



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

Finding of No Significant Impact
Denial of Permit No. 17324
for importation of beluga whales for public display purposes

Background

In June 2012, the National Marine Fisheries Service (NMFS) received an application (File No. 17324) from the Georgia Aquarium Inc. (the Aquarium), Atlanta, GA, for a permit to import beluga whales for public display, pursuant to the Marine Mammal Protection Act (MMPA). In accordance with the National Environmental Policy Act, NMFS prepared an Environmental Assessment (EA) analyzing the impacts on the human environment associated with permit issuance (Final Environmental Assessment for Issuance of Permit No. 17324 for importation of beluga whales for public display purposes; August 2013). The analyses in the final EA support the findings and determination below.

Determination

NMFS has chosen to implement the No Action alternative and deny the requested permit based on findings made under the MMPA. Denying the requested permit will not have significant effects on the human environment. Note that NMFS does not have jurisdiction over the 18 captured whales and can only speculate on their ultimate fate. Similarly, NMFS does not control the ongoing live capture operations in Russian waters, which will continue to be regulated by the Russian government. Trade in live captured beluga whales will presumably continue to operate at levels corresponding to global demand for these animals in public display.

The details of the determination that permit denial will not have significant effects are summarized below.

Analysis

National Oceanic and Atmospheric Administration Administrative Order 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations at 40 C.F.R. 1508.27 state that the significance of an action should be analyzed both in terms of “context” and “intensity.” Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ’s context and intensity criteria. These include:

- 1) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans?



Denial of a permit for import of marine mammals as described in Alternative 1 of the final EA will not cause substantial damage to ocean and coastal habitats or essential fish habitat. Denial of the permit means none of the 18 whales will be imported to the U.S. and there will be no effects on the status quo.

2) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Denial of the permit will not affect biodiversity or ecosystem function. Denial of the permit means none of the 18 whales will be imported to the U.S. and there will be no effects on the status quo.

3) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

Denial of the permit will not affect public health or safety. Denial of the permit means none of the 18 whales will be imported to the U.S. and there will be no effects on the status quo.

4) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Denial of the permit will not adversely affect endangered or threatened species, marine mammal stocks or species, critical habitat, or non-target species. Denial of the permit means none of the 18 whales will be imported to the U.S. and there will be no effects on the status quo.

As stated above, NMFS does not control the live capture operations in Russian waters, which will continue to be regulated by the Russian government. Trade in live captured beluga whales will presumably continue to operate at levels corresponding to global demand for these animals in public display.

5) Are significant social or economic impacts interrelated with natural or physical environmental effects?

There are no significant social or economic impacts interrelated with potential natural or physical effects of permit denial. Denial of the permit means none of the 18 whales will be imported to the U.S. and there will be no effects on the status quo.

6) Are the effects on the quality of the human environment likely to be highly controversial?

The effects of permit denial are not controversial. In the absence of an import permit, the whales will not be transported to the U.S. NMFS received thousands

of comments in opposition to permit issuance. There was no public opposition to permit denial under the no action alternative. Mere opposition to an action does not necessarily constitute controversy under NEPA. Controversy in a NEPA context implies a substantive dispute as to the size, nature, or effects of an action on the human environment. Denial of the permit is not controversial based on potential environmental impacts. There is no substantive dispute over what resources would be affected or the manner in which they would be affected by a decision to deny the permit.

7) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas?

Denial of the permit is not expected to affect unique or ecologically critical areas. The whales will not be imported to the U.S. Denial of the permit means none of the 18 whales will be imported to the U.S. and there will be no effects on the status quo.

8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

The effects of permit denial on the human environment are not highly uncertain and do not involve unique or unknown risks. The EA considers the direct and indirect effects of permit denial. Denial of the permit means none of the 18 whales will be imported to the U.S. and there will be no effects on the status quo.

9) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Denial of the permit is not related to other actions with potentially significant effects. Denial of the permit means none of the 18 whales will be imported to the U.S. and there will be no effects on the status quo.

10) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

Denial of the permit will not adversely affect the above mentioned places and resources. Denial of the permit means none of the 18 whales will be imported to the U.S. and there will be no effects on the status quo.

11) Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Denial of the permit is not expected to result in the spread or introduction of non-indigenous species. None of the 18 whales will be imported to the U.S., thus

there will be no transport of animals or equipment that could serve as carriers of non-indigenous species into the U.S.

12) Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

Denial of the permit does not establish a precedent. The decision to deny is based on a finding that the activity is not consistent with the issuance criteria set forth in the MMPA and NMFS regulations. It does not involve an irreversible or irretrievable commitment of resources, limit the choice of reasonable alternatives for future decisions, or otherwise represent a decision in principle about future considerations. Future applications for permits to import marine mammals for public display would be reviewed against the same issuance criteria and the decision whether to issue or deny would not be based on or otherwise influenced by this decision.

13) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

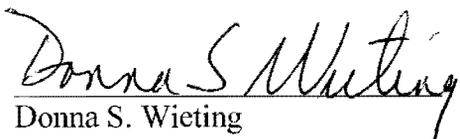
Denial of the permit is consistent with applicable provisions of the Marine Mammal Protection Act and NMFS regulations. There are no other permits, licenses, consultations, etc. necessary for NMFS denial of the permit.

14) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Denial of the permit will not result in cumulative adverse effects substantially affecting target or non-target species. The 18 whales will not be imported into the U.S. or become part of the U.S. captive breeding population and the status quo will be maintained.

DETERMINATION

In view of the information presented in this document, and the analyses contained in the EA prepared for Permit No. 17324, it is hereby determined that permit denial will not significantly impact the quality of the human environment. In addition, all beneficial and adverse impacts of the action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement for this action is not necessary.


Donna S. Wieting
Director, Office of Protected Resources

8/5/2013
Date



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

Final Environmental Assessment
for
Issuance of Permit No. 17324 for importation of beluga whales for public display purposes
August 2013

Lead Agency: USDC National Oceanic and Atmospheric Administration
National Marine Fisheries Service, Office of Protected
Resources

Responsible Official: Donna S. Wieting, Director
Office of Protected Resources

For Further Information Contact: Office of Protected Resources
National Marine Fisheries Service
1315 East West Highway
Silver Spring, MD 20910
(301) 427-8400

Location: Import from Russia and place in U.S. public display facilities
at the Georgia Aquarium, Atlanta, GA; Shedd Aquarium,
Chicago, IL; Sea World of Florida, Orlando, FL; Sea World
of Texas, San Antonio, TX; and Sea World of California, San
Diego, CA.

Abstract: The proposed action is issuance of a permit under Section 104 of the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 *et seq.*), to import 18 beluga whales captured in Russia for placement in public display facilities. An application for a permit was submitted by Georgia Aquarium Inc. (the Aquarium), 225 Baker Street, Atlanta, GA 30313. The whales would be held at the Georgia Aquarium, Atlanta, GA and distributed pursuant to breeding loan agreements among four other U.S. public display facilities: Shedd Aquarium, Sea World of Florida, Sea World of Texas, and Sea World of California. The Aquarium's objective in requesting the import is to enhance the North American breeding population of beluga whales in captivity by increasing the population base of captive beluga whales to a self-sustaining level. Their objective in the public display of captive whales is to promote conservation of and education about marine mammals in general, and this species in particular.

The EA evaluates impacts of a single action alternative – permit issuance – on the human environment, and considers whether issuance would comply with applicable laws, including the issuance criteria under the MMPA and NMFS' implementing regulations at 50 CFR 216. The EA also evaluates impacts of permit denial, under the No Action alternative. Permit issuance and denial require NMFS to make findings under the MMPA and our regulations. Our analysis shows that permit issuance would not comply with MMPA criteria, and may result in significant adverse impacts on marine mammals. NMFS' preferred alternative is No Action (Permit Denial). Implementing the No Action alternative is not likely to result in significant impacts on the human environment.



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1.0 PURPOSE AND NEED

1.1 Proposed Action

NMFS proposes to issue a permit pursuant to the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 et seq.) and the regulations governing the taking, importing, and exporting of marine mammals (50 CFR Part 216) for the importation of eighteen (18) beluga whales (*Delphinapterus leucas*) from Russia to the U.S. for public display.

1.2 Purpose and Need for Action

The need for the proposed action is to respond to an application for a permit (File No. 17324) submitted by the Georgia Aquarium, Inc., Atlanta, GA (the Aquarium). The purpose of permit issuance is to provide the Aquarium with an exemption from the import prohibitions of Section 102 of the MMPA. The MMPA prohibits import of marine mammals except by permit. NMFS regulations at 50 CFR 216.33 specify information requirements for requesting a permit and require submission of an application to the Director of NMFS Office of Protected Resources.

The Aquarium requested a permit under section 104 of the MMPA to import marine mammals for public display purposes. The Aquarium's goal for the import is to enhance the North American breeding population of beluga whales in captivity by increasing the population base of captive beluga whales to a self-sustaining level and enhancing the genetic diversity of the captive population. Their objective in the public display of captive whales is to promote conservation of and education about marine mammals in general, and this species in particular.

Upon receipt of an application submitted in a properly formatted manner and containing all information necessary to process the application, NMFS must make initial determinations regarding whether

- the application is complete,
- the proposed activity is for purposes authorized under section 104 of the MMPA and the corresponding regulations,
- the proposed import would be consistent with permit restrictions and permit-specific conditions in the regulations, and
- there is sufficient information regarding environmental impacts of the import to enable an initial determination under the National Environmental Policy Act (NEPA) as to whether the proposed activity is categorically excluded from preparation of an environmental assessment (EA) or environmental impact statement (EIS). (50 CFR 216.33)

NOAA's Administrative Order 216-6 *Environmental Review Procedures for Implementing the National Environmental Policy Act* (May 20, 1999) established issuance of permits under section 104 of the MMPA as a class of actions categorically excluded from the need to prepare an EA or EIS. However, NMFS prepared a draft EA to assist in making the decision about permit issuance under the MMPA. The draft EA was made available for public review and comment concurrent with the application.

1.3 Scope of Analysis

This EA focuses on the effects of issuance of a permit to import 18 beluga whales from Russia to the U.S. for public display purposes as proposed in the application. The EA considers effects to the subject whales. The action area for the proposed import is effectively the built environment where the whales are: beginning with the facility in Russia where they are being held pending import, ending with the facilities in the U.S. that would be their ultimate destination, and including airports and public roadways on route between them.

