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Performance Audit
of the
San Francisco Zoo

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Prepared for the

Board of Supervisors
by the

Board of Supervisors Budget Analyst
1390 Market Street, Suite 1025
San Francisco, CA 94102
(415) 554-7642

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CITY AND COUNTY

OF SAN FRANCISCO

BOARD OF SUPERVISORS**BUDGET ANALYST**

1390 Market Street, Suite 1025, San Francisco, CA 94102 (415) 554-7642

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January 11, 1999

Honorable Tom Ammiano, President
 and Members of the Board of Supervisors
 City and County of San Francisco
 Room 244, City Hall
 1 Dr. Carlton B. Goodlett Place
 San Francisco, California 94102-4689

Dear President Ammiano and Members of the Board of Supervisors:

Transmitted herewith is the Budget Analyst's Performance Audit Report of the San Francisco Zoological Gardens, which is under the management of the San Francisco Zoological Society. This management audit was conducted in accordance with Charter Section 2.114, which authorizes the Board of Supervisors to make inquiries concerning departmental operations.

In total, this report presents 15 findings containing 75 recommendations organized in four separate categories. The four categories are: (1) Animal Management and Care; (2) Visitor Services; (3) Objectives, Goals, and Compliance Responsibilities; and (4) Financial Management. If fully implemented by the Zoological Society, these recommendations would result in one-time cost savings of approximately \$4.53 million, \$3.73 million of which can be reallocated to construction of priority capital improvements and \$800,000 that should be transferred to a construction contingency account to increase the amount allocated for that purpose to an appropriate level. In addition, we have identified San Francisco Zoological Society operating budget savings in the amount of approximately \$197,857 that can be reallocated to high priority Zoo needs, such as facilities maintenance. Further, annual savings in the amount of approximately \$50,000 would result from the timely payment by the Zoological Society of the City's billings for sewer service charges and other utility expenses.

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BUDGET ANALYST

A complete list of the Zoo's reported accomplishments is contained in the Introduction Section of our report beginning on page *vi*. Some of the Zoo's significant accomplishments are as follows:

- The quality of animal care has improved since the Zoological Society assumed management in 1993. The veterinary program has improved dramatically. The veterinarians have an excellent working relationship with the Animal Keepers. The Animal Keepers are professional, knowledgeable, and caring as a group. An independent evaluation was completed by Dr. Joel Parrott, the Oakland Zoo Director, retained by the Budget Analyst. Dr. Parrott, who is also a zoo veterinarian, concluded that veterinary care at the San Francisco Zoo is excellent and general care is good.
- The Zoo has an excellent animal acquisition and loan policy. In fact, the Zoo's policy is used as an example in the American Zoological Association's "Suggestions for Implementation of the AZA Animal Disposition Guidelines."
- The Zoological Society raised \$11,494,465 against the \$10 million minimum Founders' Fund commitment and expended in excess of \$7 million for operations in each of the first five years of the Management Agreement.
- The Zoo's admission fees appear to be reasonable compared to other zoos and facilities catering to families and children in the Bay Area. In the case of its resident child and senior admission prices, the Zoo was one of the lowest priced facilities of those surveyed. According to the May 1999 visitor survey, 82 percent of respondents rated value for admission price as "excellent" or "good."
- We found that, in general, the Development Department has been able to meet its fundraising goals for annual operating expenses. In addition, the Zoological Society has raised approximately \$21 million of the \$25 million required for capital improvements under the lease agreement, including written, contingency, and verbal pledges.

Notwithstanding the notable accomplishments that the Zoological Society has achieved, the Budget Analyst has identified various findings and has made appropriate recommendations as summarized below.

SUMMARY OF MANAGEMENT AUDIT FINDINGS

Section 1: Animal Management & Care

Animal Management and Care is the primary business of zoos. Accordingly, we examined the status of animal management and care to determine whether 1) the

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management and care of the animals of the San Francisco Zoo are in accordance with applicable regulations and good practices, and 2) the Animal Management Department is accomplishing its objectives and goals in an economical and efficient manner.

Section 1.1: Animal Management & Care

- There are a number of animal exhibits that are out-of-date and can only be considered minimal facilities. The most glaring deficiencies in housing and exhibit design are the chimpanzees, orangutans, elephants, bears, sea lions, hippopotamus, giraffe, and siamang. All of these are recognized as minimal facilities by current Zoo management. All, with the exception of the bears and sea lions, are scheduled for new facilities within Phase II (\$73 million) of the Master Plan. Somewhere in-between are the enclosures for the greater cats. Although the Lion House is a public sentimental favorite, it is clearly dated in concept and design. The animal holding and exhibit facilities should be considered adequate but minimal. Many of the facilities overall show a lack of general maintenance. Rust is a major problem with the Sloat Boulevard location.
- A significant concern is that of the sea lion pool and bear grottos. The polar bears and Kodiak bear do not appear in the Master Plan. However, the collection plan indicates maintaining the polar bears, with the possibility of replacing the Kodiak bear with a grizzly bear. Since Phase II of the Master Plan is scheduled to be completed by the end of 2004, this means that the bears will be in the existing grottos for ten years, and possibly longer. This is also true of the sea lion and harbor seal exhibits. A decision should be made as expeditiously as possible on whether these species will be part of the Master Plan. If the seals and northern bears are not part of the long-term plan for the Zoo, the animals should be relocated to other institutions with better facilities. The bear grottos should then be removed. If the animals are part of the Master Plan, the existing facilities should be removed and new state-of-the-art bear and sea lion exhibits constructed. Ten to fifteen years is too long to address these concerns.
- An elephant restraint chute, which is used to immobilize and support elephants in order to perform certain procedures, and which can be relocated into the new exhibit when that facility is completed, is needed for the African elephants. This will address a current limitation of the existing facilities for African elephant management.
- A survey of Animal Keepers to solicit ideas on improving animal and animal-related management produced a number of excellent ideas for improving such management and also reinforced our observations concerning several

management issues. Among the more significant findings of the survey are that 1) morale among the various Animal Keeper Sections varies between reasonably good to extremely poor; 2) standards for selecting new animal keepers should be established, 3) there is a perceived wide variance in the performance of various Animal Keepers and a perceived wide variance in what is demanded of various Animal Keepers; 4) many animal keepers believe that their experiences and opinions concerning animal management are not sufficiently appreciated or considered prior to initiating animal management policies or implementing animal management projects; and 5) Animal Keepers have a high degree of confidence in the Zoo's Veterinarian and believe that the veterinary care afforded the animals is of the highest order.

- The leadership of the Board of Directors is aware of the existing morale problems, and recognizes that the existing organizational climate needs to improve greatly if the organization is to move forward. The Zoological Society has recently hired top-level management staff to improve operations and communications within the Zoo organization. Also, a consultant has been retained to assist in conflict resolution.
- Animal Keepers believe that the Zoo's greatest strength lies in its dedicated, talented, staff. The Education Center, the Animal Resource Center (ARC), and the Children's Zoo are mentioned prominently. Also, the Zoo's location is rated a plus.
- Animal Keepers would like to see, and believe the public would appreciate, more animals.
- Zoo management has not responded appropriately to non-compliance citations resulting from inspections conducted by the U.S. Department of Agriculture-Animal & Plant Health Inspection Service (USDA-APHIS). Since 1992, the Zoo has received one official warning "ticket," five letters of warning, and two warning statements on inspection reports from the USDA-APHIS. Most of these deficiencies dealt with repeated maintenance problems, such as wire mesh rusting in the Primate Discovery Center and deterioration in the walls of the Asian Rhino housing area. Zoo management has recently initiated a better working relationship with the USDA-APHIS, beginning with a meeting with USDA representatives in July of 1999.
- Zoo management has still not decided whether African elephants or Asian elephants or both will be part of the long-term plan. This will need to be decided very soon, because elephant facilities occupy a central role in the thematic

display, and will consume a significant portion of the space, funding, and energy of the Zoo. In addition, the elephant facilities are particularly inadequate.

- One of the most important considerations for animal management is the microclimate along Sloat Boulevard and the Great Highway. The toll that the weather (cool, wind, fog, and salt air) takes on the structures is mentioned in the accreditation report, as is the potential for the weather's affect on the animals' health. Zoo staff at all levels were asked if the primates seemed generally comfortable or uncomfortable in this climate, to see if the clinical picture suggested that these temperatures might be too low for these animals. The general impression of staff is that the animals acclimate to the climate and do well (even those that are tropical species). Primates are exhibited in other areas in temperate North America and voluntarily go outside when temperatures approach freezing. An advantage of this site is that the average low temperature in the coldest month is 45 degrees. It has rarely reached freezing.
- A site visit to the bison exhibit revealed a group of animals that appear to be in very good health. General care of the animals themselves appears to be good, although it was difficult to make full observations due to the generally poor condition of the site. A few piles of animal waste were present which should have been removed. The bison exhibit physical site appeared worn and overgrown. Much of the site was overgrown with weeds, and fencing appeared old and in some cases appeared to be oriented for some previous function. "Do Not Feed" signage was present but poorly displayed. Plans for new fencing and, more importantly, restoration of the main field are in place and scheduled for construction. The Bison Watch Committee volunteers have contributed project support and general maintenance work (weed pulling etc.) but would like to see more support for the facility. The facility improvements could be achieved at minor cost.
- Annual performance evaluations have not been regularly completed for most Animal Keepers.
- According to a comprehensive evaluation of animal care at the San Francisco Zoo conducted by Dr. Joel Parrott, Director of the Oakland Zoo and a zoo veterinarian, veterinary care at the San Francisco Zoo is excellent and general care is good. The greatest deficiency in animal care remains the physical plant.

