Draft Environmental Assessment

Dallas Zoo Management

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I. Background

The U.S. Fish and Wildlife Service (Service), Division of Management Authority (DMA), has received an application from Dallas Zoo Management, doing business as the Dallas Zoo, and working with the Sedgwick County Zoo in Wichita, Kansas, and Omaha's Henry Doorly Zoo, Omaha, Nebraska, to import up to 18 wild African elephants (*Loxodonta africana*) from Swaziland that would be housed at the three zoos. The elephants intended for importation consist of 3 adult females, 3 subadult intact males, and 12 subadult females.

The African elephant is classified as threatened under the U.S. Endangered Species Act (ESA, Act), with a special rule under Section 4(d), and is also listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). To import African elephants into the United States, ESA and CITES requirements must be met.

The African elephant was extirpated from Swaziland in 1940 and re-introduced in the 1980s, through two separate translocations from Kruger National Park, in South Africa. A third translocation occurred in 1994 with an additional 19 elephants from Kruger National Park. Swaziland currently has about 40 elephants residing in two managed areas--Mkhaya Game Reserve and Hlane National Park.

Big Game Parks (BGP) manages both protected areas. BGP is the delegated authority responsible for implementation of the Game Act of 1953, the principal legislation that governs matters related to the preservation of game and other types of wildlife and the implementation of CITES, for the Kingdom of Swaziland. BGP has finalized a management plan for Swaziland's elephants. The current number of elephants in the two managed areas exceeds what park managers believe is the optimal number that can be maintained without affecting other protected wildlife within the parks. In 2002, Swaziland made a similar decision to reduce the elephant numbers. Following that decision, the Service authorized the import of 11 elephants into the United States from Swaziland for the purpose of zoological display at two zoological institutions--San Diego Wild Animal Park and the Lowry Park Zoo. This import occurred in 2003.

According to the application and BGP, since 2003, Swaziland has implemented a number of adaptive management strategies to limit elephant population growth, minimize habitat degradation, and maintain elephant numbers in the two parks so that they do not exceed carrying capacity. With the financial resources received from the first export in 2003, BGP enlarged one of the parks and completely fenced the other. However, the 2003 translocation was only a short-term remedy. In 2009, Swaziland was able to secure the support and technological assistance to sterilize seven bull elephants without adversely affecting the natural behaviors of the animals. Despite these efforts, BGP has determined the need to reduce further the number of elephants to support biodiversity in the parks, while still maintaining some elephants for tourism and to acknowledge the cultural value of the species in Swaziland. The ultimate goal of the management plan is to balance recruitment (i.e. births) with mortality to achieve a 0% growth rate within each protected area.

African elephants in Swaziland are listed in CITES Appendix I. The African elephant is listed as threatened under the ESA and is subject to an ESA special rule under Section 4(d) of the Act. Under the special rule (50 CFR 17.40(e)(3)(i)), "*(A)frican elephants, other than sport-hunted trophies and raw and worked ivory, may be imported or exported provided all permit requirements of 50 CFR parts 13 and 23 have been complied with.*" Accordingly, prior to authorizing import or export of a live African elephant, the Service must determine whether the requirements in 50 CFR part 13, *General Permit Procedures*, and 50 CFR part 23, *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, have been met. Under CITES, the Service must determine that the facilities are "suitably equipped to house and care" for the animals, that the purpose of the import is not detrimental to the survival of the species, and that the import is not for primarily commercial purposes. Provided the applicant meets these requirements and the requirements in 50 CFR part 13, the Service may issue a permit for the importation of live elephants into the United States.

Under Department of the Interior internal agency policy and procedures, the issuance, denial, suspension, and revocation of permits for activities involving fish, wildlife or plants, including permits involving species listed under the ESA and CITES, are categorically excluded from the requirement for preparation of an Environmental Assessment (EA) or an Environmental Impact

Statement (EIS) under the National Environmental Policy Act (NEPA) when such permits cause no or negligible environmental disturbance. Department of the Interior Departmental Manual, Part 516, Chapter 8.5(C)(1).