Effects on unique areas; historic places; scientific, cultural, and historical resources; social and economic resources; ocean and coastal habitats, non-target animals, and biodiversity and ecosystem function are not considered further. The action would not affect traffic and transportation patterns, risk of exposure to hazardous materials or wastes, risk of contracting disease, risk of damages from natural disasters, food safety, or other aspects of public health and safety. The proposed import would not interfere with benthic productivity, predator-prey interactions or other biodiversity or ecosystem functions. Transporting the whales using private and commercial aircraft and vehicles operated according to applicable local, state, federal, and international laws is not likely to affect districts, sites, highways or structures listed in or eligible for listing in the National Register of Historic Places; historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas such as designated critical habitat or essential fish habitat.

The analysis considers mitigation measures that could lessen the environmental impact of the import by imposing permit conditions for minimizing the potential adverse effects of the import on the subject animals. Those measures are included as part of the proposed action because they would be implemented via permit specific terms and conditions if a permit were issued.

An issue highlighted during the public comment period on the application and draft EA is the ongoing legal marine mammal capture operations in Russia. This EA evaluates the relation between permit issuance and the effects of those operations in the context of the permit issuance criterion requiring the Aquarium to demonstrate that the import will not likely result in the taking of marine mammals or marine mammal parts beyond those authorized by the permit. (§216.34(a)(7)) Thus, the EA considers effects on the wild population of whales from which the 18 subject whales originated.

1.4 Scope of Decision

The scope of the decision is limited to an evaluation of whether the proposed permit complies with issuance criteria in the MMPA and NMFS regulations. NMFS cannot consider issuance of permits for actions, or to applicants, other than those in the application. NMFS decision to issue or deny a permit is based on consideration of (50 CFR §216.33(e)):

- all relevant issuance criteria in §216.34;
- all purpose-specific issuance criteria set forth as appropriate at §216.41 – 43;
- all comments received or views solicited on the permit application; and
- any other information or data deemed relevant by the Office Director.

The relevant issuance criteria at §216.34 specify that NMFS may issue a permit if the information provided by the Aquarium demonstrates that

- the proposed activity is humane and does not present any unnecessary risks to the health and welfare of marine mammals;
- the proposed activity is consistent with all restrictions set forth at §216.35 [permit restrictions];
- the proposed activity by itself or in combination with other activities, will not likely have a significant adverse impact on the species or stock;
- the applicant's expertise, facilities, and resources are adequate to accomplish successfully the objectives and activities stated in the application;
- if a live animal will be held captive or transported, the applicant's qualifications, facilities, and resources are adequate for the proper care and maintenance of the marine mammal;
- any requested import or export will not likely result in the taking of marine mammals or marine mammal parts beyond those authorized by the permit.

Conversely, if NMFS finds that the Aquarium failed to demonstrate that an issuance criterion is satisfied, the permit must be denied.

In addition, NMFS may not issue a permit if the marine mammals proposed for importation were (50 CFR §216.12):

- pregnant at the time of taking;
- nursing at the time of taking, or less than eight months old, whichever occurs later;
- taken from a species or stock designated as depleted; or
- taken in a manner deemed inhumane by the Secretary of Commerce.

This analysis does not consider potential impacts of alternatives to import of the animals specified in the application or acquisition of animals from sources other than import from the country requested. In Appendix E to their application, the Aquarium discussed alternative means they considered for achieving their objective of enhancing the North American beluga breeding cooperative by increasing the population base of captive belugas to a self-sustaining level. These alternatives [to the proposed import of the 18 whales specified in the application] included capture and import from other wild populations, acquisition of animals already on public display, using captive breeding loans and artificial insemination, and importing fewer animals. This analysis of alternatives in the application was provided in support of the Aquarium's justification that the proposed permit to import the 18 whales from Russia was warranted. The Aquarium did not request a permit for these other alternatives. Therefore, NMFS has no decision to make regarding issuance or denial of permits that may be required to implement those alternatives.

1.5 Public Involvement

The draft EA and permit application were made available for public review and comment. NMFS also consulted on the application with the Marine Mammal Commission, as required by the MMPA, and with the U.S. Fish & Wildlife Service (FWS) and the Animal and Plant Health

Inspection Service (APHIS), who have jurisdiction over aspects of the import/transport and maintenance in public display facilities. Most of the comments received were related to MMPA issuance criteria, and some were on the scope of the draft EA. Appendix A summarizes public comments and how this final EA was modified as applicable.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

The Draft EA released for public comment in August 2012 considered one action alternative – issuance of the permit for the activity described in the Aquarium’s application, and the no action alternative – denial of the permit. The no action alternative is the baseline for the analysis of impacts of the proposed action.

In response to comments on the application during the public comment period, the Aquarium submitted supplemental information including several options to the transport methods in the original application. The supplemental information is made a part of the Aquarium’s application on file and the action alternative has been modified to incorporate the additional information.

2.1 Alternative 1 - No Action (Permit Denial)

Under the No Action alternative, the Aquarium would be denied a permit for the import of 18 beluga whales. The whales could not be imported into the U.S. for public display. The ultimate disposition of those whales, which are currently in a facility in Russia, is not within NMFS jurisdiction and is beyond the scope of this EA. However, it is likely they would remain in captivity at facilities outside the U.S.

2.2 Alternative 2 – Permit Issuance

Under the Permit Issuance alternative, a permit would be issued to the Aquarium for import of the 18 beluga whales described in the application. The permit would contain terms and conditions that are standard for permits of this type, including

- requiring the Aquarium to submit a Marine Mammal Data Sheet for each animal imported, within 30 days of import.
- requiring the transport to be conducted in accordance with all applicable laws and regulations, including the Animal Welfare Act (AWA) and the Convention on International Trade in Endangered Species (CITES).

The whales were collected in Sakhalin Bay in the Sea of Okhotsk and are being held at the Utrish Marine Mammal Research Station (UMMRS) in Russia. The whales would be imported from Russia to the United States for public display at the Georgia Aquarium and, under breeding loans, at Shedd Aquarium, Sea World of Florida, Sea World of Texas, and Sea World of California. The complete application is on file and was available for public review concurrent with the draft EA. This is a summary of the application, and supplemental information provided as a result of comments on the application.

While all 18 animals would be the legal responsibility of the Aquarium as the permit holder, they would not all be maintained at the Georgia Aquarium facility. Table 1 outlines the anticipated distribution of the whales among the five public display facilities listed in the application.

Table 1: Distribution of Imported Belugas¹		
Receiving Facility	Number of Animals	Facility Airport
Shedd Aquarium	4	Chicago
Sea World of California	3	San Diego
Georgia Aquarium	3	Atlanta
Sea World of Texas	6	San Antonio
Sea World of Florida	2	Orlando

¹The number of animals received by each facility may change; however the total number of belugas proposed for importation would be no more than the 18 animals identified in the application.

Import of these animals would be conducted in compliance with the guidelines of the International Air Transport Association, Live Animals Regulations (IATA LAR), the *CRC Handbook for Marine Mammal Medicine* (Dierauf and Gulland 2001), the *CITES Guidelines for Transport and Preparation for Shipment of Live Wild Animals*, and all other applicable regulations, standards, and conditions set forth under the AWA and MMPA. During all legs of transport, the animals would be accompanied by veterinary and husbandry staff from either UMMRS or Georgia Aquarium.

Based on comments provided during the public comment period indicating concerns about the Transport Plan, the Aquarium discussed with NMFS potential changes to the Transport Plan that would minimize the complexity of the transport. These discussions considered: 1) if the animals could be transported without the need to change planes in Belgium, and 2) whether the animals could remain in the same transport containers throughout the transport, without being transferred to different containers in Belgium.

The Aquarium considered the use of other types of planes, but the only available aircraft that can operate at Anapa Airport in Russia and also accommodate the transport units is an IL-76. The Aquarium confirmed that a single plane transport was not a possible option for safety reasons due to size of runways and the inability to accommodate the transport plane in Anapa (i.e. loading equipment). However, it would be possible to place the animals into U.S. transport units at Anapa Airport using certain IL-76 aircraft. This means that the transfer of beluga whales from Russian to U.S. transport containers at Liege, Belgium, as proposed in the permit application, would not be necessary. Instead, the transport units containing the beluga whales would be transferred directly from the Russian aircraft (the IL-76) to the U.S. aircraft (the Boeing 747) in Liege.

This transport option, which eliminates the need to change transport units, would reduce overall transport time by an estimated three to five hours from that proposed in the permit application. In addition, because of the limited availability of Russian aircraft that can accommodate the U.S. transport units, using this option means the Aquarium would not transport all 18 whales simultaneously but would, instead, transport them in three groups of six whales each on different dates. Therefore, information gained on the first transport could be incorporated into subsequent transports, thereby making each subsequent transport more efficient and decreasing the risk to

individual beluga whales. The Aquarium, as the permit holder, will be responsible for the welfare of the whales and for compliance with the MMPA, and other applicable laws, and the terms and conditions of the permit.

The proposed transport has been simplified from the original plan outlined in the Draft EA in the following ways:

- The modified plan has eliminated the need to change transport containers.
- The attending veterinarians and husbandry personnel would only be working and caring for 6 whales at a time.

A health assessment would be conducted within 10 days prior to transport verifying that each animal is healthy enough for transport. This assessment would evaluate each animal for disease or illness, and females would be checked for pregnancy or lactation. Animals deemed unfit for transport would be held at the UMMRS facility until a subsequent assessment finds them fit. Animals deemed fit for transport would be trucked to the Anapa Airport and loaded onto cargo aircraft for the flight to Liege Airport, Belgium (approximately 2.7 hours) (Table 2). The animals would be shifted to cargo jets for the flight to the United States. This change of planes is necessary due to airplane restrictions in both Russia and the U.S. The animals would be flown to the most appropriate airport in the U.S. depending on the final destination. This flight would be expected to be less than 9 hours. From the U.S. airport, animals would be transported by truck to the receiving facility.

Table 2. Transport Mode and Duration for Steps in the Importing Process

Origin & Destination	UMMRS to Anapa Airport	Anapa Airport to Liege Airport	Liege Airport to U.S. Airport	U.S. Airport to Receiving Facility
Mode of Transport	Overland travel by truck	By air via 3 IL-76 cargo aircraft	By air via 2 Boeing 747 cargo aircraft	Transported by truck
Time of Transport	90–120 minutes	2.7 hours	Less than 9 hours	Regardless of facility, transport will not exceed 5 hours

The animals would receive immediate and continuous evaluation and monitoring upon their arrival to ensure acclimation. This may include a suite of medical procedures. All facilities have quarantine capabilities; however, decisions to quarantine the animals would be made by each institution’s respective veterinary staff. Each of these animals would be incorporated into the education/conservation programs of each individual facility and participate in the breeding program established among the institutions.