Section 1.2: Animal Acquisitions and Dispositions

- The Zoo's acquisition/disposition practices have resulted in a significant reduction in the number of animals in the Zoo's collection. Excluding fishes and

invertebrates, the number of Zoo animals decreased from 1,371 in 1972-73 to 895 in 1988-89 to 630 in 1997-98, a total decrease of 54 percent. The mammal count included in the total decreased from 558 in 1972-72, to 438 in 1988-89, to 276 in 1997-98, a total decrease of 51 percent. The General Curator has stated that the Zoo currently holds the species and specimens that it can care for properly and that the Zoo's collection of mammal and bird specimens will be increasing with implementation of Phase II of the Master Plan.

- In June of 1997, the Director of the San Francisco Zoo decided to request that the Asian elephant "Calle" be relocated to the San Francisco Zoo from the Los Angeles Zoo prior to obtaining the final results of a general health blood profile and a blood test to screen for tuberculosis. The decision to request shipment of the elephant prior to completion of health testing was a mistake; further tests revealed that Calle had contracted tuberculosis. As of August 1999, the cost of treating Calle's tubercular condition has been \$115,177, not including staff time. The Los Angeles Zoo has contributed \$30,000 toward that cost.
- The Zoo's practices governing animal acquisition, loan, and disposition actions should be amended to assure that such transactions fully provide for the well being of the animals. In that regard, we found that:
 1. The Zoo does not require American Zoological Association (AZA) facilities requesting Zoo animals to complete an application form. Further, the Zoo does not require non-AZA members to notify the Zoo of the death or relocation of an animal that had been previously relocated to the non-AZA member by the Zoo. These provisions are recommended in the AZA Guidelines.
 2. The Zoo's "Animal Disposition Agreement," which is the contract form used to bind both AZA and non-AZA recipients of Zoo animals, does not include reference to the AZA's Code of Professional Ethics nor does the Agreement contain the AZA's recommended language requiring the acquiring organization not to sell, trade, loan, or donate the acquired animal to any inhumane research program.
 3. The Zoo's Animal Acquisition/Disposition Guidelines contain evaluation forms with appropriate questions for evaluating proposed acquisition/disposition actions. However, Zoo management does not currently complete the evaluation forms in writing.

Section 1.3: Capital Projects

- In response to the Budget Analyst's recommendations to increase Phase II Master Plan funding for increased construction of capital projects, the Zoological Society has made design changes to the new Administration, Quarantine, and Holding facilities. This has resulted in an additional \$687,000 that will become available for construction of animal exhibits.
- The current Phase II budget allocates approximately 4.9 percent of total construction costs of \$48 million to Program Management, which is being performed by an outside consultant, and 3.9 percent of such costs to Zoological Society Administration, for a total of approximately 8.8 percent, or \$4,215,434. Further, the current Phase II budget allocates approximately 7.8 percent of total construction costs, or \$3,747,052, to Construction Management, which would be performed by the Department of Public Works (DPW). Thus, the total budgeted cost for these functions is currently 16.6 percent of total Phase II funding, or \$7,962,486. We recommend that this combined total of 16.6 percent be reduced to 10 percent, or \$4,800,000, in accordance with attainable program and construction management cost containment practices and in accordance with the Zoo Bond Program Report, thereby allowing an additional \$3.16 million to be expended on construction of capital improvement projects.
- The current Phase II budget allocates approximately 13 percent of total construction costs to Design Fees, based on a combination of a 14 percent factor for specialized animal facilities design and a 12 percent factor for all other projects. The total amount allocated for Design Fees, is \$6,235,722. We recommend that the combined percentage of 13 percent be reduced to 12 percent, which would produce savings of \$480,000, which can be used for the construction of additional capital improvement projects.
- The current Phase II budget allocates two percent of allowable Phase II construction costs calculated at \$40 million, or \$800,000, to the Public Art Program. The Zoological Society should negotiate with the Art Commission to reduce the percentage to 1.5 percent, thereby saving \$200,000.
- \$800,000 of the approximately \$4.53 million in cost reductions identified above should be allocated to increase the construction contingency for each individual project by 2.5 percent, from 5 percent to 7.5 percent. The remainder of the \$4.53 million in savings, or the approximate amount of \$3.73 million, should be allocated to a Management Reserve Account to be used for the construction of additional capital improvement projects to further enhance the Zoo.

Section 1.4: Facilities Maintenance

- The Zoo is an aging facility (the oldest structures still in use are over 70 years old) which has experienced many years of unfunded and deferred maintenance. The problems caused by deferred maintenance have been compounded by aging facilities, limited funding, and a harsh ocean climate.
- A review of United States Department of Agriculture (USDA) inspection reports from 1994 to 1999 shows that the Zoo is not adequately responding to violations that have been identified by the USDA. It is the responsibility of the Zoo to evaluate all structures and exhibits in the Zoo in light of the nature of the violations identified in the USDA inspections, make such repairs and replacements throughout the Zoo, and to establish a schedule of periodic inspections.
- As of July 7, 1999, the Zoo had a total of 173 maintenance requests pending. The requests range from minor projects, such as to fix dripping faucets, to major repair projects in need of outsourcing, such as repairing floors and grading exhibit areas. The oldest dated request had been submitted in July of 1997 to replace the public railing in the giraffe exhibit.
- We found that, out of a total of 292 maintenance requests which were submitted during 1998, 227 or 78 percent were completed as of July 7, 1999 and 65 requests or 22 percent were still pending, six months to one and a half years after they had been submitted. Of the 65 work orders still pending, 32 were deemed to be "emergency" or "critical." For example, one such emergency request which has still not been addressed is to repair an unstable gate and replace the back perimeter fence in the giraffe exhibit.
- The Zoo will need to continue to enhance its animal care, the quality of its visitor experience, and address USDA compliance issues while the new Phase II capital projects are being constructed. It is recommended that Zoo management increase the maintenance department to address deferred maintenance items until maintenance is reasonably caught up. In order to accomplish this without increasing operating costs, new maintenance employees should be assigned strictly to Phase II program repair items, thereby qualifying all costs for the force-account labor category (Zoological Society maintenance employees) in the Phase II program. Zoo management has recently received approval to use such a force-account labor to perform necessary construction work related to its Phase II "Repair and Replacement" project.

Section 1.5: Browse Collection

- Our examination of the Zoo's workers' compensation claim data over the past four years found that a significant portion of claims were for injuries incurred by animal keepers while collecting fresh plant and tree cuttings for animal food and enrichment, known as "browse." From July of 1995 to March of 1999, there were ten browse related workers' compensation claims at an estimated total cost to the City's General Fund of \$270,389. These injuries resulted in the loss of 477 workdays, representing 14.3 percent of all claims submitted by animal keepers who are City employees and over 40 percent of the workers' compensation benefits paid for injuries incurred during that four-year period.
- The San Francisco Zoological Society has taken steps to address the rate of employee injury such as contracting with Recreation and Park Department for browse collection and assigning responsibility for a greater portion of the Zoo's browse collection to professional in-house horticultural staff. These efforts have recently resulted in a decrease in the number of browse-related injuries to City and Zoological Society staff. The Zoological Society's long-term plans also include meeting a portion of the Zoo's browse needs by planting trees and bushes within the Zoo to be used for browse.
- However, such solutions do not adequately address all of the Zoo's browse collection issues. The SFZS should establish a browse farm for the Zoo's ongoing browse needs, which could result in long term cost savings and would provide other benefits, such as eliminating potential exposure of the animals to toxins and ensuring an ongoing adequate supply of food and enrichment materials.
- In December of 1999, the Sheriff's Department reported to the Budget Analyst that it is still willing to consider the establishment of a browse farm at the San Bruno Jail site. The Zoo Director has advised the Budget Analyst that the Zoo will contact the Sheriff's Department in the very near future to discuss establishing a browse farm at the San Bruno Jail site.

Section 1.6: Free Admission Days

- All admissions to the Zoo are free on the first Wednesday of each month. These free days are the most highly attended of all days at the Zoo, especially during the summer months. For example, on the free day held in July of 1999, the Zoo recorded 23,771 visitors, a six-fold increase compared to the total attendance of 3,875 on the following Saturday. On the July of 1999 free day we observed the animals in the Gorilla World exhibit completely surrounded with jostling adults

and children two to three persons deep. Other exhibit areas, such as the Lion exhibit, were similarly overcrowded. In the Primate Discovery Center Gift Shop, the two clerks on duty were clearly overwhelmed by the large volume of visitors. By early afternoon, the trash receptacles near the Terrace Café were filled to overflowing and long lines had formed for the playfield restrooms. We observed security staff in some areas working to keep order by reminding children to stay off of railings and not to throw objects into the exhibits.

- The Zoo should consider a modification of its free day policy during the summer months to minimize stress on the Zoo's animals and facilities. This may become particularly important while the Zoo undergoes its planned capital improvements, which may concentrate or increase free day attendance during these peak summer months beyond the Zoo's capacity.
- One option is for the Zoo to modify its "free day" program by limiting free admission to only certain hours during peak summer months, as is done by some other zoos. For example, the Baltimore Zoo has free admission for children only on the first Saturday of each month between the hours of 10 a.m. and noon and the Portland Zoo has free admission on the second Tuesday of each month after 5:00 p.m. Another option is to attempt to schedule schools and other organized groups, including out-of-County groups, in order to avoid overcrowding on any given day.

Section 2: Visitor Services

As a part of this management audit, we included in our review an assessment of overall satisfaction of Zoo visitors, admission prices, the quality and pricing of concessions, and the attractiveness and cleanliness of the grounds and facilities.