Further, the Service has evaluated whether the issuance of this permit meets any of the extraordinary circumstances found in Departmental NEPA regulations 43 C.F.R. § 46.215 and has found that none of the extraordinary circumstances apply. As found in the Departmental NEPA regulations, extraordinary circumstances exist for individual actions within categorical exclusions that may meet any of the twelve criteria listed in section 46.215. These criteria and our analysis of each are:

(a) Have significant impacts on public health or safety. All of the elephants proposed for importation have been thoroughly screened and tested by veterinarians in Swaziland for any disease or health risk to humans or livestock. Further, all of the elephants would be inspected by a U.S. Department of Agriculture veterinarian upon arrival. There are no apparent risks to public health or safety, and inspection and monitoring would continue upon importation and following arrival at their destinations.

(b) Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (EO 11990); floodplains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas. All of the elephants, if imported, will be housed in a captive environment at one of the three zoological parks identified in the application. All of the animals will be properly housed to ensure that there will be no impact on any natural, historical, or cultural resources. To the Service's knowledge, all three of the zoos are in full compliance with federal, state, and local ordinances regarding water treatment and sewage to ensure that the importation and holding of these elephants would not affect drinking water aquifers or wetlands.

(c) Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA section 102(2)(E)]. There are no controversial

environmental effects associated with the importation or holding of African elephants within the United States. U.S. zoological institutions and other institutions have maintained African elephants for many years with no indications that these activities have controversial environmental effects.

(d) Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks. Based on the information presented in the application and past experience with the importation of live elephants, the importation of these elephants would not have any highly uncertain or potentially significant environmental effects nor do we have any information to suggest that it might involve unique or unknown environmental risks.

(e) Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects. Each application is considered on a case-by-case basis to ensure that all regulatory requirements are met before any authorization is granted. In addition, if this application were approved, it would not represent the first time that live elephants are imported from Africa. Therefore, the issuance of an import permit in this case would not establish a precedent for future importations. Any future applications would be required to meet all of the issuance criteria of applicable laws and regulations implemented by the Service.

(f) Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects. We have no information to suggest that there are other actions directly related to the import of these elephants or their maintenance in the Unites States that, cumulatively, would have a significant cumulative environmental effect on natural resources in the United States.

(g) Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau. All of the elephants will be housed at recently constructed or renovated facilities that are not listed on, or eligible for listing on, the National Register of Historic Places. Therefore, the import and subsequent housing of these animals would not have a significant impact on such properties.

(h) Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species or have significant impacts on designated Critical Habitat for these species. Because these elephants would be housed in a captive environment in three zoos in the United States and would not share these spaces with any other species listed, or proposed to be listed, under the Endangered Species Act, the importation and holding of these elephants would have no impact on such species. For the same reasons, the importation and housing of these elephants would have no impact on designated Critical Habitat for any proposed or listed species.

(i) Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment. Based on statements by the importing institutions and to the best of the Service's knowledge, all of the importing institutions are in full compliance with Federal, State, local, or tribal laws and regulations. We will determine that all relevant wildlife laws governing the importation and transport of these elephants are met before a permit is issued authorizing the importation. In addition, if importation is authorized, the elephants will be declared to us and subject to inspection to verify that the shipment complies with all relevant laws and regulations.

(j) Have a disproportionately high and adverse effect on low income or minority populations (EO 12898). Based on the information available to the Service, the importation of these elephants would have no adverse effect on low income or minority populations.

(k) Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (EO 13007). Based on the information available to the Service, the importation, transportation and housing of these elephants would have no bearing on access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or impact the physical integrity of such sacred sites.

(l) Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction,

growth, or expansion of the range of such species (Federal Noxious Weed Control Act and EO 13112). All of the elephants have been or will be inspected for parasites to reduce the risk of the animals themselves carrying invasive species. Further, the shipping containers will be constructed of material that is free of noxious weeds or non-native species to ensure that they do not pose a risk of harboring undesirable species. Finally, all of the elephants and shipping containers will be inspected by U.S. Department of Agriculture (USDA) and USFWS officials at the time of arrival in the United States to ensure compliance with U.S. laws and regulations.