Collection of the Beluga Whales: The proposed action does not include the collection of beluga whales, only the import of already captive belugas. However, one issuance criterion is that the animals proposed for import not have been taken in a manner deemed inhumane by the Secretary of Commerce. To demonstrate compliance with this criterion, the Aquarium provided information on the collection methods.

The beluga whales proposed for import were collected during the field seasons of 2006, 2010, and 2011, and have been and will continue to be maintained at UMMRS until the permits are

issued to import the animals into the U.S. The whales are fed a diet similar to the captive beluga whales currently at the Georgia Aquarium. The animals are monitored by veterinarians and are cared for by animal trainers.

The collections occurred near Baydukova Island in the Sakhalin Bay in Russia where belugas are known to forage in shallow water near shore. No animals were chased or driven into the shallows; instead the team only engaged animals already located in shallow waters or those voluntarily moving in the direction of shallow water.

Initial assessments determined the number and estimated ages of the animals present in the group as well as to identify any newborn calves, mother-calf pairs or juveniles less than one year old. Only groups with less than five animals present and those groups without mother-calf pairs, calves, large adults, or juveniles less than one year old were engaged. Once a suitable group of whales was identified in sufficiently shallow water, a seine net was dropped between two boats and used to encircle the animals. A second assessment of the animals swimming inside the seine net was conducted. If animals not intended to be targeted were in the group, all of the animals were released. If the net contained the appropriate number and composition of target animals, one boat sailed for the nearby beach of Baydukova Island where the net was pulled in by hand, simultaneously decreasing the diameter of the net and moving the whales into shallower waters. During this time, small boats were positioned to observe for entangled whales and to assist as necessary.

Animals selected for collection were transferred to a soft net stretcher, loosely secured along the sides of one of the boats, and transported the five miles from the collection site to the Chkalova Island camp. The animals were assessed by the onsite veterinarian and monitored in nearby shore-side net-pens where they were cared for approximately two months to acclimate before being transported to the UMMRS.

Transport to UMMRS: The Aquarium provided a detailed description of the transport of the animals from the collection site to the UMMRS facility. The transport of the animals from the temporary holding pens on Chkalova Island to UMMRS was conducted in accordance with professionally accepted standards and techniques in compliance with all applicable regulations, standards, and conditions set forth under the AWA, MMPA, CITES, US Fish and Wildlife Service (USFWS) regulations, USDA regulations, and IATA LAR. The transport employed all contemporary and accepted methods outlined in the *CRC Handbook of Marine Mammal Medicine*, Second Edition (Direauf and Gulland 2001).

Prior to transport the animals were examined by the onsite veterinarian to ensure the animals were healthy enough for transport. Specifically, the whales were examined for any disease or illness and the females for pregnancy or evidence of lactation. From Chkalova Island, the whales were transported individually or, in some cases in pairs, by helicopter to the Nikolaya-na-Amur Airport (approximately 10 minutes). The animals were flown (three at time) from the Nikolaya-na-Amur Airport to the Anapa Airport on the Black Sea coast, (approximately 16 to 18 hours - not including refueling stops). The whales were trucked from the Anapa Airport to the UMMRS (between 90 – 120 minutes) during the early morning or late evening when air temperatures were cooler.

Permit Duration

The proposed permit would be valid for five years from the date of issuance. While the Aquarium plans to implement import of the 18 animals as soon as practical after permit issuance, they requested a permit valid for the maximum duration allowable by regulation (5 years) to account for logistical factors that could delay the transport. This could include a determination that one or more animals were not fit for any segment of the transport at the same time as the majority of the group and required holding for additional time at one or more intermediate destinations. Note that the animals would remain in the custody of the Aquarium after permit expiration. No MMPA permit is required to maintain the animals on public display, only for the initial import into the U.S.

3.0 AFFECTED ENVIRONMENT

3.1 Action Area

The action area for the import includes the locations from which the whales would be imported, the public display facilities where they would be held, and intermediate locations along the transport route. None of the proposed import and transport takes place in the field or otherwise involves interactions with free-ranging wild animals or their habitat.

The action begins with transport by land from UMMRS to the Anapa Airport in Russia. From there, animals would be flown to Liege Airport, Belgium. From Liege Airport, the animals would be transferred to different aircraft for the flights to airports in the United States. The ultimate action area is the five U.S. public display facilities where these whales would be transported to: Georgia Aquarium, Atlanta, GA; Shedd Aquarium, Chicago, IL; Sea World of Florida, Orlando, FL; Sea World of Texas, San Antonio, TX; and Sea World of California, San Diego, CA.

The description of the affected environment focuses on the wild population of whales from which the 18 animals originated. A description of the wild population is included as it relates to MMPA issuance criteria of effects of the permit on marine mammals and marine mammal stocks in the wild.

3.2 Affected species/stocks

The beluga whales proposed for import and currently held in captivity at UMMRS originated from a wild population in the Sea of Okhotsk. The 18 whales described in the application were captured from the Sakhalin-Amur stock between 2006 and 2011. The following sections summarize the biology and ecology of beluga whales as a species in general, and the status of the Sea of Okhotsk population in particular.

3.2.1 Beluga Whales (*Delphinapterus leucas*): Beluga whales are small toothed whales distributed around the Arctic, inhabiting subarctic regions of Russia, Greenland, and North America. They are found in the Arctic Ocean and its adjoining seas, including the Sea of

Okhotsk, the Bering Sea, the Gulf of Alaska, the Beaufort Sea, Baffin Bay, Hudson Bay, and the Gulf of St. Lawrence. Belugas may also be found in large rivers during certain times of the year.

The pattern for beluga whale distribution shows marked seasonal changes. Generally, there is a winter distribution in which the whales winter in offshore waters often associated with pack ice. In the spring and summer, there is a calving/feeding distribution in which the whales migrate to warmer coastal estuaries, bays, and rivers where they may molt (Finley 1982), give birth to and care for their calves (Sergeant and Brodie 1969). These migrations may cover thousands of kilometers (Reeves 1990).

The International Whaling Commission (IWC) has proposed 29 discrete beluga whale management stocks within their global range. The stocks relevant to the proposed action are three provisional stocks in the Sea of Okhotsk: the Shelikov Bay, Sakhalin Bay/Amur River (Sakhalin-Amur), and Shantar Bay stocks (International Whaling Commission 2000).

3.2.2 *Sea of Okhotsk Beluga Whales:* The current IWC classification of the three provisional stocks in the Sea of Okhotsk – the Shelikov, Sakhalin-Amur, and Shantar “stocks” - was based on the geographical separation of summer aggregation areas. Shelikov Bay is separated from the Shantar and Sakhalin Bays by over 1,800 km, while the Shantar and Sakhalin areas are separated from each other by about 300 km (Figure 1). The Shelikov Bay stock is sufficiently removed from the closer Shantar and Sakhalin-Amur stocks and is not considered further. The beluga whales proposed for importation were collected from the Sakhalin- Amur stock.

3.2.2.1 *Genetic structure of the Sea of Okhotsk beluga whales:* Genetic analysis of the three Sea of Okhotsk stocks supports both theories of a single stock and multiple stocks within this region. The most compelling evidence for multiple stocks is the mitochondrial DNA (mtDNA) analysis by Meschersky and Yazykova (2012). While Meschersky and Yazykova’s results found Sakhalin-Amur whales would be genetically distinct from Shantar Bay populations, they also found that differentiation among the four Shantar Bays was even greater, which would indicate the existence of at least five stocks over the western Sea of Okhotsk.

Support for a single stock can also be found in Meschersky and Yazykova’s nuclear DNA (nDNA) results, which showed DNA similarities between the Sakhalin-Amur and Shantar aggregations, supporting a single stock concept (Cronin 2012). This could be the result of (1) females breeding with males from multiple aggregations, or (2) sharing a common ancestry and insufficient time for the nDNA, which evolves more slowly than mtDNA, to differentiate.

3.2.2.2 *Abundance estimates of the Sea of Okhotsk beluga whale stock/population:* Current population estimates suggest that there are 3,961 beluga whales in the Sakhalin-Amur area and 6,661 for the Shantar area (Reeves et al. 2011). These estimates are based on surveys conducted in 2009 and 2010 (Shpak et al. 2011), and were further reviewed by an International Union for the Conservation of Nature (IUCN) scientific panel of beluga whale experts (Reeves et al. 2011). The minimum population estimate for the Sakhalin-Amur population was determined to be 2,891 (Reeves et al. 2011) and further refined to 2,972 (Chelintsev and Shpak 2011).

3.2.2.3 Current threats to Sea of Okhotsk beluga whales: Generally, information on potential sources of serious injury and mortality are very limited for the Sea of Okhotsk beluga whales. It is not possible from information available to accurately describe the extent of mortality from these activities. However, it would be inaccurate to state that there is no interaction or possible mortality from these sources.

The IUCN panel identified subsistence harvest, death during live-capture, entanglement in fishing gear, vessel strike, climate change, and pollution as human related activities that may result in serious injury or mortality to Sea of Okhotsk beluga whales. As noted in the application and the IUCN review, monitoring of other types of take in this region is low, if existent at all, and information concerning possible threats and mortality in this population of beluga whales are highlighted by a lack of substantiated data, and are largely anecdotal.

The IUCN panel emphasized the lack of data regarding other sources of mortality, and noted that “any animals taken by humans, including those killed or injured in fishing gear, struck by vessels, or accidentally drowned during live-capture operations, should be considered when evaluating the sustainability of any level of intentional removals.” Information on potential sources of mortality that may be impacting the species or stock is relevant to our analysis of MMPA issuance criteria regarding whether the proposed activity by itself or in combination with other activities would likely have a significant adverse impact on the species or stock.

Although the full extent of other sources of mortality cannot be determined, it cannot be fully discounted or assumed to be zero. Potential mortality from the following activities highlighted in the IUCN report should be considered, in addition to live removals, in the analysis of sustainability of live captures from this population.