- Based on the Zoo's semi-annual visitor surveys, the percentage of Zoo visitors who rate their overall satisfaction as "excellent" has been slightly below 40 percent or between 40 and 50 percent since August of 1996. Prior to that, from March of 1994 to February of 1996 visitors reporting an "excellent" rating averaged around 30 percent. While these ratings have improved, the Zoo has far to go in providing an "excellent" experience for all of its visitors.
- In the May 1999 Zoo visitor survey, when asked what one thing they would like to see changed at the Zoo, the most frequently mentioned suggestions (by 29 percent of visitors) concerned providing improved habitats for certain animals or all of the Zoo's animals in general.

- An inspection of the Zoo's food services by the City's Department of Public Health in June of 1999 found numerous minor, but no major, health violations. However, it was noted that the Zoo's concessions "...are falling into various stages of decrepitude."
- Although the Zoo has recently made efforts to improve its restroom facilities by painting stall doors and making other repairs, the poor condition of the restrooms is in large part due to aging structures and deferred maintenance that has resulted in unsightly and hazardous conditions.
- Exhibit signage is in poor condition in various areas throughout the Zoo. Damaged, worn out, dirty, and/or missing signage reinforces to the visitor an image of a Zoo in a state of disrepair and neglect.
- Although aged and deteriorating facilities hamper efforts to keep the Zoo grounds and facilities attractive and clean, the Zoo must allocate greater resources to managing the attractiveness, cleanliness, and information (educational and directional signage) aspects of the Zoo. The Zoo should strengthen the maintenance, horticultural, and custodial staffs, and provide them with the tools they need to perform efficiently.

Section 3: Objectives, Goals, and Compliance Responsibilities

As part of our performance audit of the San Francisco Zoological Gardens, we examined the extent to which the Zoological Society is accomplishing the objectives and goals for which the operation of the San Francisco Zoo was transferred from the Recreation and Park Department to the Zoological Society. In this section of the audit we also examined whether the Zoological Society is operating in compliance with the provisions of the Management Agreement and other relevant regulations.

Section 3.1: Financial and Operational Status; Compliance Issues

- The Zoological Society developed a planning document in July of 1993 entitled "5-Year Plan: 1993-1998." The 5-Year Plan was approved in concept on July 19, 1993, and, according to Zoo management, was used to guide the Zoo's development. The 5-Year Plan shows that the Zoological Society intended to significantly upgrade and improve Zoo facilities and the overall Zoo experience within the first five years of the Zoological Society's operation, by expending \$30 million in funds raised by the Zoological Society on capital improvements and by instituting managerial and other improvements. A motion to approve a Capital Budget in the amount of \$30 million was passed unanimously by the Board of Directors of the Zoological Society on February 28, 1994. However, only

\$10,377,210 of the planned \$30 million was expended on capital improvements (\$6,803,246 in Founders' Fund monies and \$3,573,964 in Capital Campaign monies). The Zoological Society shifted its capital campaign strategy to correspond with the City's Zoo Bond program after recognizing that obtaining significant capital contributions from its donor base was not feasible without the City's capital funding commitment, given the condition of the Zoo. In the professional judgment of the Budget Analyst, the Zoological Society's inability to raise and expend the additional funds on capital projects to upgrade the Zoo and the two-year delay in Zoo Bond sales due to the 49er Stadium bond lawsuit are the primary reasons the Zoological Society was unable to achieve its major operating and financial objectives during the first five years of the Management Agreement.

- Over the first five years of the Management Agreement, actual operating revenues, including bequests, were \$63,885,195 or \$15,633,805 less than the projected operating revenue estimate of \$79,519,000, which was the five-year operating revenue estimate presented by the Zoological Society when the Zoo Management Agreement was submitted to the Board of Supervisors for approval. Thus, the average annual operating revenue shortfall for the five-year period was \$3,126,761 (\$15,633,805 divided by 5). Actual operating expenditures over the five-year period were \$65,755,637, or \$15,004,259 less than the projected operating expenditure estimate of \$80,759,896. Thus, the average annual operating expenditure shortfall for the five-year period was \$3,000,852 (\$15,004,259 divided by 5).
- The retail sales contribution to Zoo revenue generation has been particularly poor. As shown in Table 3.1.3, for the five-year period of FY 1993-94 through FY 1997-98, actual retail sales revenue was \$7,567,200 less than projected. Further, a financial report generated by the Zoological Society titled "Revised Expected Budget Fiscal Year 1998-99" shows a \$537,428 negative variance for "Retail Operations," which constitutes approximately 81 percent of the entire negative variance amount of \$664,444.
- The Zoological Society has significantly increased its long-term debt to cover operating deficits and to provide advanced funding for capital projects. Long-term debt peaked in FY 1996-97 at \$2,428,741. As of August 1999, the balance owed on the Zoo's unsecured revolving line-of-credit was \$1,194,350.
- The revenue shortfalls experienced by the Zoological Society have had a very negative effect on Zoo staff. Many questions to Zoo staff concerning an operational issue have been answered with "that's not in the budget" or with "we don't have funding for that." As Dr. Parrott states in his evaluation beginning at

the bottom of page 34 of this audit report, "The revenue urgency and sense of vulnerability permeates the organization."

- Zoological Society staff did not obtain required building and other permits for numerous capital projects and alterations at the Zoo. Thus, required plan checks and inspections were not accomplished and the Zoological Society did not pay required fees to the City. Accordingly, the City Attorney advises that the City could be held liable for injuries resulting from structural inadequacies as a direct result of required plan checks and inspections not having been performed.
- Our review of the "5-Year Plan: 1993-1998" revealed that the Zoological Society has accomplished many of that document's objectives and goals. However, in addition to effectively managing Phase II of the Master Plan, other objectives are important to the Zoo's success, such as improving internal communications.
- The Zoo has maintained its accreditation with the AZA and its license with the USDA. However, Zoo management has not appropriately addressed the findings resulting from USDA inspections, as covered in Section 1.1 of this audit report.
- For FY 1998-99, the Zoological Society did not transmit its audited financial statements to the Recreation and Park Department within 120 days of the end of the Society's fiscal year (June 30th of each year), as required by Section 15.10 of the Management Agreement.

Section 3.2: Payment and Invoicing Procedures for City Services Provided to the Zoo

- Section 6.1 of the Management Agreement requires that the Zoological Society pay to the City the cost of all services provided by the City to the Zoological Society within 30 days of receipt of a written invoice. However, the Zoological Society was late in paying the majority of Recreation and Park Department invoices on time for City services provided to the Zoo. Of a total of 169 invoices issued from October 1993 to April 1999, 137 or 81% were paid late. The payments sampled were late an average of 34 days ranging from 1 day to 111 days overdue. The cost to the City, in terms of lost income from interest yields the City would have otherwise earned from invested funds, was \$80,262 over the course of five years.
- Independent of and in addition to the late payments caused by the Zoological Society, the Recreation and Park Department failed to invoice the Zoological Society in a timely manner after services were rendered to the Zoo. The longest delays in issuing invoices involved sewer service and water charges,

maintenance services, and light, heat and power charges. For example, sewer service charge invoices sampled were delayed an estimated average of 284 days ranging from 122 to 726 days late. The delays experienced from October 1993 through December 1998 resulted in a loss of income from interest yields in the estimated amount of \$149,724 over the course of five years.

- The present system of appropriating funds to cover Zoo sewer service and Zoo light, heat, and power expenses in the annual Recreation and Park Budget and then having the Department bill the Zoo to reimburse the City for those expenditures is cumbersome and not cost effective. It has contributed significantly to costly delays in processing invoices and payments.
- Accordingly, at the suggestion of the Budget Analyst, the Public Utilities Commission (PUC) has agreed to have its Clean Water Department and Bureau of Light, Heat, and Power bill the Zoological Society directly instead of billing the Recreation and Park Department for PUC services at the Zoo. The Zoo Society has expressed its agreement to the change to direct billing.
- Implementation of our recommendations should result in avoiding the loss of interest income to the City in an estimated amount of \$50,000 per year.

Section 3.3: Compliance With Insurance Requirements

- Section 17.1 of the Management Agreement requires that, subject to the approval of the City Risk Manager as to the insurers and policy forms, the Zoological Society shall place and maintain throughout the term of the Agreement, and pay the cost thereof, various types of insurance coverages. The Management Agreement also provides for periodic reviews of the Zoological Society's insurance coverages, but does not specify a time period for such review.
- Prior to this performance audit, the Zoological Society did not obtain the City Risk Manager's approval of the insurers, policy forms, and insurance coverages procured, as required by the Management Agreement, and the coverages were never reviewed by the City Risk Manager.
- The City Risk Manager has recently reviewed the insurance coverages and has determined that the provision limiting the policy forms and amount of both Malpractice and Commercial Crime Insurance to those in effect on the commencement date of the Management Agreement is ambiguous.

- The Zoological Society maintains Property Insurance on City-owned Zoo buildings, even though such coverage is not currently required by the Agreement. The City Risk Manager believes that Property Insurance coverage is essential. Because the Recreation and Park Department does not insure its real property, the City Risk Manager recommends that the Zoological Society continue to provide such coverage without interruption, for the duration of the Management Agreement.

