

1949

---

VICTORIA

---

# REPORT

by

E. J. L. HALLSTROM, Esq., F.R.Z.S.

on his investigation in relation to the  
ZOOLOGICAL GARDENS,  
MELBOURNE

---

Presented to both Houses of Parliament by His Excellency's Command

*[Approximate Cost of Paper—Preparation, not given. Printing (450 copies), £98.]*

# REPORT.

In accordance with the request and in terms of the authority conferred upon me by the then Chief Secretary (the Hon. K. Dodgshun, M.L.A.), in September, 1948, I visited the Melbourne Zoological Gardens and wish to submit this Report on the results of my investigations.

I conducted a close survey of all individual enclosures, aviaries, ponds, and buildings within the Zoological Gardens and interrogated employees, including the Director.

I also examined various aspects of the Administration of the Zoological Gardens by the Board and requested the Chairman of the Board, Professor H. A. Woodruff, to submit to me a Report covering the period of his Chairmanship of the Board. The Report of Professor Woodruff was duly submitted to me.

I attach hereto, to be read as part of this Report, the following documents:—

*Annexure (A).*—Detailed Survey of Enclosures, Aviaries, Ponds, and Buildings within the Zoological Gardens, as well as exhibits contained therein.

*Annexure (B).*—Report by Professor H. A. Woodruff, Chairman of Zoological Gardens, Melbourne.

*Annexure (C).*—Veterinary Certificate dated 25th November, 1948, by Doctor E. F. J. Bordeaux, D.V.Sc.

*Annexure (D).*—List of Equipment certified by the Director (H. T. Roper, Esq.) as being required by the Zoological Gardens, dated 2nd December, 1948.

*Annexure (E).*—List of Works in order of priority submitted to Board of Zoological Gardens on 31st March, 1948, by the Director (H. T. Roper, Esq.).

*Annexure (F).*—Copy of letter from Secretary, Zoological Board, to Chief Secretary, dated 8th June, 1948, in reference to Programme of Works drawn up by the Board in consultation with Mr. Stevenson, Chief Engineer of Department of Public Works, in respect of which a request was made for a Treasury appropriation of £13,500 to be made available to the Board through the Department of Public Works during the year ending 30th June, 1949, together with schedule showing:—

(1) Works to be completed during financial year ending 30th June, 1949	.. .. .	£13,500
(2) (a) Works necessary for which materials are not at present procurable	.. .. .	£16,650
(b) Works desirable for the efficient management of Gardens and humane exhibition of animals	..	£3,050

*Annexure (G).*—Schedule of Employees of Board of Zoological Gardens.

*Annexure (H).*—Comparative Statement of Receipts and Payments for three years—1945-46, 1946-47, 1947-48.

*Annexure (I).*—Copy of correspondence between Director (H. T. Roper, Esq.) and the Secretary, Melbourne and Metropolitan Board of Works, dealing with Sewerage and Drainage matters.

*Annexure (J).*—Copy letter dated 18th August, 1948, from Under Secretary, L. Chapman, Esq., to the Secretary, Zoological Board, advising *inter alia* a sum of £10,000 had been provided in the estimated expenditure of Public Works Department for 1948-49 for Repairs and Maintenance, &c., at Zoological Gardens.

*Annexure (K).*—Comparative Statement of Attendances at Zoo covering nine years—1939-40 to 1947-48.

*Annexure (L).*—Analysis of Receipts and Payments, years 1942-43 to 1947-48.

*Annexure (M).*—Copy Report on visit to Zoological Gardens of the Honorable the Chief Secretary (the Hon. K. Dodgshun, M.L.A.), on Tuesday, 1st June, 1948.

*Annexure (N).*—Transcript of Interrogations of Director, Mr. Roper, and Head Keeper, Mr. Campbell.

In my Survey comprising notes resulting from inspection of enclosures, I have dealt in detail not only with each enclosure, but also with the exhibits, and while many of the enclosures and exhibits are quite satisfactory, others are not. I, therefore, for the purpose of constructive criticism, wish to particularly emphasize extracts from such Survey (*Annexure A*) as follows:—

1. In certain aviaries I found that birds were perching on steel perches. Such perches are very detrimental to the health of birds and in all cases should be immediately replaced with wooden perches. (Prior to completion of my inspection, action was being taken on my recommendation). Generally, I found a number of aviaries were unsatisfactory and unsuitable for the housing of Australian and other birds, and in my Survey have made suggestions and recommendations which should receive full consideration.

2. *Monkey Terrace.*—This enclosure is very unsatisfactory and should be replaced with a new enclosure built as soon as possible. It is extremely unsightly and is not worth renovating.

3. *Monkey House.*—Sunlight and warmth is important to these creatures. The building is very well constructed, but incorrectly designed to provide satisfactory housing conditions for monkeys. It should be either reconstructed with yards to the front to enable animals to get the sun or other methods adopted such as are recommended in my Survey.

4. *Bear Enclosure.*—This enclosure comprises six pits and is in urgent need of repairs to concrete as well as construction of larger pools. In summer conditions these pools are totally inadequate and the water system involves too much manual labour in keeping water in the pools. These animals are mostly semi-aquatic and require plenty of water.

5. *Hybrid Wolf Pens and Dingo Pens.*—I am informed that plans have been prepared and are with the Public Works Department for the purpose of carrying out reconstruction work. This work in my opinion is most urgent as the present pens are not only extremely unhealthy for animals but are also a menace to the keepers in the handling of the animals. I have never seen worse conditions for the housing of animals in this particular section.

6. *Aviaries.*—Water pools provided in the Budgerigar Aviaries are not fit for drinking purposes. In their present condition many of the aviaries are most unsatisfactory, and are a menace to the health of the birds.

7. *Lower Ornamental Lake.*—This pool has a dirty appearance. The pool receives drainage from the carnivora section and dingo section, also drainage reaches this pool from the higher pool into which the elephant enclosure empties as well as the wading pool and alligator pools. I consider an analysis of the water should be taken immediately to determine whether this pool is disease infected. I strongly recommend that the drainage into this pool should be given immediate attention, and the bottom and sides of the lake concreted.

8. *Upper Ornamental Lake.*—Blockages to the sewerage have occurred about four times, I am informed, in the last eighteen months through blood and washings from the Butchery which go into the drainage pool. I am also informed by the Director that traces of blood and small portions of flesh can be seen floating on this lake during the blockages.

I regard both the lower ornamental lake and upper ornamental lake as being a matter for most urgent and immediate attention, and as I understand from the Director that this is a matter which the Board has taken up with the Public Works Department on a number of occasions, I consider that no time should be lost in having the necessary and appropriate work carried out.

9. *Re Quarantine Area and Acquisition of Farrier School.*—A very suitable building for storage purposes, erected by the Department of Post-war Reconstruction, exists in the Barracks Store area. Recommend that it be handed to the Zoological Board for their use, as it is urgently required for the quarantine of new arrivals.

The site of the Zoological Gardens compares favorably with other Zoos in Australia, and although climatic conditions are not as ideal as elsewhere for certain exhibits, appropriate housing conditions and correct diet assists very greatly to offset the disadvantages of such climatic conditions, and that fact is established by the results obtained in other Zoos throughout the world.

I am of the opinion that the Melbourne Zoological Gardens has certain specific advantages and attractions and has possibilities of making it a foremost Australian Zoo, and that opinion is based on a close knowledge of all the Zoos in Australia, as well as Zoos in England, America, and Africa.

World opinion establishes the fact that attractive, well-stocked Zoological Gardens, with correctly-housed exhibits have great educational scientific and recreational advantages in favour of the people of any state or country.

I feel, however, at the outset of this report that it is appropriate for me to express my entire concurrence in the recorded comments of the Director (H. T. Roper, Esq.) in his letter, dated 31st March, 1948, to the Board (see Annexure E) as follows:—

“The existing assets of the Gardens are rapidly deteriorating through lack of renovations; unhygienic, antiquated enclosures and cages need reconstruction . . . . I foresee that unless a halt is made in the decline this civic attraction of the second largest city in Australia is going to be seriously impaired.”

In view of the fact that one of the matters referred to me by the Chief Secretary was whether the Board which is entrusted with the responsibilities of management is constituted in a way to enable the best results to be achieved, I found it necessary to examine the relevant Act of Parliament.

I find that under the Act (No. 4431 of 1936) relating to the administration and control of the Zoological Gardens, the Board is constituted, and its functions, duties, powers, and limitations flow from such Act. Under section 11 of the Act, it is provided as follows:—

“(1) It shall be the function and duty of the Board at all times to maintain the Zoological Gardens as a place—

(a) for the exhibition to the public and the scientific study of zoological specimens; and

(b) for the instruction and entertainment of the public.”

There are certain other provisions under section 11 of the Act, and I particularly refer to the proviso, as follows:—

“Provided further that the Board shall not without the consent of the Governor in Council first obtained undertake any new work or undertaking estimated to involve upon completion an expenditure of more than One thousand pounds.”

On examination of official records of the Board, I noticed a Report on the visit to the Zoological Gardens of the Chief Secretary, the Honorable K. Dodgshun, M.L.A., dated 1st June, 1948 (see Annexure M) in which the following passage appears:—

“Mr. Dodgshun explained that he could not commit his Government or any other Government to any liability beyond one year, and that application would have to be made each year. He also explained that it was Government policy for all works to be carried out by the Department of Public Works, but a case submitted by the Board for work to be done by an outside contractor, or any other public or semi-public body, provided the estimate was passed by the Department would probably be approved by the Government.”

I am further informed by Professor Woodruff that the Board very closely adheres to the provisions of the Act referred to, and also closely complies with the policy as explained by the Hon. K. Dodgshun in the extract from the Report referred to, but in actual administrative practice the Board, in my opinion, functions in a way which can be described as a “Caretaker Board” rather than a Board of Management.

The Act as I understand its provisions has been drafted to constitute what I have termed a "Caretaker Board," and the limitation of the Board's powers and authorities is, in my opinion, a serious handicap to efficient administration, and a definite contributing factor in the delays which have taken place in the carrying out of urgent approved maintenance and reconstruction work within the Zoological Gardens.

Prior to the present Act the Title to the site occupied by the Zoological Gardens was held under a Crown Grant, dated the sixth day of November, One thousand eight hundred and seventy-six, Volume 909, folium 181687, by certain persons named therein for the Zoological and Acclimatisation Society, and this site was permanently reserved as a site for Zoological Gardens, together with road for ready access thereto.

The Act, under section 9, made provision for the cancellation of such Title and the Crown Grant became void, revoked, and annulled, and the land reverted to the Crown.

Under section 10 (c) of the Act it is provided that "all the right, title, and interest in the Zoological and Acclimatisation Society in or relating to all personal property, chattels, and effects in or upon the Zoological Gardens or acquired by the Society for the purposes of the said Act shall without prejudice to the right, title, or interest of any other person or persons therein be hereby vested in the Board for the purposes of this Act."

It will be seen that prior to the Act the Society had a title to the site of the Zoological Gardens, but upon the constitution of the Board of the Zoological Gardens under the present Act it gained title only to the personal property, chattels, and effects in or upon the Zoological Gardens without any title to the site itself, and yet under section 4 (1) the whole purpose of the Act was "for the better administration and control of the Zoological Gardens there shall be constituted a Board to be called the Zoological Board of Victoria."

Section 4 (2) constituted the Board as a body corporate to "have perpetual succession and a common seal and be capable in law of suing and being sued and of purchasing taking holding selling leasing taking on lease exchanging and disposing of personal property for the purposes of and subject to this Act." It has powers under section 11 (2) (d) for "the removal or dismantling of buildings enclosures or improvements or the alteration of the disposition within the Zoological Gardens of such buildings enclosures or improvements."

It handled Receipts to the extent of an average amount of £30,000 approximately per annum over the last six years and disbursed a like amount annually. In 1947-48, Receipts were £45,158—Payments £42,921. It is virtually host to nearly half a million visitors annually, but has not the advantages of the powers of maintaining a flexible bank account to be operated upon on the basis of an overdraft or loan, which for a great public institution of this kind, is most necessary and desirable. I express that view particularly after giving consideration to the provisions made in the Act under section 5 for the high status and qualifications necessary for any appointees to the Board.

On referring to section 12 (d), I find provision is made as follows:—

"subject to any express provision or condition attaching to such grant or loan, any moneys advanced by the Crown either by way of grant or loan to the Board;"

may be expended by the Board in such manner as it thinks fit, subject to other provisions of the Act.

Two points are involved under this paragraph. Firstly, there is a limitation on the powers of the Board as provided in section 11 which provides that the Board "shall not without the consent of the Governor in Council first obtained undertake any new work or undertaking estimated to involve upon completion an expenditure of more than £1,000."

The second point is that in practice loans or grants are not made to the Board but are placed on the estimates of the Public Works Department for the carrying out of approved work. Such amounts are then subject to effluxion of time, and if not expended in a particular year, lapse, and must again be placed on the estimates of such Department for the succeeding year.

The present procedure in the carrying out of necessary urgent works covered by such appropriations are an unnecessary duplication which could be avoided by the exercise of the power under section 12 (d) referred to above.

As an illustration of the restrictive effect of the Act, and the procedure required of the Board in the carrying out of necessary works within the Zoological Gardens, it will be found on reference to Annexure (J) that the Board was informed by the Chief Secretary's Department on the 18th August, 1948, as follows:—

“(a) the sum of £10,000 has been provided in the estimates of expenditure of the Public Works Department for 1948-49 for repairs, maintenance, &c., at the Zoological Gardens.”

It follows that the initiative taken by the Board in making representations to the Chief Secretary's Department, and obtaining the allocation for the sum of £10,000 for urgent work, could become seriously affected by such allocation being made on the estimates of the Public Works Department, for the carrying out of such work by that Department in accordance with its normal and official routine.