- **Subsistence Harvest:** Little information is available on subsistence or other forms of harvest, however, Shpak reported (cited in application) that annual take levels from subsistence, bycatch or illegal harvest were probably 1 to 3 per village, but NMFS has no information on how many villages would be included in this estimate. The application indicated that Shpak later stated that there was no quantifiable basis for that estimate; however, it can be assumed that some level of subsistence hunting within the region is occurring.
- **Capture-related Mortality:** Live captures of beluga whales for public display facilities was initiated in 1986 and is on-going. In addition to the live removals, there is the potential for mortality associated with the capture events and those mortalities may not be adequately reflected in the capture records. Data on possible accidental drowning associated with live captures are not available prior to 2007 (data gap of 20+ years). Between 2007 and 2010 (the only years for which we have data), there has been one reported death of a newborn calf entangled with its mother during live capture.
- **Entanglement:** Incidental captures of belugas as bycatch in fisheries were first reported in 1915 on the west coast of Sakhalin Island (somewhere between 16 – 48 animals). Since then, few cases have been reported; however, a few specific instances of beluga entanglements in coastal salmon traps, beach-set salmon gillnets, and illegal sturgeon nets have been recalled (as told to Shpak by local fishermen). It has further been noted that belugas seem to be unusual

among cetaceans in their ability to avoid entanglement. This is based on entanglement reports from other beluga populations (Bristol Bay and Cook Inlet, Alaska, as well as the St. Lawrence River, Canada) regarding few reports or observed cases of entanglements and a lack of scarring on animals which would be suggestive of previous entanglements.

- **Vessel strikes:** Small fishing vessels make up the majority of vessel traffic in the Sakhalin-Amur region due to the shallowness of Tatar Strait and the Amur estuary. There have been no reports of vessel strikes or evidence of strikes (injuries or scarring indicative of collisions) reported for this population. Although the data on this potential source of serious injury and mortality is lacking, it is unlikely that this is a large source of mortality for beluga whales in this region. Even in other areas where considerable shipping and beluga whale distributions overlap and vessel strikes are reported (e.g. St. Lawrence estuary of Canada), there is very little indication that vessel strikes are a significant source of mortality for those populations.
- **Climate Change:** Evidence indicates that the Arctic climate is changing and one result of the change is a reduction in the extent of sea ice in at least some regions of the Arctic (ACIA 2004, Johannessen et al. 2004). Ice-associated animals, such as the beluga whale, may be sensitive to changes in Arctic weather, sea-surface temperatures, or ice extent, and the associated effect on prey availability. Currently, there are insufficient data to make reliable predictions of the effects of Arctic climate change on beluga whales, but Laidre et al. (2008) and Heide-Jørgensen et al. (2010) concluded that on a worldwide basis belugas were likely to be less sensitive to climate change than other arctic cetaceans because of their wide distribution and flexible behavior. Increased human activity in the Arctic, including increasing oil and gas exploration and development, and increased nearshore development, have the potential to impact habitat for beluga whales (Moore et al. 2000, Lowry et al. 2006), but predicting the type and magnitude of the impacts, if any, is difficult at this time.
- **Pollution:** The Amur River is the tenth longest in the world, traveling through the Heilongjiang Province of China - an area of diverse industry - and draining into the Sakhalin Bay (area of beluga captures). Non-point sources of pollution include organic and inorganic pollutants from urban area surface flow, agricultural runoff, and forest fires (Rapoport and Kondrat'eva, 2008). The effects of pollution on beluga whales are difficult to determine and there is no basis for integrating pollution into an assessment of biological removal. There is a potential for belugas to be affected by the development that is occurring in the Sea of Okhotsk region. The IUCN Panel recommended further monitoring of this population to include analysis of blubber for contaminant loading and blood testing for reactions to toxins.

In sum, while we recognize the limitations on data about sources of human-caused mortality other than live capture removals, we cannot discount the likelihood that some unquantifiable level of additional human-caused mortality is occurring.



Figure 1 was copied from the application.

3.3 Live Capture of Sea of Okhotsk Beluga Whales

The Russian trade in live belugas is active. Live captures of beluga whales for public display or research began at Sakhalin Bay in 1986, but the number of animals removed between 1986 and 1990 is unknown. Over a 20-year period between 1990 and 2010, the World Conservation Monitoring Centre (CITES database) records the export of at least 237 live belugas from the Russian Federation. Since 2000, the average number of animals removed has been 21.3 per year with no more than 33 removed in any given year (Table 3). The annual quota is set by the Russian government and has been between 40 and 57 animals (Shpak et al. 2011).

Table 3. Number of Beluga Whales from Sakhalin-Amur Stock Live-Captured by Year

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Mean
Whales Collected	10	22	10	26	25	31	20	0	25	24	30	33	21.3

Source of years 2000–2010: Shpak et al. 2011
Source of year 2011: Mukhametov pers. comm. 2012

3.3.1 Potential Biological Removal (PBR) and live-capture of the Sakhalin-Amur beluga whales: The Aquarium relied on a Potential Biological Removal (PBR) analysis as their justification that the proposed importation meets the MMPA criterion that the proposed activity, by itself or in combination with other activities, will not likely have a significant adverse impact on the species or stock (i.e., that the Russian capture operation was sustainable at current levels). PBR is an MMPA calculation that defines the number of animals, excluding natural mortality, which may be removed from a population while still allowing that population to grow or recover. The PBR is based on the following factors: 1) the minimum population estimate; 2) an estimated net productivity rate; and 3) a recovery factor.

We have concerns with the Aquarium’s PBR-based analysis for several reasons. First, the information available suggests that removals likely exceed the PBR calculated by the applicant. Second, even assuming that, as the Aquarium posits, removals are commensurate with PBR, that measure is only appropriate where the stock is increasing, which does not appear to be the case for the stock in question. In addition, we examined the application under a framework established by an intergovernmental organization and concluded that the information necessary to determine population trends that would be necessary to rely solely on PBR under the Aquarium’s model is not available.

NMFS does not manage the beluga whale stocks in the Sea of Okhotsk, and therefore, has not calculated PBR for these stocks. A sustainability analysis of live-capture from the Sakhalin-Amur stock by the IUCN in 2011 resulted in a calculated PBR of 29 to 30 individuals and the IUCN Panel accepted the number with reservations (including under-estimation of human-

caused mortality, over-estimation of R_{\max} ¹, and over-estimation of the population by including multiple stocks). The Aquarium used a comparison of this calculated PBR to the current removal rate for the live capture trade as their justification that the proposed importation meets the MMPA criterion that the proposed activity will not likely have a significant adverse impact on the species or stock. However, the available information suggests that historic removals likely exceed the level assumed in the Aquarium's analysis.

The Aquarium calculated a 5-year running average for this capture operation as 22 animals (since 2000). This method used to calculate this 5-year average is consistent with that used by NMFS to calculate PBR for U.S. stocks. The 5-year running average resulted in a minimum average of 18.6 animals to a maximum of 22.8 animals. The Aquarium indicated that for the belugas collected in 2006, 2010, and 2011 (years in which animals proposed for importation were captured), the average number of animals collected was 27.7 belugas, which suggests that the number of animals being collected is increasing over time. Because this is below the calculated PBR of 30, the Aquarium believes that the effects of combined takes of beluga whales from this area, including those that would be imported under the permit activity, are not expected to result in adverse impacts on the Sakhalin-Amur stock.

The Aquarium also calculated a different PBR for the combined Sakhalin-Amur and Shantar beluga aggregations (a PBR of 86 animals), which was based on limited genetic data suggesting that these aggregations may be mixing and could potentially be considered a single stock, which would further support their application if true. However, we have reviewed the available data including the assessment by the IUCN Panel on the population estimates and genetic data and agree with the IUCN's working hypothesis that the appropriate population unit for the evaluation of this action includes only those animals encompassing the Sakhalin Bay and the Amur River estuary and river (the Sakhalin-Amur stock).

Reliance on a comparison between PBR and the number of live removals is problematic. Looking solely at PBR, or the average number of animals taken during years in which animals proposed for importation were captured, is not an appropriate way to assess whether the proposed activity by itself, or in combination with other activities, would likely have a significant adverse impact on the species or stock.

Whether the captures are sustainable is dependent on an assumption that the number of animals being removed from the population during live-captures will remain under the calculated PBR and that that no other human-caused factors are contributing to loss of animals from the population. However, in three separate years, 30 or more animals were taken (including 2010 and 2011, years in which animals proposed for importation were captured). In these years, the entire calculated PBR allowance was taken in live captures, allowing for no buffer to account for other sources of human-caused mortality.

In addition, these capture numbers appear to be trending upward over time. Moreover, the number of animals that Russia authorizes to be removed in live capture operations is not limited

¹ R_{\max} is the maximum net productivity rate is defined as the level where there is the greatest net annual increment in population numbers resulting from addition to the population due to reproduction less losses caused by natural mortality.

to the calculated PBR. Shpak et al. (2011) reported the annual quota authorized by the Russian government to be between 40-57 individuals. Finally, there is insufficient information to conclude that there are no other sources of human-caused removals.

3.3.2 Population Trends and the Impact of Live Capture Removals: The use of PBR as an index of sustainability in this case is not appropriate given the lack of data to support a determination that the stock is increasing. We developed three scenarios which, taken together, suggest that the stock is either declining or stable, but is not increasing. Moreover, the two more plausible scenarios suggest human-caused removals well in excess of those resulting from live captures, thereby raising additional concerns about the Aquarium's exclusive focus on those removals in their PBR-based analysis.

The current abundance estimate for Shantar Bay (6,661) is approximately twice as big as the Sakhalin-Amur stock (2,891 – 2,972). However, Berzin and Vladimirov (1989) suggested that, at least on a relative scale, the Sakhalin-Amur aggregation in 1989 was larger than that found in the Shantar Bay region. This suggests that some factor or factors have affected one, or both, of these stocks over the past two decades to the point where the Sakhalin-Amur stock is no longer the largest aggregation in the Sea of Okhotsk. This inconsistency between past and present further highlights the data-poor resource status of this stock and the uncertainty associated with the information available to review this application. To further investigate the inconsistency we developed three scenarios comparing historical and current population estimates by integrating the current estimate (as the most accurate reference) and the theoretical maximum net productivity rate (R_{max}) of 4% into several mathematical models (or scenarios) to back-calculate what the abundance of whales was in the Shantar region and the Sakhalin-Amur region in 1989-1990 and examined the likely role of live capture removals in those trends. The maximum net productivity rate is defined as the level where there is the greatest net annual increment in population numbers resulting from addition to the population due to reproduction less losses caused by natural mortality.

The scenarios that follow rely primarily on the minimum population estimate for the Sakhalin-Amur population of 2,891 (Reeves et al. 2011) and further refined to 2,972 (Chelintsev and Shpak 2011), the estimate for Shantar Bay of approximately 6,661 animals, and an estimate of recruitment (the theoretical maximum net productivity rate (R_{max}) of 4% used in NMFS Stock Assessment Reports for beluga whales).

