), *with* Marino & Frohoff, *supra* note 4, at 3 ("There is a copious scientific literature confirming the damaging effects of captivity on dolphin and whale physical health and psychological well-being.").

20. *See* Emily Hammond Meazell, *Super Deference, the Science Obsession, and Judicial Review as Translation of Agency Science*, 109 MICH. L. REV. 733, 740 (2011) (discussing how "policy choices will necessarily represent decisions made in light of scientific uncertainty").

21. *See id.* at 751 (citing Wendy E. Wagner, *The Science Charade in Toxic Risk Regulation*, 95 COLUM. L. REV. 1613, 1629 (1995) [hereinafter Wagner, *The Science Charade*]).

22. *See id.* at 751–52 (describing the ways that the science charade can undercut transparency in agency decisionmaking).

23. *See id.* (discussing the tendency to disregard public comments that relate to questions of value or policy); Nina A. Mendelson, *Rulemaking, Democracy, and Torrents of E-Mail*, 79 GEO. WASH. L. REV. 1343, 1346 (2011) (same).

decisionmaking procedures and rendering their decisions vulnerable to judicial reversal.

By denying the Aquarium's permit application, NOAA set an important but precarious precedent. As the first request to import wild-caught cetaceans in over twenty years,[24] this application will likely serve as a test case as marine parks look for animals to prolong the life of the industry. Moreover, NOAA's decision serves as a microcosm of the challenges faced by multiple-goal agencies when rendering environmental management decisions. Despite the increased role cautionary principles and public opinion played in this decision, NOAA's engagement in the science charade continues to hinder the achievement of the three major goals of environmental decisionmaking—public participation, environmental protection, and scientific development.[25] NOAA must be more transparent about its decisionmaking procedures in order to lend legitimacy to its decisions and guard against judicial challenge.

Part I of this Comment briefly reviews the MMPA, import permit requirements, and methodologies used to assess the propriety of proposed actions under the statute. Part II gives a brief history of the cetacean captivity controversy. This Part next reviews the Aquarium's permit application and NOAA's decision. Part III analyzes NOAA's ultimate decision in the context of multiple-goal agencies to illustrate how the permit denial runs counter to the generalized model of environmental resource management. Part IV critically examines NOAA's scientific analysis to expose the Agency's use of the science charade to avoid political accountability to the regulated entity, the public, and the courts. This Part argues that, although NOAA's decision was appropriately cautious in light of scientific uncertainty and public opinion, its use of the science charade runs counter to the goals of environmental decisionmaking. This Part concludes that, given the highly deferential standard of review, the court will likely affirm the Agency's decision; however, the science charade is a dangerous game, and NOAA should endeavor to avoid formulating such controversial policy ad hoc. Lastly, Part V recommends that NOAA finalize and promulgate regulations that clarify stringent requirements for importation that protect the welfare of the animals, solidify a role for public opinion, and ensure that the Agency's prioritization of conservation over exploitation is upheld.

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24. ANIMAL PEOPLE, *supra* note 5.

25. Wagner, *The Science Charade*, *supra* note 21, at 1673.

I. THE MARINE MAMMAL PROTECTION ACT

A. The MMPA and the Public Display Industry—A History of Acquiescence

In 1972, Congress enacted the MMPA in response to the public's growing concern over the continued survival of these "charismatic megafauna."[26] As broadly stated in the House Conference Report, Congress passed the MMPA "to prohibit the harassing, catching and killing of marine mammals by U.S. citizens or within the jurisdiction of the United States . . . ."[27] Congress recognized that "certain species and populations stocks[28] of marine mammals are, or may be, in danger of extinction or depletion as a result of man's activities"[29] and sought to prevent such stocks from "diminish[ing] beyond the point at which they cease to be a significant functioning element in the ecosystem . . . ."[30] Thus, the MMPA set a goal to "obtain an optimum sustainable population" (OSP) for marine mammals.[31] To accomplish this goal, the law imposed a "moratorium on the taking and importation of marine mammals and marine mammal products," with limited exceptions.[32] NOAA may issue permits to take or

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26. *See* H.R. REP. NO. 92–707, at 12 (1971) (Conf. Rep.) ("The Committee was impressed by the wide support for the principle of broader and more adequate protection for marine mammals."); *see also* LaVonne R. Dye, Note, *The Marine Mammal Protection Act: Maintaining the Commitment to Marine Mammal Conservation*, 43 CASE W. RES. L. REV. 1411, 1414–15 n.11 (1993) (discussing the three major concerns that prompted the passage of the Marine Mammal Protection Act (MMPA): (1) public outrage over the brutal slaughter of harp seal pups in Canada, (2) fear that human activities would cause the extinction of certain cetacean species, and (3) concern over the incidental killings of dolphins and porpoises by the tuna fishery). "Charismatic megafauna" refers to "'popular, charismatic species that serve as symbols and rallying points to stimulate conservation awareness and action.'" *See* Frédéric Ducarme, Gloria M. Luque & Franck Courchamp, *What are "Charismatic Species" for Conservation Biologists?*, BIOSCIENCES MASTER REVIEWS 1, 1 (Oct. 1, 2012), *available at* http://biologie.ens-lyon.fr/biologie/ressources/bibliographies/pdf/m1-11-12-biosci-reviews-ducarme-f-2c-m.pdf?lang=en (emphasis omitted).

27. H.R. REP. NO. 92–707, at 11.

28. "Population stock" or "stock" is a management unit defined as "a group of marine mammals of the same species or smaller taxa in a common spatial arrangement, that interbreed when mature." 16 U.S.C. § 1632(11) (2012).

29. 16 U.S.C. § 1361(1) (2012).

30. *Id.* § 1361(2).

31. *Id.* § 1361(6). Optimum sustainable population is defined as "the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element." *Id.* § 1362(9).

32. *See* 16 U.S.C. § 1371(a), (a)(1)–(2), (a)(5) (2012) (imposing the moratorium and providing the authority to issue: permits to take or import marine mammals for the purpose of scientific research, public display, photography, or stock enhancement; permits to take marine mammals incidental to non-fishing maritime activities; and permits or authorizations

import marine mammals pursuant to these excepted activities, provided that the applicant meets the statutory conditions.[33]

Permits to intentionally take or import marine mammals are called "Special Exception Permits," and may be issued for the purposes of scientific research, stock enhancement, photography, or public display.[34] In 1988, Congress set further restrictions on public display permit eligibility, requiring that permit holders offer education or conservation programs based on "professionally recognized standards of the public display community," hold a license issued by the Animal and Plant Health Inspection Service (APHIS) under the Animal Welfare Act (AWA),[35] and maintain facilities that are open to the public subject only to an admission fee.[36]

During the 1994 reauthorization of the MMPA, the public display industry intensely lobbied for several changes that would weaken federal oversight of marine mammal import and care.[37] Despite growing public and congressional concern over the regulation of the public display industry,[38] Congress adopted several of these proposals that both reorganized the regulatory regime and diluted federal control over marine mammal parks.[39] Under the original enactment, NOAA and the Marine Mammal Commission (MMC) had the joint responsibility to review permit applications to import live marine mammals and ensure that the applicant could properly care for and handle the animal.[40] The 1994 amendments

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to take marine mammals incidental to commercial fishing operations).

33. *See* 16 U.S.C. § 1374 (2012) (regulations for the issuance of Special Exception Permits).

34. 50 C.F.R. pt. 216(D) (2011) (regulations governing issuance of Special Exception Permits).

35. 16 U.S.C. § 1374(c)(2)(A)(i) (2012). The Animal and Plant Health Inspection Service (APHIS), housed within the Department of Agriculture, administers the Animal Welfare Act (AWA), which regulates the care and treatment of animals used in research or for exhibition purposes. *See* Animal Welfare Act, 7 U.S.C. § 2131 (2012).

36. *See* Stephanie Dodson Dougherty, Comment, *The Marine Mammal Protection Act: Fostering Unjust Captivity Practices Since 1972*, 28 J. LAND USE & ENVTL. L. 337, 338 (2012).

37. *See* DAVID KIRBY, DEATH AT SEAWORLD 215–16 (2012) (discussing the 1994 amendment process and noting that the "[i]ndustry lobbyists themselves had drafted the new criteria").

38. For a discussion on the 1994 MMPA amendment process, see *id.* at 211–16. Kirby notes that the 1994 MMPA reauthorization occurred just as the movie *Free Willy* catapulted marine mammal captivity into the national spotlight. *Id.* at 211–12.

39. KIRBY, *supra* note 37, at 215–16.

40. *See* Marine Mammal Protection Act of 1972, Pub. L. No. 92–522, § 103, 86 Stat. 1027, 1033 (requiring the Secretary to review permit applications for public display to ensure consistency with the statutory and regulatory mandates of the MMPA); Regulations Governing the Taking and Importing of Marine Mammals, 39 Fed. Reg. 1851, 1856 (Jan.

retained NOAA's jurisdiction over the importation of marine mammals held for purposes of public display; however, the Amendments transferred jurisdiction over the subsequent "care and maintenance of captive marine mammals" to APHIS under the AWA.[41] This bifurcation of authority has been criticized for placing the primary authority for the regulation of captive marine mammal welfare in the hands of an agency with little expertise in marine mammal biology and care.[42] Such contentions are supported by APHIS's outdated regulations governing captive marine mammal care and a history of poor oversight of marine mammal parks.[43] When taken with the amendments that allow the public display industry to largely self-regulate,[44] the reauthorized MMPA severely limited the federal government's ability to meaningfully police the public display industry.[45] However, by controlling the taking or importation of marine mammals for public display, NOAA holds a large amount of power over the future of the industry.

B. Regulations for Special Exception Permits

The applicant for a Special Exception Permit bears the burden of demonstrating that the taking or importation of any marine mammal under the permit will comport with the purposes of the MMPA and comply with the applicable regulations.[46] To date, NOAA has failed to promulgate

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15, 1974) (final rule) (to be codified at 50 C.F.R. § 216) (requiring applicants for permits to take or import a marine mammal for public display submit detailed statements on their ability to "provide for the well-being of the animal.").

41. Dougherty, *supra* note 36, at 338; *see also* Marine Mammal Protection Act Amendments of 1994, Pub. L. No. 103–238, § 5, 108 Stat. 532, 537 (to be codified at 16 U.S.C. § 1374) (providing that permit holders must be registered with APHIS and comply with the regulations set forth under the AWA).

42. *See* EUGENE H. BUCK, CONG. RESEARCH SERV., RL 30120, THE MARINE MAMMAL PROTECTION ACT: REAUTHORIZATION ISSUES 17 (2007) (summarizing the criticisms of the current regulatory regime by animal protection groups).

43. *See* Dougherty, *supra* note 36, at 341–42.

44. The 1988 Amendments required NOAA to compile and approve the "professionally recognized standards" for the education programs. Dougherty, *supra* note 36, at 338. However, before the Agency could do so, the MMPA Amendments of 1994 removed this requirement, allowing the public display community to compile its own standards without any agency review. 16 U.S.C. § 1374(c)(2)(A)(i) (2012); *see also* Dougherty, *supra* note 36, at 338.

45. *See* Dougherty, *supra* note 36, at 342–43; *see also Marine Mammals in Captivity: What Constitutes Meaningful Public Education? Before the Subcomm. on Insular Affairs, Oceans & Wildlife of the H. Comm. on Natural Res.*, 111th Cong. (2010) (statement of Naomi Rose, Ph.D., Senior Scientist, Humane Society International).

46. 16 U.S.C. § 1374(d)(3) (2012). The MMPA stipulates that regulations *may* include restrictions on the number of animals taken or imported within a year, the age, size, or sex

activity-specific regulations governing marine mammal imports for public display.[47] The current regulations detail the general application submission and review procedures, and many merely reiterate the statutory prohibitions and limitations stated in the MMPA.[48]

The MMPA forbids the importation of animals that were pregnant at the time of taking, still nursing or less than eight months old (whichever occurs later), or taken from a population designated as depleted.[49] The applicant must demonstrate that the "proposed activity is humane and does not present any unnecessary risks to the health and welfare of marine mammals."[50] The applicant must also demonstrate that the proposed activity complies with any relevant restrictions in the Endangered Species Act (ESA).[51] Finally, the applicant must show that the requested import "by itself or in combination with other activities, will not likely have a significant adverse impact on the species or stock"[52] or "result in the taking of marine mammals . . . beyond those authorized by the permit."[53] The application must be published in the Federal Register for public comment,[54] and the ultimate decision based upon a consideration of the statutory and regulatory criteria, public comments received, and any other information deemed relevant.[55]

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of the animals to be taken or imported, and the season or other period of time during which the animal may be taken or imported. *Id.* § 1373(c).

47. *See* 50 C.F.R. § 216.43 (2011) (Public Display-Reserved). In 2010, the Agency issued a scoping document regarding proposed modifications to the permit regulations that included promulgating regulations specific to the public display industry. NOAA, MODIFICATIONS TO THE REGULATIONS GOVERNING THE ISSUANCE OF SCIENTIFIC RESEARCH, ENHANCEMENT, AND PUBLIC DISPLAY PERMITS PURSUANT TO THE MARINE MAMMAL PROTECTION ACT: SCOPING DOCUMENT 62 (2010) [hereinafter SCOPING DOCUMENT]. In April 2010, NOAA published a Notice of Intent to Prepare an Environmental Assessment. Notice of Intent to Prepare an Environmental Assessment for a Proposed Rule to Revise Marine Mammal Special Exception Permit Requirements, 75 Fed. Reg. 16,747 (Apr. 2, 2010). The comment period closed on June 10, 2010. *Id.* NOAA has taken no further action regarding these proposed modifications.

48. *See* 50 C.F.R. § 216.32–.36 (2010) (defining the scope of the regulations and the procedures to be followed for all Special Exception Permits, including those issued for public display).

