

To: Board of Management

From: John Tracogna
Chief Executive Officer

Subject: **TORONTO ZOO ELEPHANT PROGRAM**

Date: 2011-05-04

Summary:

This report recommends to the Board of Management that the Toronto Zoo phase out of the current Elephant Program. The rationale for this important strategic decision is outlined in this report. Due to the significant capital cost to provide appropriate elephant facilities for the future (estimated \$16.5 million), the substantial future operating costs of \$930,000 annually, and considering the ongoing research study on captive elephants, these factors together have led Zoo staff to make this recommendation to the Board. Further, as the existing herd of three females is aging, in a short period of time the Toronto Zoo could be below the minimum standard of three elephants accepted by the Association of Zoos & Aquariums (AZA). While the three elephants are still in good health, the report recommends that they be transferred to one or more accredited AZA institutions. When the research results are reported in late 2013, which could be significant in improving captive elephant management, the Board can reassess its options for an Elephant Program and consider any other relevant factors at that future time.

Recommendations:

It is recommended that:

- 1. The Toronto Zoo phase out of the current Elephant Program;**
- 2. The Board of Management reassess at a future date its options for an Elephant Program, pending the IMLS study results, financial considerations, and any other relevant factors;**
- 3. The 2012-2021 Capital Works Program include a placeholder in the amount of \$16.5 million (2010\$) as funding for the Board's future option for the Elephant Program;**
- 4. The existing three elephants be transferred to an accredited AZA institution(s) with enhanced facilities and animal management programs as soon as practical; and**
- 5. Staff report back, as part of the Capital Budget process, on the use of the elephant facilities by another species in the interim.**

Financial Impact:

The costs to transfer the three elephants, including shipping and permit costs, will be in the range of \$30,000 to \$50,000. These costs are funded through the Animal Transaction Reserve Fund.

Background:

The Role of Zoos and Toronto Zoo

The Toronto Zoo has been a destination of choice for visitors in the Toronto region for close to 37 years, attracting over 44 million visitors. During its short history, the Toronto Zoo has become a recognized leader in conservation, education and scientific research with innovative programs to save endangered species and conserve natural habitat. This evolution - the course of most modern zoos - reflects our changing insight into the interdependence of the human species with all other species and our increasing awareness of environmental influences threatening ecosystems around the globe. Through educational platforms, advancements in exhibit design and technology, zoos are striving to make a strong connection between people and nature to inspire individual and collective action for change.

The Toronto Zoo's current profile includes the following highlights:

- One of the largest zoos in the world at 710 acres (287 hectares)
- Approximately 500 species and 5,000 specimens
- Attendance of over 1.3 million, ranking either 1st or 2nd for major Toronto based attractions the past two years
- 30,000 plus member households
- 150,000 students attending the Zoo with their class
- 350 volunteers donating over 26,000 hours of service
- Participation in 41 Species Survival Plans
- Involvement in approximately 40 conservation and research projects annually around the world for threatened and endangered species and ecosystems.

As summarized in the Economic Impact Analysis (November, 2010), the Toronto Zoo generates a significant level of economic activity annually. Based on this analysis the Toronto Zoo:

- Contributes \$39 million (2009\$) to Toronto's Gross Domestic Product from Zoo operations. (Note: does not including City funding)
- Generates significant tax revenue (\$21.5 million/year) for Federal, Provincial and Municipal governments from its annual operations and capital expenditures.

In summary, the Toronto Zoo has an important role in wildlife conservation, scientific research, conservation education and as a leisure time destination for tourists and local residents. These benefits taken as a whole improve the quality of life for Torontonians and the region, while demonstrating global leadership.

The Elephant Program

Elephants have been a top attraction and a valuable part of the Zoo experience since 1974. At its peak the Zoo had eight elephants: seven females and a bull. The Zoo had a successful breeding program until 1990, when the male elephant died. During the last five years, four elephants have died of age related illnesses reducing the herd to three older females.

The Toronto Zoo is part of a larger network of elephant professionals, organized through the Canadian Association of Zoos and Aquariums (CAZA) and the Association of Zoos and Aquariums (AZA). The Zoo participates in joint research projects, contributes to elephant conservation initiatives and, as an accredited member, complies with the standards of care set by these professional associations. To be accredited, zoos must undergo a rigorous review process to ensure they meet and will continue to meet ever-rising standards, which include animal care, veterinary programs, conservation, education and safety.

The Toronto Zoo has always emphasized the education role of the elephant exhibit, particularly the conservation message that is conveyed to the public through our keeper talks. Elephants in the wild are in terrible trouble. Elephant populations in Africa and Asia are under severe threat from human-elephant conflict, intense poaching, disease, drought, and loss of habitat. Over the last twenty years, the management of elephants in zoos, the status of wild elephants, and public awareness of elephant issues have all changed substantially.