Scenario I: We can use the R_{max} value to back-calculate what the abundance of the Shantar stock had to be in order for the current estimate to be 6,661 in 2010 (i.e., subtract 4% from the abundance estimate each year from 2010 to 1990). The result of such an analysis is that the abundance of the Shantar stock in 1990 would have been approximately 2,944 beluga whales, which is extremely similar to the accepted 2010 minimum population estimate of 2,972 for the Sakhalin-Amur population used by the Aquarium in the application.

This first scenario suggests that if the abundance of the Shantar stock of beluga whales was approximately 2,944 whales in 1989, then the abundance of the Sakhalin-Amur stock was, at a minimum, greater than 3,000 whales, or greater than its current abundance. This analysis highlights the difficulties of reviewing this application in the absence of credible historical data.

The lack of an accurate historical maximum, or a time-series of data to determine a trend, becomes extremely significant to this discussion. There is no scenario that can be developed where the Sakhalin-Amur stock of beluga whales was the largest aggregation two decades ago, the Shantar stock is now at 6,661 and twice the size of the Sakhalin-Amur stock, and PBR has not been exceeded on a regularly occurring basis in the Sakhalin-Amur stock. Rather, this scenario represents a likely decline in abundance of the Sakhalin-Amur stock during the past 20 years.

We cannot know the abundance of the Sakhalin-Amur stock in 1990 but if we assume that it was only 3,500 whales, or approximately 500 whales larger than that of the Shantar region at the time, then there would have been an average decline of the Sakhalin-Amur stock of 25 whales per year, or slightly less than 1% per year during the period from 1990 to 2010. In order to be declining, the stock would have to lose, on an annual basis, the amount that it should increase from the theoretical net productivity -- 120-140 whales per year (4% of 3,000 and 3,500 whales, respectively) -- plus those 25 animals. This equates to an annual loss of between 145-165 whales from 1990 to 2010 when the population had declined to its current level of approximately 3,000 animals.

The estimated rates of removal under this scenario are consistent with the 2012 quota allowed by Russia of 200 beluga whales for the whole of the Sea of Okhotsk region, which included both live capture and hunting. Of this 200 quota, 150 belugas were allowed to be taken from the subregion (northern Okhotsk subzone) where the live captures have occurred. The quota of 150 belugas that could legally be taken from the northern Okhotsk subzone is considerably larger than any removals that have been reported from this region. However, the removal of beluga whales for subsistence purposes, and live capture, in the past decade or longer would adequately explain such a decline.

Scenario II: Alternatively we can use the R_{max} value to back-calculate what the abundance of the Sakhalin-Amur stock had to be in order for the current minimum estimate to be 2,972 whales in 2010. Under this scenario there had to be approximately 1,314 whales in the Sakhalin-region in 1990 in order for the stock to increase to its present estimate of 2,972 whales. This second scenario considers a much-reduced Sakhalin-Amur stock of whales in 1989 which increased by 4% per year to its current level of abundance. By itself, this would appear to represent a sustainable scenario for this stock. However, this scenario results in an impossible contradiction between available historical data and current data.

Under this scenario there is no manner in which the Shantar stock (considered the smaller of the two aggregations in 1989) could increase during the same period of time to its current, accepted abundance level of greater than 6,000 whales. Therefore, this scenario is not possible. Even if the Shantar stock and the Sakhalin-Amur stock were the same size in 1989, the Shantar stock could not increase in size to its current, acceptable estimate. Again, the lack of rigor in previous surveys and an accurate historical maximum, or a time-series of data to determine a trend, has resulted in a situation where we cannot determine if total removals have been sustainable.

Scenario III: If we assume that both stocks contained 3,000 whales in 1990 (i.e., that the two stocks were identical in size contrary to the report by Berzin and Vladimirov), then the Sakhalin-

Amur stock would still have had to lose its total production per year (that is, 120 whales) to remain at 3,000 whales in 2010. Again, this level of removal could easily be explained by a subsistence removal that has largely gone undocumented. Under this scenario the Shantar stock could also theoretically increase to its present estimate of 6,600 whales. Therefore this scenario is feasible but only if total removals from the Sakhalin-Amur stock exceed PBR by 4X on an annual basis.

Conclusion: All three of these scenarios suggest that something in addition to the reported level of live-capture removals has limited the growth of the Sakhalin-Amur stock since 1989. The removals for live-capture of the beluga whales from the Sea of Okhotsk at the levels reported from 2000-2011 should not impede the stock's growth or recovery. If the removal of beluga whales for public display were the only source of mortality or removal from this stock, then it should be increasing at a slow rate. However, based on an integration of all the available data, we believe that total removals from the Sakhalin-Amur stock have exceeded PBR, and likely the total net production, on a regular basis resulting in a small, but steady and significant decline over the past two decades. There are several potential sources of human-caused mortality that may have produced this decline, and the live captures of beluga whales cannot be discounted as a possible contributing factor. Regardless of the source of the decline, the result is a net loss of whales per year throughout the 20 year period which has gone undetected because of the lack of monitoring in this region during this period. The available information does not support a conclusion that the stock is stable or increasing, or that the levels of removal are sustainable on the basis of the Aquarium's PBR-based analysis.

4.0 ENVIRONMENTAL CONSEQUENCES

This section represents the scientific and analytic basis for comparison of the direct, indirect, and cumulative effects of the alternatives, and the analytic baseline for comparisons between alternatives. As such, this section evaluates the probable environmental consequences of the alternatives as well as any cumulative impacts that could result from the activity. As a reminder, the No Action alternative represents the baseline for comparing the impacts of the action alternative – permit issuance. Our analysis of effects looks at how issuance of the permit would change conditions for affected resources relative to that baseline.

Differences between direct and indirect effects are primarily linked to the time and place of impact. Direct effects are those that result from the action and occur at the same time and place. Indirect effects are those reasonably foreseeable effects that are caused by the action but that may occur later and farther from the location of the direct effects (40 CFR § 1508.27). The terms “effects” and “impacts” are often used interchangeably in preparing these analyses. The Council on Environmental Quality's (CEQ) regulations for implementing the procedural provisions of NEPA, also state “Effects and impacts as used in these regulations are synonymous.” (40 CFR §1508.8).

4.1 Direct Effects

4.1.1 Direct Effects of Alternative 1 – Denial of the Permit

There would be no direct effects on the physical or biological environment as a result of denying a permit to the Aquarium to import the 18 whales for public display. The animals would not be transported from Russia to the U.S. and would not become part of the captive beluga whale population in the U.S.

NMFS does not have jurisdiction over the whales while they are in Russia and can only speculate on their ultimate fate if they are not imported. The ultimate fate of these animals would likely be sale and transport to public display facilities in other countries. It is unlikely the whales would be returned to the wild as a result of permit denial. That transport, and the conditions of long-term care and maintenance of the animals at such foreign public display facilities, are beyond the jurisdiction of NMFS to regulate or monitor. The effects of long-term captivity on the whales are likely to be similar regardless of the geographic location of the facility holding them.

4.1.2 Direct Effects of Alternative 2 – Issuance of the Permit

Under this alternative, the permit would be issued with standard terms and conditions. The permit would allow for the import of the 18 beluga whales described in the permit application and according to the revised transport protocols as summarized in the description of this alternative in Section 2.2.

Direct Effects of the Transport on Beluga Whales: Transport, including transferring animals from ground transportation to aircraft, may result in stress to the affected animals, as evidenced by stress hormone studies (Schmitt et al. 2010, St. Aubin and Geraci 1988). The stress likely increases as the amount of time spent in transport, as well as the amount of handling required, increases. The revised transport plan (“Option B”) proposed by the Aquarium and accepted by NMFS in consultation with APHIS and FWS would result in the least amount of stress practical given the logistical constraints. A permit would require continuous monitoring of animals by qualified personnel who are equipped to address adverse physical effects that may be life-threatening.

The whales would be expected to fully recover from effects of transport within days of arrival at their final destinations. Based on data obtained from previous imports of marine mammals, including beluga whales, authorized under other permits, the types of mitigation measures proposed as part of the application are relatively effective at minimizing stress, pain, injury, and mortality associated with import. St. Aubin and Geraci (1989), cited by Curry (1999), recorded physiological changes associated with the collection and handling of beluga whales; however, most indices were reported to normalize within the first week of captivity, indicating that these are short-term stress responses.

4.2 Indirect Effects

4.2.1 Indirect Effects of Alternative 1 – Denial of Permit

Effects on captive U.S. population: The Aquarium stated in their application that the current captive population is not sustainable, and referenced a model (Willis 2012) predicting a 56% probability that the population of captive beluga whales will decline over the next 30 years.

The Aquarium also referenced a study that projected the genetic diversity of the U.S. population would fall from a 2010 measurement of 94.87% to below 90% by 2044, and would decline to 83% by 2110, without the addition of new individuals into the population (Rupp et al. 2010). The Application indicated that the genetic diversity of the U.S. beluga breeding cooperative would fall to levels that impair survivability of the population within approximately 30 years (by 2044).

Based on these studies, the captive population of beluga whales in the U.S. can be expected to become smaller and less genetically diverse over time.

Effects on wild population: NMFS does not control the live capture operations in Russia and can only speculate on the future of that trade, which we assume will continue at levels corresponding to global demand for beluga whales in public display. Presumably, the 18 whales would be sold in lieu of capture of the same number animals to meet the demands of public display facilities outside the U.S. We cannot quantify the extent to which the current levels of removal are affecting the population given all the unknowns about factors affecting the population status. However our analysis suggests that level of removal is not sustainable.

4.2.2 Indirect Effects of Alternative 2 – Issuance of permit

Effects of Long-term Captivity on Beluga Whales: The permit is for the import, and not for the public display of the animals – no MMPA permit is required to hold marine mammals for public display. However, the long-term captive maintenance of these 18 whales is an ultimate outcome of issuance of a permit to import for public display purposes. Captivity can be stressful for wild animals, although some may become acclimated to the conditions. As noted in Section 4.1.2, studies indicate that indices of stress normalize within the first week of captivity. The Aquarium cited a survivorship study that indicates that the life spans of captive versus wild belugas are comparable (Willis 2012). The captive animals would be under the supervision of trained husbandry and veterinary staff who can monitor and respond to health and disease conditions as necessary.