49. 16 U.S.C. § 1372(b) (2012). A designation of "depleted" means that the stock has fallen below its optimum sustainable population (OSP). *Id.* § 1362(1)(A). Stocks listed as endangered or threatened under the Endangered Species Act (ESA) are considered depleted for the purposes of the MMPA. *Id.* § 1362(1)(C).

50. 50 C.F.R. § 216.34(a)(1) (2010).

51. *Id.* § 216.34(a)(3).

52. *Id.* § 216.34(a)(4).

53. *Id.* § 216.34(a)(7).

54. 16 U.S.C. § 1374(d)(2) (2012).

55. 50 C.F.R. § 216.33(e)(2) (2013).

C. Managing Marine Mammal Populations—Potential Biological Removal

As stated above, the MMPA's moratorium on the taking or importation of whales for public display can be waived only if the Agency determines that the proposed activity will not adversely impact the wild stock.[56] Therefore, when determining whether to permit such activities, the "relevant question" becomes: Is the proposed activity sustainable?[57] To help answer this question, NOAA uses the Potential Biological Removal (PBR) analysis, an MMPA calculation that defines the maximum number of individuals that can be artificially removed (i.e., removed as a consequence of human activity) from a population without impeding the stock's overall recovery.[58] This analysis has long been used by the Agency to ensure that annual removals from cetacean populations are sustainable and in-line with the goals of the MMPA.[59] It is particularly useful because it "can be computed using minimal data."[60]

The PBR is statutorily defined as the product of the stock's lowest population estimate, one-half of the stock's "net productivity rate" (R_{max}), and a recovery factor between 0.1 and 1.0 (F_r).[61] The net productivity rate (R_{max}) is "'the annual per capita rate of increase'" as determined from the difference between gains from births and losses from natural mortality.[62] Since this number relies on population trend data, it cannot be calculated for stocks that are data-poor. Consistent with the "risk-averse" approach of the MMPA, NOAA uses a default value of 0.04 for these populations.[63] The inclusion of the recovery factor (F_r) helps to ensure that populations recover and meet the OSP.[64] An F_r of less than one decreases the PBR,

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56. *Id.* § 216.34(a)(4).

57. Memorandum from P. Michael Payne, *supra* note 14, at 28.

58. *See* GEORGIA AQUARIUM, *supra* note 2, at A-23.

59. RANDALL R. REEVES ET AL., INT'L UNION FOR CONSERVATION OF NATURE, SUSTAINABILITY ASSESSMENT OF BELUGA (*DELPHINAPTERUS LEUCAS*) LIVE-CAPTURE REMOVALS IN THE SAKHALIN-AMUR REGION, OKHOTSK SEA, RUSSIA 10 (2011), *available at* https://portals.iucn.org/library/efiles/documents/ssc-op-044.pdf [hereinafter IUCN REPORT]. In the United States, the Potential Biological Removal (PBR) analysis is used to estimate annual take quotas for commercial fisheries. *See* List of Fisheries for 2014, 79 Fed. Reg. 14,418, 14,419 (Mar. 14, 2014) (to be codified at 50 C.F.R. pt. 229) (discussing how PBR factors into the regulation of commercial fisheries).

60. IUCN REPORT, *supra* note 59, at 10.

61. 16 U.S.C. § 1362 (20) (2012).

62. NOAA, REVISIONS TO GUIDELINES FOR ASSESSING MARINE MAMMAL STOCKS (GAMMS II) 6 (2005), http://www.nmfs.noaa.gov/pr/pdfs/sars/gamms2005.pdf.

63. *Id.* at 7.

64. *See id.* (stating that the intent of Congress in including a recovery factor in the PBR is to ensure the recovery of cetacean populations, particularly those populations that are endangered or threatened).

providing a buffer zone that both allows for quicker recovery and accounts for "uncertainties" that can impede population recovery, such as an inaccurate estimation of population size or productivity rate, or unknown sources of mortality.[65] Populations that are threatened, endangered, or depleted, as well as populations of unknown status, have a default F_r of 0.5, which reduces the PBR by half.[66] PBR is considered the "upper limit to removals" and "does not imply that the entire amount should be taken."[67]

II. SETTING THE STAGE—THE AQUARIUM'S APPLICATION OF NOAA'S DECISION

A. Cetacean Captivity

> The history of cetacean captivity is the history of our simultaneous veneration and exploitation of cetaceans.
>
> — Lori Marino, *Cetacean Captivity*[68]

Modern cetacean captivity began in the mid-1800s with the display of bottlenose dolphins and beluga whales in aquaria in New York City, and harbor porpoises in aquaria in London.[69] Several facilities in the United States, Europe, and Asia displayed dolphins, belugas, and porpoises; however, poor husbandry practices and inadequate veterinary care resulted in a high mortality rate.[70] The defining moment for the public display industry came in 1938 with the opening of Marine Studios at Marineland in Florida, the first dedicated cetacean display facility.[71] Advances in husbandry practices in the 1950s through the 1970s helped to increase

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65. *See id.* (noting uncertainties such as biases in the minimum population estimate and net productivity rate or errors in the determination of stock structure).

66. *Id.* (indicating that the default recovery factor (F_r) values of 1.0 and 0.5 were determined by population simulation studies). Recall that PBR is the product of the population size, productivity rate, and recovery factor. A recovery factor of 0.5 would reduce PBR by fifty percent.

67. *Id.* at 2 (highlighting that the mechanism for estimating marine mammal mortality becomes increasingly conservative as uncertainty and degree of risk increase).

68. Lori Marino, *Cetacean Captivity*, *in* THE ETHICS OF CAPTIVITY 22, 23 (Lori Gruen ed., 2014).

69. *See* Peter Corkeron, *Captivity*, *in* ENCYCLOPEDIA OF MARINE MAMMALS 183 (William F. Perrin et al. eds., 2d ed. 2009) (providing a general overview of the history of marine mammal captivity).

70. *See* Couquiaud, *supra* note 19, at 283 (providing a brief introductory history of cetacean captivity).

71. *See id.* (noting that Marine Studios was the first oceanarium and the site of the first-recorded live cetacean birth in captivity); Corkeron, *supra* note 69, at 183 (stating that the opening of Marine Studios was a new era in marine mammal public exhibits).

longevity, resulting in an explosion of public display facilities across North America, Europe, and Australia.[72] Scientists took advantage of the opportunity to conduct long-term research on captive specimens and made significant advances in understanding marine mammal physiology, behavior, cognition, and communication.[73] However, these scientists also discovered that captive cetaceans suffer from shortened lifespans, increased risk of disease, and "physiological and behavioral abnormalities indicative of psychological distress and emotional disturbance."[74] Beginning in the 1990s and continuing to the present, public awareness of these developments has increased, triggering a shift in the tide of public opinion.[75] Documentaries exposing the horrors of dolphin capture in Japan[76] and the alleged mistreatment of marine mammals at SeaWorld[77] brought the debate to a national audience and intensified calls for reform. Even so, the Aquarium and its fellow marine parks continue to insist that marine mammal captivity has many benefits and should continue well into the future.[78]

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72. *See* Couquiaud, *supra* note 19, at 283–84 (detailing the initial advances in husbandry and marine mammal care with the advent of oceanaria); Corkeron, *supra* note 69, at 183 (noting the rapid increase of zoological exhibits of marine mammals in the 1950s, 1960s, and 1970s).

73. *See* Corkeron, *supra* note 69, at 183.

74. *See* Marino & Frohoff, *supra* note 4, at 3. Although some scientists maintain that certain cetacean species are better suited for captivity than others, a consensus is emerging that all captive cetaceans suffer from negative impacts to some extent. *See id.* (acknowledging that while husbandry practices have improved for certain species, there is ample evidence that stress, disease, and increased mortality are inevitable in marine mammals as a result of captivity). Most of the research concerning the impact of captivity on cetaceans has been conducted on bottlenose dolphins and orcas. *See* Barbara E. Curry et al., *Prospects for Captive Breeding of Poorly Known Small Cetacean Species*, 19 ENDANGERED SPECIES RES. 223, 228–29 (2013) (pointing out that zoos and aquaria have only had extensive, long-term experience with a limited number of marine mammal species). While the body of scientific literature is not as robust for belugas, the available research indicates that captive belugas are at an increased risk of stress-related illness, infection, and premature death. *See* Marino & Frohoff, *supra* note 4, at 3.

75. *See* Corkeron, *supra* note 69, at 183 (explaining how the public's gaining an increased awareness of marine mammals through observing them at aquaria and on the TV show, "Flipper," eventually became a public relations detriment for the marine mammal public exhibit industry).

76. THE COVE (Participant Media 2009) (winning the Academy Award for Best Documentary Feature in 2010).

77. BLACKFISH (Manny O. Productions 2013) (premiering at the 2013 Sundance Film Festival).

78. *Beluga Whale Conservation Project—Acquisition*, GEORGIA AQUARIUM, http://www.georgiaaquarium.org/belugaconservation.aspx (claiming that study and observation in captivity is "critical" to the understanding and preservation of belugas since

B. The Georgia Aquarium's Application

Citing a desire to "enhance the North American beluga breeding cooperative by increasing the population base of captive belugas to a self-sustaining level," the Aquarium requested permission to import eighteen beluga whales (*Delphinapterus leucas*) from the Sakhalin-Amur stock, collected under Russian permit in Sakhalin Bay in the Sea of Okhotsk, a marginal sea of the Pacific Ocean.[79] Upon arrival in the United States, some of the animals would have been transferred under breeding loans to other public display facilities, including the Shedd and Mystic Aquariums, and the Sea World parks in Orlando, San Antonio, and San Diego.[80]

The Aquarium readily demonstrated that its facilities met the minimum standards required of permit applicants.[81] To demonstrate that the proposed import met the remaining statutory and regulatory criteria,[82] the Aquarium and its consortium of marine parks petitioned the International Union for the Conservation of Nature (IUCN) to convene an independent panel to review the Russian research on the Sakhalin-Amur beluga stock and determine its status.[83]

The Sea of Okhotsk beluga stock is data-poor.[84] The available information indicates that the stock is composed of two distinct aggregations, or population stocks—the Sakhalin-Amur beluga whales and the Shantar Bay beluga whales.[85] Population estimates from a 2009–2010 survey yielded estimates of 6,661 for the Shantar Bay aggregation and 2,891 to 2,972 for the Sakhalin-Amur aggregation.[86] However, a 1989 paper noted that the Sakhalin-Amur aggregation appeared to be larger

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research and observation in the wild would be impossible due to remote locations and extreme climates) (last visited Oct. 13, 2014).

79. GEORGIA AQUARIUM, *supra* note 2, at 1 (beginning its application to import the belugas with the stated purpose of enhancing the breeding cooperative in North America).

80. *Id.*

81. The aquaria and parks currently holding marine mammals for public display, are licensed under the AWA, are open to the public on a regular basis, and have education and conservation programs. *See* GEORGIA AQUARIUM, *supra* note 2, at 18–22; *see also supra* notes 34, 41, and accompanying texts (discussing the statutory restrictions on applicant eligibility for marine mammal import permits).

82. *See supra* Part I.B. (discussing the regulatory requirements for permit applicants).

83. *But see* IUCN REPORT, *supra* note 59, at 1 n.1 (acknowledging that the independent panel was sponsored by five public-display institutions).

84. *See* Memorandum from P. Michael Payne, *supra* note 14, at 28.

85. *See id.* at 29 (agreeing with the International Union for Conservation of Nature's (IUCN's) proposal that the appropriate population of animals for evaluation for the permit were those of the Sakhalin Bay and the Amur estuary and river rather than a aggregation of the Sakhlain-Amur and Shantar Bay populations used by the Aquarium).

86. *Id.* at 32.

than the Shantar Bay aggregation.[87] Over a period of five years, live-capture removals averaged 22.4 individuals per year.[88] No reliable data about other sources of human-caused mortality was available.[89] The IUCN Panel (Panel) relied upon these abundance estimates to calculate a PBR of twenty-nine whales (later revised to thirty).[90] The Panel noted potential sources of human-caused mortality, including hunting, capture operations, and commercial fishery interactions, but acknowledged that information on both intentional and incidental, or unintentional, takings was lacking.[91] The Panel cautioned that all removals by humans, regardless of the source, should factor into the analysis of the sustainability of the capture operations.[92] While an IUCN Report recommended additional monitoring to further refine population estimates and the impacts, if any, of mortality from fisheries or pollution,[93] the Panel nevertheless concluded that the sustainability of the live-capture operation could be ascertained by comparing the mean of removals from 2006–2010 to the calculated PBR.[94]

The Aquarium assumed that the lack of data concerning human-caused mortality indicated that any additional removals from injury or death were few and far between.[95] Therefore, it considered these removals insignificant to the sustainability analysis.[96] The average number of belugas taken over the five-year period (2006–2010) was 22.4.[97] In 2006, 2010, and 2011, the collection years for the eighteen belugas the Aquarium sought to import, the average number of animals captured was 27.7.[98] Given that both of these figures were below thirty, the Aquarium asserted that the cumulative impact of the removal of the eighteen belugas from the

87. *See id.*

88. *See* GEORGIA AQUARIUM, *supra* note 2, at 14–15 (averaging a five-year period live-captured Sakhalin-Amur stock starting in 2007, a year when there were no captures; averaging the four-year period from 2008 through 2011, however, the rate of live-capture climbs to twenty-eight whales annually).

89. *See* IUCN REPORT, *supra* note 59, at 8.

90. *See* GEORGIA AQUARIUM, *supra* note 2, at A-23.

91. *See* IUCN REPORT, *supra* note 59, at 8–9 (giving examples of the various ways in which whales ran afoul of commercial fishing operations).

92. *Id.* at 9 ("Any animals taken by humans . . . should be considered when evaluating the sustainability of any level of intentional removals.").