The Zoological Board itself consists of ten members of very high standing in the community, and under section 5 of the Act is required to consist of the following:—

- “(a) the person for the time being holding pursuant to the Public Service Acts the office of Chief Inspector of Fisheries and Game;
  - (b) the person for the time being holding pursuant to the Public Service Acts the office of Director of the National Museum; and
  - (c) nine other persons, possessing scientific or administrative qualifications, appointed by the Governor in Council.
- (2) Of the persons so appointed—
- (a) one shall be an officer of the Lands Department or of the Forests Commission or of the State Forests Department;
  - (b) one shall be an alderman or councillor of the Council of the City of Melbourne nominated by the said Council;
  - (c) two shall be persons selected by the Governor in Council from a panel of not less than five names submitted to the Minister by the governing body of the Royal Zoological and Acclimatisation Society; and
  - (d) two (at least one of whom shall be a graduate in Veterinary Science) shall be persons selected by the Governor in Council from a panel of not less than five names (at least two of which shall be those of graduates in Veterinary Science) submitted to the Minister by the Council of the University of Melbourne.”

It will be seen from an examination of the requirements of the Act in respect of the constitution of the Board that it consists of high-ranking officials of the Victorian Public Service and other persons possessing scientific or administrative qualifications appointed by the Governor in Council.

With such responsible personnel constituting the Board, and taking all relevant circumstances into consideration, I strongly recommend amendment of the present Act for the widening of the Board's powers and authorities in the interests of efficient control of the Zoological Gardens.

The Board itself may be reasonably described as a body of experts of high professional and scientific ability, and from the Board has been constituted the following committees:—

Finance Committee,  
Scientific Committee,  
Staff Committee.

The Board holds monthly meetings with an occasional Special Meeting. The Scientific and Finance Committees meet monthly; the Staff Committee occasionally.

I recommend the abolition of these three committees and the establishment of a Works Committee to meet each week for the purpose of implementing the policy of the Board and its decisions in regard to all matters pertaining to the enclosures and welfare of animals, the Director and Head Keeper to be *ex officio* members of such Committee.

I consider that such a Committee could function more efficiently than the present set-up of the system of control, particularly as it would be in a position to co-opt the services from time to time when required of any one or more of the expert men constituting the personnel of the Board.

Any matters from time to time involving any particular aspect of finance, staff, or scientific matter could be dealt with by this Committee on the lines indicated by me.

This Works Committee would have direct contact with the Director as well as being a Committee which would regularly and consistently deal with all matters concerning animal enclosures and the welfare of animals. It could give instructions to the Director on behalf of the Board and assist the Director in seeing that such instructions were carried out to the satisfaction of the Committee.

The Committee in general would function also in implementing the policy of the Board in deciding how, when, and where work could be carried out within the Zoological Gardens.

In an endeavour to make these recommendations regarding the Works Committee readily understood, I wish to illustrate the method of handling similar arrangements at Taronga Park.

The Trust comprises eight members, from which are chosen annually a Works Committee of four members, the Superintendent and Secretary are *ex officio* members of the Works Committee. Meeting once a week, this Committee surveys all the work necessary, or contemplated, implements its own decisions as well as those of the Trust and reports back to a full Trust Meeting each month. Any decisions of policy are referred always to a Trust Meeting. To the Works Committee, the Superintendent, Secretary, and Keepers report by card system their recommendations. The Heads of each Department also submit a weekly report. After each Meeting there is an inspection of the Gardens, works in progress or to be undertaken, and including examination of exhibits. For any special work required by the Superintendent or the Head Keepers a recommendation is made to the Works Committee, which adopts, varies, or rejects the recommendations according to circumstances.

I submit that the absence of such a Committee revealed a weakness in the Administration of the Zoological Gardens during the period referred to in the Report of Professor Woodruff (Annexure B) from 1945 when the Board decided that the then Director no longer possessed the confidence of the Board and as a result he was asked to resign. Following this resignation, Mr. Nelson was appointed, he became ill after a few months and was granted leave of absence, returned to duty, and died in May, 1947.

The Board was then faced with the additional difficulty that the Head Keeper, Mr. Gillespie, who had spent most of his life at the Zoo, fell ill and died after ten days' illness. A crisis in the Administration had then developed and according to the Report of Professor Woodruff (Annexure B) "the Secretary, Mr. Barrett, an accountant by training and with only a few months' experience at the Zoo had to carry on. This he did in a very commendable way."

The fact is that the term "commendable" could only be applied to the extent of the definite limitations of Mr. Barrett's experience of the Administrative work of the Zoo. An active Works Committee could have filled the breach which occurred with the loss of Director and Head Keeper, pending the appointment of a suitable Director, and thus have exercised a much more flexible and efficient control over the affairs of the Zoo than would be possible by the Board itself.

During my interrogation of the present Director, Mr. Roper, I came to the conclusion that he was very willing, had much useful experience as an engineer, possessed excellent references, and would make a good Director. Mr. Roper has been endeavouring to carry out a task of which he had a limited knowledge when appointed as Director, but is enthusiastic and applies himself thoroughly to his duties to the extent of his ability, knowledge, and experience.

Unfortunately, there was a period, particularly from 1945 up to the time of the present Director's appointment when most inadequate records of stock were kept. A search requested by me was conducted by the present Director and Secretary and this failed to reveal any concrete information during the period referred to regarding Births, Deaths, and Exchanges Inwards and Outwards of exhibits. I am informed, however, that prior to Mr. Nelson's appointment records and books were kept covering these matters.

The present officials are now keeping a complete set of records. It is impossible, therefore, for me to find whether deaths have been actually high or not in the previous Director's period of service, but my examination of the records since the present Director's appointment shows that the death rate has not been unduly high and certainly far below reports which have been circulated in Victoria.

I find also that other reports of deaths and illness of animals have been grossly exaggerated. I consider the answers supplied by the Chief Secretary, as read in the Victorian Legislative Assembly by Mr. Hyland, Minister of Labour, on behalf of the Chief Secretary, and reported on page 2968 of the Assembly Reports, in answer to the questions asked by Mr. Michaelis, and as contained in Notices of Motion and Orders of the Day No. 40, are substantially correct.

I called for and obtained a Veterinary Certificate from Dr. E. F. J. Bordeaux, D.V.Sc., on the condition of the Capuchin monkeys, and this certificate is marked Annexure (C) and certifies that they appear in good health.

In the course of my Survey of enclosures and exhibits, I gave particular attention to the methods adopted, as well as the system in operation for the care of sick and injured animals.

I found that the Board has arranged with Dr. Bordeaux, an eminent veterinarian, to make a routine visit to the Zoological Gardens weekly, and also has a standing arrangement with him to obtain his services at all other necessary times.

In particular I wish to draw attention to the comments made by me in my Survey (Annexure A) regarding the Animal Hospital as follows:—

“ The Animal Hospital—Contains a number of animals under treatment. In scrupulously clean condition, and is built in a very useful manner with commodious accommodation in each of its sick bays. Included is a Chemistry Department. The Head Keeper administers the drugs under the guidance of Dr. Bordeaux, D.V.Sc.”

I have found evidence also of special attention being given to provide necessary nutriment in a balanced system of diets for the various animals and birds. I also examined an appropriate card system of diets and food control which was recently instituted, as set out in the Report of Professor Woodruff (Annexure B).

“ Improvements have been made in recent months in regard to the diet and nutrition of the animals and that in two directions—

- (1) To provide the necessary nutriment in sufficient amount and with the correct vitamins and mineral salts desirable; and
- (2) To eliminate waste, so lessening cost.”

It is emphasized by Professor Woodruff that very definite changes took place in the system of diet and methods adopted in control of food as a result of the complete system instituted by the Board recently, arising out of consultations between Dr. Bordeaux, Dr. Albiston, the Director, and the present Chairman, Professor Woodruff, and also in the light of information readily furnished to Mr. Roper, and the Head Keeper, Mr. Campbell, by the authorities at Taronga Park on the occasion of visits by those officers to the Sydney Zoo.

I did note, however, that no adequate provision is available for a convalescent area for animals fit to be discharged from hospital, but not in proper physical condition to be returned to their normal exhibition enclosures.

There is also the absence of suitable provision for quarantine of new arrivals within the Zoological Gardens.

In the course of my discussions with the Director, Mr. Roper, I ascertained that there exists in the Barracks Store area, a disused building erected by the Department of Post-war Reconstruction. It is a suitable building and could be put to very valuable use by the Board as a Bird House for quarantine purposes of new arrivals.

The area adjacent to the building could also be developed and divided into a quarantine area as well as an area with suitable enclosure for the keeping of animals during their convalescent period.

The Head Keeper, Mr. Campbell, is neither a veterinarian nor a zoologist. He, however, impressed me with being a man who has gained considerable veterinary experience and is an enthusiastic hard-working officer, with a keen appreciation of the particular requirements of the animals and other exhibits under his care.



The background or setting for an attractive zoo is an attractive garden display. My first impression on entering the main gate of the Melbourne Zoo was the neat, tidy, and well-kept garden display, rich in colour. On closer inspection I found a number of garden beds showed lack of recent attention. This was explained by the Director, Mr. Roper, as due to the fact that the plants in a number of beds were near to the end of their period of bloom, and the entire beds were due to be turned over for fertilizing and replanting.

On further examination of the various lawns and garden beds, lack of attention was revealed in certain areas. For example, the approach inside the railway gates entrance stretches out over a fairly wide area which was not in a well-kept condition. It needed mowing and top dressing in parts, and being a prominent part of the Gardens should have had some priority of attention.

On checking over other areas which showed signs of neglect, the Director informed me that provision had been made for these particular areas to be treated on the lines indicated by me and that such areas would receive very early attention.

My general review of the area of the Zoological Gardens as a whole resulted in the impression that the work in hand, as well as the work covered by the appropriation in the estimates of the Public Works Department would enhance the attractiveness of the whole site, which in my opinion is a very desirable recreation area for young and old, as a setting for a zoo of great potential educational and scientific value.

I am informed by Professor Woodruff that the Head Gardener has demonstrated his ability for his position since his appointment in November, 1946, and that in the Professor's opinion the gardens have never looked better since Mr. Dale took over his appointment, which also includes responsibility for the cleaning and maintenance staff.

I was very interested in the commendable initiative and progress made in the established vegetable and fodder gardens for the purpose of supplementing the food supply of the animals and birds. This idea has excellent scope and is well worthy of further development.

An essential part of a Zoological Gardens is a well-conducted kiosk, which not only is a great public utility, but is also a potential source of revenue, and adds to the status of the Zoological Gardens. I am informed by Professor Woodruff that for a period of six years the kiosk had been leased for a rental of £1,000 per annum. It was not well conducted during that period, and was the subject of many complaints. Professor Woodruff further informs me that in September, 1946, the contract was terminated, and the Board took over the control of the kiosk and appointed a manageress. Professor Woodruff has also recorded in his Report to me as follows:—

“ The first year of trading under great difficulties for want of equipment showed a net profit of £2,500 . . . the present Manageress, Mrs. Holding, well qualified and experienced, and already showing a marked improvement in the conduct of the business. Plans are complete for the setting up of a cafeteria service for busy periods, for new equipment . . . The kiosk can be expected to show increased revenue.”

In the Analysis of Comparative Statement of Receipts and Payments for the years 1942-43 to 1947-48 (see Annexure L), it will be observed that for the year 1942-43 the total receipts amount to £25,656 and total payments £22,973, showing an excess of receipts over payments of £2,683.

The following year 1943-44 showed almost an equivalent total of receipts amounting to £25,827, but against this item payments of £25,102 resulted in excess receipts of £725. Receipts showed an increase in 1944-45 to £26,481 with a lesser expenditure of £24,956, leaving a credit balance of £1,525. In the following years 1945-46 and 1946-47 the expenditure exceeded receipts by £2,040 and £1,295 respectively.

A very substantial increase over all those years resulted in the receipts of 1947-48 totalling £45,158 with an expenditure of £42,921, leaving the excess of receipts over payments £2,237. These figures must be reviewed in the light of the admission charges, which are listed hereunder:—

- (a) 1939-40 to 14th August, 1946—Adults 9d., Children 3d.
- (b) 14th August, 1946, to 1st January, 1948—Adults 1s., Children 3d.
- (c) From 1st January, 1948—Adults 1s. 6d., Children 6d.

Soon after my arrival at the gates on two mornings, I noticed visitors admitted to the Gardens who were given change from the Petty Cash Box, and the money received put into Petty Cash. This is a loose and dangerous method, and should be discontinued at once, even when there is no rush period, and all paying visitors entering the Gardens should enter on the official tickets purchased.

I interrogated Mr. R. Walduck, Secretary of the Board, regarding administrative control of the turnstiles and the general checking of gate receipts.

I also discussed the various aspects which would result in persons gaining admission without payment of admission charges, and also the possibility of manipulation of gate receipts.

I formed the opinion that Mr. Walduck was an alert and efficient secretary, and that he and the Director have given considerable thought to ways and means of preventing any losses in that direction. It is, of course, an important matter, and I now stress the necessity of maintaining very rigid control regarding this aspect of the administration.

The Comparative Statement of Attendances (see Annexure K) revealed rather a remarkable consistency over a period 1939-40 to 1947-48 as one of the serious factors in Zoo attendances is the variation in the weather conditions. A long spell of wet weather, or a succession of wet week-ends can very rapidly convert a credit balance into a debit balance at the end of a financial year.

The important fact remains that over a period of nine years a total of 4,172,496 recorded attendances took place at Melbourne Zoo, and this results in an average per annum of 463,610 recorded attendances at the Zoo. This average, in my opinion, reflects not only on the attractiveness of the Zoological Gardens from the point of view of public opinion, but also emphasizes the scientific, educational, and recreational value of a Zoological Gardens to the public.

I am quite satisfied that the Board has been faced with very many difficulties over the years, which include the war period. All Zoos throughout the world were similarly affected in regard to labour, material, and the problems associated with the acquirement of new exhibits.

I am also quite satisfied that the expenditure involved in the schedule of necessary Works and Maintenance contained in Annexure (F) are essential and fully justified, and further, that such work should be proceeded with as speedily as possible in order to give to the people what they obviously require from the attendance figures referred to—a Zoo in keeping with the status of the State of Victoria.

Summarizing this Report, my conclusions and recommendations are as follows:—

#### *Conclusions and Recommendations.*

(1) That Melbourne Zoo is not overcrowded (with the exception of an excessive number of birds in some aviaries). On the contrary, there is plenty of accommodation for a great many more exhibits without reaching a stage of overcrowding.

(2) That satisfactory provision exists for the immediate treatment of sick and injured animals, but this provision should be extended to provide for convalescent enclosures for animals discharged from hospital, but not physically fit to be returned to their normal exhibition enclosures.

