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Dear Professor Newman

PERTH ZOO AND WESTERN AUSTRALIA'S SUSTAINABILITY STRATEGY

Perth Zoo is one of the most popular tourist and family destinations in Western Australia. Around 550,000 people visit the Zoo annually - most repeat visitors are from local Perth or WA country areas.

Over the past 2 years, Perth Zoo has worked positively to promote a sustainable site - developing an environmental management plan in conjunction with Murdoch University, implementing recycling programs and environmental best practice programs, and working with the University of Western Australia's Centre for Water Research to develop a preliminary sustainable management plan. These approaches have been with an emphasis on ground water management, energy management, resource minimisation, waste-water treatment and re-use, and e-business opportunities.

Using research and partnerships, Perth Zoo continues to focus on its sustainable management approach in all of its operations. This includes its business focus, with continual review of activities and events, and increased focus on conservation and eco-tourism.

Perth Zoo has a vision for becoming the World's first "Sustainable Zoo", consolidating Perth Zoo as a world leader and providing the Western Australian public with a leading cultural institution, that educates, entertains and undertakes vital conservation work and breeding programs. Our aim is to use Perth Zoo's popularity and success in Western Australia to increase support for world conservation, sound environmental practices and sustainable business modelling.

At the same time the Zoo will continue to provide excellence in public education about issues of conservation and of life on earth. Perth Zoo plans to achieve a vision for a sustainable approach to its own management and development, using environmental management systems, water recycling, waste re-use, conservation and community education and maintaining a focus on sustainable eco-systems within Zoo enclosures.

Market research in 2001 indicated that 96% of Perth people had been to the Zoo and 91% of those with children under 12 had visited the Zoo in the last 2 years. 90% believe that the Zoo plays an important role in the community and 88% believed that the Zoo educated visitors effectively about conservation.

The upgrading of the Zoo Homestead as an environmental showcase for recycling, waste reduction and reuse initiatives has provided an avenue for a greater environmental education focus within the Zoo. Visitors now have increased access to information on and demonstrations of sound environmental household systems that can be applied in their own homes.

Perth Zoo also runs successful breeding programs for endangered species, including the Native Species Breeding Program (NSBP), releasing endangered native animals to the wild, in conjunction with the Department of Conservation and Land Management. Perth Zoo is also the only Zoo in Australia engaged in active research through a Marsupial CRC, funded through the Commonwealth Government.

Consequently, Perth Zoo plays a vital role in community education and conservation and has great potential as a community and industry leader in sound environmental management and business sustainability.

Perth Zoo is committed to establishing long-term business and sponsorship arrangements with organisations that also show an ongoing commitment to the environment and to the overall conservation ethos. By continuously improving the Zoo's environmental management practices, it is anticipated that such organisations will want to continue their association with the Zoo and its excellent public image.

Over the past 12 months, Perth Zoo has further improved its award winning environmental efforts of recent years, concentrating on increased efficiencies and enhancing our understanding and management of our Zoo environment.

Two major environment-based reviews and an energy audit have been commissioned during the year, with the intent to further improve and develop the Zoo's environmental management systems. These reviews have continued to raise staff awareness of the priority the Zoo gives to environmental management within the grounds and in animal management processes generally. An Environmental Management Group, chaired by the CEO, encourages staff participation in improved environmental practices and highlights ideas brought forward for consideration and implementation. Many new and innovative ideas have resulted, as has a broad agency commitment to a sound environmentally responsible philosophy.

Please see attached a summary of Perth Zoo's achievements in the previous year as submitted for an environmental award in 2001. I believe that these and other initiatives indicate the opportunity Perth Zoo presents to government for a specially-funded project/exhibition area to demonstrate sustainability in action.

Yours sincerely

Brian Easton
Chief Executive Officer

16 April 2002

Encl.

1. REDUCTION IN WASTE (QUANTITY AND TYPES OF WASTE BEING DIVERTED FROM LAND-FILL AND HOW THIS IS BEING ACHIEVED)

Perth Zoo recycles 40% of general waste produced on site (1,280 m³ per annum of a total 3,196m³) and 95% of animal waste (900m³ per annum of 950m³).