The Service maintains the view that issuance of this permit is categorically excluded from requiring completion of an EA or EIS under NEPA. However, the Service has decided to prepare an EA in this case to help ensure that we have conducted a thorough review of all relevant factors and potential impacts on the quality of the human environment as envisioned under NEPA. In preparing this document, we considered NEPA, Executive Order No. 12114, Environmental Effects Abroad of Major Federal Actions (January 4, 1979), and Executive Order No. 13563, Improving Regulation and Regulatory Review (January 18, 2011).

This EA was prepared to summarize the three alternatives identified during the review of this request: 1) authorize the import into the United States of all 18 African elephants from Swaziland; 2) deny the request to import any African elephants into the United States from Swaziland; and 3) authorize the import into the United States of fewer than 18 African elephants from Swaziland. During our review process, we evaluated several factors including: the potential ecological impacts in Swaziland; the care and welfare of the elephants proposed for export from Swaziland; and the potential impacts on protected species both in the United States and in Swaziland.

II. Purpose and Need of the Proposed Action

This Environmental Assessment is being prepared to evaluate the impacts of importing up to 18 live African elephants from Swaziland into the United States in response to an application to permit such activity under the ESA and CITES. The applicant is representing two additional zoos, Omaha's Henry Doorly Zoo, Omaha, Nebraska, and the Sedgewick County Zoo, Wichita,

Kansas. Each of the three locations has requested to receive up to seven African elephants. The elephants are proposed to be imported for zoological display, conservation education, and, where possible, breeding.

Based on information in the application, these elephants are being proposed for export largely due to the overpopulation of elephants within the two protected areas that have been designated for elephants within Swaziland. According to information provided by Mr. Ted Reilly, Chief Executive of Big Game Parks of Swaziland, the number of elephants within these areas has surpassed the threshold beyond which the habitat can support them without significant impacts to other protected species also residing in the parks. As of 2014, there were 25 elephants residing within the fenced areas (4,900 ha) of Hlane Royal National Park and 14 elephants within the fenced areas (1,190 ha) of Mkhaya Game Reserve. Elephant groups this small and restricted to such a small area are not sustainable over the long term (van Jaarsveld et al., 1999; Ambruster et al., 1999; Armbruster and Lande, 1993). Because the reintroduced elephants in Swaziland are not being managed as part of the meta-population that includes the neighboring populations in South Africa (i.e., no immigration or emigration occurs between these populations), the removal of these elephants would not be detrimental to the species. When the elephants were reintroduced in the 1980s and 1990s, Swaziland did not anticipate that the elephants and their offspring would have a detrimental effect within these managed areas on plants and other wildlife species. BGP attempted to address this impact in 2003 when it exported 11 elephants to the United States and implemented a revised management effort to increase the size of the fenced areas in which the elephants were contained, thus increasing the available habitat.

Unfortunately, with additional elephant births, the expansion of the fenced areas was not extensive enough to address the impacts. As a result, the current vegetation, particularly the trees, in these fenced areas has been severely damaged by elephant activities. The removal of these 18 elephants and the implementation of the current management regime to further reduce elephant numbers through sterilization is anticipated to permanently address the impacts of elephants on protected area vegetation and eliminate the need for further exports.

The habitat within the two protected areas currently supports 66 mammal and 289 bird species, including the greatest concentration of tree-nesting endangered white-backed vultures and vulnerable white-headed and lappet-faced vultures in southern Africa, and is recognized for its excellent potential to provide much needed habitat and protection for additional black rhinoceroses (*Diceros bicornis*), a critically endangered species. These protected areas may be uniquely positioned to become a stronghold in Africa for black rhinos due not only to the available habitat, but also to strong anti-poaching laws and vigilant anti-poaching enforcement efforts by BGP that have resulted in a record of zero poached black rhinos. However, before a strategy of focusing on black rhino conservation can be fully implemented, BGP has determined that it must reduce the elephant numbers within the two protected areas, as the two species compete for the same habitat types, often to the detriment of rhinos. According to BGP, drought conditions and overbrowsing by elephants have destroyed most of the large trees within the fenced areas, which forces the animals to browse on less nutritious forage. The absence of the large trees has negatively affected many tree-nesting vultures in this area.