Section 3.4: Recreation and Park Commission Representation at Joint Zoo Committee Meetings

- Section 16.3 of the Management Agreement specifies that the "Joint Zoo Committee," which was established in 1982 prior to the Management Agreement and which consists of three members of the Recreation and Park Commission and three members of the Zoological Society's Board of Directors, shall be maintained throughout the term of the Agreement and shall hold public meetings at least 11 times per calendar year to discuss and hear public testimony regarding major policies affecting the Zoo, including without limitation the setting of fees, new animal exhibits, animal acquisition and disposition policies, land use, and capital and operating budgets.
- Although the Joint Zoo Committee is an advisory committee without any legislative authority, the Budget Analyst considers that a balanced representation between Recreation and Park Commissioners and Zoological Society Board Directors at Joint Zoo Committee meetings is required for effective public/private management of the Zoo. Virtually, all major operational and financial matters and proposals are submitted to the Joint Zoo Committee for recommendation and referral to the full Recreation and Park Commission.
- Analysis of the minutes of the Joint Zoo Committee meetings for calendar years 1997 and 1998 revealed a wide disparity between the attendance by members of the Recreation and Park Commission and attendance by members of the Board of Directors of the Zoological Society. For the 22 meetings reviewed, the Recreation and Park Commission was fully represented by three Commissioners only 13.6 percent of the time whereas the Zoological Society was fully represented by three Directors 95.5 percent of the time. Further, nine of the 22 meetings reviewed included an agenda item that covered budget issues. The Recreation and Park Commission had full representation by three Commissioners at only two of the nine meetings, whereas the Zoological Society had full representation by three Directors at each of the nine meetings.

Inadequate attendance by Recreation and Park Commissioners does not, in the judgment of the Budget Analyst, provide for effective public/private management of the Zoo.

Section 4: Financial Management

Section 4 examines and evaluates revenue development and financial administration, and includes sections on Fundraising and Development, Marketing and Public Relations, Cash Handling, and Purchasing. Zoo attendance is obviously a significant factor in the generation of revenue supporting the Zoo's operating budgets.

Section 4.1: Fundraising & Development

- From FY 1993-94 through FY 1998-99, the Zoological Society raised a total of approximately \$47.5 million in contributions, membership dues, fund raising, and bequests for operations and capital projects. However, there is potential for improvement in certain areas. For example, there is potential to improve the Zoological Society's performance in recruiting and retaining Zoological Society members. Also, costs for certain fundraising activities are excessive.
- The Zoological Society should implement cost reduction measures, including eliminating one Events staff position and the Associate Membership Director position, and continue to evaluate the profitability of certain events in order to determine whether there is potential to reduce costs or increase revenues, or whether certain events should be discontinued.
- The implementation of our recommendations would result in savings of approximately \$108,391 annually and would improve the profitability and performance of the Zoological Society's Development programs.

Section 4.2: Marketing & Public Relations

- The Zoological Society spent over \$4.2 million on marketing over the past six years, and its marketing budget increased by 136 percent (27 percent annually) between FY 1993-94 and FY 1998-99.
- Yet, during the same time period, attendance increased by only 19 percent (3.8 percent annually). In addition, in two years when marketing expenditures increased, attendance decreased, and in another year when marketing expenditures declined, attendance increased.

- Moreover, in the late 1980s, when the Zoo did not have a marketing budget, there were some years in which attendance exceeded 1,000,000 visitors versus the actual attendance of 842,958 visitors for FY 1998-99.
- Since large marketing expenditures do not necessarily result in increased attendance, the Zoological Society should limit its marketing budget to 5.0 percent of annual operating expenses, thereby saving expenditures of \$89,466.
- The Zoological Society should ensure that the corporate sponsorship program is consistent with its mission of conservation, education, and recreation. Zoo management has advised the Budget Analyst that each corporate sponsorship program is reviewed to insure its compatibility with the Zoo's mission.

Section 4.3: Cash Handling

- The Budget Analyst audited the procedures employed by the Zoo to ensure the security of cash and cash handlers. In general, we found that those procedures need to be significantly improved. We have provided Zoo management with our recommendations concerning safety and security of cash handling operations on a confidential basis in order to prevent sensitive information from being made public. Zoo management has provided the Budget Analyst with a set of actions that have been and will be taken to enhance the security of cash handling operations.
- The Budget Analyst conducted audit tests to evaluate the following cash handling operations for September 1998:

Reconciled cash receipts to bank deposits, computer summaries of cash received, and bank deposit statements;

Reconciled Daily Sales Summaries to the General Ledger and to the Zoo's financial statements;

Traced the opening statement balance to the ending balance on the prior checking account reconciliation. Traced deposits in transit on prior reconciliations to deposits on the current statement.

Although no irregularities were noted as a result of the foregoing audit tests, we noted the following deficiencies:

- The Zoo's Cash Handling Manual defines a cash overage or underage as 1) a deviation of more than \$5 from the amount of sales recorded on the cash register, or 2) a one percent deviation from the amount of sales recorded on the cash register. Our review of cash handling revealed that for the month audited,

81 of 577 cash register tallies, or approximately 14 percent, resulted in cash overages or underages. Further, only 46 percent of the underages and overages resulted in issuance to Cash Handlers of a Cash Handling Notification form, although procedures provide that every cash overage or underage should result in a Cash Handling Notification form.

- The Zoo Cash Handling Manual that we originally audited was not current and consistent, nor was there a control in place to ensure that each Cash Handler received a Cash Handling Manual. During the course of this performance audit, Zoo management developed a new Cash Handling Manual that meets auditing standards and has instituted controls to ensure that the Cash Handling Manual is issued to all Cash Handlers.

Section 4.4: Purchasing

- The Zoo has a rudimentary purchasing system, with the only significant control being payment for goods and services. Functional managers, such as the Commissary Manager (Animal Food), the Merchandise Sales Manager, and the Food Services Manager all order, receive, and authorize payment for goods from various vendors of their selection, primarily without contracts. This is a fundamental violation of the “separation of duties” internal control principle.
- The primary control over the purchasing system, authorization for payment, is exercised by the Finance Director, who until very recently also had primary staff responsibility for the purchasing function. This also is a fundamental violation of the “separation of duties” internal control principle.
- The Zoo does not have a purchasing policy and procedures manual that provides rules and guidance on economic quantity ordering, documentation requirements, inventory requirements, internal control requirements, and which also includes a purchasing “code of ethics.”
- In order to determine whether there are opportunities for price savings in Zoo purchasing, we asked the City’s Purchasing Department to review a sample of the prices paid by the Zoo for a variety of food items. That review revealed that in some cases the City is obtaining better prices than the Zoo, and vice versa. For example, for a 20-pound case of Grade A mixed vegetables the City pays \$15.88, but the Zoological Society pays \$21.80.
- According to the Zoo’s new Deputy Director, who has recently assumed responsibility for the management of purchasing, the Zoo will transition to a formal purchasing system, with centralized ordering, commencing upon

completion of the new Zoo warehouse, which is scheduled for completion in late 2000.

SUMMARY OF RECOMMENDATIONS

Section 1: Animal Management & Care

The Zoological Society should:

- 1.1.1 Acquire an elephant restraint chute as soon as possible, which can be relocated into the new exhibit when that is completed. This will address a current limitation of the existing facilities for African elephant management.
- 1.1.2 Allocate more of the Maintenance Department's time for general facility maintenance, rather than assignments to new exhibit construction projects.
- 1.1.3 Develop a better working relationship with the USDA-APHIS. Zoo staff should promptly address non-compliant items and negotiate for the best possible reasonable length of time for compliance. Zoo staff should not challenge minor findings, and reserve appeals for the rare major non-compliant items that may, in fact, not threaten an animal's welfare and may not fairly qualify as non-compliant.
- 1.1.4 Ensure that the entire Zoo management participates in regular leadership training, to cultivate skills necessary to continue to improve staff morale.
- 1.1.5 Continue development of strategic planning, definition of the organization's values, and the conflict resolution process.
- 1.1.6 Recognize that the weather at the San Francisco Zoo is at the cooler limit for keeping many tropical species, without resorting to indoor temperature-controlled exhibits. New outdoor exhibits should be designed with ample windbreaks, outdoor shelters, and on-exhibit heat sources. The animal collection should be carefully selected, as much as possible, for an animal's ability to acclimate to cooler temperatures, or select species that originate from cooler climate zones, such as tropical zones at elevation or northern climate zones.
- 1.1.7 Ensure that enrichment items are regularly added and changed within the bison exhibit.

- 1.1.8 Decide within a short time period whether sea lions and northern bears (Polar bears and the Kodiak bear) will be part of the Master Plan. If the seals and northern bears are not part of the long-term plan for the Zoo, the animals should be relocated to other institutions with better facilities. The bear grottos should then be removed. If the animals are part of the Master Plan, the existing facilities should be removed and new state-of-the-art bear or sea lion exhibits constructed within the time period of Phase II. Ten to fifteen years is too long to address these concerns.
- 1.1.9 Ensure that its Exhibits Committee, on a priority basis, review plans for single specimens currently in the Zoo's animal collection.
- 1.1.10 Carefully consider each of the ideas presented by Animal Keepers in the "Animal Keeper Perspectives" section of this audit report and implement those ideas, where warranted.
- 1.1.11 Ensure that all Animal Keepers who have not received a performance evaluation within the past year be provided a performance evaluation as soon as practicable and annually thereafter.

The Department of Recreation and Park should:

- 1.1.12 Allocate greater resources to the bison facility. The site itself actually has exceptional potential, with the cooler climate and large open setting.
- 1.1.13 Implement the Bison Exhibit minor maintenance and long-term modification improvements contained in Attachment II to this report section.