93. *Id.* at 13.

94. *Id.* Note that while the original IUCN Report listed a PBR of twenty-nine individuals, this estimate was later revised to thirty. *See* GEORGIA AQUARIUM, *supra* note 2, at A-23.

95. *See* GEORGIA AQUARIUM, *supra* note 2, at A-10 ("Human-caused mortality is not currently a significant factor in Sakhalin and Shantar beluga population dynamics.").

96. *Id.* at A-25.

97. *Id.* at 14.

98. *Id.* at 15.

Sakhalin-Amur stock would not adversely impact the wild population.[99]

C. NOAA's Decision—Same Data, Different Conclusion

Pursuant to the MMPA, NOAA submitted the application to the MMC and APHIS.[100] Both agencies recommended approving the permit.[101] NOAA also published the application in the Federal Register for public comment.[102] By the close of the comment period on October 29, 2012, the number of comments on the proposed regulation rose to almost 9,000.[103] Nearly every comment implored NOAA to deny the application.[104] After over a year of deliberation, NOAA issued its Denial Letter and Memorandum on August 5, 2013.[105] Upon review, NOAA determined that the Aquarium had failed to demonstrate that the proposed import would meet three of the issuance criteria: (1) that the proposed activity would not have an adverse impact on the species or stock,[106] (2) that the activity would not result in the taking of additional marine mammals,[107] and (3) that five of the animals were not of a restricted age at the time of taking.[108] The principle dispute arises from the two organizations' differing interpretations of the population data.[109]

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99. *Id.*

100. Memorandum from P. Michael Payne, *supra* note 14, at 13–15.

101. *Id.*

102. REGULATIONS.GOV, *supra* note 13.

103. *Id.* At 4,000 public comments, the application had already received more comments than any permit in the last decade. Garcia, *supra* note 6. Note that many of these were form letters; however, the sheer number of comments and near universal condemnation of the proposed action demonstrates the importance of this issue to the public. *See* REGULATIONS.GOV, *supra* note 13.

104. *See id.* Most comments cited general concerns about marine mammal captivity, asserting that the practice is "cruel and inhumane" for beluga whales, especially given their "size, large home ranges, and complex social structure." Memorandum from P. Michael Payne, *supra* note 14, at 17 (summarizing and responding to public comments received on the application). Many also alleged that captivity "decreases life expectancy" and that bolstering an unsuccessful breeding program "is not a compelling justification to import these whales." *Id.*

105. Memorandum from P. Michael Payne, *supra* note 14, at 1.

106. *Id.* at 7–8; *see also* 50 C.F.R. § 216.34(a)(4) (2012).

107. Memorandum from P. Michael Payne, *supra* note 14, at 9; *see also* 50 C.F.R. § 216.34(a)(7) (2012).

108. Memorandum from P. Michael Payne, *supra* note 14, at 10; *see also* 16 U.S.C. § 1372(b)(2) (2012). This claim is not within the scope of this Comment, but, in brief, the Aquarium's claim disputing the age of the five individuals will likely be easily decided in favor of the Agency, as the Agency is entitled to rely on the reasonable opinions of its own experts. *See* Marsh v. Or. Natural Res. Council, 490 U.S. 360, 378 (1989).

109. *See* Complaint for Declaratory and Injunctive Relief at 46–57, Ga. Aquarium, Inc.

NOAA reviewed the IUCN Report and offered its own critique in an attachment to the decision memorandum.[110] NOAA maintained that the IUCN Report was more nuanced than the Aquarium's portrayal, pointing to the fact that the IUCN adopted the PBR of thirty "with reservations."[111] NOAA criticized the Aquarium's characterization of these data as an oversimplification and misrepresentation of the IUCN Report, citing the uncertainty regarding other sources of removal.[112] NOAA declined to look exclusively at present data, stating that the "Aquarium's reliance on a comparison between PBR and the number of live removals [was] misplaced."[113] Rather, determinations that live removals are sustainable rely on the assumption that the number of animals removed from the stock is below PBR *and* that no other human-caused factors are causing additional removals.[114] By comparing historic observations to present data, NOAA concluded that the Aquarium's assumptions were fundamentally flawed.[115]

While recent population counts indicate that the Shantar Bay aggregation is now twice the size of the Sakhalin-Amur aggregation,[116] historic data suggest that the Sakhalin-Amur aggregation was the larger aggregation twenty years ago.[117] NOAA exploited this inconsistency to argue that the total number of removals from the Sakhalin-Amur stock regularly exceeded PBR, resulting in a "small, yet significant and unsustainable" population decline.[118] In support of this assertion, the Agency proposed three different scenarios based on the minimum population estimates of the two stocks and the theoretical maximum net productivity rate (R_{max}) of four percent (per the PBR calculation).[119]

In the first scenario, the Agency back-calculated the abundance of the Shantar Bay stock in 1990 from the stock's population abundance in 2010 by subtracting four percent (the theoretical net productivity rate) from the

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v. Pritzker, No. 13-cv-03241, (N.D. Ga. Sept. 30, 2013) (vigorously contesting NOAA's interpretation of the data); Memorandum from P. Michael Payne, *supra* note 14, at 6–30 (devoting most of the Denial Letter and Memorandum to discrediting the Aquarium's population assessment).

110. *See* Memorandum from P. Michael Payne, *supra* note 14, at 28.

111. *Id.* at 29.

112. *Id.* at 29–30. The Agency cited six possible sources of human-caused mortality for which the data is incomplete or unknown. *Id.* at 30.

113. *Id.* at 30.

114. *Id.* (emphasis added).

115. *Id.* at 32.

116. *Id.*

117. *Id.*

118. *Id.* at 38.

119. *See id.* at 33–34.

abundance estimate for each year.[120] Because the Shantar Bay stock was the smaller of the two stocks in 1989–1990, the result of this calculation, 2,944 whales, means that the abundance of the Sakhalin-Amur stock must have been at least 3,000 whales.[121] This estimation is larger than the Sakhalin-Amur stock's current abundance, indicating that the Sakhalin-Amur stock has experienced a decline over the twenty-year period.[122]

In the second scenario, NOAA back-calculated the abundance of the Sakhalin-Amur stock in 1990 using the same method as above.[123] The result, 1,314 whales, suggests that the Sakhalin-Amur stock is increasing; however, "this scenario results in an impossible contradiction" between the current and historical data sets.[124] Because the Sakhalin-Amur stock was the *larger* of the two in 1989, it is impossible for the Shantar Bay stock to have increased from fewer than 1,300 whales to its current, accepted abundance level of greater than 6,000 whales over the same twenty-year period.[125]

Finally, in the third scenario, NOAA began with the assumption that both stocks consisted of 3,000 whales in 1990.[126] This scenario is theoretically plausible, as the Shantar Bay stock could increase from 3,000 whales to its current abundance estimate of 6,661 whales over a twenty-year period.[127] However, for the Sakhalin-Amur stock to have remained at 3,000 whales, the additions from reproduction would have to equal the removals from natural and human causes.[128] From these scenarios, NOAA concluded that it was impossible for the Shantar Bay stock to have grown to its present size of nearly twice that of the Sakhalin-Amur stock unless PBR had been consistently exceeded in the Sakhalin-Amur stock.[129]

Taken together, the scenarios indicate that additional sources of removal, whether from entanglement, climate change, subsistence hunting,

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120. *Id.* at 33.
121. *Id.*
122. *Id.*
123. *Id.* at 34.
124. *Id.*
125. *Id.*
126. *Id.*
127. *Id.* Recall that in the first scenario, NOAA back-calculated a historic abundance of 2,944 whales for the Shantar Bay beluga stock from the population's current estimate of over 6,000 individuals. *See supra* notes 120–121 and accompanying text. Given this calculation, a population increase of 3,000 whales over a twenty-year period is entirely probable. Memorandum from P. Michael Payne, *supra* note 14, at 33–34.
128. Memorandum from P. Michael Payne, *supra* note 14, at 34. Thus, this scenario indicates that "total removals from the Sakhalin-Amur stock exceed PBR by 4X on an annual basis." *Id.*
129. *Id.* at 33.

or otherwise, are not only limiting the growth of the Sakhalin-Amur stock, but likely contributing to its decline.[130] NOAA observed that beluga captures exceeded the PBR in three separate years, "allowing for no buffer to account for other sources of human-caused mortality."[131] Furthermore, NOAA noted that the annual quota for beluga captures far exceeded the calculated PBR, undermining the Aquarium's assertion that the Russian capture operations are sustainable. NOAA concluded that unknown sources of decline, heretofore undetected due to a lack of monitoring in the region, resulted in a net loss of whales per year during the twenty-year period.[132] Therefore, "the record d[id] not support a finding that the proposed activity is sustainable on the basis of the Aquarium's PBR-based analysis."[133]

Under the MMPA, persons aggrieved by NOAA's permit decision may obtain judicial review pursuant to the Administrative Procedure Act (APA) within sixty days of the decision date.[134] The court will reject NOAA's decision if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[135] On September 30, 2013, the Aquarium filed suit in federal district court, arguing that the permit denial was arbitrary and capricious and violated both the MMPA and the APA.[136]

III. AGENCY DECISIONMAKING—DEMOCRATIC ACCOUNTABILITY AND THE ROLE OF PUBLIC OPINION

A. The Problem with Multiple-Goal Agencies

The prevalence of "multiple-goal agencies" has increased with the growth of the administrative state as Congress enacts or amends statutes

130. *Id.* at 34 (arguing that if the live captures for public display "were the only source of mortality or removal from this stock, then it should be increasing at a slow rate," not declining).

131. *Id.* at 30. The PBR was exceeded in 2010 and 2011, "years in which animals proposed for importation were captured." *Id.*

132. *Id.* at 34–35.

133. *Id.* at 35.

134. 16 U.S.C. § 1374(d)(6) (2012).

135. 5 U.S.C. § 706(2)(A) (2012).

136. *See* Complaint for Declaratory and Injunctive Relief, *supra* note 109, at 56–57, 60, 62–63. On August 20, 2014, a hearing was held on the Aquarium's motion to compel NOAA to supplement the administrative record. Rich McKay, *Fate of Captured Beluga Whales in Hands of Georgia Judge*, REUTERS (Aug. 20, 2014), http://www.reuters.com/article/2014/08/20/us-usa-georgia-whales-idUSKBN0GK2E020140820; Federal Defendants' Opposition to Plaintiff's Motion to Supplement the Administrative Record at 1, Ga. Aquarium, Inc. v. Pritzker, No. 13-cv-03241 (N.D. Ga. Sept. 30, 2013). As of this Comment's publication, a hearing on the merits of the case has not yet been scheduled.

imposing additional responsibilities on federal agencies.[137] Such agencies must resolve conflicting, often ambiguous statutory goals with little guidance,[138] relying on their own expertise and value judgments. While this problem is pervasive in administrative law, perhaps the most glaring examples of the challenges faced by multiple-goal agencies can be found by examining the decisions of those agencies charged with the administration of our environmental statutes.

Environmental management agencies face the difficult task of balancing opposing mandates, competing stakeholder interests, and scientific uncertainty in the face of various political, economic, and social pressures. For example, the U.S. Forest Service (USFS) is charged with managing public lands to both support timber production and protect wildlife.[139] These goals are diametrically opposed—the achievement of one is the failure of the other. Absent explicit guidance from Congress, USFS must determine which goal, timber production or wildlife and habitat protection, it should prioritize.[140] Even when Congress ranks the various goals imposed on an agency, the agency must nevertheless determine what *level* of prioritization of the primary goal is appropriate.[141] This task is rendered especially difficult when the secondary goal directly conflicts with the primary.[142]

Two major theories predict how multiple-goal agencies prioritize

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137. *See* Eric Biber, *Too Many Things to Do: How to Deal with the Dysfunctions of Multiple Goal Agencies*, 33 HARV. ENVTL. L. REV. 1, 7–9 (2009) (discussing the "ubiquity" of multiple-goal agencies and how the imposition of new goals in new statutes, such as the National Environmental Policy Act (NEPA), has made nearly every agency wrestle with the challenge of competing mandates).

138. *See id.* at 32.

139. *See id.* at 18–19 (discussing the conflicts between the U.S. Forest Service's (USFS's) multiple goals and the historic prioritization of timber production over conservation).

140. *See, e.g.*, Sierra Club v. Marita, 46 F.3d 606, 620–21 (7th Cir. 1995) (holding that, because Congress had "declined to adopt any particular means or methodology of providing for diversity," the USFS was "well within its regulatory discretion" in prioritizing timber harvesting and development over biological diversity); Sierra Club v. Espy, 38 F.3d 792, 800 (5th Cir. 1994) ("That [National Forest Management Act diversity] protection means something less than preservation of the status quo but something more than eradication of species suggests that this is just the type of policy-oriented decision Congress wisely left to the discretion of the experts—here, the Forest Service."); Inland Empire Pub. Lands Council v. USFS, 88 F.3d 754, 760–62 (9th Cir. 1996) (holding that Congress had left USFS with wide discretion in determining how best to balance timber production and biodiversity).

141. *See* Biber, *supra* note 137, at 8 (stating that, while Congress sometimes does provide a "prioritization among the various goals . . . the agency is still left with the question of how much to pursue the secondary goal, given the possibility of direct conflict among those goals").