According to the Association of Zoos and Aquariums (AZA) Elephant Taxon Advisory Group and Special Survival Plan (TAG/SSP), the 208 captive elephants residing within the United States are not self-sustaining in the long term without the introduction of unrelated animals. Although the 18 animals proposed for import may be related to the 11 animals that were imported in 2003, given that all of the Swaziland elephants were derived from Kruger National Park, they would nonetheless represent genetically unrelated animals in relation to the majority of the elephants held in the United States. Prior to 1999, only 25 elephants had been born in captivity in North America, with only six known to be alive as of November 2000. All of the elephants imported in 2003 have successfully reproduced, with all calves born to these animals resulting from natural breeding. As stated in the application, if these elephants are imported, they will be placed at state-of the-art facilities built especially for them. According to the applicants, all imported elephants will be housed and maintained in natural herd environments that maximize and encourage natural behaviors. All three destination zoos have stated their commitment to maintaining these animals in a natural environment that allows individual choice and control for each animal. They have further committed to consult with the destination zoos of

the 2003 elephant import to build on previous achievements and expand on and enhance already excellent captive elephant welfare standards.

III. Scoping

The Division of Management Authority (DMA), Branch of Permits, received this permit application to import elephants from Swaziland on November 28, 2014. DMA took a proactive approach to identify potential impacts of this proposed federal action. We conducted informal scoping sessions with other divisions within the Service and with partner agencies to identify substantive issues. We are now seeking input from the public on this document and will consider comments received during the public comment period before making a final determination from among the proposed alternatives.

As described in the Background section, the import of live African elephants may be permitted if the requirements of CITES and the ESA, and the relevant implementing regulations, are met. Under the ESA 4(d) rule for the African elephant (50 CFR 17.40 (e)(3)(i)), the import of live elephants may be permitted if all requirements under 50 CFR parts 13 (general permitting) and 23 (CITES) are met. The Service's Division of Scientific Authority (DSA) conducted a thorough evaluation of the permit application and the information provided about each of the three zoos, and has tentatively determined that the import would be for purposes "not detrimental to the survival of the species" and that the zoos will be "suitably equipped to house and care" for these elephants <u>if</u> the proposed facilities are completed as presented in the permit application. CITES and our regulations (50 CFR 23.62) also require a finding that the elephants are not to be used for "primarily commercial purposes." All three zoos in this application for import are non-profit AZA-accredited institutions. Based on this and other information in the permit application, we have determined that the proposed import is not for "primarily commercial purposes." Therefore, we consider, pending confirmation that facilities are completed as described in the application, that the requirements in 50 CFR part 23 will be met. If a permit is issued, it will be accompanied by our "general permit conditions" to ensure that the permittee is aware of and will abide by the requirements in 50 CFR part 13. In addition to the findings described above, the Service must prepare an ESA Section 7 evaluation to determine whether the

proposed federal action rises to the level of "jeopardy." "Jeopardize the continued existence of" means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species. 50 CFR 402.02. Section 7 evaluations do not consider the individual animals, but rather effects to the population as a whole. Although we will not complete this evaluation until after the comment period for this EA, based on the information currently available to the Service, we would not consider the issuance of an import permit to adversely affect the species.

IV. Alternatives Including the Proposed Action

In formulating the alternatives, the Service considered those actions that fit the criteria for meeting the purpose and need, and that were economically and technically feasible. With this in mind, we have identified three reasonable alternatives within the scope of the Service's authority.

Alternative 1 (Proposed Action and Preferred Alternative) Issue permit to import 18 elephants.
This alternative would be to issue an import permit for all 18 animals from Swaziland to the three destination zoos. Under this option, a Memorandum of Understanding (MOU), which has already been signed by the three proposed destination zoos and BGP, would result in an annual contribution to BGP of 90,000 USD for each of the five years that the MOU is effective.