It is also important and necessary that a properly constructed and segregated quarantine area be established for the quarantining of new arrivals from within the Commonwealth or overseas. A suitable site is already available for that purpose.

(3) That the aviary sections, whilst containing some excellent and attractive exhibits, are in urgent need of a complete overhaul. New aviaries should be erected, and existing aviaries renovated. This could be carried out at comparatively small cost. In addition, it is imperative to re-arrange, particularly the Australian birds, into more suitable aviaries, located and constructed with due regard to the particular needs of such birds.

In this respect, I am pleased to offer my services in a completely honorary capacity to advise fully on this important aspect of the Zoological Gardens.

(4) That a considerable amount of urgent maintenance and reconstruction work, already approved by the Chief Secretary's Department, and covered by the allocation of £10,000 in the estimates of the Public Works Department, should be carried out in their entirety without further delay.

(5) That the general recommendations in my Survey (see Annexure A) be given immediate attention by the Board.

(6) That the additional work referred to in order of urgency, as contained in Annexure (F), should also be proceeded with immediately financial arrangements can be completed in order to prevent the obvious deterioration which is at present taking place.

(7) That the present unsatisfactory condition of the Zoo from the point of view of maintenance and the need for new and better enclosures, as well as the re-allotment of exhibits in such new and re-constructed enclosures, is not due to any failure on the part of the Board, or the Director, to realize these conditions, but is due mainly to its limitations of necessary powers and authorities to have such urgent and essential work carried out.

(8) That the answers as supplied by the Chief Secretary in the Victorian Parliament, as contained on page 2968 of the Assembly Reports, to the questions listed therein, are substantially correct.

(9) That published criticism of the Board's administration is based apparently on lack of knowledge of all the circumstances and difficulties which confront the Board. I find that such criticism generally is somewhat exaggerated, but is justified to the extent of the need for the carrying out of the urgent and essential work referred to by me in recommendations (4) and (6) of this Report.

(10) That the Board is at present a "Caretaker Board" vested with a great responsibility, but in the Act under which it is constituted, its powers and authorities and actual administrative procedure for the successful administration of such a valuable asset to the State are unnecessarily limited and restricted.

(11) That the Act constituting the Board be amended—

(a) to create either a Trust in lieu of the present Board vesting the title to the land within the area of the Zoological Gardens in trustees of such Trust with normal and adequate powers appropriate for a Trust of this nature; or

to enlarge the powers and authorities of the Board to enable it to function more as a Board of Management as distinct from a "Caretaker Board," and without the present limitations and restricted practice and procedure now involved in matters of finance, maintenance, reconstruction and erection of new buildings within the Zoological Gardens;

(b) to provide for the appointment of two additional or replacement appointees to the Board or Trust, with proven business administrative experience and ability.

In conclusion, I wish to record my appreciation of the facilities placed at my disposal by Mr. L. Chapman, Under Secretary, during my visit to Melbourne. I also desire to record the fact that the Chairman of the Board (Professor Woodruff), the Director (Mr. Roper), the Secretary (Mr. Walduck), and the Head Keeper (Mr. Campbell), gave me their full co-operation in carrying out a thorough investigation into all aspects of the administration of the Zoological Gardens.

E. J. L. HALLSTROM, F.R.Z.S.

ANNEXURE (A).  
SURVEY OF ENCLOSURES.

*Macaw Aviaries*, consisting of ten compartments—

- No. 1.—Contains one red and blue Macaw, and one red and yellow Macaw. Aviary reasonably clean. Ample grit. Birds apparently in good condition.
- No. 2.—One pair Malaccan Cockatoos.
- No. 3.—One pair New Guinea (unnamed) White Cockatoos.
- No. 4.—One pair Yellow Naped Amazons.
- No. 5.—One pair Hybrid Macaws.
- No. 6.—Five Amazons and one Alexandrine Parrot.
- No. 7.—One African Grey Parrot, and one Malaccan Cockatoo.
- No. 8.—One pair Macaws—one blue and gold, one red and yellow. In good condition and attempting to breed. Nest should be reconstructed.
- No. 9.—Two Macaws—one red and yellow, one blue and gold. Sexes not determined.
- No. 10.—Three Hybrid Macaws; aviaries well constructed. It is remarkable that Amazon Parrots should have thrived in these aviaries in this area, as they are tropical jungle birds. The aviaries must be described as suitable and good. Many of the birds are perching on steel. Recommend that wooden perches be provided immediately. Recommend also that they be sprayed weekly with "X" solution spray.

*Fowl, Pheasants, and Coots Enclosure*.—This pen is nicely grassed with plenty of soft shelter. Could be improved with a permanent house of wire and cement, and should be vermin proof. The yard should be kept in its present condition.

*Triangular Enclosure*: (Part A).—Nicely grassed, contains four Peacocks, all apparently in good condition. It should be improved by adding a pipe-and-wire constructed house in place of iron shed.

(Part B).—Contains a baby chimpanzee in excellent condition. The breeding of this animal is a very creditable performance.

*Pets' Corner*.—There are four Capuchin Monkeys. Enclosure is suitable and the animals seem happy. Would like a health certificate. (One animal without teeth.)

*Deodorized Skunk*.—Looks happy and in good condition. The yard is small, but is a good exhibition yard. The house is tidy and effective.

*Hybrid Bears*.—The following enclosure contains four Hybrid Bears Himalayans. Two females and two males. They are well exhibited. Enclosure very sound. Three enclosures in the same group contain two young Lions, and one Baboon and one Bonnet.

Four Dingoes are well shown, but recommend that the floor of the yard be coated in a similar way to that of the enclosure where the Lions are, because of pads on their paws, the top layer should be covered with fine sand.

*Wallaby Yard*.—A good enclosure, containing only one animal in apparently very nice condition. Good healthy-looking animal.

*Enclosure of English Squirrels*.—Their appearance is good.

*Rhesus Monkeys*.—Following is an enclosure of Rhesus Monkeys, apparently in excellent condition. Enclosure kept clean.

*Fox Enclosure*.—Containing Fox puppies. Well exhibited. Clean and in good condition.

*Wombat Enclosure*.—Easy to keep clean. Animals apparently in excellent condition.

(I am informed that the enclosures referred to as Pets' Corner are sprayed with a strong disinfectant three times a week.)

*Deer*.—Empty enclosure with three shelter houses. Prepared for young Deer. Nice exhibition pen.

*Toque Monkeys*.—Two Toque Monkeys enclosed in an aviary built specially for Echidna. Should monkeys remain, it is advisable to concrete floor so that same can be washed and disinfected thoroughly.

*Kangaroo Rats*.—Another enclosure contains Kangaroo Rats which are breeding. Also Rufus and Rottnest Island Wallabies with several young. Enclosure is very satisfactory, and the animals' condition is good. All enclosures inspected contain clean straw, and generally are in excellent condition.

*Indian Porcupine*.—Another enclosure contains one Indian Porcupine. This enclosure is of sand to assist animal in its habit of digging.

*Cape Baboon*.—Enclosure contains twelve young Baboons. The enclosure is a large one with two very substantial shelters. It is well kept, and the animals are apparently doing well. (One empty enclosure is ready for exhibits.)

*Animal Hospital*.—Contains a number of animals under treatment. In scrupulously clean condition, and is built in a very useful manner with commodious accommodation in each of its sick bays. Included is a Chemistry Department. The Head Keeper administers the drugs under the guidance of Dr. Bordeaux, D.V.Sc.

*Bulk Storeroom*.—Feed storeroom contains bins for various grain. Grain is stored in concrete bins. Bins not entirely satisfactory owing to condensation of moisture. It would be preferable if these bins were wooden lined, and covered with galvanized iron.

*Main Store*.—Well constructed, but is lacking refrigeration. A refrigerator is very necessary in this Department for the storing of perishable food, i.e., meat, fish, fruit, and vegetables.

*Old Elephant Enclosure*.—This enclosure, with very little alteration, would be excellent for a pair of rhinoceros.

*Incubators.*—A temporary galvanized iron and weatherboard building opposite the animal hospital has been erected, and contains incubators and brooders for hatching and rearing Pheasants, and other rare and valuable birds. This is a step in the right direction. I saw both eggs and chickens. The staff should be complimented on their effort.

*Farriery School.*—In barracks store area. Erected by Department of Post War Reconstruction. It is a very suitable building for storage purposes. Recommended that it be handed to the Zoological Board for their use and occupation. Very urgently required as a bird house, for the quarantine of new arrivals.

Also recommend this particular area be used for quarantine purposes.

*Alligators' Pool.*—Enclosure is very satisfactory. Recommend that it not be limed, unless the lime is specially prepared so that it will not wash off and so affect the eyes of the animals, or their skins.

*Elephants' Enclosure.*—Two females. Am of the opinion that it could be improved if it were all concreted, and sufficient soil placed in a convenient part for the animals to dust themselves. Otherwise enclosure very satisfactory, with the exception that the animals are able to descend into the moat, which gives them a cringing appearance, and detracts from what should be an important and attractive exhibit.

*Water System.*—Lakes, and how drained. (See Annexures F and J). Entire system requires overhaul, maintenance and replacement, where necessary.

*Hippopotamus Enclosures.*—Are satisfactory and sufficient for the purpose. Easily cleaned, but can be adversely affected by the restricted water supply.

*Gibbon House Enclosure.*—Is a good show enclosure. Is well constructed. The animals have a great amount of sunlight, also ample protection. Animals appear to be in good condition. Enclosure is easily cleaned, and with regular spraying should remain satisfactory.

*Wading Bird Enclosure.*—A very good show. With care to sanitation, very desirably exhibited. Advisable and desirable for the bottom of pool to be cemented or otherwise treated, to improve appearance and utility. Water is dirty, but this is caused by mud bottom being stirred up by swans and wading birds. Noticed that birds have aluminium rings on legs, and Director informs me that attempts are being made to ring all birds so that proper records can be kept of individuals. Several rat holes apparent.

N.B.—Director and Head Keeper assure me there have been no deaths in this enclosure during their time.

*Rats.*—I am informed by the Director that a Municipal Rat Catcher visits the Park about every four months, and goes over all rat holes and attempts destruction by various methods.

*Monkey Terrace.*—Very unsatisfactory and should be replaced immediately. Infested with rats. Notwithstanding the condition of the enclosures, animals appear to be in good health and condition.

*Entellus Cage.*—Monkey enclosure known as Entellus Cage. Recommend that present openings in roof be continued on the sunny side. The floor of the cage is concrete and is easily cleaned. With ordinary care and disinfecting, cage can be made very satisfactory.

*Monkey Island.*—This enclosure, provided the concrete basin was properly sealed, would, with very little alteration, make an excellent seal pool, which should be a very great attraction.

*Monkey House.*—No sunlight. Although well constructed, is not a good monkey house. Should be either reconstructed with yards to the front to enable animals to play in sun, or be re-built; or

A simpler method would be to add waterproof skylights to the roof to enable sunlight to penetrate. Suitable sunlight through the enclosures would be the cheapest way of making this set of enclosures effective. Director and Head Keeper inform me that the inhabitants of this enclosure have been in good health. Animals do not appear to have suffered from lack of sunlight, but it is desirable to have it.

*Bear Enclosure.*—Comprising six pits. Requires repairs to concrete. Larger pools should be constructed. Recommend size 10 ft. x 8 ft. x 4 ft. concrete basins on surface towards back of enclosures. Renovation of pits could easily be made modern by imitation stone stucco. Most of these animals are semi-aquatic and require plenty of water. This work would not be expensive and would add greatly to the exhibition value of the bears in the renovated enclosures.

*Proposed Penguin Pool.*—25 ft. x 14 ft. x 2 ft. Recommend that it be tiled with cream tiles and that tilers be forbidden to use any cement that has been mixed longer than 30 minutes. This will prevent tiles from becoming drummy and falling away from the cement.

*Jaguar Enclosures* are somewhat small, but are sound and clean. Could be improved by having board rests for the animals to sunbathe on, and so prevent them from lying on the cold cement during the winter. The scheme of painting the interior walls is an added improvement, and if this principle were carried right through the cages, and the outside walls treated similarly, and ironwork painted, they would become very attractive and effective enclosures.

*Hybrid Wolf Pens, Dingo Pens.*—Should be reconstructed at once. Understood from Director that Public Works Department has plans in hand.

There are no proper means provided for handling the animals or treating them when found necessary. Keepers go into enclosures and capture animals, running risk of being attacked or bitten. Shelters are deplorable, and this section needs urgent attention. Should an outbreak of disease occur, it would be very difficult to handle it. Enclosures are dangerous to health of animals and keepers.

*Orang Utang.*—Enclosure appears to be very satisfactory. Recommend that the wood floor in the open portion be bitumen coated, and a liberal use of disinfectant applied ("X" solution spray). Also wire guards to be painted. Slides at rear of enclosure should be re-designed to be operated from outside the cage, as it is necessary for the keeper to enter the cage and lock the doors. At present, should the animal come out before he has time to close door the keeper could be attacked. The alteration should be effected immediately, as these animals are quite capable of killing a keeper in combat.

*Chimpanzee Enclosure.*—The house is a very good one and is very sound, but could be improved if it had an exercise yard. Portion of the floor needs renovating. The female has a baby on the breast. This is the third baby; the second is a well-grown youngster. The first, unfortunately, was lost. All of these animals are in very good condition.

It is very desirable that these animals should be fed out of sight from the public as a certain amount of the food they receive becomes littered on the floors of the enclosure and detracts from the exhibit. The Head Keeper informs me that a whitewash solution of D.D.T. is used to spray or brush the animals' shelters. These animals are also dangerous and should be treated as recommended for Orangs.

*Lions.*—In this section I inspected a cork and bitumous preparation covering the concrete to insulate it from the animals when lying in the sun or shade, and for that purpose it would be ideal. But whether the cork would absorb disease (spores) I could not say without a proper laboratory test being carried out to determine the question. The preparation might be inclined to absorb some of the urine, and give off offensive odours. This, I am unable to say from experience. One of these enclosures has been painted to give the effect of the African Veldt. The principle could be continued with good effect, and so make this row of enclosures very attractive.

*Vulture.*—Birds of prey enclosure. Flights are very sound and in good condition, but the covered enclosure portion is built of fibro-cement and sheets of galvanized iron, which are inferior, and are not in keeping with the rest of the aviaries.