Section 1.2: Animal Acquisitions and Dispositions

The Zoological Society should:

- 1.2.1 Require all institutions requesting an animal from the San Francisco Zoo to complete an animal acquisition application form.
- 1.2.2 Amend the "Animal Disposition Agreement" to require that all recipients of Zoo animals notify the Zoo upon the death of an animal and to require that non-AZA recipients obtain the Zoo's approval prior to dispositioning the animal to a subsequent recipient.
- 1.2.3 Increase the number of mammals and birds in the Zoo's animal collection, commensurate with providing animal care that meets or exceeds AZA

standards. Zoo management reports that the Zoo intends to increase its animal collection as facilities are rebuilt and added during implementation of Phase II of the Master Plan.

Section 1.3: Capital Projects

The Zoological Society should:

- 1.3.1 Implement changes to the, Warehouse, Quarantine, and Holding facility construction plans thereby producing cost savings of \$687,000.
- 1.3.2 Reduce “soft costs” for program management and Zoological Society administration from 8.8 percent of construction costs to five percent of construction costs, thereby saving approximately \$1.82 million.
- 1.3.3 Reduce DPW construction management costs from 7.8 percent of construction costs to five percent of construction costs, thereby saving approximately \$1.34 million.
- 1.3.4 Reduce design fee costs from 13 percent of construction costs to 12 percent of construction costs, thereby saving approximately \$480,000.
- 1.3.5 Negotiate with the Art Commission to reduce Public Art Program fees from two percent to 1.5 percent, thereby saving \$200,000.
- 1.3.6 Allocate \$800,000 of the approximately \$4.53 million in cost reductions identified above to increase the construction contingency for each individual project by 2.5 percent, or from five percent to 7.5 percent.
- 1.3.7 Allocate the remaining \$3.73 million in cost reductions to the Management Reserve Account for further allocation to Phase II construction projects.
- 1.3.8 Develop a separate cost factor for market conditions and update it over the duration of the program.
- 1.3.9 Identify and separate as a new line item in the Phase II Program the wasted expenditures for re-starting the Program. Although these wasted expenditures are components of the Program’s overall cost, they should not be included when evaluating the reasonableness of soft costs for implementing the projects.

- 1.3.10 Appoint an in-house Program Administrator with construction management expertise to oversee the work of the consultants. The function could possibly be adequately performed on a part-time basis.

Section 1.4: Facilities Maintenance

- 1.4.1 Develop a maintenance quality control program to insure that significant maintenance items are identified prior to USDA inspections.
- 1.4.2 Improve its maintenance work order log system by recording the date work orders were completed in order to provide Zoo management with improved record keeping and controls over the timeliness of repairs.
- 1.4.3 Increase the maintenance department staff to address deferred maintenance items until maintenance is reasonably caught up. In order to accomplish this without increasing operating costs, new maintenance employees should be assigned strictly to the Phase II program approved repair items, thereby qualifying all costs for the force-account labor category in the Phase II program.

Section 1.5: Browse Collection

- 1.5.1 Include an on-site or off-site dedicated browse farm in its new Zoo planning and establish such a farm as soon as possible.

Section 1.6: Free Admission Days

- 1.6.1 Modify its free entry policy during summer months to reduce stress on the Zoo's animals, staff, and facilities, particularly as the Zoo undergoes its planned capital improvements.

Section 2: Visitor Services

- 2.1 Consider the use of on-call custodians or maintainers who could fill in for personnel on vacation or leave. As resources become available, purchase labor saving equipment to facilitate cleaning tasks.
- 2.2 Ensure that restrooms are thoroughly cleaned either after closing hours or before opening, in addition to the daily servicing of restrooms. Sign-in sheets

posted on the walls would assure the public that restrooms have been serviced as well as aid the custodial supervisor.

- 2.3 Review the detailed housekeeping report prepared by the custodial experts, which has been provided to the Zoo, and implement the recommendations contained in that report as resources become available.
- 2.4 Implement the following recommendations concerning signage in the Zoo:
- Assign responsibility for inventory, minor repairs, and cleaning of signs to one department, preferably to one or two persons who would then develop knowledge of the cleaning and maintenance requirements for each type of sign.
 - Establish a regular inspection and replacement schedule for all signs and replace signs that are currently of poor quality or damaged as soon as possible. In addition, consider the costs and benefits of obtaining higher quality signage which is more durable and may result in lowered long term costs in addition to enhancing visitor enjoyment and projecting a more positive image of the Zoo.
 - Install temporary signs in empty exhibit areas that inform visitors that exhibits are "under construction" or with another appropriate explanation.
 - Install "STOP" signs or similar highly visible and easy to understand signs at the pathway entrances to employee only areas in order to prevent visitors from mistakenly entering off limits areas in the Zoo which is disruptive to Zoo staff and potentially hazardous to visitors.
 - Ensure that the text on the "For Your Information" signs is up to date and that the text is legible.

Section 3.1: Financial and Operational Status; Compliance Issues

The Zoological Society should:

- 3.1.1 Thoroughly clean up the Zoo and keep it that way.
- 3.1.2 Construct high quality signage.
- 3.1.3 Increase the number of mammals and birds in the Zoo collection commensurate with being able to care properly for the animals.

- 3.1.4 Beautify empty exhibits with conservation projects, landscaping, or anything else that is attractive and fits the motif of a Zoo whose primary concerns are conservation, education, and quality animal care.
- 3.1.5 Set goals for the Zoo that all of its employees can relate to and feel a part of.
- 3.1.6 Increase efficiencies by controlling expenses, including using the type of expense schedule shown in Exhibit 3.1.8.
- 3.1.7 Continue working with the Department of Building Inspection to obtain permits on all facilities maintenance projects and capital projects that require permits but that were not obtained prior to performing the work.
- 3.1.8 Emphasize to the Zoo staff that City, state, and federal rules and regulations are to be followed, especially with regard to obtaining building permits.
- 3.1.9 Emphasize to the Zoo staff that USDA inspections are to be responded to in an appropriate manner.
- 3.1.10 Enhance efforts to achieve the objectives and goals set in the 1993 planning document that have not yet been accomplished.
- 3.1.11 In accordance with Section 15.10 of the Management Agreement, deliver to the Recreation and Park Commission for its acceptance an original, signed copy of the Zoological Society's audited annual financial statements by the earlier of 30 days after the completion of the audit or 120 days after the end of the fiscal year covered by the audit.
- 3.1.12 Adopt a more "open door" policy to public inquiries and requests for information.

Section 3.2: Payment and Invoicing Procedures for City Services Provided to the Zoo

The Zoological Society and Recreation and Park Department should:

- 3.2.1 Arrange for the Zoo to be directly billed for sewer service and light, heat and power costs by the Clean Water Department and Bureau of Light, Heat and Power, respectively. This should expedite timely payment by the Zoological Society and free Recreation and Park staff to devote more labor-intensive time to billing and collection procedures for maintenance and payroll costs. The Recreation and Park Commission budget should be adjusted accordingly.

- 3.2.2 Set up and maintain a date stamping procedure to better manage, control, and expedite payments by the Society and facilitate timely invoicing by the Department.

Section 3.3: Compliance With Insurance Requirements

The Zoological Society should:

- 3.3.1 Increase the Malpractice Liability Coverage for the Assistant Veterinarian to the same level as that for Chief Veterinarian. The increased cost of \$26 in the annual premium is minimal compared to the increase in the amount of coverage.

The Recreation and Park Department and the Zoological Society should:

- 3.3.2 Develop a Memorandum of Understanding (MOU) to clarify specific amounts of coverage and minimum limits for both Malpractice Liability Insurance and Commercial Crime Insurance.
- 3.3.3 Develop an MOU providing that the Zoological Society maintain Property Insurance of City-owned buildings for the duration of the Management Agreement
- 3.3.4 Develop an MOU to provide that insurance coverage reviews occur every two years, or sooner if warranted by a substantial change in circumstances.

Section 3.4: Recreation and Park Commission Representation at Joint Zoo Committee Meetings

We recommend that the Recreation and Park Commission:

- 3.4.1 Ensure to the extent possible that three members of the Recreation and Park Commission attend each meeting of the Joint Zoo Committee.

Section 4.1: Fundraising & Development

The Zoological Society should:

- 4.1.1 Implement measures to improve and evaluate member recruitment and retention.
- 4.1.2 Implement cost reduction measures in the Fundraising, Membership and Events Programs as recommended in this section.
- 4.1.3 Continue to evaluate the profitability of certain events to determine whether they should be discontinued, or if there is any potential to reduce costs or increase revenues for these events. Zoo management has advised the Budget Analyst that all events are periodically reviewed in order to evaluated their profitability.

Section 4.2: Marketing & Public Relations

The Zoological Society should:

- 4.2.1 Limit marketing expenditures to no more than 5.0 percent of its annual operating budget.
- 4.2.2 Implement cost-cutting measures in its Marketing Department in accordance with the guidelines in this report.
- 4.2.3 Ensure that the corporate sponsorship program is consistent with the Zoo Society's mission.

Section 4.3: Cash Handling

The Zoological Society should:

- 4.3.1 Update the Cash Handling Manual to incorporate needed improvements cited in this audit report section.
- 4.3.2 Hold a workshop on cash handling, issue each employee involved in cash handling a Cash Handling Manual, and institute procedures that each new employee is issued a manual and has the opportunity to learn correct cash handling procedures.

- 4.3.3 Following the Cash Handling workshop previously recommended, institute the control of informing Zoo visitors that if a Cash Handler does not provide the visitor with a receipt at the time of purchase, the visitor will be given a free product.
- 4.3.4 Follow the cash handling procedures requiring that a Cash Handling Notification be issued to Cash Handlers for each cash variance, or that notation be made to the cash handling file explaining that the cash variance was due to an equipment problem or other extenuating circumstance.
- 4.3.5 The Zoological Society's financial auditors should review the implementation of increased cash handling safety and security as part of their audit of internal controls.