Alternative 2 (No Action) Do not issue a permit.
Alternative 2 would be to take no federal action (i.e., deny the issuance of a permit for the import of these elephants).

Alternative 3 (Modification of Proposed Action) Authorize importation for a reduced number.
Alternative 3 would be to issue an import permit for a reduced number of elephants to be located at one or more of the three zoos. This alternative would require determining an appropriate number to allow into the United States based on current management of the elephants in Swaziland and the intended use of the elephants in the United States.

We considered other alternatives to this action, but we ultimately did not include them because they are outside the jurisdictional authority of the Service or federal action, such as translocation of elephants to neighboring range States within southern Africa. The transfer of elephants to other locations or countries in Africa is at the discretion of the Kingdom of Swaziland and therefore involves no federal action by the Service. However, according to the applicant and BGP, the only alternative to export from Africa is culling.

V. Environmental Consequences of the Alternatives

In evaluating the alternatives, the Service considered all relevant impacts, and particularly the ecological impact to the protected areas in Swaziland, the welfare of the elephants involved, the impact on captive African elephants in the United States, and the potential impacts on other protected species.

***Alternative 1 (Proposed Action and Preferred Alternative)*:** This alternative action would consist of issuing a permit for the import of 18 elephants from Swaziland to be housed at the Dallas Zoo, Omaha's Henry Doorly Zoo, and the Sedgwick County Zoo. The three zoos have agreed to contribute a total of 90,000 USD annually for a period of five years to BGP to assist in implementing their Conservation and Management Plan (CMP) finalized in 2014. These funds would contribute to many high priority projects within the two parks, including habitat improvements, law enforcement support and supplies, infrastructure establishment, and fencing to further protect endangered species founds within the parks.

Animal Welfare Impacts: The Service has worked closely with the applicant and the Kingdom of Swaziland to ensure that undue stress caused by the potential transport to the United States and the subsequent housing and care at all three destination zoos is minimized to the greatest extent possible. These measures are described more fully in the application material. The long-term care and welfare of these animals will be monitored by the USDA's Animal and Plant Health Inspection Service (APHIS) under the Animal Welfare Act (AWA). The zoos have provided sufficient information to show that they are qualified to care for the elephants and

provide necessary medical and husbandry care. They have provided resumes of the staff caretakers and keepers, and have provided information on their facilities. Each facility that has requested animals under this application has stated that the animals will be maintained in a natural "family" group similar to what would be found in the wild. In addition, the zoos and the SSP have indicated that it will benefit the existing captive African elephants in the United States to bring in additional elephants so that they can foster a more natural herd-like environment to facilitate breeding. According to the application, in the past, young animals in the United States have not been properly socialized and, as a result, did not breed well without this family structure. Based on available information on the biology and social behavior of African elephants, the Service has determined that maintaining captive elephants in more natural "family" groups would likely improve the reproductive success of captive elephants and contribute to a self-sustaining population within the United States.

Ecological Impacts: The removal of these 18 elephants from two protected areas in Swaziland and the voluntary financial contributions from the three proposed U.S. destination zoos to Swaziland, as outlined in the MOU that was signed by BGP and the zoos subject to this federal action, would have positive ecological impacts in Swaziland. Voluntary contributions to BGP of 90,000 USD annually for the next five years would advance the conservation priorities stated in the CMP to the benefit of wildlife and the people of Swaziland.

BGP has indicated that removal of these elephants will result in an immediate and needed improvement for the two parks, providing habitat resilience and support to the overall ecosystem. Evidence of the impacts the elephants are having on the ecosystem is included in the application materials as well as the findings that have been made part of this assessment. The removal of these elephants and subsequent habitat improvements will benefit the black rhinoceros population in Swaziland by reducing competition and conflict with resident elephants.

Impacts on U.S. captive elephants: According to AZA and the applicant, there is currently a shortage of African elephants in North America that are good candidates for breeding. Captive African elephants can also provide educational opportunities to the public that may not otherwise

be available, including educating zoo visitors about the current poaching crisis that is occurring throughout much of the elephant's native range.