Recommend that they be pulled down and cement render the wire to enable rock-like houses to be built. The work could be cheaply effected and would improve the appearance of the enclosure considerably.

*Adjutant and Crane Enclosure.*—In very good condition and is suitable for the particular birds, which are also in good condition.

*Rabbit Enclosure.*—Looks bad and inferior. Has developed into a huge warren. Should be repaired and put to better use.

*Tapir.*—Enclosure needs renovating. Concrete path and pool could be prepared and the house covered with a layer of cement to imitate rock.

*Small Mammal Enclosures (near Tapir Enclosure).*—Floors require a little repair; also yard and pens. Could be made very satisfactory. It is well fenced. Wire netting covering rabbits needs repairing. The same applies to the fox pen.

*Budgerigar Aviaries.*—Water pools are not fit for drinking purposes. Sick birds suffering from lack of sunlight may develop enteritis, and the droppings from sick birds, in turn, fouls the water, and so spreads the sickness. Special covered containers should be provided to prevent this. In their present condition the aviaries are most unsatisfactory, but could be made into efficient aviaries. Recommend complete renovation to provide sunlight, fresh air without draught, and suitable ventilation. These aviaries could be reclaimed.

*Ruminants' Enclosure (including Bison).*—Is situated near the Railway Gates Entrance. The location of enclosure is suitable, but the fencing and housing are dilapidated, and should be either substantially repaired or rebuilt.

*Eagle Flight Cage.*—Exceptionally good aviaries with big flight. Very substantially built. Could do with little maintenance paint. Birds in excellent condition and very nicely shown.

*Mixed Aviaries (near eagle aviaries)* are similarly constructed and in very good condition. Requires slight maintenance. Some aviaries overcrowded. Mostly satisfactory.

*Cockatoo Aviary.*—Needs more shelter and more perches. Some perches are built of galvanized piping. These should be replaced immediately with wood perches. The birds will chew them away, but fresh logs should be available to replace them. The aviaries are very large and well constructed, but in their present appearance look gaunt skeletons. Fibro-cement protections appear to be broken in many places, and present a poor fowlhouse appearance. Cement stucco could be used instead of fibro, and would give suitable protection to the exhibits; would be effective for appearance and would be indestructible. Recommendation is that this type of construction be proceeded with to give this aviary a better appearance.

*Heron, &c., Aviary.*—Birds in a very dirty condition and would be better shown and better housed if a place with lawns and lake were provided in some other part of ground. Food should not be in large pieces, as is provided at present, but should be put through a mincer, mixed with suitable proportions of horse flesh and other desirable ingredients.

*Small Parrots.*—Alexandrine, Barraband, Hooded and Moreton Bay Rosellas, &c. Aviaries in very bad condition, but could easily be renovated and made into good breeding aviaries (high grass in end house a good idea).

*Bird Aviaries.*—Row of aviaries in front of Cassowary Enclosure.

No. 1. Good material, but not built on scientific lines. Unsatisfactory, badly windswept, and on iron perches.

No. 2. Circular aviary of good material. Badly constructed. No protection.

No. 3. Aviary unsatisfactory.

No. 4. Cockatiel. Most unsatisfactory. Appears uncomfortable, and birds are showing distress.

*Keas, &c.*—Very exposed. Contains Black Cockatoos in miserable condition. Also Gang Gang, which have formed habit of feather eating. Also contains two Keas, which appear in exceptionally good condition. The exposed aviary is probably satisfactory to them. Recommend that Black Cockatoos be removed immediately. (Birds subsequently removed to Macaw Aviaries.)

Four aviaries running from Snake Enclosure towards offices. They are in the same condition as those just referred to. Most unsatisfactory.

*Parrots and Rosellas.*—Enclosure in the same condition. Would be better without nest boxes. Would be better closed in to give protection against adverse winds. Could also be partitioned down centre with wire.

*King Parrot Aviary.*—Birds mostly in good condition, but aviary unsatisfactory. Some birds showing distress—overcrowded.

*Lyre Bird Aviary.*—Built of old material, but very attractive; plenty of foliage. Birds in exceptionally good condition.

*Snake Enclosure.*—No comment.

*Marsupials.*—Tree Climbing Kangaroo. Kangaroo and Emu Sections. Some years ago, accompanied by Sir Herbert Olney, I visited these enclosures and saw one of the finest collections of Australian Marsupials that I have ever seen. To-day that collection is missing, with the exception of a fine group of Grey Kangaroos. Recommend new collection be procured. The marsupial area is capable of handling and exhibiting a very fine collection of Australian Marsupials.

*Koalas and Possum Enclosure.*—Very well kept. The whole enclosure is in good condition. Bears are a good show and appear to be in good health.

*Platypus Enclosure.*—Under construction.

*Water Dragon Enclosure.*—Very suitable, but would recommend that the woodwork be taken away where holding wire netting.

*Brolga and Geese.*—Enclosure well covered with grass and suitable shrubs. Aviary in good condition. Would recommend that the houses be faced in the opposite direction.

*Ducks, Geese.*—Very good aviaries, and birds seem to be in good condition.

*Dingo Enclosure.*—Old enclosure housing dingoes, emus, guinea pigs, and cassowary. Built of wooden fences and wire. Poor, inferior show.

*Tasmanian Devil.*—Enclosure needs rebuilding.

*Owl Section.*—Recommend all be rebuilt to about 8 feet high.

*Snakes and Small Australian Mammals.*—Very cold in winter, no sun in summer. Could be used if heated and glass front as now used in snake portion were continued.

*Goanna Enclosure.*—Unsatisfactory during winter. Reptiles should be housed under heated conditions for approximately eight months of the year. This enclosure should be reconstructed and, if suitably heated, could then be made satisfactory.

*Thar Enclosure.*—Yard is ample, but needs a new fence and house.

*Nilgai Enclosure.*—Yards in very bad condition. Although yards are big enough, fences are very poor.

*Domestic Pigeon Aviary.*—Could be converted into Entellus Enclosures, or an aviary for such birds as King Parrots, &c., which would agree well together.

*Wombat Enclosure* is suitable for the exhibit and is easy to keep clean. (Cleaned with D.D.T. and lime.) A good show.

*Echidna Enclosure* is very suitable. Could do with renovation, but condition generally is good. Suitably housed.

*Emus.*—A suitable enclosure. Shelters built of galvanized iron which look very bad, and should be replaced with wire and cement shelters.

*Water Fowl Enclosures.*—Has a cement lake which is evidently defective. I am informed it is necessary to keep a 1-in. water piping service turned on to full bore to compensate for leakage. This is very bad wastage of water, and should be attended to immediately.

*Lower Ornamental Lake.*—This pool has a dirty appearance. It has a mud bottom which can easily be stirred up by swan inhabitants. The pool receives drainage from the carnivora section and dingo section; also drainage reaches this pool from the higher pools into which empty the elephant enclosures, wading pool, and alligator pool. An analysis of the water is necessary to determine whether this pool is disease infected. The swans and other birds living on the lake appear to be doing well. Sea gulls and ducks are breeding on the island in the lake. Lake would be improved if bottom and sides were concreted.

*Upper Ornamental Lake.*—Blockages to the sewerage have occurred about four times in the last eighteen months through blood and washings from the Butchery that go into drainage pool. Quite frequently traces of blood and small portions of flesh can be seen floating on this lake, during the blockages.

## ANNEXURE (B).

## REPORT OF PROFESSOR H. A. WOODRUFF.

The Board as at present constituted by the Act of 1936 succeeded the Royal Zoological and Acclimatization Society in the management of the Zoo Gardens. At the time of taking over in May, 1937, the Gardens had been developed to a fairly high standard but always with inadequate financial resources so that by 1937 a debit of over £20,000 had been incurred.

The new Board was required to provide £500 a year for liquidation of debt until the capital sum was wiped off by the present Government in 1948. The Government subsidy towards general revenue was for some years—

From 1918 at £4,000 per annum.

From 1922 at £2,000 per annum.

From 1927 at £3,500 per annum.

From 1931 at £2,500 per annum.

From 1937 at £2,500 per annum, less £500 repayment of Loan A/c., leaving a net of £2,000 per annum.

From 1948 at £2,500, the repayment of Loan being cancelled.

Meantime with the growth of Melbourne and better transport services the Zoo Gardens have been a place of entertainment and education for a very considerable number of citizens and many overseas visitors. Attendance totals for past five years:—

1943-44	..	..	489,603.
1944-45	..	..	509,319.
1945-46	..	..	476,007.
1946-47	..	..	452,486.
1947-48	..	..	444,939.

Rising costs of forage, fruit, fish, &c., of labour, of equipment, especially building materials, has made the financial situation difficult—without much possibility of any major developments or improvements.

*Management.*

The Board consists of ten members as follows:—

Professor H. A. Woodruff (Chairman).

Cr. J. L. Cremean, M.L.A., representing the Victorian State Government.

Sir Harold Gengoult Smith, K.B., V.D., M.R.C.P.E., representing the Melbourne City Council.

Professor S. Sunderland, M.D., D.Sc., F.R.A.C.P., Professor of Anatomy at the University of Melbourne.

Paul G. Dane, M.D., B.S., D.P.M., C.M.Z.S., representing the Royal Zoological and Acclimatization Society of Victoria.

H. E. Albiston, D.V.Sc., Director of the Veterinary Research Institute.

A. V. Galbraith, Dip. For., Dip. Com., A.I.P.A., J.P., Chairman of the Forests Commission.

R. T. M. Pescott, M.Agr. Sc., F.R.E.S., Director of the National Museum of Victoria.

A. D. Butcher, M.Sc., Chief Inspector of Fisheries and Game.

G. H. Green, representing the State Treasury Department.

There is one vacancy on the Board due to the retirement of the Hon. J. J. Holland, M.L.A., whose position has not yet been filled.

The Executive Officers are a Director and a Secretary and in the office there are two women clerks, plus one part-time ticket seller who assists when available, a Publicity Officer (woman), a Head Keeper, a Head Gardener (who also supervises the maintenance staff), together with keepers (17), garden labourers (15), maintenance men (8), 1 Blacksmith, 1 Carpenter, &c.

The Board has a Finance Committee, a Scientific Committee, and a Staff Committee. It holds monthly Board meetings, with an occasional special meeting. The Scientific and Finance Committees meet monthly, the Staff Committee occasionally.

*Direction.*

The past three years have been very difficult in this respect. In 1945 it was felt by most members of the Board that things were unsatisfactory, the then Director no longer possessing the confidence of the Board, and as a result he was asked to resign.

Mr. W. Nelson was then appointed—ill after a few months (a heart attack)—leave of absence—return to duty and another attack—which was fatal in May, 1947.

Whilst Mr. Nelson was in hospital, the then Head Keeper, Gillespie, who had spent all his life at the Zoo, fell ill and died after about ten days' illness. The Secretary, Mr. Barrett, an accountant by training, and with only a few months' experience at the Zoo, had to carry on. This he did in a very commendable way.

After Mr. Nelson's death the position of Director was advertised widely and an offer was made to a gentleman in Wellington, N.Z., which was subsequently rejected and the post was again advertised.

In October, 1947, after very careful scrutiny of a large number of applications, Mr. H. T. Roper— at that time a Squadron Leader in the R.A.A.F.—was appointed. The "Ideal Director" probably doesn't exist. The Board had in mind various qualifications—scientific, zoological, with great experience—administrative ability, good with staff, able to publicize the Zoo, and many others. Authority was sought from the Chief Secretary to pay a reasonable salary (see limitation of salaries clause) and along with this permission the suggestion was made by the Minister that the Board should be quite sure of administrative ability.



The Board appointed Mr. Roper and has been more than justified—not a trained scientist, but a good administrator with tact, a level head, courage, just but firm with the staff, and co-operative in every way with the Board.

The whole tone of the place—staff morale and team spirit—is greatly improved, and the best at any time in my experience of the Gardens. Every one on the place now knows that there is a Director, who has the confidence of the Board, and that he, and he alone, gives orders and expects them to be carried out.

The Secretary, Mr. Walduck, appointed after Mr. Barrett's resignation in November, 1947, has already made himself popular with the Board and staff, is efficient, obliging, and with added experience will grow into a very valuable business manager.

Head Keeper Campbell, discovered by Mr. Nelson and appointed in June, 1947, is an excellent very hardworking and enthusiastic officer.

Head Gardener Dale, appointed in November, 1946, after the resignation of the previous officer, R. S. Haines, to take up a position in the Perth Zoo (note.—this appointment was not finally confirmed) has already demonstrated his ability. The gardeners' home never looked better, and Dale is also responsible for the cleaning and maintenance staff.

Altogether the Board is very well satisfied with the staff, and is delighted with the good spirit which is manifesting itself.

#### *The Kiosk.*

This is recognized as a potential source of considerable revenue. For six years the kiosk had been leased at a yearly rental of £1,000. It was not well conducted, there had been many complaints and the lessee was a pluralist with major interests apart from the Zoo. In September, 1946, it was decided to terminate the contract and carry on the business under a manageress. This would inevitably mean a considerable expenditure on equipment and alterations. The Victorian Railways catering department was consulted and with the ready assent of the Commissioners the services of Mr. Keown and his assistant, Mr. Kennedy, were made available. I cannot speak too highly in praise of the help—technical and administrative—rendered by these gentlemen. Mr. Kennedy has visited the Gardens on many occasions, consulted with Mr. Overend of the Chief Architect's Department, and supervised all the changes and designed the equipment. The Board is very grateful to all these gentlemen.

The first year of trading, under great difficulties for want of equipment, showed a net profit of £2,500. The first manageress proved to be unsatisfactory in regard to accounting and stocktaking. She resigned on the 30th June, 1948, and after some delay was replaced by the present officer, Mrs. Holding, well qualified and experienced and already showing a marked improvement in the conduct of the business. Plans are complete for the setting up of a cafeteria service for busy periods, for new equipment, sinks, automatic washing, cookers, stoves, &c. The kiosk can be expected to show increased revenue and be a credit to the Board. Delay and frustration due to lack of materials and labour and shortage of equipment have been annoying, but are apparently coming to an end.