In 2007, the Toronto Zoo contracted a zoo design consulting firm, CLR Design Inc., to conduct an Elephant Program & Facilities Feasibility Study to examine the future facility needs for the elephant program at the Zoo. The focus of this study was primarily on facility design, including the exhibit and housing. This work has recently been completed and is submitted with this agenda item.

Review of Options for the Elephant Program

In August 2010, the Zoo issued a Request for Proposal to select a qualified management consultant to undertake an independent and objective analysis of options for the Toronto Zoo elephant program. The team of Lord Cultural Resources and Schultz and Williams was selected to conduct the study. The lead consultant, Lord Cultural Resources, is the world's largest firm specializing in the planning of museums and related cultural institutions. Schultz & Williams provided the team with zoo specific expertise in planning and management.

The decision to remain in the Elephant Program in the long term, or to phase out of the program, is complex with many factors and issues to consider. The consultants examined the elephant program in the context of:

- The Toronto Zoo's Vision and Strategic Plan
- Health and well-being of elephants and relevant standards
- Conservation and education commitments
- Availability of elephants
- Capital and operating costs
- Transition costs

- Private and government funding
- Public relations impact
- Attendance and visitor generated income

The consultant reviewed background studies, interviewed various stakeholders including Zoo staff, Board Chair and Vice-Chair, directors and elephant experts from other zoos, those who take the position that elephants should not be in captivity, and other selected individuals. It should be noted that the consultants are not elephant experts. The scope of the study did not include judging the validity of conflicting scientific and technical reports. This is a management study, examining the key factors in relation to the available options, regarding the future of the Zoo's elephant program. The consultant's conclusions and recommendations are one tool to assist the Board and staff in reaching a decision regarding elephants at the Toronto Zoo.

Comments/Discussion:

The Lord Cultural Resources report (Attachment 1) explored two options for the future of elephants at the Toronto Zoo:

- Phase out of the existing elephant program; or,
- Expansion of the elephant program by investing in larger facilities and acquiring younger elephants to repopulate the herd.

The status quo is not an acceptable option, as the existing herd of three females is aging and in a short period of time the Toronto Zoo could be below the minimum standard of three elephants accepted by AZA and CAZA. Additionally, while the Zoo's existing indoor facilities and outdoor exhibit space exceeds current standards, many zoos have constructed large indoor "temperate" facilities with soft substrate (ie. sand or soil). This type of facility would be essential for the health and well-being of elephants at the Toronto Zoo going forward. The expansion of current space and facilities is described in more detail in the Capital Cost section below.

In evaluating the two options, the consultant's review recommends, and staff concur, that the Toronto Zoo phase out of the current elephant program. The existing three elephants should be moved to another AZA accredited facility, with appropriate animal management programs and facilities. The consultant's report advises, and staff concur, that the Board reconsider starting a new elephant program at the Zoo once the IMLS study is completed. This is a three year \$1.2 million study of all 290 Asian and African elephants at AZA institutions primarily funded by the Institute of Museum and Library Services (IMLS) in the United States. The study will provide valuable input into facility needs and management practices for captive elephant care.

There were many elements reviewed during the course of the study to reach this recommendation. These are the key factors considered by the consultant and Zoo staff in arriving at this important decision:

Health of Existing Elephants

The Toronto Zoo has had an elephant program for over 36 years. Within the last five years, four elephants have died of age-related illness. There are three female elephants remaining: Iringa (est 42 years old); Toka (est. 41 years old); and Thika (born at Toronto Zoo in 1980 – 30 years old). All three elephants are in good health. However, in both the wild and captivity, mortality increases significantly after 40 years of age. Therefore, the number of elephants at the Toronto Zoo will likely fall below the minimum of three elephants required by AZA/CAZA standards in a short period of time, if new animals are not acquired.

There are very few elephants available from other zoos, either in North America or Europe. There are some elephants available through private sources, however these animals come at a significant cost, as high as \$500,000 each. It is difficult and expensive to acquire elephants from Africa. Elephants are not readily available from range countries, although in recent years a few zoos have pursued importation from Africa and have been successful. In summary, there are many more zoos looking to acquire new elephants than elephants available.