Indirect effects on the U.S. captive population of beluga whales: As a result of permit issuance, and upon successful import of the 18 whales and their effective integration into the U.S. captive breeding population, the genetic diversity and long-term viability of the U.S. captive population of beluga whales would be expected to improve to the point that it becomes a self-sustaining population, based on information provided by the Aquarium.

The captive maintenance of these whales at facilities that are open to the public and offer an educational program consistent with the requirements of the MMPA could enhance conservation of the species in the wild by raising awareness about management needs and threats to the wild population.

Indirect effects on wild population of beluga whales: If a self-sustaining population results from the import, presumably there would be no further need for import of beluga whales into the U.S. in the foreseeable future. However, the live capture of beluga whales from the wild population is expected to continue under the authority of the Russian government. If the 18 whales currently held at UMMRS in Russia were imported to U.S. public display facilities, it is possible an additional 18 whales would be captured and removed from the same wild population to meet the demands of public display facilities outside the U.S. The current levels of such removals, in combination with other factors affecting the status of the population, are not likely sustainable and are having an adverse impact on the population.

4.3 Cumulative Effects

A cumulative impact is defined under NEPA as “*the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.*”

4.3.1 Cumulative effects of Alternative 1 – Denial of permit

The ongoing live capture operations in Russia are a past, present, and reasonably foreseeable future action affecting the wild population of belugas from which the 18 whales originated. NMFS does not control the live capture operations in Russian waters, which will continue to be regulated by the Russian government. Trade in live captured beluga whales will presumably continue to operate at levels corresponding to global demand for these animals in public display. There are undoubtedly other factors affecting the wild population although there has been inadequate monitoring to quantify it. Denial of the permit does not change the status quo for this population.

4.3.2 Cumulative effects of Alternative 2 – Issuance of permit

Issuance of the permit does not alter the fact that the 18 animals have been removed from the wild or change the manner in which that removal may have affected the wild population. However, the live capture operations in Russia are expected to continue and it is possible an additional 18 animals would be removed from the wild to meet the demands of other public display facilities (outside the U.S.). If, as our analysis suggests, the current levels of removal from the population are not sustainable, and are in fact contributing to a population decline or

inhibiting a population increase, then there could be a cumulatively significant adverse impact on the wild population as a result of permit issuance.

4.4 The Degree of Controversy

Federal agencies are required to consider “the degree to which effects on the quality of the human environment are likely to be highly controversial” when evaluating potential impacts of a proposed action [40 CFR §1508.27]. The application and draft EA for the proposed permit were made available for public review and comment (77 FR 56294) and provided to the Marine Mammal Commission (MMC) for review and comment. Over 8,900 comments were received on the application and Draft EA. The definition of “controversy” in the context of an EA does not imply that an unpopular action is by default controversial. Rather, the test for determining whether an action is “controversial” is whether a substantive dispute exists as to its size, nature, or effect on the human environment. The controversy must be in the context of the environmental effects of the action.

In that regard, the denial of the permit under Alternative 1 is not expected to be controversial based on potential environmental impacts. There is no substantive dispute over what resources would be affected or the manner in which they would be affected by a decision to deny the permit.

There is also no substantial controversy surrounding issuance of the permit in as much as there is no dispute regarding what resources would be affected or the manner in which they would be affected. What is disputed in the public comments is whether the proposed import meets issuance criteria under the MMPA and NMFS regulations.

Commenters on the application urged NMFS “not to confuse the controversy over public display of marine mammals with the primary issue – the legality of the United States participating in [the] trade [of live caught beluga whales].” It was noted that “the issue is whether the live trade in Russian belugas, beginning with the capture of belugas in the Okhotsk Sea; covering the transport of the animals from their point of origin through all transit points; and ending with the import into the United States of these wild-caught animals, is consistent with the letter and intent of the MMPA.”

Thus, commenters have linked the effects on the human environment with statutory issuance criteria, and by association, with regulatory issuance criteria. We evaluate the proposed import against these issuance criteria in Section 5.0 and find the permit would not meet some of the issuance criteria.

4.5 Mitigation Measures

A permit issued under the Proposed Action alternative would contain terms and conditions deemed necessary and appropriate to ensure the potential adverse effects on the animals of import are minimized to the maximum extent practical. Those measures are summarized in the

description of Alternative 1, and include measures described by the Aquarium in their application and supplemental information. Permit terms and conditions are the appropriate mechanism to ensure these measures are implemented by the Aquarium. The permit would also require submission of reports on the status of the import and allow NMFS to monitor compliance with the terms and conditions of the permit. No further mitigation measures are applicable to implementation of the action.

4.6 Comparison of Alternatives

Table 4 compares the likely effects of the two alternatives considered. In summary, only Alternative 1 meets the purpose and need in that the decision to deny is consistent with the statutory and regulatory criteria governing permit issuance. Issuance of a permit under Alternative 2 meets the Aquarium’s objectives, but ultimately does not meet the purpose and need of NMFS’ “major federal action” to issue permits that comply with the requirements of the MMPA.

Only Alternative 2 meets the Aquarium’s goal of having a self-sustaining genetically diverse captive breeding population of beluga whales in U.S. public display facilities. The fate of the captive population of beluga whales is not likely to significantly impact the human environment.

Neither alternative is likely to result in impacts on the built environment. Neither the continued captivity in Russia nor the import to the U.S. of the 18 whales would affect traffic and transportation patterns, land use practices, demand for utilities and public services, or other aspects of the built environment.

Alternative 2 may have a slightly greater, but not significant, adverse impact on the 18 whales because it adds the stress of transport to that the baseline effects of captivity. However, this does not represent a significant adverse effect on the human environment.

The expected cumulative effect of permit issuance is an incremental or additive adverse effect on the wild population if additional wild animals were captured from that population to replace those imported to the U.S under the proposed permit.

Table 4: Comparison of Alternatives

	Alternative 1: Permit Denial	Alternative 2: Permit Issuance
Meets purpose and need?	yes – denial is consistent with issuance criteria	no – issuance is not consistent with issuance criteria
Direct effects on subject whales	none – the status of the whales remains unchanged	minor short-term stress associated with transport
Direct effects on wild population	none – maintains the status quo	none – no direct interaction with wild population
Direct effects on built environment	none – maintains the status	none – import would not

	quo	alter any component of the built environment
Indirect effects on subject whales	none – maintains the status quo	minor long-term stress associated with captivity
Indirect effects on wild population	none – maintains the status quo	possible additive adverse impact
Indirect effects on U.S. captive population	none – maintains the status quo	possible long-term beneficial impact - expected improvement in sustainability
Indirect effects on built environment	none – maintains the status quo	none – import would not alter any component of the built environment
Cumulative effects	none – maintains the status quo	possible significant adverse impacts on wild population

5.0 COMPLIANCE WITH MMPA AND OTHER APPLICABLE LAWS

No permits or consultations are required for NMFS to issue the proposed permit, other than the consultation with the MMC on the permit application, as specified in the MMPA. The Aquarium needs an MMPA permit to import the animals for public display. The Aquarium and the four other facilities listed in the application must be licensed by APHIS and meet standards under the AWA. The Aquarium also needs export permits under CITES.

5.1 Marine Mammal Protection Act

5.1.1 Consultation with the Commission. NMFS provided the application to the Marine Mammal Commission (Commission) and received their recommendations regarding permit issuance. In their letter dated October 29, 2012, the Commission reviewed the application with regard to 1) the status of the source population and the effects of removing the whales; 2) temporary holding facilities, transport, and final destinations; and 3) the basis for holding these whales in captivity.

The Commission noted that the existing data is not sufficient to determine with confidence whether this population is growing, stable, or declining or is affected substantially by other human-related mortality or removal. Regarding PBR, the Commission commented that this analysis might be useful for evaluating potential effects of these removals on the Sakhalin-Amur population; however, considering the uncertainties associated with this approach, they emphasized the need for caution.

The Commission stated that it cannot make informed comments on the humaneness of the captures or the adequacy of the temporary holding facilities in Russia because they were not present at the capture and have not visited the facilities. The Commission acknowledged that some may argue that any capture techniques are, per se, inhumane; but applying the statutory

definition of “humane,” the Commission is not aware of suggestions as to how the captures may have been accomplished with a lesser degree of pain and suffering to the animals involved. The Commission commented that all transports involve a degree of risk and stress to the animals; however, they noted that the transport plan appeared to be well thought out and equipped given the potential complications.

The Commission believes that these belugas, if imported, would promote conservation and education as intended by Congress in crafting the MMPA. This import would increase the probability of establishing a self-sustaining captive population and, if successful, should reduce the need for further captures for U.S. facilities. However, the global demand for belugas is likely to continue through the foreseeable future.

After considering these points in their rationale, the Commission recommended issuance of the permit with conditions (see Commission’s letter on file for this Action).

5.1.2 Issuance criteria: NMFS reviewed the application, supplemental information provided by the Aquarium, comments submitted on the application, and relevant information on the status of the wild population for compliance with the permit issuance criteria in our regulations. The applicant must demonstrate compliance with all applicable criteria to receive a permit. If even one criterion is not met, NMFS must deny the permit.

CRITERION 1: The proposed activity is humane and does not present any unnecessary risks to the health and welfare of marine mammals (216.34(a)(1)).

NMFS determination:

The proposed activity is the importation of the beluga whales from Russia to the United States. Humane, as used here, is defined by the MMPA as “that method of taking which involves the least possible degree of pain and suffering practicable to the mammal involved.” See MMPA Section 3(4).

The Aquarium’s analysis of alternatives to the transport protocols in Section IV.E of the application was reviewed by NMFS, in consultation with the USDA Animal and Plant Health Inspection Service (APHIS) and FWS CITES policy specialist for live animal transport.

APHIS and FWS recommended Option B because the transport time would be shorter, it involves the least number of stops, and the attention each animal would receive during transport would be maximized because there would be fewer animals on board for each of three separate transports. Also, because this option would require no transport container changes at Liege Airport, it would further minimize stress to the whales. The Aquarium agreed to use Option B if the permit were issued. We determined that the revised transport plan using Option B is humane, as defined by the MMPA.

CRITERION 2: The proposed activity is consistent with restrictions set forth in 50 CFR 216.35² and any purpose-specific restrictions as appropriate set forth at 50 CFR 216.41 – 43³ (216.34(a)(2)).

NMFS determination: The applicable restrictions outlined here (216.35(c), (d), and (g)) overlap with the requirements of other sections of the regulations and our findings are discussed in the applicable sections of this document. Other parts of this criterion are related to the roles and responsibilities of personnel listed in the permit, and possession or transfer of the permit, if one were issued.