Shortly after it had been decided to take over the kiosk, and just before Mr. Nelson died, the Board suffered a serious dislocation by the resignation of Sir Herbert Olney, the Chairman; the Hon. Mr. Hyland, the Chief Secretary in the previous Dunstan Government, had also resigned, and the Board was left a bit perturbed. At the same time the Hon. J. J. Holland, M.L.A., was in poor health and unable to attend regularly. Representations to the Government pressing for the filling of vacancies in the membership of the Board were made, but appointments were delayed. Eventually Mr. Cremean, M.L.A., and Mr. G. H. Green, an officer of the Treasury, were appointed, and both have been splendid acquisitions, giving advice and service very generously and effectively. Mr. Holland's position has not yet been filled.

All these dislocations, spread over three years, have made the administration of the Zoo a difficult matter for the Board. Rising costs, inadequate financial resources, changes in management, and losses of keymen, seemed to add up without any break. The Board, however, steadily pursued a policy of review of all services, methods, and equipment, and dealt with urgent matters whilst preparing a survey for presentation to the Government. Proposed schedule of work submitted to Government—date—expenditure of £31,000.

#### *Water Supply.*

Among the difficulties were the discovery that the water supply was inadequate, the reticulation system worn out and the pressure so poor the gardens could not be watered, nor shallow troughs filled, on many occasions. The Board, in accordance with its standard policy, at once consulted the M.M.B.W. authorities. Correspondence is available; a cleaning of the incoming main has improved matters, but the inability to get piping for the grounds generally means that a radical scheme which will cost some £1,000 must wait.

#### *The Sewerage Problem.*

Drainage from the elephant enclosure and from the carnivora pens is now carried into a small lake near the hippo. enclosure and the overflow from there goes into the larger lower lake. This has been the system for many years. With time the two lakes have silted up to a considerable extent, and the water is dirty and unhealthy as water supply for birds and fish. When this situation was pointed out by the present Director the Board consulted the M.M.B.W. sewerage authorities. They were informed that it was not permissible for surface drainage from the elephant enclosure to be discharged into the main sewer, but that from the carnivores (a much smaller area) would be allowed. The Board is pressing for reconsideration of this matter *re* elephant yards, and meantime labour shortage is delaying the cleaning of the ponds. This matter is urgent and was stressed in the representation to the Government.

#### *Keepers, Gardeners, Tradesmen.*

The Board is fortunate in that all its keepers, &c., are in the one union, the Federated Miscellaneous Workers Union, and negotiations on wages and conditions have to be conducted with only one union secretary. These negotiations have been on a friendly basis and Mr. Cremean, M.L.A., Chairman of the Staff Committee, has managed the meetings very well. The scale of wages paid is, in the opinion of the Board, a fair one considering the amenities (acknowledged by the men) which are afforded at the Zoo. Experience on the part of keepers is important and changes of personnel mean trouble.

### *Publicity.*

A new departure in policy has been the recent appointment of a whole-time Publicity Officer, in the person of Miss M. Giblin. This change was made possible by terminating the expenditure on press and other advertising which seemed of doubtful value. The Publicity Officer interviews press reporters and photographers; writes short paragraphs or stories for various papers and journals; has got together the photographs and materials for a Souvenir of the Melbourne Zoo, and receives special visitors. She also arranges picnics and parties, and in numerous ways is developing a public interest.

The Board has been concerned (and incidentally will always have to be concerned) about the health of the animals in the Gardens. Up to a few years ago the Director was himself a veterinarian. At present any veterinary advice necessary is provided by Dr. E. F. J. Bordeaux, the eminent veterinarian, with occasional help from Mr. McManamy, P.V.Sc. Dr. Bordeaux pays a routine weekly visit and calls at any other times necessary. The animal hospital is well arranged and equipped, and the Head Keeper and his staff work in the closest association with Dr. Bordeaux. Improvements have been made in recent months in regard to the diet and nutrition of the animals, and that in two directions (1) to provide the necessary nutriment in sufficient amount and with the correct vitamins and mineral salts desirable, and (2) to eliminate waste, so lessening costs. These changes have been made as a result of consultations between Dr. Bordeaux, Dr. Albiston, the Director, and the present Chairman, and also in light of information readily furnished to Mr. Roper and the Head Keeper, Mr. Campbell, by the authorities at Taronga Park on the occasion of visits by these officers. Cleaning and spelling of paddocks and re-grassing from time to time have been introduced to lessen the attack of parasites.

Notwithstanding these improvements and constant attention, it must be stated that mortality among animals and birds in a Zoo is always high as compared with that among well kept domestic animals on a farm, and thus for obvious reasons many of the animals belong to tropical climates, others to the Arctic and Antarctic, and it is impossible to completely parallel their natural environment and food requirements in a Zoo. On the other hand many animals, even the large carnivora, have been bred in captivity and are in first class condition.

One other factor must be remembered, namely, that replacement is often difficult and in some cases impossible for quarantine reasons as well as on the score of expense. This means that perfectly healthy animals must eventually grow old, and the Melbourne Zoo has a large percentage of aged animals difficult to replace as they die off.

Checks on high mortality are (1) care in feeding and housing, (2) an attempt to realize conditions as near as possible to natural ones, (3) veterinary advice and treatment when necessary, and (4) careful post mortem records by qualified people.

The Melbourne Zoo is fortunate in having on its Board Dr. H. E. Albiston, the veterinary pathologist of the University Veterinary Institute and advisor to the State Department of Agriculture. The rule is that animals and birds dying at the Zoo are sent to the Veterinary Institute for post mortem and the reports are sent (1) to the Director, State Department of Agriculture, (2) to the Chief Veterinary Officer, who is also the Commonwealth Quarantine (Animals) Officer. By this means a complete check on animal diseases in the Zoo is maintained. It may be said that no mortality of more than ordinary proportions has occurred during recent years among animals in the Gardens and on the contrary some conditions, such as a disease of the jaw bone in kangaroos, previously common, have been greatly reduced by improved methods of treatment.

Among small birds, such as West Australian finches, there have been one or two bad patches notably among a large number of birds purchased from the O. Gilpin Estate in 1943. Such losses are not unknown elsewhere, in fact, it is common experience among owners of aviaries that new arrivals, when put into new quarters and with a change of diet and surroundings often die in large numbers. Consignments of birds sent in apparently perfect health from Melbourne Zoo have sometimes shown heavy losses in other zoos on arrival.

The Conference of Zoological Gardens Officers, now an annual fixture and commenced in Sydney in 1944, affords an opportunity for Directors and Board members to compare experiences and learn new procedures which have proved helpful in zoo management. The next conference is to be held in Melbourne in May, 1949, when visitors from all Australian zoos and also from New Zealand will be our guests in Victoria.

### *Quarantine and Restocking.*

It should be realized that an "A" class zoo such as Melbourne is a strict quarantine area and that animals and birds once inside it are there for life except for consignment under Quarantine Department supervision to another Australian zoo, or overseas for exchange purposes. The quarantine regulations with regard to obtaining animals from abroad are strict and with good reason, because Australia must guard her flocks and birds from introduced infectious diseases. No animals are allowed to come in by air, and shipping is difficult. This means that it is impossible to replace certain animals such as giraffe or zebra, except by specimens born within some zoological gardens. Thus it is that restocking of the Gardens is a very expensive business.

There is, however, one section of the Gardens which could be made the outstanding feature at reasonable cost, namely, the section devoted to Australian native fauna. Overseas visitors and scientists all show great interest in our remarkable, indeed, unique fauna. The Board is anxious that this part of the Gardens should be as good as anything of its kind in Australia, from both the scientific and educational points of view.

The Board is mindful that besides the collections of animals and birds, and beautiful gardens, it has to cater for children's entertainment. The amusements provided must be safe, clean, and in good order. The public, adults as well as children, must be entertained with good music, whether by bands or concert parties or by radio records. A new public address loud speaker system is being installed and the Board is grateful for technical advice and help from the experts of the Melbourne Technical College.

Many other plans for development and improvement of the Gardens have been under consideration by the Board. Finance is, however, the key to the situation and the Board's resources are very limited. Business considerations have required a serious increase in insurance premiums on buildings and equipment and all insurable risks. Salaries of executive officers, wages of keepers and maintenance staff have been improved, but are not in any sense extravagant. Cost of forage, fruit, fish, even horse flesh have all risen steeply in recent years. Materials for repair and upkeep, such as paint, cement, iron, &c., have been difficult if not impossible to obtain. Despite all the difficulties the Board is happy in the belief that the Gardens have never looked better than at present, and that the animals and birds generally are in good healthy conditions. Many attractive specimens have been secured by either purchase or exchange, or as in the case of two young chimpanzees and lion and tiger cubs, by natural increase, born in the Zoo.

*The Board.*

Quote Act, see page 5 of *Zoological Gardens Act 1936*. The Board responsible for this estate of the people, the Zoological Gardens, consists of eleven members:—Chief of Fisheries and Game Department, 1; Forestry Department, 1; Museum, 1; University, 2, one of which is a veterinarian; City Council, 1; appointed by Victorian Government, 2 Ms.L.A., Treasury, 1; and 2 (out of six picked by the R.Z. and A. Society). The Chairman is elected annually by the Board. Membership of the Board is honorary and carries no fees for attendance.

I have been honoured with the confidence of the Board as their Chairman for the past two and a half years, succeeding Sir Herbert Olney. I have come to realize how well constituted the Board is in many ways. It has at its disposal the expert advice of a body of men of high professional and scientific ability. In knowledge of the Australian fauna, of Australian shrubs and bush, in matters of comparative anatomy and the other sphere—zoology, in animal health and in familiarity with public business, administration, and finance—the Board is able to call upon men within its own ranks who have the necessary knowledge.

If any criticism can be offered by me, it is that the Board could with advantage have added to it two (or possibly three) citizens of high repute interested in the Gardens and able to represent the general community on the Board, and incidentally represent the Board to the citizens. Such persons might be co-opted by the Board and they would add much to its prestige.

*Conclusion.*

The inquiry or investigation now being undertaken by Mr. E. J. Hallstrom has come at an opportune time. The Board has already done enough within the past two years to show its line of policy. It claims that most of it is just beginning, but beginning on sound lines, and it confidently expects (1) an endorsement of this policy, and (2) a recommendation for the expenditure of a good deal more money to bring the Zoo up to the standard necessary for an institution which holds such a prominent place in the affection and interest of a large proportion of the citizens of Victoria. We have a Zoo which is no mean Zoo. It could be a very notable Zoo in its own special way, if it had the financial support necessary to make that a reality.

---

ANNEXURE (C).

64 Mangalore Street,  
Ascot Vale.

25th November, 1948.

This is to certify that I have to-day examined the Capuchin Monkeys. They appear in good health, though their coats are ragged and some portions of the body are depilated.

(Sgd.)

E. F. J. BORDEAUX, D.V.Sc.

---

## ANNEXURE (D).

Zoological Gardens,  
Melbourne, N.2.  
2nd December, 1948.

Mr. E. J. Hallstrom,  
Willoughby Road,  
Willoughby, New South Wales.

Dear Mr. Hallstrom,

The following is the list of equipment required by these Gardens:—

1. Chaff cutter } electric motor, to drive.
2. Grister }
3. 10-in. plane.
4. Blower.
5. Grinder.
6. Secondary transport.
7. Two typewriters.
8. Tools for blacksmith and carpenter (for many years both blacksmith and carpenter have been using many of their own tools).
9. Electric floor polisher.

Yours faithfully,  
(Sgd.)

H. T. ROPER,  
Director.

## ANNEXURE (E).

Zoological Gardens,  
Parkville.  
31st March, 1948.

The Chairman,  
Finance Committee,  
Zoological Board of Victoria.

Dear Sir,

After giving the matter considerable thought I have come to the conclusion that the Zoological Gardens has arrived at the stage where considerable expenditure is urgently needed to rehabilitate the Gardens.

I was privileged to speak at the Melbourne Rotary Club on Wednesday, 24th March, and during the course of general conversation was perturbed to realize how low in the estimation of these gentlemen the Zoological Gardens stood, partly through ignorance of the circumstances involved and partly through a state of stagnation the Gardens are in at present. Whether there is or is not any justification for these remarks is not of concern, but that if such a public opinion is apparent, is a serious consideration.

In reviewing our annual revenue I am forced to the conclusion that the ever increasing upward trend of costs, in particular wages and feeding, is not going to leave any large margin whereby much needed renovations, improvements, and restocking can be carried out. All these three points are urgent, and to attempt to assess a priority is a difficult matter. The existing assets of the Gardens are rapidly deteriorating through lack of renovations; unhygienic antiquated enclosures and cages need reconstruction (the deer enclosures were described as reminding the visitors of the Newmarket Stockyards) and the stock is diminishing through lack of new blood, old age, and casualties. The Zoo needs new stock to attract the public to the Zoo and as a business proposition to house valuable stock.

I foresee that unless a halt is made in the decline this civic attraction of the second largest city in Australia is going to be seriously impaired.

Considerable financial assistance is necessary to re-establish this important attraction. What temporary attractions the Zoo can provide in the way of the Kiosk and "Pet's Corner" and the capitalizing on certain features in my opinion will not be sufficient to meet all the demands that are pressing, and to delay much needed demands will only snowball the eventual expenditure involved.

I attach a list of works that need consideration in what I submit is an order of priority. I have listed the works under five headings and the ultimate determination of the Board's policy will guide me as to a final order. The list is long and formidable, but I am desirous that the Board shall have a clear indication of what is involved.

Yours faithfully,  
(Sgd.)

H. T. ROPER,  
Director.

1. *Animal Maintenance and Enclosures.*

1. Monkey cages.
2. Wolves.
3. Tiger cage.
4. Tapir and Rabbit enclosures.
5. Extension of Chimpanzee cage.
6. Platypussary.
7. Pets' Corner.
8. Pheasant area.
9. Bear pits.
10. Alteration to store for centralized feeding.
11. Carnivora enclosure.
12. Quarantine area.
13. Hatchery.
14. Sewerage.
15. Cleaning ponds.
16. Possum and Tasmanian Devil enclosure.
17. Alteration to cages to house specimenres.
18. Monkey Island. s (tropical animals, snakes).
19. Pigeon cage.
20. Breeding aviaries and incubation sheds.
21. Elephant ring.

2. *General.*

1. Public address system.
2. Directory of the Zoo.
3. Kiosk.
4. Front Kiosk.
5. Latrines, Australian Section.
6. Kiosk in Australian Section.