142. *Id.*

competing mandates. The first, developed by political scientists and economists, views the relationship between Congress and the agencies as analogous to the principal-agent relationship.[143] According to this theory, multiple-goal agencies will elect to prioritize goals with easily quantifiable and complementary results.[144] As a result, these agencies tend to underperform on goals that are conflicting or difficult to measure due to technical challenges or inherent subjectivity.[145] For multiple-goal agencies charged with promoting economic development while ensuring the "conservation" of resources or the "protection" of endangered species, these challenges are particularly endemic.[146] They must make management decisions based on insufficient information due to the technical impossibility (e.g., the inability to obtain an accurate count of the population of an endangered species due to life history, habits, etc.) or impracticability (e.g., the inability to obtain an accurate count of the population of an endangered species because such research is cost prohibitive) of gathering more data.[147] Furthermore, goals such as "conservation," "protection," and "preservation" are "fraught with subjective value judgments" and impossible to quantify.[148] In contrast, goals such as increased economic productivity of a resource or land are easily measured and have high incentives from both political and public pressure.[149] Thus, when balancing the two diametrically opposed mandates of preservation and productivity, conventional wisdom predicts that multiple-goal agencies will systematically over-perform on the latter.[150]

The second theory, public choice theory, "applies economic methods to the study of political science" to suggest that "'small, well-organized special

143. *See id.* at 10. Principal-agent analysis "provide[s] some important predictions about how agencies tasked with multiple goals by a principal are likely to behave." *Id.*

144. *See id.* at 10, 12 (discussing the tendency of multiple-goal agencies to "overproduce on the goals that are complements and the goals that are easily measured, and . . . underproduce on the goals that are substitutes and the goals that are hard to measure").

145. Sara A. Clark, Note, *Taking a Hard Look at Agency Science: Can the Courts Ever Succeed?*, 36 ECOLOGY L.Q. 317, 324–25 (2009) (citing Biber, *supra* note 137, at 4). The Agency's success in achieving a particular goal may be hard to quantify due to "technical challenges (i.e., an inability to measure a particular goal) or because the goal is so subjective and value-laden that 'objective' measures of the goal are impossible to find." *See* Biber, *supra* note 137, at 14–15 (discussing technical challenges to data acquisition).

146. Biber, *supra* note 137, at 14–15.

147. *Id.*

148. *Id.* at 15.

149. *Id.* at 25–29 (applying the principal-agent analysis to USFS to help explain USFS's bias toward timber production).

150. *Id.* at 12, 14–15.

interest groups will exert disproportionate influence on policymaking.'"[151] Principal-agent analysis has shown that the treatment of conflicting mandates is largely consistent across multiple-goal agencies and occurs irrespective of the presence of outside influences.[152] Public choice theory takes the next step, demonstrating that the introduction of such influences—i.e., pressure from congressional members, other executive officials and agencies, and well-organized lobbying and interest groups—will often compound the resulting distortion.[153] Despite the best efforts of environmental organizations, money and the ability to influence policy decisions are principally held by private industry groups.[154] Consider again USFS. It has been observed that the resource-extraction industries have managed to disproportionately exert influence over the agency's management decisions.[155] Timber production, historically the primary goal of USFS,[156] is far easier to measure and is supported by local communities and powerful industry lobbyists. USFS's secondary goals, recreation and biodiversity,[157] both directly conflict with the primary goal, and are difficult to quantify. The resulting management system is "inherently biased toward commodity users," as USFS consistently prioritizes the goal of timber production over the more subjective environmental goals.[158] As

151. Clark, *supra* note 145, at 324–25.

152. Biber, *supra* note 137, at 9 (finding that agency decisions are distorted toward achieving quantifiable results even in the absence of "the more commonly studied challenges to public administration—e.g., agency slack, agency capture, or conflicts among multiple principals . . . .").

153. *See id.* at 27–28 (mentioning briefly how pressure from Congress and other executive agencies can push the agency toward favoring one goal at the expense of other goals "that might have benefitted the public at large"); Clark, *supra* note 145, at 325 (discussing the undue influence special interest groups have on agency decisions).

154. *See* Stephanie Tai, *Three Asymmetries of Informed Environmental Decisionmaking*, 78 TEMP. L. REV. 659, 688–92 (2005) (illustrating how environmental decisionmaking is skewed toward regulated entities and "organized regulatory beneficiaries" due to a pronounced difference in available resources between the two groups); Holly Doremus & A. Dan Tarlock, *Science, Judgment, and Controversy in Natural Resource Regulation*, 26 PUB. LAND & RESOURCES L. REV. 1, 20 (2005) (positing that the "best-funded interests," which generally favor industry over conservation, receive the best and most effective representation in environmental management regulatory proceedings).

155. *See* Clark, *supra* note 145, at 325 ("At the Forest Service, resource-extraction industries and the local economies they support tend to exert a disproportionate influence, making the system 'inherently biased toward commodity users.'").

156. *See* Biber, *supra* note 137, at 17–18 (highlighting that Congress originally tasked the Forest Service with managing timber production, not wildlife or conservation).

157. *See id.* at 18 ("Over time, Congress expanded the Service's mission to explicitly include goals such as wildlife, recreation, and grazing.").

158. *See* Michael C. Blumm, *Public Choice Theory and the Public Lands: Why "Multiple Use Failed"*, 18 HARV. ENVTL L. REV. 405, 415 (1994) (positing that the conflicting goals in land

exemplified here, agency capture of multiple-goal agencies can significantly sway decisions even more toward the promotion of goals that are easily measurable to the detriment of goals that require a value-laden judgment.

B. The Public Veto in Environmental Decisionmaking—A Futile Gesture

The end result of both principal-agent analysis and public choice theory is the overrepresentation of industry interests at the expense of broad public participation. Although directed to collect and consider public comment when making decisions, agencies consistently prioritize goals that both have easily quantifiable metrics and are supported by well-organized industry lobbyists in spite of public opposition, thereby neglecting their duty to meaningfully engage the public when deciding important questions of value and policy.[159] Compounding the issue, evidence suggests that agencies systematically discount value-laden comments.[160] This practice decreases transparency and robs agency decisions of democratic legitimacy.[161] Moreover, it further entrenches the institutional bias toward industry interests and removes important policy conversations from the public forum.[162]

Those that have explored the issue of agency responsiveness to public comments generally note that agencies "appear to be impatient with and unresponsive to value-focused commenting."[163] In her oft-cited examination of the topic, Nina Mendelson found that agencies give greater weight and discussion to comments that discuss scientific and technical issues and fail to engage more value- or policy-focused concerns, even when those concerns are voiced in great numbers.[164] This tendency decreases democratic responsiveness and accountability, thereby calling the

management agencies' statutes lead to a bias toward commodity users).

159. *See* Mendelson, *supra* note 23, at 1351–52 (noting that where governing statutes are silent, leaving the agency to decide questions of value and policy on its own, public comments can serve as an important source of "the information, the control, or the incentives to prompt agencies to make democratically responsive decisions").

160. *See id.* at 1362–64 (discussing studies of various agencies' responses to public comments); *cf. id.* at 1349–50 (arguing that in order to be legitimate, agency decisions must be "democratically responsive," which is achieved by ensuring that a wide variety of public interests are both heard and meaningfully considered).

161. *See id.* at 1343–44.

162. When agencies disregard value-laden comments, they are left with the technical comments submitted by sophisticated industry experts and attorneys. *See, e.g.*, *id.* at 1359 (reporting that agencies tend to treat technical comments far more seriously than those that address more subjective issues of policy).

163. *Id.* at 1367.

164. *Id.*

legitimacy of the administrative state into question.[165] While allowing public opinion to be dispositive would contravene the rationale behind the administrative state,[166] the complete disregard of societal values is troublesome.[167] If, as many argue, public participation is beneficial to the decisionmaking process,[168] then agencies must at a minimum consider and respond to subjective comments. However, the controversy inherent in many regulatory decisions, coupled with the requirement for reasoned decisionmaking, creates a perverse incentive for agencies to base the decision solely on "indisputable" facts.[169] The heightened technicality of these regulatory decisions removes the conversation from the public forum and consequently places it exclusively in the hands of subject-matter experts.[170] Indeed, research has suggested that interest groups and organizations that can afford technical and legal experts are given a louder voice, often at the expense of the uneducated public.[171] Although there are

165. *Id.* at 1348 ("Given the range of questions agencies must resolve, legitimacy for their actions has become a function of both accountability and democratic responsiveness.").

166. No matter how clear the public mandate, NOAA must not become a "mere conduit[]" for public policy choices and value judgments. Reeve T. Bull, *Making the Administrative State "Safe for Democracy": A Theoretical and Practical Analysis of Citizen Participation in Agency Decisionmaking*, 65 ADMIN. L. REV. 611, 623 (2013). Thus, while commenters generally agree that agencies must consider public comments in order to lend their decisions democratic legitimacy, *see, e.g.*, Mendelson, *supra* note 23, at 1359 (noting that agencies' tendency to discount significant numbers of public comments is " very hard to square with a vision of rulemaking as a democratic process"); Wagner, *The Science Charade*, *supra* note 21 (suggesting that regulators must incorporate values garnered from public comment in order to lend their decisions democratic legitimacy), few would argue that public opinion should be dispositive. Though the system is imperfect, agencies remain the bastions of expertise and science, tasked with making difficult determinations about risk and resource management that the general populace is not equipped to resolve.

167. *See* Mendelson, *supra* note 23, at 1359 ("An agency's dismissal or pro forma treatment of significant numbers of public comments would be very hard to square with a vision of rulemaking as a democratic process.").

168. *See, e.g.*, Bull, *supra* note 166, at 623 (citing the "underlying assumption" that increased public participation is an asset to the administrative decisionmaking process).

169. *See infra* Part IV.A.2. (discussing the tendency for agencies to characterize subjective policy choices as scientific determinations).

170. *See* Tai, *supra* note 154, at 688–89 (arguing that regulated entities are better able to influence the agency decisionmaking process because they can afford the experts necessary to guide their participation).

171. *See id.* (noting that well-funded industry groups are better able to engage in a meaningful dialogue with agencies during the environmental decisionmaking process because industry groups generally have both the financial and technical resources to retain experts and generate scientific data); Wendy E. Wagner, *Administrative Law, Filter Failure, and Information Capture*, 59 DUKE L.J. 1321, 1385–88 (2010) (discussing the anecdotal and empirical evidence indicating that the increasing costs of participation has led to the dominance of the administrative decisionmaking process by business interests and interest

a few instances where the agency seriously considered public opposition, the vast majority of controversial agency decisions have ignored the public veto and proceeded to make the decision advocated by organized interest groups.[172] Thus, despite the trend of increasing public participation, agency decisions can generally be predicted by looking to the choice with easily quantifiable results and support from well-organized interest groups.

Barriers to public participation arguably become an even greater concern in environmental decisionmaking.[173] Environmental agency rulemakings and adjudications involve highly technical issues and rely on lengthy documents.[174] The National Environmental Policy Act (NEPA) documents, Biological Opinions, and other scientific studies are often too sophisticated for the general public to digest and offer substantive comment.[175] However, those sophisticated groups that can afford experts find that the agency will carefully consider and respond to their

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groups) [hereinafter Wagner, *Administrative Law*]; *see also* Cass Sunstein, FREE MARKETS AND SOCIAL JUSTICE 325 (1997) ("The technical complexity of underlying issues has contributed to the power of well-organized interest groups over the regulatory process."); Jim Rossi, *Participation Run Amok: The Costs of Mass Participation in Deliberative Agency Decisionmaking*, 92 NW. U. L. REV. 173, 225–27 (1997) (observing that interest group participation in environmental decisionmaking decreases the likelihood of citizen participation, which tends to confine the interactions between administrative agencies and the public "to those who are the primary conveyors of scientific information—agency and nonagency experts, or powerful interest groups who can afford to finance their own scientific research"); *see* Mendelson, *supra* note 23, at 1362 ("In [the] study, sophisticated comments tended to get more attention from agency officials whether they were submitted by individual members of the public or by organized groups, but organized groups submitted sophisticated comments far more often than individual members of the public."); Marc B. Mihaly, *Citizen Participation in the Making of Environmental Decisions: Evolving Obstacles and Potential Solutions Through Partnerships with Experts and Agents*, 27 PACE ENVTL. L. REV. 151, 152 (2009) (noting that the "daunting complexity of the subject area and the underlying proceedings renders much unassisted lay participation useless").

172. *See* Mendelson, *supra* note 23, at 1366–67 (citing two examples where public comment appeared to influence agency decisionmaking; however, "[d]espite these latter examples, agencies generally appear to be impatient with and unresponsive to value-focused commenting"). Note that neither of the examples cited by Mendelson concern natural resources management. *See id.*

173. *Cf.* Mihaly, *supra* note 171, at 160 (arguing that agency staff and officials "need outsider citizen input to make them wise").

174. *See* Wager, *Administrative Law*, *supra* note 171 at 1347 (noting the documents may be hundreds of pages).

175. *Cf. id.* at 1357–58 (discussing the barriers highly technical rulemaking processes present to public participation); Doremus & Tarlock, *supra* note 154, at 20 (same). The NEPA process, for example, has long been plagued with accusations of discounting the public veto and improperly considering the extent of public controversy. William Murray Tabb, *The Role of Controversy in NEPA: Reconciling Public Veto with Public Participation in Environmental Decisionmaking*, 21 WM. & MARY ENVTL. L. & POL'Y REV. 175, 176 (1997).

comments.[176] In so doing, they are able to influence the agency's choice of experts in the face of scientific uncertainty, the agency's interpretation of conflicting scientific evidence, and even the agency's choice of scientific model on which it bases its decisions.[177]

C. NOAA's Conflicting Goals Under the MMPA

The MMPA has the broad goal of protecting marine mammals and encouraging the development of marine mammal populations "to the greatest extent feasible commensurate with sound policies of resource management."[178] Congress elaborated that "the primary objective of [marine mammal] management should be to maintain the health and stability of the marine ecosystem."[179] When taken with the extensive statutory permit requirements and statements by Congress regarding the implementation of the law, NOAA's primary goal—to develop a workable permit system to govern the intentional taking of marine mammals—emerges.[180]

The legislative history of the MMPA suggests strong congressional support for the public display industry. Senator Hollings, Chairman of the Subcommittee on Oceans and Atmosphere, testified to the importance of the industry during the Ocean Mammal Protection Hearings in 1972, asserting that without the ability to observe marine mammals in aquaria and parks, the "magnificent interest" in these animals would be lost.[181] In the 1988 and 1994 MMPA reauthorizations, Congress explicitly reaffirmed the public display exemption, citing the importance of the educational opportunities provided by observing marine mammals in captivity.[182] The industry has for years enjoyed a high level of federal and public support.[183]

The MMPA requires that the removal of the animals from their natural environment, "by itself or in combination with other activities, will not

176. *See* Tabb, *supra* note 175, at 176; *see also* Mendelson, *supra* note 23, at 1370 (positing that agencies have less incentive to respond to comments by individuals and less organized groups, as such entities have access to fewer resources and less political capital).