CRITERION 3: The proposed activity, if it involves endangered or threatened marine mammals, will be conducted consistent with the purposes and policies set forth in section 2 of the ESA (216.34(a)(3)).

NMFS determination: This criterion is not applicable because the Sea of Okhotsk stock of beluga whales is not listed under the ESA.

CRITERION 4: The proposed activity by itself or in combination with other activities, will not likely have a significant adverse impact on the species or stock (216.34(a)(4)).

NMFS determination: The Aquarium has not demonstrated that their activity will meet this requirement. The information they provided, including their analysis of impacts in Section IV.F of their application, does not adequately consider the impacts of the proposed importation in combination with other past, present, and foreseeable future actions affecting the stock, including the ongoing live-captures from this stock.

As discussed in Section 3.3, the Aquarium calculated a PBR level for the Sakhalin-Amur stock and compared this to the current rate of removal for the live-capture trade. They used this calculated PBR as their justification that the proposed importation meets the MMPA criterion that the proposed activity, by itself or in combination with other activities, will not likely have a significant adverse impact on the species or stock.

Generally, looking only at the PBR and comparing that to the number of animals removed by a single activity is not an appropriate way to assess whether the proposed activity by itself or in combination with other activities, would likely have a significant adverse impact on the species or stock. In addition, if the Sakhalin-Amur stock has declined, as the available data seem to suggest, PBR is not an appropriate proxy to determine the sustainability of the live-capture activity.

Based on the data available, we cannot discount the possibility that the Sakhalin-Amur stock has experienced a small, yet significant and unsustainable decline over the past several decades that has gone undetected given the minimal amount of monitoring that

² Section 216.35 contains “permit restrictions.”

³ Section 216.41 specifies procedures and criteria for “permits for scientific research and enhancement.” Section 216.42 is reserved (i.e., contains no regulatory text) for conditions specific to permits for “photography.” Section 216.43 is reserved for conditions specific to “public display.”

has occurred over the years. The live capture of beluga whales cannot be discounted as a possible contributing factor to this decline.

CRITERION 5: Whether the applicant's expertise, facilities, and resources are adequate to accomplish successfully the objectives and activities stated in the application (216.34(a)(5)).

NMFS determination: The information provided by the Aquarium demonstrates that they meet the criteria to hold animals for public display purposes under the MMPA Section 104(c)(2)(A). APHIS was consulted and confirmed that the facility was in compliance with the requirements of the Animal Welfare Act (AWA).

CRITERION 6: If a live animal will be held captive or transported, the applicant's qualifications, facilities, and resources are adequate for the proper care and maintenance of the marine mammal (216.34(a)(6)).

NMFS determination: The Aquarium demonstrated that this criterion has been met. The application included the Curriculum Vitae for the supervisory staff and veterinarians that would be involved in the proposed transport. We also consulted with APHIS and received confirmation that the receiving facilities (Georgia Aquarium, John G. Shedd Aquarium, and the three Sea World marine mammal parks) are all licensed under the AWA and have sufficient space and experienced personnel to house and maintain these animals.

CRITERION 7: Any requested import or export will not likely result in the taking of marine mammals or marine mammal parts beyond those authorized by the permit (216.34(a)(7)).

NMFS determination: The Aquarium has not demonstrated that the import will not result in taking of marine mammals beyond those authorized by the permit. In fact, additional beluga whales are likely to be captured as part of the ongoing, legal marine mammal capture operation in Russia.

The Aquarium indicated that it is unlikely that other U.S. facilities would submit applications to NMFS to import additional beluga whales for public display in the near future. However, the point of this criterion is that the foreign shipping facility will not replace these animals with additional animals of the same species.

The 1993 Proposed Rule to amend NMFS regulations for permits to take or import marine mammals for the purposes of scientific research, public display, or enhancing the survival of a marine mammal species or stock, included an explanation of this criterion clarifying that “the import or export is not likely to result in replacement takes or otherwise increase demand for protected species or protected species parts resulting in takes to meet such anticipated demand.” That explanation was not included in the Final Rule; however, it describes the intent of this criterion and we have applied it as such in past decisions.

In the past, we have required confirmation from exporting parties (i.e., the foreign facility that is shipping marine mammals to the U.S.) that they have no intention of replacing the

animals they are exporting with animals of the same species. For previous imports of beluga whales (from Mexico, Germany, and Canada), the shipping facilities in those countries have provided assurances that additional animals would not be acquired as a result of the import.

This case is somewhat different, in that the ongoing, legal marine mammal capture operation in Russia is expected to continue. Thus, we cannot obtain the assurance that an additional 18 whales would not be captured in the future in place of the 18 whales requested for import. If these 18 beluga whales are not imported to the U.S. they could be made available to public display facilities in other countries and it is possible that 18 fewer beluga whales would be captured in Russia to supply other facilities.

CRITERION 8: The Office Director will also consider the opinions or views of scientists or other persons or organizations knowledgeable of the marine mammals that are the subject of the application or of other matters germane to the application (216.34(b)).

The application and the draft EA were made available to the public for review, and were distributed to the Marine Mammal Commission, APHIS, and the USFWS for comment. Approximately, 9,000 comments were received from the above mentioned agencies, NGO's, scientists, and the general public, as summarized in Appendix A.

CRITERION 9: In addition to meeting the permit issuance criteria listed above, the applicant must also demonstrate that the marine mammals proposed for importation were not (50 CFR 216.12):

- (i) pregnant at the time of taking;
- (ii) nursing at the time of taking, or less than eight months old, whichever occurs later;
- (iii) taken from a species or stock designated as depleted; or
- (iv) taken in a manner deemed inhumane by the Secretary of Commerce.

We discuss each of these four factors separately.

(i) The animals must not have been pregnant at the time of taking.

NMFS determination: The Aquarium has demonstrated that this criterion has been met. The Aquarium included a statement in the application indicating that none of the animals proposed for importation were pregnant at the time of capture. No allegations or documentation indicating any animal may have been pregnant at the time of capture were provided during the public comment period that would suggest otherwise and we have no reason to believe that any of the animals may have been pregnant.

(ii): The animals must not have been nursing at the time of taking, or less than eight months old, whichever occurs later.

NMFS determination: The Aquarium has not demonstrated that this criterion has been met for each of the 18 whales. The application indicates that five of the beluga whales proposed for import were estimated to be approximately 1.5 years old at the time of capture. This determination would only result in the inability to import these five specific animals, if not for all of the other factors discussed in this document.

Section 102 of the MMPA and 216.12 of NMFS implementing regulations both specifically state that the animals proposed for import must not have been nursing, or less than eight months old, whichever occurs later, at the time of the original take (i.e., capture). We must then consider whether or not nursing in this context means a calf is fully dependent on its mother for survival, or if it is a broader concept in that while the calf is in the process of becoming independent, it is still occasionally nursing from its mother. It is difficult to visually determine when an animal is fully independent if it is still nursing to some extent. Therefore, we believe it is the intent of the MMPA to restrict importation of marine mammals to those individuals that were taken after such time that they were considered to be independent of their mothers.

The scientific literature supports a conclusion that beluga calves are nursed for two years and may continue to associate with their mothers for a considerable time thereafter (Reeves et al. 2002). They appear to be dependent on their mothers for nursing for the first year, when their teeth appear (Katona et al. 1993), at which point they supplement their diets with shrimp and small fishes (Haley 1986). At 1.5 years of age, beluga whale calves are likely not independent from their mothers.

The Aquarium contends in their response to comments on this subject that the animals proposed for import have age ranges, and that 1.5 years is the bottom of that range. A table was provided in the application which included the estimated age of each animal at time of collection and as of January 1, 2012. These ages were not provided as a range.

The Aquarium also contends that “only animals in human care can be observed for a definite termination of when mother-calf dependency ends” and that juvenile beluga whales can be independent by 1.5 years of age. While some beluga whales may be independent at this age, it doesn’t logically follow that every individual will be and we cannot assume that all 1.5 year olds are independent from their mothers.

We asked the Aquarium why some of the estimated ages of animals proposed for importation had changed (increased) from the preliminary draft application to the submitted application and requested that they clarify the process for estimating the ages. The Aquarium responded that the preliminary draft had a few typographical errors and a very limited amount of information that had not yet been fully updated or was in the process of being reviewed. They indicated that ages were estimated using standard methodologies, which included morphometrics (length, girth, fluke sizes), skin color, tooth emergence, and behavior; however, they did not provide specific details regarding those methodologies.

Of the 18 animals listed in the application, eight of them had differences in estimated ages from the preliminary draft application to the submitted application, all increasing in estimated age by a year. In the submitted application, five animals were estimated to be 1.5 years old at the time of capture, all of which were captured in 2010. For two of these animals, the Aquarium estimated their age to be 2.5 years in January 2012 in the preliminary draft application, which would mean that in 2010 (at time of capture) they were approximately one year old. The estimated age for these two animals was increased to 3.5 years in the submitted application. This provides for ambiguity regarding whether these two animals were potentially younger than the estimated 1.5 years old at the time of collection listed in the submitted application, based on the information provided in the preliminary draft application. In general, this raises questions about the accuracy of the estimated age at collection of the animals proposed to be imported.

(iii): The animals must not have been taken from a species or stock designated as depleted.

NMFS determination: The Aquarium has demonstrated that the animals are not from a stock designated as depleted. “Depleted” under the MMPA means any case in which the Secretary determines that the species or stock is below its optimal sustainable population or a species or stock is listed as endangered or threatened under the ESA. NMFS does not manage the beluga stocks in the Sea of Okhotsk; therefore a designation of “depleted” would not be made by NMFS. However, if we were to make a determination for this stock, the information we have suggests it would be considered depleted.

(iv): The animals must not have been taken in a manner deemed inhumane by the Secretary of Commerce.

NMFS determination: The Aquarium demonstrated that this criterion has been met in their description of the captures provided in the application.

A number of commenters argued that the captures were inhumane based on a 1999 video by the International Fund for Animal Welfare documenting captures conducted in the same location, and by the same organization. The video portrays only portions of captures. The term “humane” is defined by Section 3(4) of the MMPA as “that method of taking which involves the least possible degree of pain and suffering practicable to the mammal involved.”