3. *Gardens.*

1. Stockyards, paddocks, and fences.
2. Replanting playing area with grass.
3. Name plates.

4. *Maintenance of Amusements.*

- Animal act enclosure.  
Merry-go-round.

5. *Maintenance.*

1. Water Supply, Australian Section, bear pits, deer round.
2. Painting overhaul.
3. Roads.
4. Upkeep (repair) of buildings.
5. Shelter sheds.

---

 ANNEXURE (F).

Copy LB/460.48.

Zoological Gardens,  
Parkville.

8th June, 1948.

The Honorable the Chief Secretary,  
Spring Street,  
Melbourne, C.1.

Dear Sir,

The Zoological Board of Victoria has been concerned with the necessity of putting into effect an urgent programme of works at the Zoological Gardens, particularly to improve the health of the exhibits and also to ensure greater safety and better accommodation for the general public. The total sum involved in these works is approximately £34,000, as detailed in the attached Schedule of Proposed Works. This amount is completely beyond the Board's resources, and it was therefore decided that you be requested to visit the Gardens so that the Board could place its views and project before you.

On your visit of the 1st June the desired improvements were outlined and the urgency and necessity of these projects was placed before you and the members of your deputation. At the same time a copy of the Proposed Schedule of Works was handed to you for your reference.

Arising out of certain recommendations made by your deputation, the Board has further considered the various works outlined in Schedule. In deliberation with Mr. Stevenson, Chief Engineer of the Department of Public Works, a programme has been evolved entailing the minimum use of commodities required by the public for housing projects. Mr. Stevenson considers that we could reasonably expect this programme to be completed within the next twelve months.

Some of the more urgent works requiring cement and steel have had to be deferred, and it is proposed to submit a further Schedule for approval when supplies become available.

The programme of works drawn up by the Board and Mr. Stevenson for completion during the financial year 1948-49 is estimated to cost £13,500 and comprises:—

1. Part of the road programme.
2. Certain cages, for which the Board has the necessary material.
3. Over-all painting, which is very urgent.
4. Sewerage programme, as our ornamental lakes are badly polluted and unhygienic.
5. Returfing and regrading playing area.

I am directed accordingly by the Zoological Board of Victoria to request that you endeavour to arrange for a Treasury appropriation of £13,500 to be made available to the Board through the Department of Public Works during the year ending 30th June, 1949. It is also requested that the balance of the loan of £25,000 made to the Royal Zoological and Acclimatization Society, now standing at £20,732 11s. 11d., be cancelled.

I am further directed to thank you, Mr. Chapman, and Mr. Forristal for the interest displayed by your visit to the Gardens on 1st June, and for the many helpful and encouraging remarks made during our lunch-time discussion.

Yours faithfully,

(Sgd.)

R. B. WALDUCK,  
Secretary.

#### SCHEDULE OF NECESSARY WORKS.

APPROVED BY THE ZOOLOGICAL BOARD OF VICTORIA, 30TH APRIL, 1948.

##### 1. Works able to be completed during Financial Year ending 30th June, 1949.

	£
Wolves cage .. .. .	500
Pets' Corner, conversion of cages .. .. .	500
Public address system .. .. .	250
Animal enclosures, paddocks, and fences .. .. .	750
Over-all painting .. .. .	1,500
Roads .. .. .	7,000
Breeding aviaries and incubating shed .. .. .	150
Sewerage .. .. .	1,500
Cleaning of ponds .. .. .	400
Tiger cage .. .. .	250
Fish hatchery .. .. .	200
Replanting playing area with grass .. .. .	500
	£13,500

##### 2. Works necessary for which materials are not at present procurable.

###### (a) Necessary for the health of the exhibits and the safety of the public—

	£
Monkey cage .. .. .	1,200
Extension, Chimpanzee cage .. .. .	1,000
Water to Bear pits .. .. .	1,000
Animal enclosures, paddocks, and fences .. .. .	750
Reticulated water supply .. .. .	6,000
Roads .. .. .	3,000
Shelter sheds .. .. .	1,200
Animal act enclosure .. .. .	2,500
	£16,650

###### (b) Desirable for the efficient management of the Gardens and the humane exhibition of animals—

	£
Pheasant area .. .. .	250
Carnivora enclosure .. .. .	1,000
Fish hatchery .. .. .	300
Platypussary .. .. .	750
Alterations to cage to house tropical specimens .. .. .	750
	£3,050

## ANNEXURE (G).

## SCHEDULE OF EMPLOYEES OF ZOOLOGICAL GARDENS, MELBOURNE.

*Office Staff.*

Director .. .. H. T. Roper.  
 Secretary .. .. R. B. Walduck.  
 Public Relations Officer .. Miss Giblin.  
 Clerks (2) .. .. Miss Neely.  
                                     Miss Graham.  
 Store Keeper (1) .. T. Donnelly.  
 Ticket Seller (1) .. Mrs. J. Hulme.  
 Gate Keepers (2) .. D. Johnson.  
                                     T. Prior.  
 Transport (1) .. .. W. Parr.

*Maintenance Staff.*

Carpenter (1) .. .. J. Slater.  
 Carpenter's Assistants (2) J. Cameron.  
                                     D. Thomas.  
 Blacksmith (1) .. .. J. Pellow.  
 Blacksmith's Assistant (1) W. Wilkinson.  
 General Hand (1) .. J. Parr.  
 Painter (1) .. .. H. Pratt.  
 Painter's Assistant (1) .. W. Woodbridge.

*Kiosk.*

Mrs. Holding (Manageress).  
 Mrs. Lyons.  
 Mrs. Anthony.  
 Mrs. O'Teague.  
 Mrs. Campbell.

*Nursery.*

W. Dowling.  
 Assistants—H. Webb.  
                                     J. Findlay.

*Head Keeper (1).*

R. S. Campbell.

*Gardeners.*

F. D. Mason.  
 R. James.  
 H. Leith.  
 J. Quayle.  
 H. Martin.  
 A. Catherway.  
 N. Healy.

*Keepers (Animal).*

N. Dawson.  
 B. Harwood.  
 C. Anderson.  
 L. Sparks. (Leading Hand).  
 H. Hobson.  
 L. Barber.  
 P. Hamer.  
 Miss Gubbins.  
 Mrs. Seekamp.  
 G. Irving.  
 A. Wilson (Feeding).

*Cleaners.*

W. Mulholland.  
 J. Barbour.  
 A. Barbour.  
 R. Gough.  
 J. Wilson.

*Keepers (Birds).*

G. Williams.  
 E. Clarke.  
 F. James.  
 Miss Walters.

*Keepers (Amusement).*

Animal act—A. Christie.  
 Elephant keeper—C. Mackaway.

*Train Driver.*

J. Irving.

*Head Gardener (1).*

W. Dale.

*Merry-go-round.*

E. Walsh.

## ANNEXURE (H).

## ZOOLOGICAL BOARD OF VICTORIA.

COMPARATIVE STATEMENT, RECEIPTS, AND PAYMENTS FOR THREE YEARS 1945-46, 1946-47, 1947-48.

	1945-46.	1946-47.	1947-48.
<i>Receipts.</i>			
	£	£	£
Government Grant .. .. .	2,500	2,500	2,500
Gate Receipts .. .. .	13,633	15,739	20,937
Elephant Ride .. .. .	138	885	952
Pony Cart Rides .. .. .	..	240	556
Miniature Train Ride .. .. .	2,070	2,151	1,718
Merry Go Round .. .. .	3,423	3,088	3,057
Animal Act .. .. .	1,934	1,845	1,300
Pram Hire .. .. .	227	306	432
Hot Water .. .. .	..	..	46
Sale of Hides .. .. .	114	168	152
Family Tickets .. .. .	23	25	25
Photography Fees .. .. .	116	240	575
Weighing Machine and Magic Horse Site Rentals .. .. .	20	46	67
Miscellaneous Revenue .. .. .	11	45	151
Music Books .. .. .	26	14	1
Interest Received .. .. .	88	73	53
Donation .. .. .	..	50	..
Stock Sales .. .. .	..	306	..
Kiosk Rental .. .. .	1,000	750	..
Kiosk Sales .. .. .	..	2,820	12,634
	25,323	31,291	45,156
<i>Payments.</i>			
Salaries .. .. .	2,482	2,197	1,964
Wages .. .. .	11,796	13,624	16,240
Group Assurance Subsidy .. .. .	132	181	212
Premises Maintenance .. .. .	1,775	1,592	2,817
Premises Additions .. .. .	1,876	2,519	1,187
Stock Maintenance .. .. .	4,650	4,201	5,200
Stock Purchase .. .. .	510	779	803
Printing and Stationery .. .. .	162	170	283
Publicity and Advertising .. .. .	521	661	842
Library Expenses .. .. .	16	9	3
Administration .. .. .	660	508	510
Bands and Entertainments .. .. .	682	293	298
Light Power and Fuel .. .. .	233	175	343
Uniforms .. .. .	73	334	214
Insurance .. .. .	518	264	176
Petrol, Oil, and Charcoal .. .. .	240	258	267
Licence Fees .. .. .	5	5	7
Sanitary Fees .. .. .	50	55	50
Sundries .. .. .	15	5	16
Truck Registration .. .. .	8	8	11
Audit Fee .. .. .	19	19	20
Legal Expenses .. .. .	25	6	8
Veterinary Expenses .. .. .	10	10	43
Pay Roll Tax .. .. .	297	413	502
Interest .. .. .	5	9	35
Repayment Treasury Loan .. .. .	500	500	..
Royal Zoological and Acclimatisation Society .. .. .	25	25	25
Zoological Conference .. .. .	76	155	77
Kiosk Plant and Equipment .. .. .	..	1,500	660
Kiosk Expenses .. .. .	..	2,110	10,105
	27,361	32,585	42,918



## ANNEXURE (I).

Copy S.730.48.

Zoological Gardens,  
Parkville, N.2,  
12th October, 1948.The Secretary,  
Melbourne and Metropolitan Board of Works,  
110 Spencer-street,  
Melbourne, C.1.

Dear Sir,

Further to your letter number 48/2136 of the 22nd September and our reply 699.48 of the 27th September, I wish to advise that the Scientific Committee of the Zoological Board of Victoria agrees that the drainage from the carnivora enclosures be connected to the Board's sewer, and it would be appreciated if the necessary plans could be passed on to the Public Works Department so that the work may be carried out in this financial year. My letter of the 12th August refers to this matter.

It is not proposed to connect the Alligator pool to the sewer, the existing drainage being considered sufficient under the circumstances.

We have to-day received your letter P48/2136 of the 11th October and note that you will further investigate the sewerage of the Elephant enclosure. We await your further advice on this matter.

Yours faithfully,  
(Sgd.) H. T. ROPER,  
Director.

Copy P48/2136.

## MELBOURNE AND METROPOLITAN BOARD OF WORKS.

110 Spencer-street,  
Melbourne, C.1,  
11th October, 1948.

Sir,

Adverting to previous correspondence, and in reply to your letter S.699.48, of the 27th ultimo, relative to sewerage of the elephant enclosure at the Zoological Gardens, Royal Park, Parkville, I have to inform you that the matter will be further investigated and you will be further advised in due course.

Yours faithfully,  
(Sgd.) C. TRATHAN,  
Assistant Secretary.

The Director,  
Zoological Gardens,  
Royal Park,  
Parkville, N.2.

Copy S.699.48.

Zoological Gardens,  
Parkville, N.2,  
27th September, 1948.

The Secretary,  
Melbourne and Metropolitan Board of Works,  
110 Spencer-street,  
Melbourne, C.1.

Dear Sir,

We acknowledge your letter of the 22nd September, 1948, and note that the Sewerage Committee is unable to grant permission to sewer the elephant enclosure and the wading birds' pool. As the sewerage of the elephant enclosure is an urgent requirement it would be appreciated if you could advise any alternative plan whereby the drainage from this enclosure could be diverted from the pond by the hippopotamus enclosure. The sewerage of the wading birds' pool and the alligator pool could be eliminated from the general scheme.

The Board would appreciate your advice and design for the approved device for sewerage of the carnivora enclosure so that your proposals can be considered by the Scientific Committee.

Yours faithfully,  
(Sgd.) H. T. ROPER,  
Director.

## MELBOURNE AND METROPOLITAN BOARD OF WORKS.

Copy 48/2136.

110 Spencer-street,  
Melbourne, C.1,  
22nd September, 1948.

Dear Sir,

Referring to your letter of the 13th February last inquiring as to the possibility of connecting several of the animal cages at the Zoological Gardens to the sewerage system, instead of running the effluent therefrom into two ponds as at present, I am directed by the Sewerage Committee to inform you that, in view of the large paved and unroofed area in the elephants' enclosure and the wading birds' pool and the relatively little effect the drainage from which need have on the ponds into which they discharge, permission for their connection to the sewer cannot be granted.

There will, however, be no objection to the connexion to the Board's sewers of the carnivora enclosure and the alligators' pool, subject to the provision of an approved device to limit the rate of discharge to the sewer in each case to 500 gallons per hour—any excess drainage being diverted to the stormwater drainage system. The charge for this service will be on the same basis as for the hippopotami pools, which are already connected to the Board's sewer, viz., 1.01 pence per thousand gallons of water discharged.

Yours faithfully,  
(Sgd.) C. BRIGGS,  
Secretary.

The Director,  
Zoological Gardens,  
Royal Park,  
Parkville, N.2.

Copy S/572.48.

Zoological Gardens,  
Parkville,

12th August, 1948.

The Secretary,  
Melbourne and Metropolitan Board of Works,  
110 Spencer-street,  
Melbourne, C.1.

Dear Sir,

With reference to our letter of 13th February in connexion with making arrangements to have several of our animal cages—the elephant enclosure and carnivora cages—connected to the sewerage system, we are anxious to know whether permission has yet been granted for this work to be put in hand.

I would point out that a grant has been made by the Victorian Government for certain essential works to be carried out during this year, and this item of sewerage was included in the works requiring urgent attention.

Should the necessary approval be granted, I understand that it would be impossible for the Melbourne and Metropolitan Board of Works to carry out this project. Under these circumstances, it would be appreciated if the necessary plans could be passed on to the Public Works Department to be carried out on behalf of the Melbourne and Metropolitan Board of Works.

Yours faithfully,  
(Sgd.) H. T. ROPER,  
Director.

## ANNEXURE (J).

Copy L.4634.

Chief Secretary's Office.