Capital & Operating Costs

The Toronto Zoo's indoor and outdoor elephant facilities have been expanded and renovated over the years. While the current facilities meet existing AZA/CAZA standards, it is evident that these standards will increase over time. Many zoos in colder climates have constructed a "temperate" building to allow for better exercise and socializing during the winter months. With future standards in mind, CLR Design reviewed the Zoo's current elephant facilities and recommended the following changes, assuming the Zoo would be continuing with an elephant program in the long term:

- A new elephant barn of 3,700 square metres that would be the largest elephant holding and exercise barn with natural substrate in North America. This would be substantially larger than the existing barn of 920 square metres.
- Two new outdoor paddocks of 3,600 square metres and 3,900 square metres respectively. Combined with the current paddock space of 3,360 square metres, this would bring the total outdoor space to approximately 10,900 square metres.

Attachment 2 is the report prepared by CLR Design that outlines in more detail the proposed future elephant facilities. The total capital cost of these new facilities is estimated at \$16.5 million (2010\$). The Zoo's 2011-2020 Capital Works Program has provided \$5.1 million from debt (City) sources for the elephant facilities and has identified the balance would be funded from private sources. Considering the Zoo's many project priorities in the capital campaign now underway – notably the Wildlife Health Centre, Canadian Wilderness, Eurasia and Giant Panda – it would be difficult to balance these needs with another significant capital item such as an elephant facility.

In addition to the capital costs, there are operating cost implications. The cost to feed and care for elephants is higher on a per animal basis than for any other species. There are six keepers assigned to care for the Zoo's three elephants, compared to 12 keepers for all of the other animals

in the African Savanna area (rhinoceros, giraffe, cheetah, baboon, lion etc.). A keeper's daily routine includes training each elephant in specific behaviours, such as presenting their ear or foot for inspection, as well as walking each elephant for exercise. More time is spent with the three remaining elephants individually, due to compatibility issues when they interact as a herd. In fact, keeper staffing levels declined only minimally with the reduction in the herd size from seven to three animals, because of compatibility issues and an aging herd.

The Zoo currently spends over \$600,000 annually to house and care for the existing three elephants. Assuming a future herd size of initially six adult animals, which is the desired number for a breeding group, the future operating cost is projected to increase to \$930,000 annually. In summary, both the capital and operating costs for an Elephant Program are substantial.

Animal Welfare

As noted in the consultant's report, there are conflicting views and conclusions among the many scientific and academic studies that have been published on elephants in captivity. Animal rights groups argue that elephants have much shorter life spans in zoos due to captivity-related illnesses and confinement. They purport that elephants should not be in zoos with cold weather winters and that elephants need far more space to roam than a zoo can provide. These groups cite the studies that support their position.

Conversely, AZA, CAZA and elephant professionals within its accredited member zoos maintain that elephants in zoos are as long-lived as elephants in Asia and Africa. AZA studies indicate that the average life expectancy for female Asian elephants in professionally-managed zoological facilities in North America is 44.8 years. The current female African elephant life expectancy in a zoo is 33 years. There is no scientific evidence that zoos in northern climates cannot provide excellent care for elephants. Studies cited by animal rights groups have been flawed in their methodologies and conclusions. Further, zoos provide expertise in nutrition, reproduction and veterinary care, which is not available to elephants in the wild.

Therefore, the recommendation to phase out the Toronto Zoo's elephant program is not an ethical issue.

IMLS Study

In response to the lack of available studies to understand the welfare of captive elephants, the Institute of Museum and Library Services (IMLS) in the United States recently announced the funding of a three year \$1.2 million study of all 290 Asian and African elephants at AZA institutions. The purpose of the study is to understand the relationship between environmental variables (enrichment, training, space, group size etc.) and physical and mental health of zoo elephants. The results of the study will assist in determining captive management changes to improve elephant welfare.

The study began in January 2011 and the final report is expected to be released in late 2013. As noted in the next section, many zoos are waiting for the results of the IMLS study to determine whether and how best to move forward with their elephant programs. The consultant recommends and Zoo staff agree that a decision to bring elephants back to the Toronto Zoo should only be considered following the completion of the IMLS study report.

Other Zoos

There are currently 78 accredited AZA zoos with elephants (African and/or Asian). As noted in the consultant's report, there are substantially more AZA zoos planning and implementing expansion projects for their elephant programs, than zoos that have or are planning to phase out. Zoos that have invested or are investing in larger facilities include: Birmingham, Cleveland, Denver, Oklahoma City, Pittsburgh, Portland, Tucson, and Washington DC. Several of these zoos are located in cold climates. Zoo directors agree that climate (northern zoos vs. southern zoos) is not a critical factor in determining an institution's commitment to elephants.

Zoos that have eliminated elephants from their collections with no plans to reintroduce them in the future include: Detroit, San Francisco and Jackson (Mississippi). As well, in 2006 the Bronx Zoo (New York City) announced it would be phasing out its remaining three elephants. The reasons cited by these zoos are primarily financial and space-related, not because of ethical or animal welfare reasons.