Protected Species Impacts: As stated previously, the African elephant is listed as threatened under the ESA and, in Swaziland, is listed in Appendix I of CITES. This proposed action is expected to not have a detrimental effect on the wild population of elephants. In addition, removal of these animals as proposed would have positive impacts on other protected species, such as black rhinoceros and several vulture species, in Swaziland.

The removal of the 18 elephants from the protected areas in Swaziland would result in an increase in available habitat for black rhinoceroses. Swaziland's CMP calls for reducing the number of African elephants and focusing efforts on increasing black rhinoceros numbers. The black rhino, which is critically endangered, competes with elephants for similar habitat. Therefore, the reduction in the number of elephants will facilitate increases in black rhinoceroses. As stated earlier, the elephants in the protected areas have significantly affected the vegetation, particularly large trees used by several species of vultures. The reduction in the number of elephants will result in an increase in large trees that, over time, would provide needed nesting and roosting sites for these vultures. Overall, the removal of these elephants and the successful implementation of the CMP would result in an increase in biodiversity within the two protected areas.

The importation and subsequent holding of these elephants within the United States is not anticipated to have any impact, positive or negative, on U.S. native protected species. All of the elephants will be maintained in a captive environment in facilities specifically designed for these animals.

***Alternative 2 (No action)*:** Under this alternative, the Service would not issue an import permit. This alternative would also presumably result in the MOU between the zoos and BGP not being implemented and no financial support provided to BGP for on-going management needs as identified in their CMP.

Animal Welfare Impacts: According to BGP, the elephants must be removed from the protected areas or the elephants in Swaziland will suffer as they continue to compete for limited natural resources within the confines of the managed areas. BGP has stated that it is not an option to translocate these animals within southern Africa. According to the applicant and BGP, under this alternative, the outcome would be that BGP would be forced to cull these animals to meet the stated objective of no more than 10-16 elephants total in both parks. It should be noted that the elephants have already been removed from the two protected areas and are currently confined to bomas (enclosures), pending the outcome of the Service's permitting decision.

Ecological Impacts: Under this alternative, the ecological impacts within Swaziland are expected to improve since the elephants will be culled, thus reducing the impact of elephants on the two protected areas. As stated previously, BGP is managing the protected areas for other protected wildlife and plant species, such as black rhinos, and the permanent removal of these elephants, through culling, will benefit other species.

Financially, the two protected areas in Swaziland would suffer under alternative two. If the elephants are not exported to the U.S. zoos, the financial contributions offered by the three zoos would likely not be made available to BGP for conservation use. BGP is in need of the funding to carry out its management plan to focus on biodiversity objectives, including those regarding black rhinoceros conservation.

Impacts on the U.S. captive elephants: According to AZA and the applicant, there is a currently a shortage of African elephants in North America that are good candidates for breeding. Captive African elephants can also provide educational opportunities for the public that may not otherwise be available, including educating zoo visitors about the current poaching crisis that is occurring throughout much of the elephant's native range. Denying the import would affect both breeding efforts in the United States and the opportunity to educate the zoo-going public.

Protected Species Impacts: As stated above, the 18 elephants have already been removed from the two protected areas and placed in temporary bomas. If the import does not occur, we have been informed by BGP and the applicant that the elephants will be culled. Because the elephants

will not be returned to the two protected areas, so that BGP can continue to implement the CMP as currently drafted, it is anticipated that there would be an increase in available habitat for black rhinoceros. In addition, with the reduction in the number of elephants within the two protected areas, the destruction of large trees, used for roosting and nesting by several species of vultures, would be further curtailed, resulting in an increase of vulture populations. Not authorizing the importation, and subsequent holding, of these elephants within the United States is anticipated to have no impact, positive or negative, on U.S. native species.

***Alternative 3 (Modification of Proposed Action)*:** This alternative calls for fewer elephants to be imported than the proposed 18 animals. The decision to allow the import of fewer animals than originally requested could be based on a number of factors. A reduction in numbers could be less detrimental or cause less environmental disturbance than import of the 18 elephants as proposed. It is possible that, after final review of all three of the zoos' completed facilities, the Division of Scientific Authority determines that the facilities are not suitably equipped to house and care for all 18 elephants and a reduction in numbers at one or all of the institutions is necessary to complete their finding.