Section 4.4: Purchasing

The Zoological Society should:

- 4.4.1 Establish a formal purchasing system with written procedures and with a Zoo employee responsible for placing purchase orders based on valid purchase requisitions and economic order quantities for common items.
- 4.4.2 Review major recurring supply requirements and establish contracts with vendors, where such contracts would be beneficial to the Zoo.
- 4.4.3 Review prices paid by the City and by another zoo for items used by the San Francisco Zoo in order to obtain the best value available.

It should be noted that the Zoological Society has recognized many of its challenges and has instituted various new programs and procedures as a result of this management audit.

The Zoo Director and his staff have had the opportunity to review and comment on this report. In addition, the Acting General Manager of the Recreation and Park Department has reviewed those sections that pertain to the Recreation and Park Department. The responses of the Zoological Society and the Recreation and Park Department are attached to our report beginning on page 206.

The Zoological Society's written response to the audit report characterizes the audit as presenting "three major themes" that reflect favorably on the Zoo's overall performance. This statement is a vast oversimplification. The audit report presents 15 specific findings and 75 recommendations that are thoroughly documented and

Honorable Tom Ammiano, President
and Members of the Board of Supervisors

January 11, 1999

Page 28

have been reviewed at length and in great detail by all parties concerned. Despite this lengthy, detailed review, the Zoological Society has not provided the Board of Supervisors with specific responses to the Budget Analyst's findings and recommendations.

The Zoological Society's response states that the Zoo "...question some analyses and recommendations" presented in our report, without stating specifically what questions remain after our detailed review of findings and recommendations. The Budget Analyst has addressed all questions presented to us by the Zoological Society with specific facts, documentation and work papers.

Despite our concerns over the lack of a specific response to our findings and recommendations, the Budget Analyst would like to acknowledge and thank the management and staff of the Zoological Society for their cooperation during the course of this performance audit.

Respectfully Submitted,

Harvey M. Rose
Budget Analyst

cc : Supervisor Becerril
Supervisor Brown
Supervisor Bierman
Supervisor Katz
Supervisor Kaufman
Supervisor Leno
Supervisor Newsom
Supervisor Teng
Supervisor Yaki
Supervisor Yee
Clerk of the Board

Mayor Brown
Paul J. Jansen,
Chairman and Members
of the Board of Directors, San Francisco
Zoological Society
David Anderson, Zoo Director
Controller
Legislative Analyst
Matthew Hymel
Stephen Kawa
Ted Lakey

BOARD OF SUPERVISORS
BUDGET ANALYST

TABLE OF CONTENTS

Introduction.....	i
Zoological Society Accomplishments.....	vi
Section 1 – Animal Management and Care	
1.1 – Animal Management and Care - General.....	1
1.1a – Dr. Parrott’s Animal Management and Care Evaluation	25
1.2 – Acquisition and Disposition of Animals	40
1.3 – Capital Projects.....	51
1.4 – Facilities Maintenance	68
1.5 – Browse Collection.....	76
1.6 – Free Admission Days	85
Section 2 – Visitor Services.....	90
Section 3 – Objectives, Performance, and Compliance Issues	
3.1 – Financial and Operational Status; Compliance Issues	102
3.2 –Payment and Invoicing Procedures for City Services Provided to the Zoo.....	123
3.3 – Compliance with Insurance Requirements.....	129
3.4 – Recreation and Park Commission Representation at Joint Zoo Committee Meetings.....	135
Section 4 – Financial Management	
4.1 – Fundraising and Development.....	141
4.2 – Marketing.....	153
4.3 – Cash Handling	167
4.4 – Purchasing	174
Appendix: Section 3.1 Exhibits	179
Written Response from the San Francisco Zoo	206
Written Response from the Recreation and Park Department	210

Performance Audit of the San Francisco Zoo

INTRODUCTION

The Budget Analyst of the City and County of San Francisco has performed this *Performance Audit of the San Francisco Zoo* (the "Zoo") pursuant to direction received from the Board of Supervisors under the authority granted by Charter Section 2.114.

Project Scope

The scope of this performance audit included a comprehensive audit survey and selection of specific subject areas for detailed examination and analysis. The specific areas addressed in the performance audit are shown in the Table of Contents. Section 1.1 of the report, "Animal Management and Care," is the most detailed, accounting for a little less than one-fifth of the entire report. Section 1.1 also includes an examination and evaluation of the animal care afforded the bison located in Golden Gate Park in a facility under the control of the Recreation and Park Department.

Methodology

This *Performance Audit of the Zoo* was performed in accordance with standards developed by the United States General Accounting Office, as published in *Government Auditing Standards, 1994 Revision* by the Comptroller General of the United States. Accordingly, this performance audit included the following basic elements in its planning and implementation:

Entrance Conference: An entrance conference was conducted with the Zoo Director and management staff to discuss the performance audit scope, procedures, and protocol.

Pre-Audit Survey: A pre-audit survey was conducted to familiarize the performance audit staff with the operations of the Zoo, interview upper management, and collect basic documentation regarding Zoo operations. As a result of the work completed as part of this pre-audit survey, areas of Zoo operations requiring additional review and analysis were identified.

Field Work: Field work was conducted in the specific areas that we determined would be included in this study. Middle managers, supervisors, and line personnel were interviewed to obtain details regarding Zoo operations. In order to complete the analysis contained in this report, we conducted a survey of Animal Keepers and we also conducted extensive reviews of Zoo records.

Analysis and Preparation of Draft Report: At the conclusion of the field work phase of this study, we conducted detailed analyses of the information collected. Based on these analyses, we prepared our findings, conclusions, recommendations, and estimates of costs and benefits from implementation of our recommendations. We reviewed the findings, conclusions, and recommendations with each manager directly responsible for the audited area. The analyses were incorporated into a draft performance audit report, which was then provided to the Zoo for review.

Exit Conference and Preparation of the Final Report: We held an exit conference with the Zoo Director and the upper management of the Zoo to review the details of the report, and to identify any areas of the report requiring clarification or correction. Based on this exit conference, and further discussions, we considered the comments and clarifications provided by Zoo management and this final report was prepared and issued to the Board of Supervisors.

Current Organization, Budget and Staffing of the Zoo

The primary operating divisions of the Zoo are:

- The Animal Management Division – including three Animal Sections: Primates/Carnivores, Hoofstock/Pachyderms, and Birds; Special Collections (including the Children’s Zoo, the Insect Zoo, and the Animal Resource Center); the Staff Veterinarian; the Curator of Collections (including the Animal Commissary); the Maintenance Division; and the Conservation and Science Section.
- Visitor Services (including Merchandise, Food Service, Rides and Admissions, and Operations)
- The Education Division

Other operating and support functions include the following:

- The Finance Division
- Human Resources
- Development and Marketing (including Membership, Events, Gifts and Contributions, and Public Relations)
- Capital Projects (including the Curator of Planning, Facilities Maintenance, and the Horticulture Section)

The Zoo’s organizational chart is shown on the following page.

SF ZOO LEADERSHIP TEAM
 ORGANIZATIONAL CHART
 September 1999

The Zoo's budgeted *operating revenues* for Fiscal Year 1999-2000 are \$15,316,226, from the following sources:

<u>Description</u>	<u>Amount</u>	<u>Percentage Of Total</u>
Contributions	\$1,200,000	7.83
Board Giving	400,000	2.61
Fundraising	691,885	4.52
Membership	1,579,200	19.31
Estate Bequests	300,000	1.96
Education Income	165,207	1.08
Retail Operations	3,709,210	24.22
Children's Zoo	72,500	0.47
Interest	97,350	0.64
Miscellaneous Income	297,000	1.94
Gate Admissions	2,697,400	17.15
Management Fee	4,000,500	26.12
Lorikeet Exhibit Revenue	<u>175,974</u>	<u>1.15</u>
Total Support and Revenue	\$15,316,226	100.00

The Zoo's budgeted *operating expenses* for Program Services and for Support Services are \$15,316,226, as follows:

<u>Program Services</u>	<u>Amount</u>	<u>Percentage of Total</u>
Retail Operations	\$2,969,578	19.39
Membership Services	719,566	4.70
Animal Department	4,374,383	28.56
Lorikeet Costs	228,382	1.49
Admissions	<u>293,435</u>	<u>1.92</u>
Total Program Expenses	\$8,585,344	56.05
 <u>Support Services</u>		
Fund Raising	535,848	3.50
Marketing	958,002	6.25
Education	681,806	4.45
General & Administration	1,417,150	9.25
Building & Grounds	2,966,254	19.37
Interest Expense	<u>157,580</u>	<u>1.03</u>
Total Support Services	6,716,640	43.85
Total Expenses	<u>\$15,301,984</u>	<u>99.91</u>
Operating Surplus	\$14,242	0.09
Total Expenses and Operating Surplus	<u>\$15,316,226</u>	<u>100.00</u>

Zoo employees totaled 297 as of August 11, 1999, including 136 regular, full-time positions and 161 other position categories (regular, part-time; temporary, intern, Summer season, or as-needed), distributed among the Zoo organization elements in accordance with the following table.