Some zoos are without elephants today, but are leaving the option open for bringing back elephants in the future. These zoos include: Philadelphia, Brookfield (Chicago), and Lincoln Park (also in Chicago).

From discussions with other zoos, it is clear that each institution has made its decision to expand or phase out based on its own circumstances, primarily financial, space, and historical considerations. Therefore, this decision is unique to the institution.

Public Relations Impact

In evaluating the options for the elephant program, public opinion was a factor in the decision process. We know that elephants are a popular exhibit at the Toronto Zoo from our annual on site visitor surveys. Over the past three years, the elephant exhibit ranked third in the "memorable experience" category, behind polar bears and gorillas. In the 2010 survey, several questions were added to gauge visitor views on eliminating elephants from Toronto Zoo. Approximately 85% of respondents said they would still come to the Zoo if there were no elephants, while 11% said they would not attend the Zoo if elephants were not part of the collection.

Certainly other zoos that eliminated elephant programs did not experience adverse impacts. As referenced in the consultant's study, the zoos that phased out of elephants found no negative impacts on attendance, public perception of value of visit, membership or earned income.

Implementation:

This staff report and the consultant's review addresses two related but separate issues: whether the Toronto Zoo should have an Elephant Program in the future; and what action (if any) should be taken with respect to the existing three elephants. The consultant's review recommends, and staff concur, that the Toronto Zoo should phase out of the current elephant program. The existing three elephants should be moved to another AZA accredited facility, with enhanced animal management programs and facilities.

The consultant's report advises, and staff concur, that the Board reconsider its option to bring new elephants back to the Zoo once the IMLS study is completed. At that time, anticipated to be the end of 2013, the Board would consider other relevant factors such as the organization's financial priorities, the availability of elephants, pressures on wild elephants etc. together with the results of the IMLS study. To provide the required funds should the Board decide to reintroduce elephants at a future date, it is recommended that the 2012-2021 Capital Works Program include a placeholder in the amount of \$16.5 million (2010\$). This amount would be adjusted for inflation to correspond to the year of planned expenditure.

There are three female elephants remaining at the Toronto Zoo: Iringa (est 42 years old); Toka (est. 41 years old); and Thika (30 years old). It would be advisable while all the elephants are in good health, to transfer these animals to another facility (or facilities) as soon as practical. Moving an elephant is not as straight forward as most other species, due to their size and strength. There are inherent risks in moving any animal, but these risks increase with age and size of the animal. It may take considerable time to complete the necessary permits, assess their health for transport and train the elephants for shipment.

The Toronto Zoo will work with the AZA Elephant Taxon Advisory Group (TAG) to recommend a location for our three elephants. As these animals are not compatible, it is possible that more than one location will receive our elephants. It should be emphasized that the AZA Elephant TAG will only recommend that our elephants be transferred to an AZA accredited facility. This is important to the Toronto Zoo, as we value our relationships with the AZA and its member zoos and we respect the expertise that the AZA Elephant TAG brings to this important decision for our Zoo.

There has been a lot of media attention on sending the Toronto Zoo's elephants to an animal sanctuary. There are two elephant sanctuaries in the United States: the Elephant Sanctuary in Tennessee; and PAWS (Performing Animal Welfare Society) in California which accepts elephants and other animals. These two facilities are not accredited by AZA. The Tennessee sanctuary is accredited by the Global Federation of Animal Sanctuaries, founded in 2007, but PAWS is not listed as an accredited facility. The Tennessee sanctuary has had numerous problems recently, including transmission of TB from elephants to workers, several elephant deaths, and an elephant handler death.

There are many AZA accredited zoos with excellent modern elephant facilities. By working closely with the AZA Elephant TAG, we are confident that we can place our three elephants in an AZA accredited facility (or facilities). Subject to Board approval of this report, staff will commence to obtain the necessary permits and to train the animals for shipment, a process that could take up to 24 months to complete.

Subject to Board approval of this report, staff will review and report back on a recommendation to change the elephant exhibit to another species. There may be several replacement options and further analysis will determine the most feasible interim course of action. This would be an interim decision, to allow the Board the flexibility to bring back elephants at a future date, following consideration of the IMLS study results, fundraising potential, financial priorities, conservation issues, availability of elephants, etc.

The current elephant staff will be caring for our three elephants until the animals are moved to another location. At that time, it is anticipated these six keepers will be redeployed to understaffed programs in the Wildlife Care Branch, a measure that will enhance animal care and reduce overtime costs. The replacement animal decision will also be a consideration in the redeployment of staff.

John Tracogna
Chief Executive Officer

List of Attachments:

1. Evaluation of Options for the Elephant Program - Lord Cultural Resources
2. Elephant Facilities Feasibility Study - CLR Design