Melbourne, C.1.

18th August, 1948.

Dear Sir,

With further reference to your letter of the 8th June last, I beg to inform you that advice has now been received from the Treasury that—

- (a) A sum of £10,000 has been provided in the estimate of expenditure of the Public Works Department for 1948-49 for repairs, maintenance, &c., at the Zoological Gardens.  
 (b) That balance of loan amounting to £20,732 11s. 11d. has been written off.

Yours faithfully,

(Sgd.)

L. CHAPMAN,

Under Secretary.

Mr. R. B. Walduck,

Secretary,

Zoological Board of Victoria,

Zoological Gardens,

Royal Park,

Parkville, N.2.

Copy S.628.48.

Zoological Gardens,

Parkville.

31st August, 1948.

The Under Secretary,  
 Chief Secretary's Office,  
 Spring-street,  
 Melbourne, C.1.

Dear Sir,

I have been instructed by the Board to acknowledge your letter L.4634 of the 18th August advising—

- (a) that a sum of £10,000 has been provided for repair work at the Zoological Gardens; and  
 (b) that the balance of the loan amounting to £20,732 11s. 11d. has been written off.

The Board is very pleased to receive this information.

Yours faithfully,

(Sgd.)

R. B. WALDUCK,

Secretary.

## ANNEXURE (K).

## ZOOLOGICAL BOARD OF VICTORIA.

## COMPARATIVE STATEMENT OF ATTENDANCES—NINE YEARS 1939-40 TO 1947-48.

	Attendance.	Increase on Previous Year.	Decrease on Previous Year.
1939-40 .. .. .	380,306	..	..
1940-41 .. .. .	425,259	44,953	..
1941-42 .. .. .	465,165	39,906	..
1942-43 .. .. .	529,412	64,247	..
1943-44 .. .. .	489,603	..	39,809
1944-45 .. .. .	509,319	19,716	..
1945-46 .. .. .	476,007	..	33,312
1946-47 .. .. .	452,486	..	23,521
1947-48 .. .. .	444,939	..	7,547
Total for nine years .. .. .	4,172,496	..	..
Average per year .. .. .	463,610	..	..

Zoological Board of Victoria,

(Sgd.)

R. B. WALDUCK,

Secretary.

## ANNEXURE (L).

## ZOOLOGICAL BOARD OF VICTORIA.

## COMPARATIVE STATEMENT OF RECEIPTS AND PAYMENTS—YEARS 1942-43 TO 1947-48.

Year.	Receipts.	Payments.	Excess Receipts Over Payments.	Excess Payments Over Receipts.
	£	£	£	£
1942-43 .. .. .	25,656	22,973	2,683*	..
1943-44 .. .. .	25,827	25,102	725†	..
1944-45 .. .. .	26,481	24,956	1,525‡	..
1945-46 .. .. .	25,322	27,362	..	2,040§
1946-47 .. .. .	31,291	32,586	..	1,295
1947-48 .. .. .	45,158	42,921	2,237	..
	179,735	175,900	7,170	3,335

\* £2,000 carried to reserve and deposited with Commonwealth Savings Bank.

† £1,000 carried to reserve and invested in Commonwealth Loan.

‡ £500 carried to reserve and invested in Commonwealth Loan.

§ £1,000 withdrawn from Commonwealth Savings Bank and deposited with Commercial Banking Co.

|| £1,000 withdrawn from Commonwealth Savings Bank and deposited with Commercial Banking Co.

Notes.—1. Admission Charges—

(a) 1939-40 to 14th August, 1946, Adults, 9d., Children, 3d.

(b) 14th August, 1946, to 1st January, 1948, Adults, 1s., Children, 3d.

(c) From 1st January, 1948, Adults, 1s. 6d., Children, 6d.

2. The Kiosk was taken over from a private lessee and operated by the Board as from 1st April, 1947.

Zoological Board of Victoria,

(Sgd.)

R. B. WALDUCK,

Secretary.

## ANNEXURE (M).

REPORT ON THE VISIT TO THE ZOOLOGICAL GARDENS OF THE HONORABLE THE CHIEF SECRETARY, MR. K. DODGSHUN, M.L.A., ON TUESDAY, 1st JUNE, 1948.

The Chief Secretary was accompanied by the Under-Secretary, Mr. L. L. Chapman, and the Accountant to the Treasury, Mr. T. Forristal.

Board members present were Dr. H. E. Albiston, Mr. J. L. Cremean, Sir Harold Gengoult Smith, Mr. G. H. Green, and Professor S. Sunderland.

The Conference assembled in the Board Room at 12.10 p.m., where Sir Harold Gengoult Smith explained the urgency of the Schedule of Proposed Works as approved by the Board on 28th April, 1948, and the reasons for the visitors' presence. Immediately afterwards, the visitors were conducted on a tour of the Gardens to see, at first hand, the items requiring attention.

After the tour of inspection, the visitors were entertained at lunch in the Board's dining room, where an informal discussion was held.

Dr. Albiston officially welcomed the Minister and his colleagues, thanked them for their attendance and interest, and intimated that the Board hoped that its request for financial assistance would be well received.

Mr. Dodgshun stressed the necessity for a formal application for assistance to be made, and suggested that the Board's Schedule of Works be further subdivided to classify the works which it was considered could be completed during the next financial year.

Mr. Chapman advised that the application be made immediately.

Mr. Forristal stated that the Treasury appreciated the Board's need for financial assistance and suggested that a request be made for a fixed amount which could be spent during the next twelve months. He gave his private opinion that the balance of the Treasury loan of £25,000 made to the Royal Zoological and Acclimatisation Society should be cancelled, and advised that no action be taken to amend the *Zoological Gardens Act 1936* to provide for a bank overdraft unless other amendments to the Act were also contemplated.

Dr. Albiston asked whether the Board would need to apply each year for assistance or whether application should be made now for the full amount to be made available as materials and labour could be found.

Mr. Dodgshun explained that he could not commit his Government, or any other Government, to any liabilities beyond one year, and that application would have to be made each year. He also explained that it was Government policy for all works to be carried out by the Department of Public Works, but a case submitted by the Board for work to be done by an outside contractor or any other public or semi-public body, provided the estimate was passed by the Department, would probably be approved by the Government.

The discussion then closed.

## ANNEXURE (N).

## NOTES ON INTERVIEWS WITH MEMBERS OF STAFF.

MR. HALLSTROM TO THE DIRECTOR (MR. ROPER).

*Mr. Hallstrom.*—Did you do a university course?

*Mr. Roper.*—No. I did a four-year course in engineering before the last war, but I am not a university man.

*Q.*—You have had experience in tea-planting and the control of natives. How many?

*A.*—Up to 1,200 and 1,400 at a time.

*Q.*—You are used to handling transport?

*A.*—Yes.

*Q.*—In the R.A.A.F., what was your position?

*A.*—An administration officer.

*Q.*—You controlled men and you had a certain amount of authority?

*A.*—Yes.

*Q.*—You have a knowledge of languages?

*A.*—Yes, I can speak ten different languages, above average.

(N.B.—Credentials were produced by Mr. Roper and were examined at length by Mr. Hallstrom).

*Q.*—What duties do you do on arrival each morning?

*A.*—I am here at 8.30 a.m. and check up to see how the men are employed.

*Q.*—Do they give you a report of any sickness, deaths, &c.?

*A.*—The Head Keeper reports to me.

*Q.*—How often does he report?

*A.*—I am in contact with him at least three or four times a day. I see him between 8.30 a.m. and 9 a.m.

*Q.*—You spend most of your time outside patrolling?

*A.*—At the present time most of my time is spent doing outside work.

*Q.*—You are interested in outside work mainly?

*A.*—Yes, mainly.

*Q.*—Do you put in a report in each week or every month?

*A.*—Every month I supply a report and the Head Keeper supplies a detailed report of arrivals, departures, deaths, and various sicknesses, &c.

*Q.*—Is that included in your report also?

*A.*—It goes through me. I include that in my report, and that goes into the minutes.

*Q.*—You give a policy report and the Head Keeper hands you a detailed report?

*A.*—Yes.

*Q.*—Does Dr. Bordeaux attend the monthly meetings?

*A.*—No. He is not on the Board.

*Q.*—Is he an honorary?

*A.*—No.

*Q.*—Is there any reason why veterinary surgeons on the Board itself cannot give assistance and advice?

*A.*—They do, but Dr. Bordeaux does a routine weekly check and is called in on any matters of urgency.

In Dr. Bordeaux's absence Mr. McManamny comes in.

*Q.*—What amount does Dr. Bordeaux receive annually as payment for his services?

*A.*—He is paid 10s. 6d. a visit, and £1 1s. for an operation or any special work.

List supplied by the Secretary. Veterinary fees paid 1947-48—

Dr. Bordeaux—£38 2s.

Mr. McManamny—£4 19s.

#### *Minute Book.*

Mr. Hallstrom was informed by the Director that the minutes were kept in accordance with past custom.

Mr. Hallstrom, from inspection of book, stated that details of resolutions were not reported.

*Mr. Hallstrom.*—I take it that, if anything happens here at any time of day or night, you are here?

*Mr. Roper.*—Yes, I live on the premises. I do not regard hours; often on Sundays I am strolling about the Gardens even though I may be off duty.

*Q.*—You see that everything is running to schedule?

*A.*—Yes.

*Q.*—How long have you been here?

*A.*—Thirteen months.

*Q.*—Have you found the library of much use?

*A.*—With the exception of a few books, it is most inadequate. We have a few useful books on the identification of birds, but it is practically records of the Royal Zoological Society. It goes back to about 1826.

*Q.*—For the work that you have to do, the library is not of much use?

*A.*—Very little; I have searched through most of it.

*Q.*—If you have any problem, you refer to outside vets?

*A.*—I refer to outside men first, then to the vets. on the Board.

*Q.*—Does the Board ever go around on inspections of the Gardens?

*A.*—Periodically.

Q.—How often would you say?

A.—That is hard to say.

Q.—I would like a report from you regarding—

- (a) Problems that have come up and how you have dealt with them.
- (b) Recommendations made by you.
- (c) Handling of Head Keeper and Head Gardener.
- (d) What response you have had from the Board.

A.—I came here finding considerable chaos. Some of the men held a meeting and decided to obstruct the new Director in any or all of his duties.

I found that the Head Gardener and Head Keeper were just names. The responsibilities had been taken from them.

I also found petty thefts of birds and animals (some in form of exchanges). Food also was going off the place and I just had to take action.

There has been some movement in the labour here, and I have decided that they should do what I want them to do. It meant giving more control to the Head Keeper and Head Gardener. I have told them that I hold them responsible. They are responsible to me for certain things that go on under my instructions. I see them two or three times daily and they report what is being done.

Q.—They receive some instructions each time?

A.—Yes.

Q.—You have nothing like a Works Committee in operation?

A.—No. There is a Scientific Committee, a Finance Committee, and a Staff Committee.

When I came here, the records were practically nil. There was no system of keeping records and I have had to evolve a system of getting everything under control.

Q.—Regarding the Staff Committee. What matters does it deal with?

A.—Questions dealing with wages (increases, &c.), discipline, and staff matters.

Q.—And the Scientific Committee?

A.—They deal with scientific matters, i.e., building of cages, &c., and the health of animals.

Q.—Are there any reports from the Scientific Committee on the soil in the aviaries and other enclosures?

A.—Not in my time.

Q.—They have not dealt with such things as contamination?

A.—They have dealt with contamination in respect of certain diseases.

Q.—They have given you advice as to how to handle enclosures to prevent those diseases coming into being?

A.—Yes.

Q.—Has the Scientific Committee watched those details and advised you, or do you more or less work them out?

A.—They lay down the policy and I implement the policy.

Q.—Have they ever recommended spraying the enclosures or disinfecting them?

A.—Only an occasional one.

Q.—Yesterday you told me that one of the enclosures was sprayed regularly—three times a week. Who advised the spraying?

A.—The Scientific Committee.

Q.—Do they give you the formula necessary?

A.—We use the disinfectant.

Q.—What tools do you use for spraying?

A.—A knapsack spray.

Q.—Could you give me a demonstration of spraying an aviary?

A.—Yes. (Demonstration seen during afternoon.)

Q.—When you have an enclosure to spray, do you supervise the work yourself, or do you leave it entirely to the Head Keeper?

A.—Yes, the Head Keeper.

Q.—How would you know he had done a thorough job?

A.—I would rely on his ability.

Q.—Is there any reason why you have not extended the spraying to monkeys, lions, cats, hyenas, &c?

A.—It is not done on a scientific basis.

Q.—Do you think if it were done as routine would you be able to avoid distemper and similar diseases?

A.—I would rather the Scientific Committee give me a ruling on that.

Q.—The Scientific Committee has not made any recommendation in regard to the prevention of distemper?

A.—Not apart from the rebuilding of cages. But no method of sterilizing the cages in which the animals are housed.

Q.—I noticed yesterday that dingoes are in a poor condition. Has the Scientific Committee handled that problem of distemper?

A.—That was done by Dr. Bordeaux.

Q.—He advised, and did he see the work carried out?

A.—We took the dingoes away from the infected area.

Q.—In the infected areas where you had distemper, was it soil or concrete?

A.—Concrete.

Q.—There was no effort made to eradicate it, apart from ordinary disinfectant?

A.—There was no spraying.

Q.—In these aviaries where the Australian birds are kept, have you made any report to the Committee?

A.—I have made no written report.