This has been achieved through the following initiatives:

- Perth Zoo has entered into a special arrangement with Amcor Recycling for the collection of cardboard and office paper that cannot be recycled on site or is surplus to internal requirements (such as for animal bedding). A cardboard crusher is now located on site for the compacting of cardboard and office paper, prior to the waste being removed for recycling.
- Greeting cards were collected from all areas of the Zoo during the year for recycling through the Planet Ark program.
- Identification on bins has been improved, in order that Zoo staff are able to clearly identify which to use for waste items and to prevent contamination of recyclable and compost bins.
- The large majority of green waste from our gardens is being chipped on site and re-used as mulch within the gardens.
- Aluminium cans and plastic containers are collected via the many public recycling stations located throughout Perth Zoo. The cans are recycled through Metal Corp, while the plastic is collected as part of the City of South Perth's roadside collections.
- Animal waste and bedding materials are composted and used for garden creation within the Zoo, and for school tree growing programs.
- Hazardous wastes are collected and disposed of in accordance with relevant regulations and guidelines, by the Fremantle Port Authority.
- The use of electronic communication is encouraged where permanent record management is not necessary, reducing unnecessary paper usage and waste.

2. BENEFIT TO THE ENVIRONMENT (WHAT ENVIRONMENTAL IMPACT IS AVOIDED THROUGH WASTE MINIMISATION PRACTICES)

The benefits to the environment of Perth Zoo's waste minimisation initiatives are:

- 2,180m³ of waste is diverted away from landfill sites per annum.
- Reduction in water usage due to mulching and improved water use practices – bore water consumption has reduced from 432,929m³ in 1997/1998 to 319,775m³ in 2000/2001 (down 26%).
- Reduction in the use of fossil fuels to produce new products as a result of the recycling of existing products and materials.
- There is no land or ground water contamination due to proper disposal techniques for hazardous waste and negligible use of fertilisers and other chemicals on site.

3. COMMUNITY BENEFIT (POSITIVE IMPACTS ON SOUTH PERTH RESIDENTS OR COMMUNITY IN GENERAL AS A RESULT OF MINIMISING WASTE)

There are many benefits emanating from Perth Zoo's waste minimisation efforts within the local community. Generally these can be identified as:

- Reduced impact on aquifer through improved water management practices and soil improvement through garden mulching.
- Reduced nuisance odours as waste is appropriately treated or disposed of. Disposal is also effected more quickly, due to smaller amounts of general waste.
- Ever decreasing amounts of waste going to landfill.
- Reduction in the use of fossil fuels, due to stricter vehicle management controls and use of alternative, low - consumption golf cart transport and bicycles.

4. PARTICIPATION WITH OTHERS (SHOWING HOW PERTH ZOO WORKS WITH OTHER RELEVANT STAKEHOLDERS TO ENSURE A MAXIMUM BENEFIT TO THE ENVIRONMENT AND THE COMMUNITY)

Perth Zoo actively works with other Government agencies, the private sector and community groups in relation to many initiatives undertaken:

- The Office of Energy and the Alternative Energy Development Board were actively involved in the redevelopment of the Homestead exhibit, promoting many environmental and waste minimisation messages to our visiting public.
- Negotiations with Amcor Recycling and Metal Corp have resulted in effective strategies for the recycling of paper, cardboard, aluminium cans and industrial steel waste.
- The Department of Environmental Protection is consulted for advice on best practice.
- Close liaison with the City of South Perth allowed for an effective solution to the issue of recycling plastic containers.
- The University of Western Australia and Murdoch University have been major players in the development of environmental management systems and sustainable resource plans for the agency.

5. LONG TERM MANAGEMENT (DESCRIBE ZOO PLANS AND INFRASTRUCTURE IN PLACE TO MAINTAIN THE WASTE MINIMISATION PROGRAM)

Perth Zoo has had an Environmental Management Plan for over two years and over the past 12 months Perth Zoo has commissioned two further major reviews of our environmental activities projecting a longer term program with a focus on environmental sustainability.