177. Tabb, *supra* note 175, at 176.

178. 16 U.S.C. § 1361(6) (2012).

179. *Id.*

180. Kokechik Fishermen's Ass'n v. Sec'y of Commerce, 839 F.2d 795, 803 (D.C. Cir. 1988).

181. *Ocean Mammal Protection: Hearings Before the S. Subcomm. on Oceans and Atmosphere of the Comm. on Commerce on S. 685, 2579, 2639, 2871, 3112, 3161, and Amendment 1048, Ocean Mammal Legislation*, 92d Cong. 266 (1972).

182. *See* Dougherty, *supra* note 36, at 338.

183. *Id.*

likely have a significant adverse impact on the species or stock."[184] Sparse and outdated data on marine mammal stocks worldwide make this determination difficult.[185] The law also mandates the humane treatment of all captive marine mammals during capture and transport, and insists that the permit holder's facilities be "adequate for the proper care and maintenance of the marine mammal."[186] Recent developments in cetacean science suggest that humane capture is anathema and that adequate captive care is impossible.[187] Many cetacean species, including beluga whales, are highly social and stay with their family groups for the duration of their lives.[188] It has been suggested that the forced, often violent, separation from their families and the subsequent life of shows, traumatic transfers between aquaria, and artificial "family" groupings leads to a sort of "psychosis" in captive cetaceans.[189] Lifespans in captivity are dramatically shortened, and breeding programs are plagued by high infant mortality.[190] Of the seventy-one belugas that have been held at the Aquarium and other parks requesting the permit, thirty-four have died.[191] Despite explicit congressional endorsement of the industry, it appears that "humane" capture and subsequent captivity are simply not possible.

The increasing peril of marine mammals worldwide, coupled with scientific developments in cetacean behavioral studies, have left NOAA to issue decisions on a highly controversial topic while grappling with conflicting statutory mandates. On the one hand, NOAA must support the public display industry, provided the statutory requirements are met. On

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184. 50 C.F.R. § 216.34(a)(4) (2013).

185. *See* Memorandum from P. Michael Payne, *supra* note 14, at 28–32 (discussing the difficulty of assessing the sustainability of marine mammal stocks when faced with scientific uncertainty).

186. *Id.* at 8.

187. *See* Marino & Frohoff, *supra* note 4, at 2–4 (discussing the negative impacts of captivity on cetaceans that occur regardless of the standard of care). *But see* Couquiaud, *supra* note 19, at 283–84 (suggesting that humane captivity is possible, with the right husbandry practices). Note that because Aquatic Mammals is published by the European Association for Aquatic Mammals (EAAM), the Alliance of Marine Mammal Parks and Aquariums (AMMPA), and the International Marine Animal Trainers' Association (IMATA), there is a potential for significant bias in favor of the public display industry, as the publishers behind these journals have a vested interest in the continuation of the practice. AQUATIC MAMMALS JOURNAL, http://www.aquaticmammalsjournal.org/ (last visited Nov. 8, 2014).

188. Brower, *supra* note 8; *accord* Marino & Frohoff, *supra* note 4, at 2–4.

189. Brower, *supra* note 8; *see also* KIRBY, *supra* note 37, at 360–61 (discussing experts investigations into the effect of captivity on the welfare of orcas).

190. Brower, *supra* note 8. *But see* Couquiaud, *supra* note 19, at 283–84 (arguing that captive marine mammals have comparable lifespans to those in the wild).

191. Brower, *supra* note 8.

the other hand, the best available science indicates that global cetacean populations are in danger of decline[192] and, furthermore, that cetacean captivity is not compatible with the purpose and goals of the MMPA.[193] Absent congressional guidance or regulatory development, how NOAA should balance the competing considerations under the MMPA in the face of uncertain science and an increasingly hostile public remains unclear.

D. Defying the Models—Reassessing Priorities and Accounting for Public Opinion

The support of the public display industry is a well-defined, easily measured goal, while the protection and humane treatment of marine mammals appears to be both inherently subjective and in direct conflict with marine mammal display. Population studies of cetacean stocks, especially those managed by foreign nations, are technically difficult due to technological, financial, and political constraints,[194] and deciding what amounts to sufficient protection of marine mammal species and welfare is a

192. *See, e.g.*, Kit. M. Kovacs et al., *Impacts of Changing Sea-Ice Conditions on Arctic Marine Mammals*, 41 MARINE BIODIVERSITY 181, 189–90 (2011), *available at* http://link.springer.com/article/10.1007%2Fs12526-010-0061-0 (discussing the likely decline in Arctic marine mammal species due to the direct and indirect impacts of climate change); Frances M. D. Gulland & Ailsa J. Hall, *Is Marine Mammal Health Deteriorating? Trends in the Global Reporting of Marine Mammal Disease*, 4 ECOHEALTH 135, 144 (2007), *available at* http://link.springer.com/article/10.1007%2Fs10393-007-0097-1 (finding a recent increase in instances of marine mammal mortality from algal blooms); Ana D. Davidson et al., *Drivers and Hotspots of Extinction Risk in Marine Mammals*, 109 PNAS 3395, 3396 (2012), *available at* http://www.pnas.org/content/109/9/3395 (suggesting that 37% of the world's marine mammal species are at risk of extinction).

193. The primary goal of the MMPA is to manage marine mammal populations in order to maintain the "health and stability of the marine ecosystem" and obtain the OSP for marine mammal stocks. 16 U.S.C. § 1361(6) (2012). By hindering population recovery, intentional removals from stocks that are in danger of decline are incompatible with this goal. Additionally, recent research indicates that marine mammals risk a significantly higher risk of mortality immediately after capture, suggesting that it is impossible to meet the MMPA requirement of "humane" capture. *See* Marino & Frohoff, *supra* note 4, at 3 (reporting that the risk of mortality in bottlenose dolphins increases six-fold immediately after capture); 16 U.S.C. § 1372(b)(4) (2012).

194. *See, e.g.*, Kovacs, *supra* note 192, at 190 (citing logistical and financial challenges as barriers to conducting marine mammal population surveys); O.V. Shpak & D.M. Glazov, *Update Report on the White Whale (*Delphinapterus leucas*) Live-Captures in the Okhotsk Sea, Russia*, (May 2014) (Conference Paper presented at the International Whaling Commission Scientific Committee Meeting) (reporting oversight and management of the beluga captures by the Russian government is lax and conducted mostly through documentation procedures); Daniel Cressey, *Open Water: As the Ice Melts, Fresh Obstacles Confront Arctic Researchers*, 478 NATURE 174, 177 (2011) (referencing Russia's history of excluding scientists from its territorial waters).

highly value-laden judgment.[195] As a sophisticated entity, the Aquarium had the resources to convene a panel of experts to compile and analyze the beluga population data,[196] and presented a highly technical application packet that likely helped preclude substantive participation from the lay public.[197] Furthermore, as the 1994 MMPA amendment procedures suggest, the public display industry is a well-organized, politically influential interest group that historically exercised a great deal of influence over policymaking.[198] Even APHIS and the MMC had voiced their support for the importation.[199] Thus, both principal-agent and public choice theory predict that NOAA would tend to prioritize support of the public display industry over the protection and welfare of individual marine mammals.[200]

Conventional agency practice regarding public comments also predicted that public opposition to the proposed import would have no effect on NOAA's ultimate decision. Of the nearly 9,000 public comments the Agency received, the majority raised value-laden questions regarding the morality and humanness of public display.[201] The fact that many of these were form letters increased the likelihood that they would be summarily dismissed in favor of the expert opinions and comments offered by industry experts.[202] Indeed, NOAA nominally dismissed all of the comments concerning the morality and necessity of cetacean captivity.[203] Most of the remaining substantive comments were from the industry and advocated strongly for the permit's approval.[204] Everything appeared to be in place for the Aquarium's permit application to be easily approved. However, despite all of the factors that weighed against NOAA denying the application, NOAA did just that.

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195. Biber, *supra* note 137, at 15.

196. The Aquarium funded the IUCN Panel. IUCN REPORT, *supra* note 59, at 1.

197. The Aquarium's application comprised several hundred pages of scientific analysis and highly technical stock assessments, rendering it difficult for the public to digest. GEORGIA AQUARIUM, *supra* note 2. Indeed, of those opposed to the import, the vast majority were commenters. REGULATIONS.GOV, *supra* note 13.

198. KIRBY, *supra* note 37, at 215–16.

199. Memorandum from P. Michael Payne, *supra* note 14, at 15.

200. *See supra* notes 143–154 and accompanying text explaining the two theories.

201. *See* REGULATIONS.GOV, *supra* note 13.

202. Mendelson, *supra* note 23, at 1363 (reporting that form letter campaigns are "'sometimes derided by agency staff'" and perhaps even openly resented).

203. Despite the fact that the MMPA regulations direct NOAA to take public opinion into account, 50 C.F.R. § 216.33(e)(2) (2013), NOAA avoided the value-focused concerns raised by the public by noting that such issues are "beyond the scope" of those considered by NOAA when making a permit decision. *See* Memorandum from P. Michael Payne, *supra* note 14, at 17–18.

204. *See* REGULATIONS.GOV, *supra* note 13; GEORGIA AQUARIUM, *supra* note 2, at 15.

Historically, the Agency quickly approved permit applications to import cetaceans *already in captivity*.[205] Such imports did not raise the same considerations under the MMPA (i.e., adverse impacts on the wild stock) and did not require the satisfaction of the same criteria. Perhaps in tacit recognition of this practice, the Aquarium emphasized the belugas' years of capture in an attempt to distract from the fact that, although technically held captive, these animals were taken directly from wild populations.[206] Highlighting the fact that some of these animals had been in captivity for several years bolstered the Aquarium's assertion that the issuance of an import permit would not directly impact the wild stock.[207] On the other hand, marine mammal *capture* has always been far more controversial than marine mammal captivity.[208] The first import of wild-caught cetaceans in over twenty years was bound to elicit strong opposition, notwithstanding the recent increase in public animosity toward the public display industry. The intense public opposition to the import, coupled with concern over the potential to "open the floodgates"[209] to more collection and import permit applications, undoubtedly played a key role in NOAA's ultimate decision.

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205. *See, e.g.*, Animal Prot. Inst. of Am. v. Mosbacher, 799 F. Supp. 173, 179–80 (D.D.C. 1992) (holding that the issuance of permits to import false killer whales from Japan was not an abuse of discretion because the whales were already in captivity, so their removal would have no direct effect on the wild population); Letter from Jolie Harrison, Acting Chief, Permits and Conservation Div., NOAA, to Brad Andrews, Chief Zoological Officer, Sea World LLC (June 30, 2014), *available at* http://www.nmfs.noaa.gov/pr/pdfs/permits/permit17754.pdf) (approving SeaWorld's permit application to import a captive-born Pacific white-sided dolphin).

206. *See* GEORGIA AQUARIUM, *supra* note 2, at 1, 15.

207. *See* Jenni James, *Whale Washing the Import of Wild-Caught Belugas*, ANIMAL LEGAL DEF. FUND BLOG (Oct. 30, 2012), http://aldf.org/blog/whale-washing-the-import-of-wild-caught-belugas/ (suggesting that since governments generally approve applications to import captive marine mammals, it is "no surprise" that the Aquarium both highlighted the fact that the belugas in question were taken into captivity in 2005, 2006, and 2011, while simultaneously downplaying the millions of dollars it invested in commissioning the population study necessary to satisfy the Agency that the proposed activity comported with the requirements of the MMPA).

208. This dichotomy is illustrated by the fact that, while thousands of people visit SeaWorld parks every year, *see, e.g.*, Vivian Kuo, *Despite 'Blackfish,' SeaWorld Expects Record Revenue for 2013*, CNN (Jan. 13, 2014, 3:49 PM), http://www.cnn.com/2014/01/13/us/seaworld-record-revenue/ (reporting that SeaWorld expects a record $1.46 billion in revenue "[p]ropelled by fourth-quarter attendance"), the Aquarium and its consortium of parks must resort to importing animals from abroad to replenish their exhibits.

209. According to the Aquarium's Complaint, the Agency cited concerns that "granting the permit . . . would 'open the floodgates' to more permit applications to collect and/or import animals for public display." Complaint for Declaratory and Injunctive Relief, *supra* note 109, at 45.

Placed squarely in the middle of an intensely passionate debate, NOAA was left in a difficult position, both politically and legally. Although agencies were arguably created to resolve exactly this type of conflict, agencies are loathe to embroil themselves in policy debates.[210] To avoid facing backlash from both the public and the Aquarium, NOAA nominally rejected public comments and resorted to carefully constructed criteria and models to support its decision. However, the absence of regulatory guidance and scientific uncertainty surrounding the Russian beluga population rendered this task all the more difficult and vulnerable to challenge. Groping for a foundation upon which to base its denial, NOAA conflated policy and science to escape the conflict.[211] In so doing, it missed an important opportunity to provide meaningful guidance to conversation about the future of public display. While NOAA made the "right" choice in the eyes of the public, it ultimately hindered progress toward a resolution to the issue.