The Aquarium stated in their response to comments that observers were sent to witness the collection and handling techniques in the Sea of Okhotsk to ensure that the methods were humane and similar to methods permitted in the U.S. Despite the presence of observers and our request to provide documentation regarding the beluga captures (email from J. Skidmore to B. Hurley and G. Mannina on May 23, 2011), no video was made available. Therefore, we must rely on the description provided in the application, information provided by commenters, and other reasonable information to determine if the captures would be considered inhumane.

The description of the capture methods provided in the application is similar to that of research captures of beluga whales in Alaska that have been previously permitted by

NMFS. The capture methods used in Alaska were determined to be humane during processing of the scientific research permit that authorizes them. Although some may argue that capture techniques are, per se, inhumane, the captures were accomplished in a manner with as minimal a degree of pain and suffering to the animals involved as possible, consistent with the statutory definition of humane.

In summary, the Aquarium has not demonstrated that the proposed activity, by itself or in combination with other activities, would not likely have a significant adverse impact on the species or stock.⁴ The Aquarium has also failed to demonstrate that the requested import will not likely result in the taking of marine mammals beyond those authorized by the permit.⁵ Finally, the Aquarium has not demonstrated that all of the animals were not nursing at the time of taking, or less than eight months old, whichever occurs later.⁶

5.2 Animal Welfare Act

Marine mammals held for public display purposes must be maintained in facilities licensed by the USDA Animal and Plant Health Inspection Service (APHIS), and held and transported in compliance with the provisions of the Animal Welfare Act (AWA: 7 U.S.C. 2131 – 2156). APHIS has jurisdiction under the AWA for enforcing the standards and certification requirements for the humane handling, care, treatment, and transportation of mammals. The application was forwarded to APHIS for review and comment specific to compliance of the facilities with AWA and APHIS implementing regulations. APHIS provided comments on the application and was consulted regarding the revised transport plan. APHIS comments indicate that the Aquarium and its partners meet the requirements of the AWA.

5.3 Convention on International Trade in Endangered Species of Wild Fauna and Flora

Beluga whales are listed on Appendix II of CITES. The country of export must make findings prior to issuing the CITES export permit regarding: 1) the impact of the export on the survival of that species; 2) whether the collection of an animal was consistent with domestic laws; and 3) whether the shipment of an animal is done in a way that minimizes the risk of injury, damage to health, or cruel treatment. The information provided by the Aquarium as part of their application demonstrates they are in compliance with applicable provisions of CITES.

6.0 List of Preparers and agencies consulted

Agencies Consulted

NMFS consulted with other federal agencies on matters within the permit application over which they have jurisdiction or expertise:

- Marine Mammal Commission – pursuant to Section 101(a)(1) of the MMPA

4 Issuance criterion at 50 CFR 216.34(a)(4).

5 Issuance criterion at 50 CFR 216.34(a)(7).

6 Issuance criterion at 50 CFR 216.12(ii).

- USDA Animal and Plant Health Inspection Service – regarding compliance of the transport and captive maintenance with requirements of the Animal Welfare Act
- U. S. Fish and Wildlife Service – regarding compliance with regulatory standards for humane and healthful transport of wild mammals and birds to the U.S. (50 CFR 14, Subpart J)

Prepared By

This document was prepared by the Permits and Conservation Division of NMFS' Office of Protected Resources in Silver Spring, Maryland.

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Appendix A: Summary of Public comments and Responses

The draft EA and the permit application were made available for public comment from August 30 through October 29, 2012. NMFS also held a public meeting on October 12, 2012, at which comments were accepted from the public. Over 8,900 comments were submitted, and were categorized into these 11 broad topic areas by NMFS based on the content of the comment:

- 1) Concerns regarding captivity
- 2) Concerns regarding capture
- 3) Status of the species
- 4) Concerns regarding transport
- 5) Concerns regarding education and/or research component
- 6) Support for education and research programs
- 7) References to the MMPA issuance criteria
- 8) Concerns regarding the commerce
- 9) CITES determination
- 10) Alternatives for acquisition
- 11) NEPA Analysis

Concerns regarding captivity included general opposition to beluga whales in captivity, concerns regarding previous mortalities and the unsuccessful breeding of beluga whales, as well as concerns regarding the APHIS standards.

Comments in this topic area did not change the scope of this EA; however they were considered in NMFS' decision-making process under the MMPA.

Concerns regarding capture included general opposition to captures, concerns that (1) the captures were inhumane, (2) the captures occurred first, (3) unweaned animals may have been captured, (4) this import would encourage future trade, and requests for the captured belugas be released.

Comments in this topic area are related to the MMPA issuance criteria for permits and did not change the scope of this EA; however they were considered in NMFS' decision-making process under the MMPA.

Status of the species comments included concerns that the belugas of the Sakhalin-Amur region are a recovering population, the threats have not been adequately addressed, and the PBR calculation does not support the current take of animals in this area.

Comments indicated that the IUCN panel that reviewed this beluga whale stock emphasized the lack of data, and noted that “any animals taken by humans, including those killed or injured in fishing gear, struck by vessels, or accidentally drowned during live-capture operations, should be considered when evaluating the sustainability of any level of intentional removals”.

NMFS revised information on the status of the species in Sections 3 and 4 of the final EA in response to these comments.

Concerns regarding transport comments included both general transport concerns and specific transport concerns.

NMFS discussed potential changes to the Transport Plan with the Aquarium in response to these comments, looking to identify ways to minimize the complexity of the transport. These discussions considered: 1) if the animals could be transported without the need to change planes in Belgium, and 2) whether the animals could remain in the same transport containers throughout the transport, without being transferred to different containers in Belgium. The Aquarium provided several alternatives to the plan in the original application. NMFS consulted with APHIS and FWS on the options and ultimately advised the Aquarium that Option B would meet the issuance criteria. The proposed action in Section 2 was modified accordingly.

Concerns regarding education and/or research components focused on the inadequacy of the education program and/or the lack of conservation to be associated with holding these animals in captivity.

Comments in this topic area did not change the scope of this EA; however they were considered in NMFS' decision-making process under the MMPA.

Support for education and/or research programs identified ways in which public display of marine mammals (specifically belugas) provided for the education of the public and ways in which the research of marine mammals in captivity supported the global recovery efforts for this species.

Comments in this topic area did not change the scope of this EA; however they were considered in NMFS' decision-making process under the MMPA.

References to the MMPA issuance criteria mentioned in the comments include (1) the humaneness of the activity and whether or not it might present an unnecessary risk to the health or welfare of the animals, (2) likelihood of significant adverse impacts on the species or stocks, (3) the requested import will not likely result in taking of marine mammals beyond those authorized by the permit, (4) the original take and import must be conducted in a humane manner and in compliance with the MMPA, applicable foreign laws and CITES, and (5) at the time of take or import, the marine mammals may not be pregnant, lactating, unweaned or less than 8 months old.

Comments in this topic area are related to the MMPA issuance criteria for permits and did not change the scope of this EA; however they were considered in NMFS' decision-making process under the MMPA.

Comments on compliance with Federal, State, or local law or requirements imposed for the protection of the environment are related to this NEPA analysis. However, NMFS would not move forward with the proposed action (i.e., issuance of an import permit) if we had not determined the proposed import to be consistent with all applicable provisions of the MMPA. NMFS permits to import marine mammals are conditioned to require that CITES or AWA

permits and authorizations necessary for the importation of this animal be obtained before the importation is conducted, and if issued, Permit No. 17324 would contain the same conditions. Therefore, these comments did not change the scope of this EA.

Concerns regarding the commerce – Many commenters identified commerce as the primary objective of the permit application. In addition, there were requests for the United States to lead by example by prohibiting the importation of these wild caught beluga whales.

Comments in this topic area did not change the scope of this EA; however they were considered in NMFS' decision-making process under the MMPA.

The **CITES determination** was an issue for many commenters who questioned the validity of the non-detriment determination for the beluga population given the current capture quotas and the unknowns of other types of take.

Comments in this topic area did not change the scope of this EA; however they were considered in NMFS' decision-making process under the MMPA. Russia made a non-detriment finding before issuing a CITES export permit. That finding and export permit were required before the Aquarium could obtain a CITES permit to import these animals into the United States. NMFS is satisfied that the Aquarium is in compliance with CITES, because the finding has been made, and the CITES export and import permits have been obtained.

Alternatives for acquisition were proposed including obtaining animals from already captive sources. In particular, the belugas at Marineland of Canada were mentioned in relation to accusations regarding the care of marine mammals at this facility. Commenters suggested that the Aquarium should rescue the animals at Marineland as opposed to importing wild-caught belugas.

Comments in this topic area are related to scope of this EA. The Draft EA released for public comment in August 2012 considered only one action alternative – issuance of the permit as requested by the Aquarium. Several public comments focused on this and considered the number of alternatives evaluated inadequate. Some noted that the application included a discussion of other alternatives to import and suggested those should be action alternatives evaluated by NMFS. The options discussed by the Aquarium were provided as their justification of the need to import the 18 animals to meet their objective of a self-sustaining captive population. They were not alternatives for which the Aquarium requested a permit. They are not reasonable alternatives to the proposed action because, in the absence of a permit application for those alternatives, NMFS has no application to act on or decision to make regarding issuance criteria. The range of alternatives has not changed from the draft EA.

NEPA analysis comments were received indicating that the range of alternatives was inadequate and that the proposed action requires an Environmental Impact Statement (EIS) as opposed to an EA.

Commenters indicated that an EIS should be prepared because of the:

- uncertainties of the available scientific information on the relevant population;

- lack of information on other threats facing this population in the Sea of Okhotsk;
- fact that Russia issues hunting and capture quotas even in the face of this data deficiency are well above the calculated PBR; and
- controversy regarding this import request.

Commenters indicated that an EIS would be warranted for Alternative 2 – Permit Issuance. NMFS’ preferred alternative is No Action - Permit Denial. Implementing the No Action alternative is not likely to result in significant impacts on the human environment; therefore, an EIS was not prepared.

Based on comments received in this topic area, NMFS included additional information on the status of the species in Sections 3 and 4 of the final EA. There is a lack of information regarding threats other than the live-capture trade to this population. However, an IUCN review indicated that they are likely small and not significant enough to drive population dynamics. Further, NMFS calculated several PBR scenarios for this population as a proxy for whether the live capture trade is sustainable. Even with uncertainties in the available data, it is highly likely that the live-capture is the most significant threat to the population.

The definition of “controversy” in the context of an EA does not imply that an unpopular action is by default controversial. The controversy must be in the context of the environmental effects of the action. In this final EA, NMFS addresses the scientific uncertainties and the question of sustainability raised in the public comments.