The first review, by the Murdoch University, School of Environmental Science, was to establish a planning process and system for environmental management in the Zoo. The framework document is complete and responsibility and timelines are presently being discussed within the Zoo's Environmental Management Group. The results of the review will be an Environmental Action Plan, which will direct and guide Zoo staff, allowing for a continuous improvement process in environmental management.

The second review, undertaken by final year students from the University of Western Australia's Centre for Water Research, will report on sustainable management and resources, with a particular emphasis on water use. Led by eminent Professor of Environmental Engineering and Director of the Centre for Environmental Fluid Dynamics, Dr Jorg Imberger, the project will advise on long-term sustainable management of Perth Zoo. It explores the Zoo's existing environmental management focus and the relationship to normal business operations, using activity based costing. Areas of investigation include drainage and water use; erosion, especially in hoofed animal enclosures; waste-water discharge methods; problematic water bodies; recycling and composting and alternative energies.

This project, too, will provide the Zoo with substantial increased knowledge and information about managing Perth Zoo in a responsible and sustainable manner. The report will be finalised in October 2001.

In order to coordinate these research activities and to ensure implementation of initiatives across the Zoo, Perth Zoo has committed to the creation of a new Environmental Coordinator position within the agency. Perth Zoo sees this position as an important driver for the coordination and implementation of environmental strategies across the whole agency.

6. INNOVATION: NEW METHODS, STRATEGIES, MARKETS. (DESCRIBE HOW THE ZOO PROGRAM IS CONTRIBUTING NEW IDEAS TO WASTE MINIMISATION)

Perth Zoo and its Environmental Management Group actively encourage staff to participate in the recycling and waste minimisation efforts, and to come forward with new initiatives that affect their sections. Some of the new practices that have been investigated or implemented are:

- Arrangements entered into with Metal Corp and Amcor Recycling were suggested and actioned by Zoo Facilities staff as their own initiative.
- The use of shredded paper for animal bedding was raised by Animal Keeping staff, as an alternative recycling option, which would also reduce consumption on expensive "wood wool" products.
- The reduction in the amount of non-recyclable packaging being delivered with ordered goods to the Zoo was actioned on the initiative of the Zoo's Purchasing Officer.

7. COMMUNITY EDUCATION (EXPLAIN THE ZOO EDUCATION PROGRAM IN PLACE TO INFORM THE COMMUNITY OF WASTE MINIMISATION INITIATIVES)

The major education effort over the year has been the upgrading of Zoo's Homestead facility. Developed as a specific high profile environmental project, it was partly funded through a grant from the Office of Energy. The Zoo met the balance of the costs. The Homestead now presents a variety of displays and activities, demonstrating environmental practices including recycling, composting, alternative energy and permaculture. The facility now includes an improved worm farm display, examples of composting operations, and interactive demonstrations of energy use and conservation.

All signage has been upgraded accordingly to provide conservation messages and information to assist visitors to take the message back to their homes.

The Minister for the Environment, the Hon Dr Judy Edwards, MLA opened the Zoo Homestead on World Environment Day, 5 June 2001, to provide appropriate focus and profile.

Consequently, there was significant media coverage of the event, which drew a strong connection between the messages of the display and the need for conservation and sound environmental management on a broader scale. The Zoo showcased its newly born and critically endangered baby, the White-Cheeked Gibbon, at the launch, emphasising the importance of world conservation.

In late June, the Homestead was also the focus of a tour of delegates attending the United Nations' Environment Program (UNEP) Seminar for Women Leaders on the Uptake of Renewable Energy Technologies. This provided the opportunity for the international delegates to see practical applications of many of the issues that they were discussing and dealing with as part of the Seminar.

Perth Zoo and Water Corporation have embarked on a joint "water wise" education program, focussing on limiting water use and conservation. A State-wide competition has been launched where children assist with the design of new water fountains for Perth Zoo.

Overall, the community's perception of the Zoo's role in conservation and environmental education remains extremely strong. In April 2001 our market research indicated that:

- 84% of surveyed visitors believed that the Zoo educated visitors about conservation;
- 78% believed that the Zoo promoted change in lifestyle to help the environment;
- 80% believed that the Zoo made visitors think about wildlife and attitudes towards it;
- 88% believed that the Zoo showed a commitment to life on earth; and
- 90% believed that the Zoo held an important role in the community.