IV. WHALES, MANDATES, AND LAWSUITS; OH MY!

The general observation that agencies discount the public veto, especially in environmental decisionmaking, is precisely what makes NOAA's denial of the Aquarium's permit so surprising. Despite having the support of a well-organized, scientifically literate body of experts and lawyers, the Aquarium failed to sway NOAA against the tide of public opinion. While taking public opinion and scientific uncertainty into account is a step forward, NOAA muddied its decision by filling the gaps generated by the uncertainty with pseudo-scientific policy statements.

A. The Role of Policy in Science

1. Agency Science in the Courts

Agency decisions must be adequately supported by the evidence in the administrative record to avoid being overturned as arbitrary and capricious.[212] Although determining the appropriate prioritization of goals

210. *See* Wagner, *The Science Charade*, *supra* note 21, at 1651–69 (discussing the various incentives that motivate agencies to avoid policy conflicts, including decreased public involvement and increased likelihood of surviving judicial review).

211. *See infra* Part IV.

212. *See* Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971) (directing courts to conduct a "searching and careful" review of the administrative record and "consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment").

is well within the purview of environmental management agencies,[213] basing decisions on subjective questions of policy carries a greater risk of reversal.[214] In contrast, courts are obligated to defer to "the informed discretion of the responsible federal agencies"[215] when reviewing agency determinations of science. When faced with scientific uncertainty, agencies are entitled to rely on the "reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive."[216] Thus, while courts afford agency decisions deference as a matter of course, agency science is almost beyond reproach.[217] In practice, this so-called "super-deference" predicts that courts will decline to disturb a decision based on scientific determinations that are within the agency's expertise.[218]

2. The Science Charade

Many environmental statutes mandate the use of the "best scientific data available" to make resource management decisions.[219] While this requirement may appear straightforward, agencies engaged in resource management often must base decisions on "incomplete, ambiguous, and contested" information.[220] Regulatory decisions are often time-sensitive and cannot wait for the scientific community to reach a consensus, so the agency must make a policy choice to fill the gaps.[221] Questions of policy,

213. *See* cases cited *supra* note 140.

214. *See* Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 103 (1983) (holding that an agency's scientific conclusions within its area of expertise should not be disturbed by the court); *see also* Meazell, *supra* note 20, at 742 (arguing that there is a "spectrum of deference within the umbrella of 'reasonableness'"); Wagner, *The Science Charade*, *supra* note 21, at 1663–64 (discussing challenges to agency science and finding that, "[i]n the majority of cases . . . the courts simply require a thorough, technical accounting of how the agency determined the standard, with the implicit threat of remanding a rule if the agency's policy choices are discovered, and the court believes a better path could have been followed").

215. Kleppe v. Sierra Club, 427 U.S. 390, 412 (1976).

216. Marsh v. Or. Natural Res. Council, 490 U.S. 360, 378 (1989).

217. Meazell, *supra* note 20, at 756 ("Even though, as a baseline matter, agencies receive great deference, the super-deference principle considers agencies' scientific and technical endeavors as deserving of *even more* deference.").

218. *Id.* at 756–64 (discussing the origins and effects of the doctrine of "super-deference" to agency science in the courts).

219. Julie Lurman Joly, Joel Reynolds & Martin Robards, *Recognizing When the "Best Scientific Data Avaliable" Isn't*, 29 STAN. ENVTL. L.J. 247, 248 (2010).

220. Clark, *supra* note 145, at 329.

221. Agencies base their decisions on a combination of factual information and policy considerations in order to fulfill statutory goals and mandates. Meazell, *supra* note 20, at 744 (discussing the role of policy in agency science and suggesting that it is the "science and the

however, often implicate subjective value judgments that could leave the agency's decision vulnerable to reversal.[222] On the other hand, the doctrine of super-deference elevates agency science above judicial and political review.[223] This incongruity has led agencies to deliberately or unintentionally "characterize policy choices as matters resolved by science in order to survive a variety of strong political, legal, and institutional forces."[224] Called the "science charade," this tendency to "cloak policy decisions in a shroud of science"[225] is widespread in environmental decisionmaking.[226]

The science charade can be seen as an agency's solution to the problems presented by scientific uncertainty; it allows the agency to reframe the policy questions as scientific questions to which the available data offer a concrete, rational, and objective answer.[227] In so doing, agencies are able to "avoid the essential policy questions that fuel natural resource disputes, such as how to allocate benefits between economic and ecological concerns, how to prioritize the use of limited resources, or how to incorporate risk into decision making."[228] Super-deference creates an added incentive to engage in the science charade.[229] By hiding policy choices in science, agencies can preclude judicial review of their policy determinations altogether.[230] Courts are unlikely to examine agency science to uncover the hidden uncertainties, and accusations that an agency failed to make the correct policy choice would likely be rejected in light of its, albeit policy-

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policy choices" together that "comprise an agency's scientific determination").

222. *See* Doremus & Tarlock, *supra* note 154, at 13 (defining policy judgments as "judgments about social goals, the relative importance of those goals, and the importance of avoiding specific types of errors. . . . By their very nature, policy judgments cannot be made on any objective basis.").

223. Wagner, *The Science Charade*, *supra* note 21, at 1663–67 (arguing that judicial review of agency science is cursory).

224. *Id.* at 1628.

225. Meazell, *supra* note 20, at 751.

226. *See, e.g.*, Clark, *supra* note 145, at 324–25 (discussing the USFS's use of the science charade in forestry management); Wagner, *The Science Charade*, *supra* note 21, at 1673 (discussing the use of the science charade in toxic risk regulation).

227. *See* Wagner, *The Science Charade*, *supra* note 21, at 1653–54.

228. *See* Clark, *supra* note 145, at 346.

229. Wagner, *The Science Charade*, *supra* note 21, at 1665–66 (arguing that the courts' treatment of science has made the science charade "obligatory" for agencies making science-policy decisions).

230. *See* Doremus & Tarlock, *supra* note 154, at 19 (stating that, as a result of judicial deference to agency science, "[t]he policy judgments that are necessarily implied or closely intertwined with scientific judgments in natural resource regulatory decisions often go unrecognized, or perhaps unacknowledged, by the courts").

ridden, science.[231] Indeed, in her examination of agency responsiveness to public comment, Mendelson found that value-based challenges to agency decisions are soundly rejected by the courts.[232]

The science charade has been cited as a recurring issue in administrative law, and contributes to the "detriment of administrative-law values, statutory goals, and science itself."[233] Public participation and transparent decisionmaking are key objectives of the administrative process.[234] Agencies engaged in the science charade, however, produce decision documents replete with scientific jargon and technical models, thereby precluding the involvement of all but the scientifically literate.[235] By masking scientific uncertainty and failing to identify the policy choices made to fill knowledge gaps, agencies effectively remove the conversation from the public forum.[236] While this technique can be a useful political tool, it ultimately hinders transparent, adaptive decisionmaking.[237] When the real basis for the agency's decision is obscured, neither the public, nor the regulated entity is able to meaningfully participate.

B. Two Steps Forward, One Step Back—Resorting to the Science Charade

Given the lack of data about the Sea of Okhotsk beluga stock, management decisions necessarily implicate the formation of assumptions. Exactly what those assumptions are depends on the underlying policy judgments and ultimate decision the agency wants to make. In looking at the same data, reasonable scientists reached divergent conclusions—the Aquarium took the lack of data concerning other sources of human-caused

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231. Wagner, *The Science Charade*, *supra* note 21, 1665–66 (noting that the science charade allows agencies to ensure that their decisions are "subject only to the most cursory review.").

232. Mendelson, *supra* note 23, at 1370 (reporting that her research failed to uncover a single opinion where the court vacated an agency's decision due to its failure to consider the public's value judgments).

233. *See* Meazell, *supra* note 20, at 751–52 (discussing the dangers of the "science charade" and its roots in so-called "super-deference" to agency science).

234. *See generally* William Funk, *Public Participation and Transparency in Administrative Law—Three Examples as an Object Lesson*, 61 ADMIN. L. REV. 171 (2009).

235. By increasing the cost of entry, the science charade favors over-representation of sophisticated industry groups and under-representation of the general public. *See* Wagner, *Administrative Law*, *supra* note 171, at 1379; *see also* Wagner, *The Science Charade*, *supra* note 21, at 1677 n.234.

236. *See* Meazell, *supra* note 20, at 752 (citing decreased public participation as a consequence of the science charade); Wagner, *The Science Charade*, *supra* note 21, at 1654–57 (same).

237. Wagner, *The Science Charade*, *supra* note 21 at 1673–74 (discussing the consequences of the science charade).

mortality to be dispositive,[238] but NOAA asserted that "the full extent of other sources of mortality . . . cannot be fully discounted or assumed to be zero."[239] NOAA's proposed scenarios about the Russian beluga population trends were plausible, supported by the data, and appropriately cautious given the scientific uncertainty; however, the Aquarium's sustainability calculations were also based on widely accepted methods of marine mammal population monitoring and assessment.[240] The resulting models are both based on assumptions that draw on empirical data and studies, but nevertheless lack similar foundations in objectivity.[241]

NOAA, whether intentionally or out of force of habit,[242] did not address the *policy*-based reasons for this decision, no matter how reasonable or in-line with agency mandates.[243] Instead, it attacked the Aquarium's science and cloaked its policy judgment in "better" science, filling the gaps in knowledge with highly technical estimations and models.[244] Likewise, the Aquarium's main challenges revolve around NOAA's methodologies and interpretations of the data, exploiting the knowledge gaps by using the same data sets to reach the exact opposite conclusion.[245]

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238. *See* Complaint for Declaratory and Injunctive Relief, *supra* note 109, at 53.

239. Memorandum from P. Michael Payne, *supra* note 14, at 30.

240. NOAA uses PBR to calculate allowable take from beluga stocks in Alaska. *See* NOAA, NMFS-AFSC-234, ALASKA MARINE MAMMAL STOCK ASSESSMENTS, 2011, 67 (2012). The MMPA requires PBR to be included in Stock Assessment Reports for all marine mammals in the waters of the United States. 16 U.S.C. § 1362(a)(6) (2012).

241. *See* Clark, *supra* note 145, at 331 ("[E]mpirical data and studies that serve as inputs to these models are arguably scientific findings, [but] the assumptions [the models] are based on do not have a similar grounding in specific empirical results.").

242. *See* Wagner, *The Science Charade*, *supra* note 21, at 1631–50 (distinguishing between the "unintentional charade," the "intentional charade," and the "premeditated charade" to illustrate the prevalence of the problem).

243. Reasonable policy considerations include public opinion, mistrust of Russian management practices, and doubts over the humaneness of cetacean captivity in general.

244. *See* Memorandum from P. Michael Payne, *supra* note 14, at 28–38.

245. In addition to attacking NOAA's science, the Aquarium argues that historic population data has never been a requirement under the MMPA. Complaint for Declaratory and Injunctive Relief, *supra* note 109, at 49, 57. Further, the Aquarium argued, "in Defendants' view, using PBR as a measure of sustainable removal levels 'is only appropriate where the stock is increasing[,]'" thereby creating a new legal standard "that ha[s] not been applied to any other permit applicant." *Id.* Agencies are free to effectuate new policy through informal adjudication, provided the new legal standard does not differ radically from previous interpretations of the law. *See* NLRB v. Bell Aerospace Co., 416 U.S. 267, 294 (1974) (holding that agencies are "not precluded from announcing new principles in an adjudicative proceeding and that the choice between rulemaking and adjudication lies in the first instance within the [agency]'s discretion"). The extent of this power is outside the scope of this Comment. It should be noted, however, that the Aquarium does have a point—population trend data has never been a requirement of

The bulk of the Aquarium's complaint disputes NOAA's assessment of the impacts of the proposed import on the Sea of Okhotsk beluga stock.[246] The Aquarium attacks the Agency's method of assessing the Sakhalin-Amur beluga stock, insisting that NOAA "manipulated the data" to show a population decline.[247] The crux of this argument is that the IUCN Panel used a more conservative "method to calculate the population level number used in the PBR equation" than that used by NOAA when fulfilling its other responsibilities under the MMPA.[248] In the alternative, the Aquarium accuses NOAA of ignoring the best scientific evidence when it determined that additional sources of mortality likely cause annual removals to exceed the calculated PBR.[249] Given the conservative methodologies and the "marked lack of data" to support NOAA's conclusions, the Aquarium argues that NOAA arbitrarily and capriciously determined that the proposed import would have an adverse impact on the Sea of Okhotsk beluga stock.[250]

Although the parties frame their positions as based in data, in reality, their dispute is over which reasonable interpretation and resulting policy judgment is best. The PBR analysis is inherently probabilistic.[251] In the face of uncertainty, NOAA had to make a policy choice and decide which values—caution and conservation, or public display and profit; historic agency priorities, or new science and public opinion—should underlie its decision. The demand for captive cetaceans has increased in recent years, both due to morbidity of captive populations and an increase in marine parks across the world.[252] Russia is the last nation that permits live captures

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permit applications, and the Aquarium was not given notice of this new requirement. Even if the court finds for the Aquarium on this claim, judicial deference to agency science should ultimately favor NOAA.

246. The Aquarium devotes nearly twelve pages of the Complaint to disputing NOAA's finding regarding the proposed import's impact on the wild stock. Complaint for Declaratory and Injunctive Relief, *supra* note 109, at 46–57. In contrast, the Aquarium devotes four pages to disputing whether the import would result in additional removals from the beluga stock, *id.* at 57–60, and just over two pages to disputing the ages of five of the belugas, *id.* at 60–63.

247. Complaint for Declaratory and Injunctive Relief, *supra* note 109, at 50.

248. *Id.* at 53–54.