	<u>Regular,</u> <u>Full-time</u>	<u>Percentage</u>	<u>Other</u> <u>Categories</u>	<u>Percentage</u>	<u>Total</u>	<u>Percentage</u>
Administration	18	13.2	4	2.5	22	7.4
Animal Management	54	39.7	45	27.9	99	33.3
Development/Marketing	11	8.1	5	3.1	16	5.4
Operations	23	16.9	4	2.5	27	9.1
Visitor Services	28	20.6	103	64.0	131	44.1
Zoo Director	<u>2</u>	<u>1.5</u>	<u>0.0</u>	<u>0.0</u>	<u>2</u>	<u>0.7</u>
Total	136	100.0	161	100.0	297	100.0

Based on the Zoo's animal collection database, as of October 15, 1999, the animal collection consisted of the following number of species and specimens within each class of animals shown below:

<u>Mammals</u>	<u>Birds</u>	<u>Reptiles</u>	<u>Amphibians</u>	<u>Fishes</u>
89/305	76/351	27/54	7/19	8/132

Phase II of the Zoo's Master Plan

Under the terms of the Lease Agreement between the City and the Zoological Society, the Zoological Society is required to meet two goals with respect to fundraising for the Zoo's capital projects in order to implement the first two phases of the Master Plan. The first is to raise \$10 million from private donations for a "Founder's Fund" within the first five years of the Agreement. The \$10 million was to be allocated as follows: (a) \$5 million for capital improvements (separate from the Phase II total sum of \$73 million); (b) \$2 million for operating expenses; and (c) \$3 million for the Zoological Society's Endowment Fund. By June 30, 1996, the Zoological Society met this goal by raising approximately \$11.5 million toward the Founder's Fund, of which \$6.8 million has been expended for capital improvements. These funds were allocated for improvements and new exhibits under Phase I of the Zoo's revised Master Plan.

A revised Master Plan for the Zoo was completed in 1994. The plan describes a four-phase program to modernize the Zoo. It calls for a Zoo which is divided into geographic regions according to the part of the world that the animals come from and which contains natural habitats that allow the animals to roam undisturbed.

The second requirement under the Lease Agreement is for the Zoological Society to raise \$25 million in private donations for Phase II of the Zoo's Master Plan. The \$25 million is to accompany the \$48 million in proceeds from a 1997 Zoo General Obligation Bond measure, for a total of \$73 million to be used for Phase II capital improvements at the Zoo. As of December of 1999, the Zoological Society has raised approximately \$21 million and reports that its goal is to raise the full \$25 million in private donations by December 31, 2000.

The Zoological Society Board of Directors and Zoo management consider implementation of Phase II of the Master Plan to be an absolute necessity for development of a first-class Zoo. The task of implementing Phase II consumes much of the current management effort at the Zoo, and will continue to do so for a number of years.

As part of this management audit, the Budget Analyst reviewed and analyzed the Zoo's capital project expenditures since the Zoological Society took over management of the Zoo in 1993. We also reviewed the proposed capital project expenditures under the Zoo's \$73 million capital improvement project, known as Phase II of the Zoo's Master Plan.

Accomplishments

Performance audits by nature focus on opportunities for service improvements, greater operational efficiencies, compliance with rules and regulations, and enhanced effectiveness. We must note however, that the Zoological Society has achieved many notable accomplishments at the Zoo. This report includes examples of such accomplishments, particularly in the areas of veterinary care and general animal care.

The Zoological Society has provided the Budget Analyst with a listing of Society accomplishments at the Zoo since the Management Agreement went into effect. That listing, unedited by the Budget Analyst, is shown below in its entirety.

San Francisco Zoological Society Accomplishments from 1993-1999

Since signing the Lease Partnership Agreement in 1993, the San Francisco Zoological Society has made great strides serving its major constituents: the Animals, the Public, and the Global Conservation Community, as well as fulfilling its role in its Partnership with the City. At the heart of the transformation of the Zoo are several key improvements in animal care, financial management, and public service and community outreach. The transformation of the Zoo is well underway, and there is highly visible progress. The following are specific accomplishments and improvements for the benefit of the Zoo's major constituents.

I) The Animals: Animal care at the San Francisco Zoo has improved dramatically over the last 5 years and is now acknowledged to be excellent. This has been the first priority for Society resources. Over the past 6 years, the Zoological Society has invested over \$17,000,000 in 7 new animal exhibits, 20 animal exhibit renovations, and 13 major maintenance projects. With the guidance of Dr. Freeland Dunker, veterinary care has improved greatly and is seen by staff and external experts as an exceptional strength of the Zoo. These factors, and the devotion of well-trained animal staff, have resulted in an animal collection that is healthy, that plays a crucial role in species survival programs, and that inspires and educates visitors.

A) Exhibits: The Society raised and spent \$17,000,000 on new construction projects, renovations, improvements and maintenance of exhibits. Some of the projects listed have involved the complete rebuilding of structures, major landscaping and irrigation of areas, installation of animal management features and animal enrichment devices. Public concerns such as public viewing, barriers, or safety-related repairs were incorporated in the renovations.

1) New Construction

(a) Feline Conservation Center	(09/94)
(b) Australian WalkAbout	(06/95)
(c) Wart Hog Exhibit	(03/96)
(d) Children's Zoo Entrance Complex	(09/96)
(e) Avian Conservation Center	(04/97)
(f) African Lion Cub Exhibit	(05/97)
(g) Rainbow Landing (lorikeets)	(04/98)
(h) Puente al Sur (Bridge to the South)	(05/99)

2) Major Renovations & Improvements

(a) North American river otter exhibit	(05/94)
(b) Lion House outdoor grottos	(09/94)
(c) Spectacled bear exhibit	(10/94)
(d) Zebra Yard	(11/94)
(e) Eagle Island	(06/95)
(f) African wild dog exhibit	(05/95)
(g) Flamingo Lake	(06/95)
(h) Monkey Island demolished	(07/95)
(i) African elephant exhibit	(08/95)
(j) Hippopotamus exhibit	(11/95)
(k) Tropical Building (indoor aviary)	(05/96)
(l) Ring-tailed lemur exhibit	(07/96)
(m) Kodiak bear exhibit	(11/96)
(n) Gerenuk yard	(04/97)

- (o) Creation of the Billabong (05/97)
- (p) Aye-Aye Forest (Nocturnal Gallery) (08/97)
- (q) Asian elephant exhibit (12/97 & 3/99)
- (r) Pygmy hippo exhibit (08/98)
- (s) Primate Discovery Center Terrace (11/98)
- (t) Children's Zoo Barnyard (03/99)

3) Major Maintenance projects

- (a) The Zoo's aging infrastructure was successfully replaced by DPW with the 1990 Earthquake Bond with minimal disruption to the Zoo and its guests
- (b) Holding areas were built behind mountain goat yard
- (c) The Africa barn's roof was replaced
- (d) Roof and floors were replaced in the Insect Zoo
- (e) Installed shift doors between bear grottos to provide bears with access to other exhibits
- (f) Installed heating and filter system to the macaque pool
- (g) Renovated and graded black rhino yard
- (h) Added softer substrate to the giraffe and Asian elephant exhibits
- (i) Transitioned old capybara exhibit to garden
- (j) A pool for fishing cats was constructed
- (k) The former lion cub exhibit was remodeled to accommodate tigers
- (l) Temporary repairs were made to prevent further deterioration to the Mother's Building
- (m) Installed heating and air conditioning to exhibits in the Primate Discovery Center

B) Veterinary Care: Under the leadership of Dr. Freeland Dunker, the quality of veterinary care has improved greatly and is seen by staff and external experts as a great strength of the Zoo. The veterinary staff has made a number of important improvements over the last 5 years:

- 1) Provide care for approximately 749 animal patients, 24 hours a day, 7 days a week. Quality of animal care meets or exceeds all requirements of the AZA. By meeting these criteria, AZA accreditation was renewed in 1994 and 1998.
- 2) Expanded on-call veterinary staff, increased clerical support
- 3) Streamlined medication purchasing system
- 4) All animals at the Zoo now receive regularly scheduled periodic checkups and preventive care
- 5) The Zoo Hospital strengthened its role in educating externs and animal staff in the recognition and treatment of exotic species
- 6) Provide emergency care for marine mammals and birds brought in by GGNRA, the Randall Museum, Steinhart Aquarium and the U.S. Forestry Service.

- 7) Purchased new equipment and upgraded existing equipment. Examples include:
 - (a) Endoscope
 - (b) Computer network upgrade and Y2K compliance
 - (c) Ultrasound machine
 - (d) Video monitoring and recording device for endoscopy
 - (e) Capture equipment (i.e., nets, crates, flexible stretcher, etc.)
 - 8) Significant animal care accomplishments include:
 - (a) Asian elephant's *Mycobacterium tuberculosis* treatment
 - (b) Evaluated and modified preventative medicine program
 - (c) On-going dietary and nutritional studies being researched and developed with a number of species in conjunction with other institutions
 - (d) The Hospital staff developed and performed intensive neo-natal care for a variety of animals
 - (e) Provide externships for a number of veterinary students and technicians
 - (f) Diagnosis and treatment of cancer in koalas and endangered felines
- C) Animal Management: Animal management staff, who have played a critical role in the improvements in animal care, have made a number of changes to build skills and enable greater care.
- 1) Emphasis on education and staff development has increased. This includes participation in training workshops given by other zoo professionals. Some animal keepers are in continuing education and use their unique connection to the Zoo to research for their thesis papers.
 - 2) The Zoo has established animal keeper staging areas adjacent to the exhibits
 - 3) Curators and animal keepers have participated in the development of a comprehensive, long-term animal collection plan
 - 4) A portion of the browse collection program (i.e., eucalyptus leaves, acacia branches, etc., fed to many animals) transitioned to the Horticulture staff, freeing up animal keeper time so they may focus on animal care
 - 5) Animal keeper staff was reorganized into Animal Management divisions (carnivores/primates, birds, hoofstock/marsupials/pachyderms, and special collections), resulting in more specific roles and responsibilities
 - 6) Animal keepers have developed and implemented a series of operant training procedures resulting from courses and training offered by the American Association of Zoo Keepers, and with consultation with other zoos.
 - 7) Numerous animal enrichment programs have been designed and implemented by the Animal Management staff
 - 8) Increased field study projects for animal keepers, i.e., lemur release project in Madagascar; census-taking of large herbivores in Africa

9) Conference participation has expanded (American Association of Zoo Keepers, AZA regional and national conferences, special interest seminars).