8. COST SAVING (HIGHLIGHT COST SAVINGS RESULTING FROM ZOO WASTE MINIMISATION PROGRAM THAT FLOWS ON TO THE COMMUNITY)

Many of Perth Zoo's waste minimisation efforts have resulted in cost reduction:

- Fuel costs have been reduced via the use of alternative and/or low cost transport within Zoo grounds.
- Tip and waste collection fees have been reduced as a result of the recycling efforts by approximately \$5,000 per annum.
- Perth Zoo has greatly reduced the quantities of compost or mulch it purchases as a result of the use of a new chipper and the Zoo's composting facility.
- The use of shredded paper for animal bedding saves Perth Zoo approximately \$1,000 per annum.
- Perth Zoo will receive payments for waste collected for recycling under the arrangements with Metal Corp and Amcor Recycling.

9. LEADERSHIP (DESCRIBE HOW THE ZOO IS SETTING AN EXAMPLE IN THE ZOO WORLD THROUGH THE WASTE MINIMISATION PROGRAM)

By actively undertaking improvements to environmental practices such as waste minimisation and promoting our initiatives, Perth Zoo is providing a powerful role model to the community. Perth Zoo is also leading the way for other recreation and tourism venues through the development of sustainable management strategies in liaison with the university sector. Our commissioned reports and planning under way with the University of Western Australia and Murdoch University indicate this commitment. Some of the specific areas in which Perth Zoo is providing leadership are:

- The development of demonstrative exhibits of practical and achievable waste minimisation techniques in the recently upgraded Zoo Homestead exhibit.
- By working with agencies such as the Centre of Excellence in Cleaner Production (Curtin University). This Centre is currently gathering information and preparing to use Perth Zoo's environmental initiatives as an important case study on its Internet web site.
- Through our Zoo Education Programs for visiting school groups.
- By actively committing resources to recycling and waste minimisation efforts.
- By joining with local Council roadside recycling collections.

10. EXPLAIN ADDITIONAL CONSIDERATIONS FOR YOUR APPLICATION SUCH AS SIZE OF OPERATION, FUNDING RESTRAINTS, HISTORY OF SIMILAR ENVIRONMENTAL CONTRIBUTIONS OR RELEVANT STAKEHOLDERS

Perth Zoo is a unique site. Its various aims and objectives are often difficult to achieve because of competing priorities and its resources are stretched to accommodate new conservation initiatives and environmental issues, Government reporting requirements, marketing and promotional campaigns, risk management issues and customer service standards.

Despite the many adverse conditions that may prevail, Perth Zoo has been recognised for its efforts over recent years via the receipt of major Tourism and Keep Australia Beautiful Action Awards.

Some of the issues and pressures that greatly affect our allocation of resources and ability to commit to new initiatives are:

- Approximately 550,000 people visit Perth Zoo every year, including metropolitan and country people, national and international visitors, school groups and function/event attendees. Each of these customers expects and receives the highest level of service from Perth Zoo, no matter what the purpose of their visit. Waste minimisation efforts are designed to cater for visitor numbers as well as raise awareness of conservation issues affecting the world.
- Perth Zoo is somewhat constrained by its present location and boundaries, and therefore, must actively and productively manage space as a resource. There can be no expansion on this site and relocation is logistically, financially and culturally unviable. The needs of animals, the necessity for storage, fodder production and administrative spaces are balanced to meet the many objectives of the agency.
- Perth Zoo contributes to environmental and conservation efforts through our animal breeding programs, such as Silvery Gibbons, Nepalese Pandas and Sumatran Tigers, and native species such as Chuditch, Numbats and Western Swamp Tortoises.

Perth Zoo is partially funded by the Western Australian Government. The majority of Zoo funding is through admissions and other commercial activities run by the Zoo. There is continuing competition from other venues and activities, which puts the Zoo under continuing pressure to continually perform to ensure that the Zoo services and programs are maintained at the highest level.