- Q.—Is it long since you realized the aviaries were unsuitable?  
A.—It has occurred to me gradually.
- Q.—Has the Committee examined those aviaries and given any decision as to their positions—whether it was good or bad?  
A.—Not entirely.
- Q.—And you know of no report on those aviaries?  
A.—Not in my time.
- Q.—Has there been any report to the Board on the condition of those aviaries?  
A.—The Head Keeper has only started putting in reports during the last four to five months.
- Q.—Has he reported on them as being unsuitable, and do you realize that they are unsuitable?  
A.—I do.
- Q.—Does the Head Keeper realize that?  
A.—Yes.
- Q.—Would you support the idea of building new and complete aviaries to house a proper collection of birds?  
A.—I would be in favour of that.
- Q.—The Keepers and the Head Keeper have discussed with you the question of the aviaries being unsuitable for the housing of Australian or other birds, but you did not report that in written form?  
A.—I have mentioned it in words to the Committee, but not in writing.
- Q.—You have other unsuitable aviaries. Have you reported against them to any Committee or Board?  
A.—I have not made specific reports regarding individual aviaries. I have condemned areas as a whole.
- Q.—You have condemned practically the whole of the aviary system in this Park?  
A.—I would not say that specifically. I have condemned quite a lot around here which are very poor.
- Q.—You have gone to the Board or Committee and informed them that the aviary sections in the Gardens here are unsatisfactory or generally unsatisfactory?  
A.—Generally unsatisfactory. I have told the Board that the dingo pen and the paddocks at the bottom are unsatisfactory.
- Q.—In your position here in an administrative capacity, you have realized that it is necessary to do a lot of work on this Park to make it a satisfactory Zoo?  
A.—Yes. For that reason I strongly recommended to the Board that it increase the gate charges.
- Q.—And the Board agreed to your proposition?  
A.—Yes; and the Department approved.
- Q.—When did you report to the Board the unsatisfactory condition of these lakes?  
A.—About five months after my appointment.
- Q.—You reported that they were unsatisfactory and unhygienic, and that they would be a danger to the public?  
A.—I recommended that the areas from which they were being contaminated, if possible, be connected up with the sewerage.
- Q.—By word of mouth, or by report?  
A.—By report. (See Minute Book.)
- Q.—In that report did you specially mention that the refuse from the butchers' shop went into the lake?  
A.—No. I said it was polluted from various sources.
- Q.—Have you ever noticed any smell from the lake?  
A.—Nothing very overpowering.
- Q.—You were concerned because of the dirty appearance of the lakes and because fish did not do well?  
A.—Yes, and because plants and water lilies, &c., died when planted.
- Q.—Has the lake been cleaned out in your time?  
A.—I have had the wading pool cleaned out.
- Q.—What did you find?  
A.—I found 3 feet of slime.
- Q.—The reports were received by the Committee and they contacted the proper authorities with a recommendation that this work should be done immediately?  
A.—It was included in the Schedule of Works to be carried out under the Government's Grant.
- Q.—Do you know that no animal refuse must leave this Park without the consent of the Quarantine Officers?  
Do you know that there is a Quarantine Bond of £100?  
A.—I knew that in respect of animals.
- Q.—When animals leave this Park, I take it that you make the request for their transfer, or otherwise?  
A.—Yes.
- Q.—Being an "A" Class Quarantine Zoo, you might be called upon to house animals for "B" class stations?  
A.—That is so.
- Q.—You realize that the Department may send them here to be housed?  
A.—Yes.
- Q.—And your attitude in regard to those matters has been co-operative?  
A.—Definitely.
- Q.—Do you come into contact with the public?  
A.—Quite a lot.
- Q.—And if you found it necessary to help in the Gardens in regard to accommodation for the public, you always attend to those matters personally?  
A.—Yes.

- Q.—As far as gardening is concerned, do you direct the Head Gardener, or do you leave it all to him?  
 A.—I direct the Head Gardener on all questions of maintenance, but I am led by his experience and judgment in the garden. Any question of maintenance of wild lawns, I would chase him up about it.
- Q.—In the event of tree planting, do you make the suggestions?  
 A.—I make the suggestion and he advises me as to what trees should be planted. I accept his judgment as to what trees should go in.
- Q.—Do you take the Head Keeper with you and make a tour of inspection yourself of the creatures?  
 A.—Periodically. We walk around as the Board cannot afford a vehicle.
- Q.—On those occasions when you make a periodical trip through the Zoo with the Head Keeper, does he accept your recommendations or does he give you advice as to what should be done?  
 A.—I am always prepared to discuss any question.
- Q.—At any time you were carrying out the direction of the Scientific Committee, would you, during your inspection, convey the Committee's recommendation to the Head Keeper?  
 A.—Yes.
- Q.—What happens if you have animals suddenly brought into the Zoo here; where and how do you quarantine them?  
 A.—If it is a small consignment, usually in the hospital. If it is a large one, I have to make other areas available.
- Q.—For instance, if you received a group of four or five kangaroos?  
 A.—I have to place them in an isolated paddock.
- Q.—Are they on exhibition to the public?  
 A.—Yes.
- Q.—Can you inform me why you would not keep those animals in isolation for a period before you put them in an exhibition yard?  
 A.—We have not the facilities.
- Q.—You have no isolation yard, or any quarantine yard?  
 A.—No.
- Q.—Have you made any effort to have a part of the Zoo made into an isolation area?  
 A.—Yes.
- Q.—Did you make a recommendation to the Scientific Committee?  
 A.—I made a verbal recommendation.
- Q.—Have you an area here that you could use as an isolation yard?  
 A.—There is an area set aside for isolation, but evidently it has never been used for that purpose.
- Q.—Could you point to an area that you would like to use as a quarantine area?  
 A.—At the rear of the animal hospital.
- Q.—Is that the area where there is a fibro-cement building, known as the Farriery School?  
 A.—Yes.
- Q.—Could that be used by you for any purpose?  
 A.—Yes.
- Q.—For what purpose?  
 A.—For the quarantine of new birds, and the area surrounding it is also suitable for quarantine purposes. This area should be used. The Department of Post-war Reconstruction should be approached to hand over to the Zoo Board the building referred to.
- Q.—You say that when you came here you found if there had been a recording system, it had been abandoned?  
 A.—I could find no concise records.
- Q.—What did you do?  
 A.—I had to find a system that would meet the requirements of the Gardens.
- Q.—What is that system?  
 A.—To deal with animals, every one has to be specially recorded to go into the animal hospital. They have to be recorded on a docket. The docket indicates the number of animals received, the description of the live stock, how and where acquired, and their condition on arrival. Also the quarantine period, and any marks or brands, when they are sent to the section, and the name of the keeper who receives them.
- Q.—Where did you get the idea of doing this?  
 A.—From Taronga Park.
- Q.—You made a request to the Park for assistance?  
 A.—Yes. I went to Taronga Park and adopted it.
- Q.—You did this because there was no system?  
 A.—Yes.
- Q.—You have not been able to find any system since you arrived?  
 A.—I have not found any adequate system. I have also introduced a similar book in respect of departures.
- Q.—Is that book adopted from Taronga Park also?  
 A.—Yes. I have introduced my own system in regard to the hospitalization of animals. I keep a record of all animals treated in hospital. It is known as a Treatment Card. It contains a record of the symptoms, when admitted, and any history, feed ration, complaint, treatment, &c. If the animal should die, the result of the autopsy is entered by Dr. Albiston (vet. surgeon).
- Stock in hand.—I get a weekly record from all Keepers of stock they have on hand. That should tally with the arrivals and departures book.



Q.—Does it tally?

A.—As nearly as possible they tally. I would mention also a Medical Health Card which I have in operation. When the animal comes in, its name, type, approximate age, and its condition on arrival, is recorded. If it has any sickness particulars are entered also, and the actual card is pinned to the Medical Health Card.

Q.—You have a complete history of the animal from the time of its arrival?

A.—Yes. Also each Keeper gives me a report on his cages, and their condition. And the Keepers enter up any information regarding animals, and that is sent into the Head Keeper, and he gives his treatment. That is called the Animal Health Report Book.

Q.—Do you look through it?

A.—The Head Keeper initials each Keeper's Animal Health Report Book, week by week, and they are regularly checked by me.

There was also the question of General Diet. I found no real systematic method of feeding the animals when I came here. Keepers were feeding what they considered was relevant, but there seems to be very little principle of systematic control.

I obtained Diet Sheets from Taronga Park, and I put against them the Melbourne Zoo Sheets, and placed them before the Scientific Committee for advice. We altered them quite a lot and established ration cards. One card goes to the Keeper and the other one to the Stores.

I also inaugurated the system of centralized feeding where all of the feed is made up according to the Diet Sheets. The storeman makes it up, and the diet is sent out during the previous afternoon. Perishables go out the same morning. We kill the day before.

When I came here I found that there was far more grain used for the Australian section than the birds required, and I had reason to believe that some of the harder grains were being used for outside purposes. That is why I centralized the whole control.

Q.—Were you of the opinion that some of the employees were stealing the grain?

A.—Yes, definitely. Not only grain, but horse meat as well. Also birds.

Q.—Any animals?

A.—A few were taken more or less for annoyance reasons.

Q.—They were stolen?

A.—You could say "stolen".

Q.—Did you recover any of the animals?

A.—One monkey.

Q.—You were of the opinion, when you came here, some of the staff deliberately let birds escape to cause you embarrassment?

A.—Yes, not only to myself, but to my Head Keeper as well.

THE DIRECTOR TO MR. HALLSTROM.

When I came here there were two factions (Australian and others). I found Campbell doing the round as an ordinary keeper. I had to break down the whole prejudice by taking strong action.

Campbell came here as Head Keeper and the annual cash he was drawing was less than that being drawn by some artisans.

I have also seen him making up his own records and typing at 10 o'clock p.m.

MR. HALLSTROM TO CAMPBELL.

Q.—You have no complaint against the Director, or the Board?

A.—No.

Q.—They have co-operated with you and you have co-operated with them?

A.—Yes.

Q.—If you had a quarantine area, what portion of the ground would you favour?

A.—Behind the hospitalization area. It is free ground and should be free from disease.

Q.—You were appointed here as Head Keeper, but you found no co-operation?

A.—I was taken around and given wrong information.

Q.—When you came here, what was the system of recording increases, deaths, &c.?

A.—I did not see any records. Animals were burnt by the Keeper without permission and without being reported.

Q.—Why was that done?

A.—Probably to keep the death rate down. That would make our records look high.

N.B.—Minute Book shows deaths of animals were recorded in monthly minutes.

The previous Director died in May, 1947, and the Head Keeper died about the same time.

Mr. Nelson had started a card system of records, but it was not completed.

It would appear that no adequate records were kept.

Q.—How long have you been here?

A.—Since 2nd June, 1947.

Q.—What experience have you in this class of work? Did you have any experience before coming here?

A.—Not with wild animals. I have had experience with stock—my father was a veterinary doctor.

Q.—You lived on the land?

A.—I came from Western Australia, but from Scotland originally.

Q.—When you came here, you thought your experience with stock would be helpful with these types of animals?

A.—Yes.

Q.—What did you find when you came? Was the place in good order?

A.—No.

- Q.—Did you notice anything about the stock? Was it dying off?  
A.—Yes. The enclosures were very bad. We found, later on, that animals were disease ridden. Deer were dying, and the cause was found to be in the ground and a lot of the stock had not been shifted off.
- Q.—Had you any experience with worms before?  
A.—Only in sheep.
- Q.—Did you have any instructions to treat the pens in any way?  
A.—Yes. Paddocks were ploughed up and left.
- Q.—Was there any attempt to treat them by liming or spraying?  
A.—No, not to my knowledge. They did not use spray at all.
- Q.—Did you finally attempt to kill the life in the soil by spraying?  
A.—From what I have read, it is not good. I believe in putting the animal manure back into the soil.
- Q.—Your Scientific Committee made no other recommendation other than to plough the soil and turn it over?  
A.—Not that I know of.
- Q.—You realize that, with that system, half the pens would be empty? Is not that the complaint of some of the public that half the pens are empty?  
A.—I have had no complaint.
- Q.—You account for that by attempting to sweeten the yards?  
A.—Yes.
- Q.—You are not impressed with the spraying of big yards. But do you favour spraying of small yards?  
A.—Yes.
- Q.—Aviaries have avian T.B.?  
A.—That was the impression I had, but only one bird died from that complaint.
- Q.—How do you know?  
A.—From the autopsy. Dr. Albiston showed me exactly the condition.
- Q.—Do you live handy?  
A.—Yes, I live on the premises.
- Q.—If you were called urgently to some animal, you are available at any hour?  
A.—Yes, I have worked from 1 a.m. on a special case. I have always been available, except for two weeks when I was in hospital.
- Q.—You have taken a keen interest in the work?  
A.—Yes, I have taken a keen interest in it all my life.
- Q.—Do you have trouble with the water supply?  
A.—Yes, I have had to roster men to come on at 6 o'clock a.m. so as to get the water. We have not enough water for the stock.
- Q.—Have you ever had a conference with the Head Gardener about it?  
A.—Yes. His men come in early on some mornings also. When cleaning the hippopotamus ponds an early start is necessary, otherwise they will not be filled by night time. We have to bring the men in early so as all stock will get a drink.
- Q.—Have you a night watchman here?  
A.—No.
- Q.—Could you not arrange for the gardening staff to start sprinklers later?  
A.—Yes. We have done that. We work in together, but we have an inadequate staff to maintain a good standard. There were two factions, the old and new staff, but that difficulty has been overcome considerably.
- Q.—You find that some of your staff are quite incompetent. Have you tried to replace them?  
A.—Yes, and we have a fairly good team now.
- Q.—You think the country man has experience with stock?  
A.—Yes, but they were against the treating of stock when I first came here.
- Q.—What is the health of your deer now?  
A.—It has improved by special feeding and watching.
- Q.—Do you use a special diet for all that class of stock?  
A.—Yes.
- Q.—And do you keep that in the form of a chart?  
A.—I have it written out. (Produced.)
- Q.—Where did you pick up the list?  
A.—From Taronga Park. We supplement the feeding during the winter months.
- Q.—What animals and birds have been lost here?  
A.—That would be hard to say.
- Q.—Have some animals died of age?  
A.—Yes.
- Q.—And birds have died through age and not from disease?  
A.—Yes. They were old and no good for breeding purposes.
- Q.—Have you ever suggested to the Director the question of building new aviaries?  
A.—I spoke to him about that, but we have not the material at present to do it. I suggested the aviary housing the King Parrots be built against the wind.
- Q.—Would you like to get rid of the sheets of fibro-cement?  
A.—Yes.

Q.—Have you tried cementing them over?

A.—We cannot get cement.

Q.—In regard to the monkeys, apes, &c., do you find your experience with ordinary stock useful for the handling of these animals?

A.—Yes.

Q.—Do you find the books in this library useful?

A.—Some of them. I have bought a lot of my own.

Q.—I take it that you have frequent talks with Mr. Roper and with the Scientific Committee.

A.—Yes.

Q.—Is the Committee helpful to you?

A.—Yes.

Q.—You come to these meetings now?

A.—Yes, I submit a report every month of treatment and the shifting of stock.