249. It is well established that agencies are entitled to rely on the reasonable opinions of their own experts. *See* Marsh v Or. Natural Res. Council, 490 U.S. 360, 378 (1989). Furthermore, agencies are not required to use the best data *possible*, but merely the best data *available*. *See* Bldg. Indus. Ass'n of Superior Cal. v. Norton, 247 F.3d 1241, 1246 (D.C. Cir. 2001). Deference to agency science should favor NOAA on this claim.

250. Complaint for Declaratory and Injunctive Relief, *supra* note 109, at 53.

251. *See supra* Part I.C. (discussing the calculation's incorporation of uncertainty).

252. Tim Zimmermann, *A Surge in Wild Orca Capture for Killer Whale Shows*, OUTSIDE ONLINE (Nov. 8, 2013), http://www.outsideonline.com/outdoor-adventure/nature/Orcas-

of beluga whales.[253] Some industry watchdogs have raised serious concerns about wildlife management in Russia.[254] Indeed, Russia routinely issues permits that exceed PBR.[255] Forbidding the import of marine mammals from a nation that does not offer the same level of protection to its wildlife is consistent with the object and purpose of the MMPA. While the Agency is empowered to make this policy choice, presenting the ultimate decision as being dictated by the facts alone allows the Agency to "avoid the essential policy questions that fuel natural resource disputes"[256] and ensure that its judgment escapes close judicial scrutiny.[257]

C. The Dangers of the Science Charade and the Need for New Regulations

To prove that NOAA acted arbitrarily and capriciously, the Aquarium must show that the Agency acted unreasonably.[258] The Agency acted

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Captured-In-the-Wild-for-Aquariums-and-Water-Parks.html (reporting on how the increased demand for orcas and beluga whales in Japan, China, and Russia is driving the flurry of cetacean captures in Russia).

253. *See* Memorandum from P. Michael Payne, *supra* note 14, at 29 ("[S]ince 1992, . . . Russia has been the sole regular supplier of belugas to the public display industry").

254. *See generally* Tim Zimmermann, *Who is White Sphere? The Barely Disguised Conglomerate Behind Russia's Wild Orca Captures*, TIMZIMMERMANN.COM (Feb. 10, 2014), http://timzimmermann.com/2014/02/10/who-is-white-sphere-the-barely-disguised-conglomerate-behind-russias-wild-orca-captures/ (interviewing Russian cetacean capture activist and expert Eric Hoyt, who describes the "shell game" of live-capture conglomerates who hide their true associations and reports that when orca experts recommended a quota of zero for 2014, "'Federal Fisheries instead indicated that they would find new killer whale experts to make a new recommendation'"); Andy Heil, *The Aquarium Politics of the Global Beluga-Whale Trade*, THE ATLANTIC (Oct. 28, 2012, 9:07 AM), http://www.theatlantic.com/international/archive/2012/10/the-aquarium-politics-of-the-global-beluga-whale-trade/264097/ (mentioning the lack of transparency in Russian wildlife management and suggesting that a Soviet-era contempt for international bans, like the ban on whaling, may be partially to blame). Although not part of the administrative record, a recent paper by Olga V. Shpak, author of many of the papers relied upon by the IUCN in evaluating the Russian beluga captures, has found that the live-capture operations in the Sakhalinsky Bay region are highly unsustainable. *See* Shpak & Glazov, *supra* note 194. Shpak reported high mortality rates that had previously been unobserved by researchers, positing that competition among capture teams and a short capture season were to blame. *Id.* NOAA's fears regarding Russia's management of the beluga stock are confirmed.

255. *See* Memorandum from P. Michael Payne, *supra* note 14, at 30 (forty to fifty-seven belugas). Others have reported the quota to be much higher. *See* Shpak & Glazov, *supra* note 194 (245 belugas).

256. Clark, *supra* note 145, at 346.

257. *See supra* notes 227–232 and accompanying text.

258. *See* Meazell, *supra* note 20, at 740 (reviewing the Administrative Procedure Act (APA) standard of review for agency action and noting that the "agency must explain its decision in a reasonable way" in order to survive judicial review).

unreasonably if it is unable to provide a rational explanation for its actions.[259] Despite the Aquarium's accusations, it is likely that the Agency's determination will be upheld. First, the Agency reasonably relied on the PBR calculated by an international expert body and presented by the applicant. Under the MMPA, the applicant bears the burden of demonstrating that the proposed importation of any marine mammal will "be consistent with the purposes" of the MMPA and its implementing regulations.[260] Courts have generally found that agencies do not have to *generate* the best data available; they merely have to use it.[261] Therefore, NOAA is under no obligation to recalculate the value the Aquarium expressly relied upon in its application. Second, while the assumptions that underlie NOAA's models are debatable, courts rarely scrutinize technical models.[262] This time, NOAA's engagement in the science charade will likely protect its decision from a close review.

The science charade has undeniable appeal to agencies faced with scientific uncertainty and controversial policy choices; however, it is a dangerous game in which the ends fail to justify the means. The charade hinders the three major goals of environmental decisionmaking: public participation, environmental protection, and scientific development.[263] First, by cloaking its policy in scientific models and terminology that are often incomprehensible to the lay citizenry,[264] NOAA isolates itself from the values of the public by precluding the public's ability to offer meaningful comments that the Agency will consider.[265] Thus, the conversation is removed from the public forum and is reduced to a battle between

259. *See id.* at 741 ("This 'reasoned decision-making' requirement pervades administrative law.").

260. 16 U.S.C. § 1374(d)(3) (2012). NOAA does not manage the beluga whale stocks in Russia; therefore, the Agency is under no obligation to calculate PBR for these stocks. Memorandum from P. Michael Payne, *supra* note 14, at 29.

261. *See, e.g.*, Sw. Ctr. for Biological Diversity v. Babbitt, 215 F.3d 58, 60–61 (D.C. Cir. 2000) (stating that agencies do not have to conduct new studies when the data is inconclusive); *cf.* Mariyetta Meyers, Comment, *Maximizing Scientific Integrity in Environmental Regulations: The Need for Congress to Provide Guidance When Scientific Methods are Inadequate or When Data is Inconclusive*, 12 ANIMAL L. 99, 111–13 (2005) (discussing NOAA's obligations under the Magnuson-Stevens Act, which also requires the Agency to use the "best available science," and finding that the Agency "is not under an affirmative duty to gather new data").

262. *See, e.g.*, Clark, *supra* note 145, at 342–43 (discussing the USFS's use of models and proxies to engage in the science charade and escape close judicial review).

263. Wagner, *The Science Charade*, *supra* note 21, at 1673.

264. *See* Doremus & Tarlock, *supra* note 154, at 20 (observing that the science charade renders the public less able to participate in a highly technical natural resource management decisions).

265. *See* Mendelson, *supra* note 23, at 1359 (noting that agencies tend to treat technically and scientifically oriented comments more seriously than policy-focused comments).

experts.[266] NOAA should not silence the growing debate about marine mammal captivity simply because it is unwilling to engage in the policy conflict. Indeed, given the special place marine mammals hold in society,[267] full participation of the citizenry is necessary to lend democratic legitimacy to the Agency's decisions on marine mammal management.[268] Due to the uncertainty implicit in marine mammal management, regulators must necessarily incorporate value judgments into the scientific assumptions that underlie the management tools and models. However, "[i]f the values a regulator incorporates into a science-based standard do not correspond with the values of society, then the resulting standard will lack democratic legitimacy."[269] Therefore, NOAA should encourage a dialogue between the public, regulators, and the regulated entities about the future of the industry in the modern world.

Second, by preventing meaningful public conversation about marine mammal captivity, the science charade also hinders the furtherance of marine mammal conservation and protection. NOAA essentially reduced the question of the import's propriety to a population numbers game, avoiding the more challenging questions about the future of marine mammal management. As to the welfare of the individual belugas, the MMPA requires that the proposed activity be "humane."[270] However, recent science indicates that humane treatment of captive marine mammals is impossible.[271] On a population scale, it is counterintuitive to argue that removing wild belugas from a population facing a variety of threats, not the least of which are over-exploitation and climate change, will help conserve the population. Neither the captured belugas, nor their progeny will be released. The conservation value of the captures is minimal. Finally, by deciding permits on a "case-by-case" basis, NOAA fails to give the industry clear guidelines. The industry may keep capturing whales *beforehand* and seeking its import permit after the fact. This both encourages more removals from marine mammal populations and is harmful to the marine

266. *See* Wagner, *The Science Charade*, *supra* note 21, at 1655–56 (citing decreased public involvement as an incentive to engage in the science charade.).

267. *See* 16 U.S.C. § 1361(6) (2012) ("[M]arine mammals have proven themselves to be resources of great international significance, esthetic and recreational as well as economic").

268. *See* Wagner, *The Science Charade*, *supra* note 21, at 1674 (noting that "most commentators conclude that the wide range of public values implicated in these complex problems [of science-policy issues] can and must be ascertained only with the general public's assistance"). *But see* Wagner, *Administrative Law*, *supra* note 171, at 1324–25 (noting that increased public participation can also lead to "information capture" and arduous rulemaking processes).

269. Wagner, *The Science Charade*, *supra* note 21, at 1675.

270. 50 C.F.R. § 216.34(a)(1) (2012).

271. *See* Marino & Frohoff, *supra* note 4, at 2–4.

mammals captured, who must languish in a foreign holding pen while awaiting their fate.

Finally, the science charade affects public confidence in science "as scientific answers appear illusive and subject to debate."[272] The mistrust of science has many negative impacts on society.[273] In terms of marine mammal conservation specifically, public misconceptions of science may be contributing to the perpetuation of the industry at the expense of animal welfare. Marine parks have an incentive to suppress science that places the industry in a bad light. Indeed, hidden cameras have revealed that SeaWorld trainers lie to the public about marine mammal intelligence and life expectancy.[274] By refusing to honestly engage the public, NOAA makes the science appear arguable and diminishes its own credibility. Even more broadly, the science charade impairs the quality and progress of science "because gaps in scientific knowledge are not highlighted."[275] NOAA identified the uncertain status of the Sea of Okhotsk stocks as the primary reason for its decision, but failed to acknowledge that *most* marine mammal populations' statuses are uncertain and that marine mammal management is often highly subjective.[276] Perhaps the public would think differently about wide-spread seismic testing if it knew that population trends for many of the affected stocks are no more certain than the belugas in the Sea of Okhotsk.[277]

Prospectively, the Agency's insistence on hiding its policy judgments

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272. Wagner, *The Science Charade*, *supra* note 21, at 1674.

273. Two examples that come immediately to mind are climate change denial and hysteria over the "dangers" of vaccinations. *See, e.g.*, Katie Valentine, *Denying Climate Change 'Will Cost Us Billions of Dollars,' U.S. Budget Director Warns*, THINKPROGRESS.ORG (Sept. 20, 2014, 11:04 AM), http://thinkprogress.org/climate/2014/09/20/3570075/shaun-donovan-costs-of-climate-denial/ (climate change); *Michael Specter, Michael Specter: The Danger of Science Denial*, TEDTALK (Feb. 2010) http://www.ted.com/talks/michael_specter_the_danger_of_science_denial?language=en#t-268315.

274. *See* BLACKFISH, *supra* note 77.

275. Wagner, *The Science Charade*, *supra* note 21, at 1673.

276. *See* MARINE MAMMAL COMM'N, REPORT OF THE WORKSHOP ON ASSESSING THE POPULATION VIABILITY OF ENDANGERED MARINE MAMMALS IN U.S. WATERS 11 (2005) ("[D]ecisions regarding a range of marine mammal management actions are based on qualitative assessments of limited quantitative data on population status, trends, and threats. The underlying analyses often are not explicit with regard to assumptions and uncertainties, and therefore they can seem subjective and arbitrary."). While the Marine Mammal Commission hopes to improve the appearance of the decisionmaking process, the assumptions on which these models are based are inherently subjective. *See supra* note 235 and accompanying text.

277. *See, e.g.*, JAMES V. CARRETTA ET AL., NOAA, U.S. PACIFIC MARINE MAMMAL STOCK ASSESSMENT REPORTS, 2013 (2014) (noting that many of the population trends are listed as "unknown").

makes it increasingly difficult to meaningfully regulate the industry. Its charade fails to provide clear guidance to the public and regulated entities. Consider NOAA's reliance on the uncertain status of the Russian beluga stocks to conclude that the proposed import did not comport with the MMPA. What if the Aquarium produces population trend data for Russian beluga stocks? What if the next Special Exception Permit Application requests to import a marine mammal captured from a well-managed stock? What if these eighteen belugas are imported to another country to be held for a few years, and the import application is then resubmitted? The Agency must *dis*engage from the science charade and encourage productive conversations about the future of the public display of marine mammals. Regardless of any personal opinions about the morality and ethics of the public display of marine mammals, the MMPA expressly authorizes the practice and directs NOAA to support the industry, provided certain regulatory criteria are met. Barring an amendment to the statute, the practice will likely continue. Clear regulatory guidelines are necessary to ensure transparency, meaningful regulatory development, and avoid costly—and risky—lawsuits.

V. RECOMMENDATIONS FOR NEW REGULATIONS

The Aquarium's permit application will likely serve as a test case for the public display industry as marine parks look for animals to prolong the life of the industry. While NOAA's arguments may withstand challenge for this population of belugas, the gaps exposed by the Aquarium's application and lawsuit merit serious consideration to guard against a similar situation in the future. It is entirely feasible that the Aquarium and other marine parks will find other, more suitable populations that will satisfy the arguments articulated in this denial.[278] Alternatively, given that the import of captive cetaceans has no impact on wild populations, adverse or otherwise,[279] the Aquarium could arrange for the belugas to be transported to a park in Russia or another country and reapply for a permit. This would negate NOAA's chief objection to the import and would force the Agency to directly address its competing mandates and the public veto.[280]

278. Where there is less scientific uncertainty, NOAA's decision would risk reversal if it appeared to run counter to the facts, as judicial deference does not constitute a free pass to cherry pick science to create uncertainty. *See* Marsh v. Or. Natural Res. Council, 490 U.S. 360, 378 (1989) (holding that although the scope of review is careful, the Court will engage in a "'searching and careful'" inquiry to ensure that the agency's decision "'was based on a consideration of the relevant factors and whether there has been a clear error of judgment'") (citation omitted).