Animal Welfare Impacts: The Service has worked closely with the applicant and the Kingdom of Swaziland to ensure that undue stress caused by the potential transport to the United States and the subsequent housing and care at all three destination zoos is minimized to the greatest extent possible within our jurisdictional authority. These measures are described more fully in the application. The long-term care and welfare of these animals will be monitored by USDA/APHIS under the AWA. The zoos have provided sufficient information to show that they are qualified to care for the elephants and provide necessary medical and husbandry care. They have provided resumes of the staff caretakers and keepers, and have provided information on their facilities. One aspect of the import of elephants from Swaziland in 2003 has been that elephant care and management in captivity has greatly improved. Each facility that has requested animals under this application will be maintained in a natural "family" group similar to what would be found in the wild. In addition, the zoos and the SSP have determined it will benefit the existing captive African elephants in the United States to bring in additional elephants so that they can foster a more natural herd-like environment to facilitate breeding. In the past,

young animals in the United States have not been properly socialized and, as a result, did not breed well without this family structure.

If fewer than 18 animals are authorized for importation, it may negatively impact existing family structures. According to an email sent to the Service on August 4, 2015, from Dr. Lynn Kramer, Vice President for Animal Operations and Welfare for the Dallas Zoo, BGP requested that three juvenile males that were not previously included in the permit application be added so that they are not separated from their mothers.

Ecological Impacts: Should import of fewer than 18 elephants be authorized, the ecological impacts would be similar to those described in Alternative 1. It is reasonable, however, to assume that the voluntary contributions of 90,000 USD annually for the next five years to BGP would be reduced, and advancement of the conservation priorities as identified in the CMP would be negatively affected. Under this alternative, the ecological impacts within Swaziland are expected to improve because any remaining elephants will be culled, thus reducing the impact of elephants on the two protected areas.

The removal of the 18 elephants, through either exportation or culling, would result in an increase in available habitat for black rhinoceroses. Swaziland's CMP calls for reducing the number of African elephants and focusing efforts on increasing black rhinoceros numbers. The black rhino, which is critically endangered, competes with elephants for similar habitat. Therefore, the reduction in the number of elephants will facilitate increases in black rhinoceroses. As stated earlier, the elephants in the protected areas have significantly affected the vegetation, particularly large trees used by several species of vultures. The reduction in the number of elephants will result in an increase in large trees that, over time, would provide needed nesting and roosting sites for these vultures. Overall, the removal of these elephants and the successful implementation of the CMP would result in an increase in biodiversity within the two protected areas.

The importation and subsequent holding of these elephants within the United States is not anticipated to have any impact, positive or negative, on U.S. native protected species. All of the

elephants will be maintained in a captive environment in facilities specifically designed for these animals.

Impact on U.S. captive elephants: According to AZA and the applicant, there is currently a shortage of African elephants in North America that are good candidates for breeding. Captive African elephants can also provide educational opportunities for the public that may not otherwise be available, including educating zoo visitors about the current poaching crisis that is occurring throughout much of the elephant's native range.

Protected Species Impacts As stated previously, the African elephant is listed as threatened under the ESA and, in Swaziland, is listed in Appendix I of CITES. This action is expected to not have a detrimental effect on the wild population of elephants. In addition, removal of some elephants would have some positive impacts on other protected species, such as black rhinoceros and several vulture species, in Swaziland. As identified earlier, the 18 elephants have already been removed from the two protected areas and will not be returned. The removal of these elephants will result in BGP continuing implementation of the CMP as currently drafted, albeit without some of the funding that would otherwise be contributed by the three zoos. As such, it is anticipated that there would be an increase in available habitat for black rhinoceros. In addition, with the reduction in the number of elephants within the two protected areas, the destruction of large trees, used for roosting and nesting by several species of vultures, would be further curtailed, resulting in an increase of vulture populations.