279. *See supra* note 205 and accompanying text.

280. Indeed, in June 2014, NOAA granted SeaWorld's permit application to import one

By effectuating policy ad hoc in informal proceedings, NOAA fails to provide meaningful guidelines for both the public and the regulated entities. Compounding this problem, NOAA expressly stated that this decision is not intended to serve as precedent for future applications.[281] Obscure and inconsistent decisionmaking procedures and actions risk reversal on judicial review. While society may cheer the ultimate decision, the criteria are ill-defined and easily manipulated by NOAA, regulated entities, and the courts. NOAA must clarify its position in the interest of fairness to both the public and the regulated entities.

Even more broadly, better-defined regulatory criteria will help the Agency *dis*engage from the science charade. Given the ubiquitous presence of incentives to resort to the charade,[282] it is unlikely that NOAA would eschew the practice completely. While reforms aimed at Congress, the agencies themselves, and even the courts have been suggested, the systemic dismantling and reshaping of the current administrative state these reforms would require is both an unlikely, and long-term solution. The policy questions surrounding cetacean importation and captivity require immediate attention.

In the short term, the harm to the goals of environmental decisionmaking can be somewhat mitigated by eliminating uncertainty and subjectivity in the decisionmaking process. By providing the public with clear standards, NOAA would help guide the conversation and encourage substantive public participation. Moreover, by lessening NOAA's reliance on subjective, ill-defined terms, the public display industry would be forced to adhere to the highest of standards before any permit could be granted, creating an incentive to improve scientific research on marine mammal stocks around the world.

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captive-born Pacific white-sided dolphin from Japan. *See* Letter from Jolie Harrison, *supra* note 205. This application concerned a captive-born dolphin, as opposed to one that had been wild-caught. *Id.* As such, it did not garner nearly as much attention as the Agency's decision regarding the Russian belugas. *See* Memorandum from Jolie Harrison, Acting Chief, Permits and Conservation Div., NOAA, to Donna S. Wieting, Dir., Office of Protected Res., NOAA 3 (June 27, 2014), *available at* http://www.nmfs.noaa.gov/pr/pdfs/permits/permit17754_decisionmemo.pdf (reporting that 350 public comments were received, nearly all of which were negative). It is unclear how NOAA would evaluate an application to import wild-caught cetaceans held in captivity for an extended period of time. Given the state of public opinion regarding public display, however, it is unlikely such an application would slip by similarly unnoticed.

281. *See* Letter from Donna S. Wieting, Dir., Office of Protected Res., NOAA, to Bill Hurley, Ga. Aquarium (Aug. 5, 2013) ("This denial of your application does not prejudice consideration by [NOAA] of future permits you may request or be associated with.").

282. *See* Wagner, *The Science Charade*, *supra* note 21, at 1650–73 (discussing various incentives ranging from political, legal, and institutional).

Of course, amending the MMPA to fully restore jurisdiction over the public display industry to NOAA and strengthen its oversight and enforcement capabilities is the most desirable, and most unlikely, solution.[283] Alternatively, NOAA could promulgate activity-specific regulations for Special Exception Permits to take or import marine mammals for public display. NOAA issued a scoping document in 2010 that proposed to modify the existing Special Exception Permit regulations and add activity-specific criteria, but no further progress was made.[284] While the document requested comments on the current regulatory scheme and any additional alternatives thought of by interested parties, the "draft public display regulations . . . reflect current permitting practices."[285] One new regulation mentioned, however, would require the applicant to notify NOAA prior to any live-capture "to allow for the presence of an [Agency] observer."[286] NOAA should take this a step further and require that the applicant submit video evidence of the capture with the permit application. This would fill an important gap in the current regulatory scheme, as it would help the Agency ensure that the capture was conducted humanely and that no incidental mortality occurred in the course of the capture operation. However, there are still many regulatory gaps that must be filled in order to ensure compliance with the policies and purpose of the MMPA.

To address these gaps, NOAA should endeavor to clarify the permit issuance criteria and decisionmaking process to add transparency and legitimacy to permitting decisions. First, NOAA should undertake a rulemaking to define ambiguous terms in the statute, such as "humane capture"[287] and "adversely affect." Currently, the term "humane" is defined as the method that causes the "least possible degree of pain and suffering *practicable* . . . ."[288] This is a poor definition that both fails to provide meaningful guidance to those it regulates and grants too much

283. *See, e.g.*, Dougherty, *supra* note 36, at 366–67 (suggesting that Congress amend the MMPA to eliminate the self-regulation allowances for the industry and that NOAA and APHIS improve regulation of marine parks through various reforms of the AWA regulations and the MMPA).

284. *See supra* note 47 and accompanying text.

285. SCOPING DOCUMENT, *supra* note 47, at 21. Despite NOAA's request, the Aquarium failed to produce a video of the captures, forcing the Agency to rely on the Aquarium's assurances that the captures were conducted "humanely." Memorandum from P. Michael Payne, *supra* note 14, at 12. The Agency appears to chastise the Aquarium for this omission, but cannot legally require submission of video evidence under the current regulatory scheme. *Id.*

286. SCOPING DOCUMENT, *supra* note 47, at 65.

287. *See* Brower, *supra* note 8 (pointing out the ambiguity in the term and the resulting regulatory difficulties).

288. 16 U.S.C. § 1362(4) (2012) (emphasis added).

discretion to those enforcing the regulation. A better definition would include a list of permissible methods of capture based on best practices, and would forbid the use of methods shown to cause high instances of incidental mortality. The term "adversely affect" is not defined in the statute. Whether a removal adversely affects the wild stock should be determined at the moment of capture, and should follow that individual throughout its life. This would guard against a situation in which wild cetaceans are captured, held in captivity in a foreign nation for a few years, and then imported into the United States as captive animals whose import did not adversely affect the species or stock. Such a shell game should not be tolerated. The removal of an animal from a stock that is declining should bar that animal from import, regardless of how long the animal has been held in captivity in the interim.

Second, the Agency could resolve the conflicting statutory mandates through the promulgation of regulations that explicitly detail the Agency's decisionmaking process and the weight afforded to the different considerations. While such regulations would likely not completely disengage NOAA from the science charade, they would provide regulatory support for the Agency's ultimate prioritization of its goals. Absent congressional intent, agency regulations resolving conflicting statutes are afforded deference and upheld so long as they are reasonable.[289] Congress has not expressly spoken to which mandate should prevail, indicating that NOAA can and should promulgate rules that clarify and reaffirm the Agency's commitment to marine mammal conservation. While the legislative history and the presence of the public display permit exemption indicate Congress's endorsement of the industry, such secondary considerations should not overrule the purpose of the MMPA—to protect marine mammals from "extinction or depletion as a result of man's activities."[290]

To this end, NOAA should better articulate how it will consider the welfare of the marine mammals. The welfare of individual animals is an ill-defined standard and requires NOAA to rely on science that may be in direct contravention to its congressionally mandated duty to support the public display industry. While NOAA cannot end marine mammal captivity, it can take small steps to ensure that the importing facilities are

289. *See, e.g.*, Nat'l Ass'n of Home Builders v. Defenders of Wildlife, 551 U.S. 644, 649, 678 (2007) (applying *Chevron* deference to uphold the Environmental Protection Agency's (EPA's) interpretation of conflicting statutory mandates under the ESA and Clean Water Act (CWA)). The prioritization of one statutory goal over another is arguably the primary duty delegated to administrative agencies. *Id.*

290. 16 U.S.C. § 1361(1) (2012).

adequately equipped to care for the additional stock. Facilities that are in violation of the AWA[291] or that have uncorrected citations should not be permitted to augment their marine mammal collections until such violations are corrected. This requirement would comport with the import permit review criteria. When reviewing a permit application, the Agency must consider "[w]hether the applicant's expertise, facilities, and resources are adequate to accomplish successfully the objectives and activities stated in the application."[292] Furthermore, the import must "not present any unnecessary risks to the health and welfare of marine mammals."[293] The body of research concerning the detrimental effects of captivity on cetaceans is growing, suggesting that captivity itself may present an unnecessary risk to the health and welfare of these animals. As long as the public display of cetaceans remains authorized by statute, marine amusement parks must be held to the highest of standards. Facilities with a demonstrated disregard of their duties under the AWA should not be permitted to profit off of the suffering of the very animals they claim to love and protect.

Finally, NOAA should exercise its authority under the MMPA to designate foreign marine mammal populations as "depleted."[294] The importation of marine mammals taken from depleted stocks is expressly forbidden.[295] Despite NOAA's curious allusion to the contrary in its Decision Letter and Memorandum,[296] it likely does have the authority to designate foreign stocks as depleted. Indeed, a recent publication detailing NOAA's "Action Plan" for improving international marine mammal conservation belies a desire to improve international management of marine mammal stocks.[297] Furthermore, by definition, species and population stocks that are listed as endangered or threatened under the

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291. Recall that the AWA is administered by the APHIS and establishes standards of care for animals used in research facilities or for exhibition purposes. *See* 7 U.S.C. § 2131 (2012).

292. 50 C.F.R. § 216.34(a)(5) (2013).

293. *Id.* § 216.34(a)(1).

294. Stocks listed as depleted are those that have fallen below the OSP. 16 U.S.C. § 1362(1) (2012). Stocks that are listed as threatened or endangered are also considered "depleted" under the MMPA. *Id.* § 1362(1)(C). Additionally, upon consultation with the Marine Mammal Commission, the Secretary can designate a stock as "depleted" if he determines that such stock is below its OSP. *Id.* § 1362(1)(A).

295. *Id.* § 1372(b)(3).

296. Memorandum from P. Michael Payne, *supra* note 14, at 29.

297. *See* NOAA, INTERNATIONAL MARINE MAMMAL ACTION PLAN 2012–2016 (2012) (discussing the Agency's efforts to conserve marine mammal populations that are depleted, threatened, or endangered, and aid in their recovery).

ESA are "depleted."[298] As of this writing, a petition to list the Sakhalin Bay-Amur River beluga stock as depleted is under review.[299] NOAA should quickly grant this petition and work with international partners to improve international regulation of the wildlife trade.

CONCLUSION

The MMPA provides the minimum requirements that must be met for a permit application to import a live marine mammal to be approved. These standards have remained largely the same since the MMPA's original enactment in 1972.[300] The Secretary has yet to promulgate regulations governing the issuance of permits for public display, despite his authority to do so.[301] As evidenced by the present proceedings, this stasis in the law has run afoul of emerging science and evolving public opinion. Emerging science suggests that some of the statutory mandates within the MMPA may no longer be wholly reconcilable, while public comments on the proposed action were numerous and negative enough to be considered a public veto.[302] Without concrete congressional or regulatory direction, NOAA had to forge ahead and render a decision on the first application to import a live marine mammal in twenty years.[303]

NOAA's conclusion that the proposed import did not meet the criteria of the MMPA constitutes a reasonable decision that is within its expertise[304] and is supported by sound policy judgments based upon the data in the record. Furthermore, in keeping with the MMPA's mandate, NOAA's decision ensures that vulnerable marine mammal populations are protected and achieve OSP. While strong policy considerations supported NOAA's decision, the Aquarium's complaint demonstrates that the science could just as easily undercut the Agency's conclusions. NOAA should benefit from judicial deference to agency expertise; however the Aquarium does raise

298. 16 U.S.C. § 1362(1)(C).

299. *See* ANIMAL WELFARE INST. ET AL., PETITION TO DESIGNATE THE SAKHALIN BAY-AMUR RIVER STOCK OF BELUGA WHALES (DELPHINAPTERUS LEUCAS) AS DEPLETED UNDER THE MARINE MAMMAL PROTECTION ACT (2014), *available at* http://www.nmfs.noaa.gov/pr/pdfs/petitions/belugawhale_depleted_petition2014.pdf.

300. *Compare* Marine Mammal Protection Act of 1972, Pub. L. No. 92–522, § 104(a), 86 Stat. 1027, 1034 (codified as amended at 16 U.S.C. § 1374(a)) (outlining the minimum requirements for the importation of marine mammals for public display), *with* 16 U.S.C. § 1374(a) (same).

301. *See* 50 C.F.R. § 216.43 (2013) (Public Display: Reserved).

302. For a discussion on the role of the public veto in environmental litigation, see Tabb, *supra* note 175.

303. Brower, *supra* note 8.

304. *See, e.g.*, Marine Mammal Stock Assessment Reports, 77 Fed. Reg. 29,969 (May 21, 2012).

several significant issues concerning how the Agency deals with scientific uncertainty, competing regulatory and statutory mandates, and public comment.

From the hey-day of orca capture operations off the coast of Washington in the 1960s and 1970s, to the 2010 killing of SeaWorld trainer Dawn Brancheau by captive orca Tilikum, marine mammal captivity has always been controversial.[305] It will only become more so as our understanding of non-human "intelligence" progresses and evolves. NOAA's decision, carefully and deliberately conceived, will likely withstand the Aquarium's challenge, but offers little by way of guidance for future import permit determinations. Clear regulatory guidelines are essential to ensure that the public is heard, that marine mammal populations are protected and allowed to recover, and that the larger conversation about the public display industry's place in the modern world continues organically.

305. *See generally* BLACKFISH, *supra* note 77 (documenting the history and controversy of marine mammal capture and captivity in the United States).

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