D) Significant Births since 1993: The Zoo has been involved in the American Zoo and Aquarium Association's Species Survival Plans (SSP), and continues to breed species based on SSP recommendations, working to maintain captive populations of threatened or endangered species in North American zoos.

1) Western lowland gorillas	(2)
2) Black rhinoceros	(3)
3) Bald eagles	(33)
4) Koalas	(6)
5) Snow leopards	(3)
6) Francois' langurs	(6)
7) Howler monkeys	(3)
8) Emperor tamarins	(7)
9) Ring-tailed lemurs	(2)
10) Magellanic penguins	(20)
11) Snowy owls	(3)
12) Musk oxen	(10)
13) Madagascar cichlid fish	(>100)
14) Navajo churro sheep	(4)
15) Black & yellow dart poison frogs	(10)
16) Nigerian dwarf goats	(7)
17) Nyala	(6)
18) Kookaburras	(7)
19) Water buffalo	(4)
20) Bennett's wallaby	(1)
21) Bushbaby	(1)
22) Squirrel monkey	(1)
23) Blackbuck	(1)

II) The Public: The public has responded to the improvements at the zoo and its programs under the partnership and has supported the Zoo through increased attendance and by passing Proposition C, the Zoo Bond, in June 1997.

A) Attendance: The Zoo has reversed the rapid decline in attendance seen during the last years of City operation of the zoo through effective marketing and improvements to the animal and visitors facilities.

- 1) The Zoo has had over 4,700,000 visitors in the last six years. Attendance increased by 22% in the last five years. This represents a turnaround of the rapidly declining attendance experienced in the last 5 years of City operation of the zoo.
- 2) Over 20% of all admissions are free, resulting in wide access to Zoo by all segments of the Bay Area. In addition to the mandated 12 free days, the Zoo has added an additional eight free days which coincide with San Francisco school teacher work days.
- 3) Additional free access is provided under the Zoo's extensive Community Access Program for "non-profit organizations providing services to person who are physically or mentally disabled, children, youth or women at risk, homeless, alcoholic and/or chemically recovering, low income seniors, AIDS Programs and financially impoverished"
- 4) Discounts are provided for San Francisco residents, Muni riders, disadvantaged access groups, and San Francisco Recreation and Park groups

- 5) Well designed marketing and advertising campaigns and expanded public relations efforts have heightened the public's awareness about the Zoo, and helped to illustrate the Zoo's progress and its mission.
- 6) The Zoo has embarked on a series of ethnic outreach programs to increase its accessibility to the community at large.
- 7) Entry fees remain at or below fees charged by other similar San Francisco attractions and entertainment/recreation facilities based on a survey of 17 comparable institutions conducted by the Budget Analyst. In particular, admission fees for children are the lowest of all institutions and those for seniors are among the lowest.

B) Public Services: A number of other important improvements have been made. As a result, over 90% of visitors rate their overall satisfaction with their zoo visit as good or excellent.

- 1) A Zoo web site was developed and launched, giving the public 24-hour access to information on Zoo animals, visitor information and events
- 2) A "Meet the Keeper" program was developed and implemented. These scheduled keeper talks have proven popular with the visiting public.
- 3) Cal Trans highway and street signage were added, directing visitors to the Zoo
- 4) All public restrooms have been painted and repaired
- 5) Major areas of the Zoo underwent new landscaping and beautification

- 6) The historic Little Puffer miniature steam train was rebuilt and now operates daily on a new one-third mile track
 - 7) Upgraded Playfield Café, Terrace Café, Plaza Café and eating areas
 - 8) Graphics and signage have been upgraded and standardized; this is a continuing process
- C) Education: Education is a major component of the zoo's mission. Over the last 5 years, the scope and reach of the zoo's programs have increased significantly.
- 1) The Zoomobile (educational outreach program using live animals) presents to approximately 13,000 children, teachers and seniors each year (increasing 20% in the last five years)
 - 2) Over 60,000 school children visit the Zoo annually on school field trips
 - 3) Participation in summer programs (Nature Trail youth volunteer program, Junior Zoologist program, etc.) for youth and teens now exceeds 800
 - 4) Volunteer hours on-site have increased by 50 in the last six years (exceeding 360,000 hours since 1993)
 - 5) Docent volunteers continue to be the backbone of the volunteer program, with 211 docents in FY 97/98 working 7,375 hours leading tours, stationed at biofact carts and teaching Zoomobile classes.
- D) The Joint Zoo Committee (monthly public meetings led by three members of the Recreation and Park Commissioners and three members from the San Francisco Zoological Society Board of Directors) has held 11 open meetings annually to provide information, garner approvals on agenda items, and gather public comment and input into Zoo operations and policy decisions.

III. The Global Conservation Community: The zoo has increased its impact on global conservation efforts through participation in field conservation, scientific research, and on-site conservation programs.

- A) Field Conservation programs: The zoo participates in a number of important cooperative field research programs, several of which tie back to planned exhibits.
- 1) The Madagascar Fauna Group
 - 2) The Zoo Conservation Outreach Program
 - 3) Giant Panda Task Force
 - 4) Madidi Park program
 - 5) IUCN Declining Amphibian Populations Task Force

- B) Scientific Research programs have become an important part of the zoo's contribution to global conservation knowledge.
 - 1) The veterinary staff conducts extensive research in the diagnosis and treatment of disease in exotic animals, i.e., avian malaria, mammalian tuberculosis, as well as dietary and nutritional requirements for animals such as the African hedgehog, musk ox, and Chilean flamingos.
 - 2) Animal staff research projects include:
 - (a) Aye-Aye Behavior studies
 - (b) Lemur diet study
 - (c) Musk oxen diet study
 - (d) Veterinary studies
 - (e) Gorilla Dietary Studies
 - 3) The zoo provides support to the Genomic resource bank
 - 4) Zoo staff are active in publications in peer-reviewed journals and presentations at national meetings
 - (a) Social sciences and education
 - (b) Husbandry
 - (c) Molecular genetics
 - (d) Ethology
 - (e) Reproductive physiology
 - (f) Field conservation
 - (g) Zoo operations
 - (h) Veterinary medicine
 - 5) The zoo also supports a range of graduate and professional research programs as well as student research programs
- C) On-Site Conservation Efforts
 - 1) Bald Eagle Recovery Project
 - 2) Captive breeding programs (Species Survival Plans for many of the zoo's endangered species including lemurs, koalas, gorillas, black rhinos, snow leopards)
 - 3) Waste reduction management programs

IV. The Partnership with the City: As a result of the Partnership and changes to the way the zoo is operated, the City has limited the cost of its support for the zoo while enabling substantial improvements in performance.

- A) Operations: Operating changes have resulted in significant improvements against a number of performance metrics.
 - 1) The Lease Partnership Agreement with the City was extended for a second five-year term in 1998, recognizing the Society's progress at the zoo.
 - 2) City expenditures on zoo annual operations have been capped at \$4 million

- 3) The Zoological Society continues to maintain its American Zoo and Aquarium Association accreditation (re-accreditations were issued in 1994 and 1998 after the accreditation was tabled for review in 1993)
 - 4) The Zoological Society's computer and operating systems were successfully replaced in 1999, and are now fully Y2K compliant
 - 5) The Zoological Society staff now includes more women in management, and throughout the workforce. In addition, employment programs aimed at at-risk teens and developmentally and physically disabled workers have increased diversity in full-time and seasonal positions.
 - 6) Approximately 50% of the employees hired by the Zoological Society at all levels over the last 4 years are ethnic minorities.
 - 7) The Zoological Society has developed a new Master Plan for the New Zoo, and is currently finalizing construction documents and bid packages. The public has been apprised of each step during the planning process, and their feedback has been an integral part of the design process.
 - 8) The Zoological Society has maintained a positive working relationship with the Unions representing its staff and the Civil Service employees
- B) Development: In the past six years the San Francisco Zoological Society has raised in excess of \$48 million to support ongoing operations, construction and renovation of the Zoo. The key metric of zoo performance is whether its funding commitments have been met and whether the funds have been raised in a cost effective manner. The development department has been able to meet its fundraising goals for both the annual operations and capital projects within budget.
- 1) The Zoological Society's Founders' Fund goal of \$10M was exceeded in the first four years of the partnership.
 - 2) The Society has raised approximately \$21 million towards its \$25 million goal for the Phase 2 (Campaign for the New Zoo) capital program. Almost \$10 million of this amount was raised directly from members of the Zoological Society Board of Directors
 - 3) Membership revenues have increased 17% in the last five years
 - 4) Event revenue has increased by 107% in the last five years
 - 5) Fund raising has increase almost 80% over the last 5 years
 - 6) A total of \$48.6 million have been raised at a cost of \$11.2 million, a return of 4.3 to 1 on total development expenditures.
 - 7) The returns on development expenditures for operating fundraising have improved in each of the last 4 years. As a result of reorganizations within development, the average operating funds raised per staff person in 1997/98 was \$397,515, which now exceeds the average at comparable zoos.

- 8) Capital fund raising returns have exceeded 15 to 1, which is well above industry benchmarks.
- 9) The Zoological Society headed efforts for the successful 1997 Zoo Bond measure (Proposition C). Thousands of volunteer hours were dedicated to the campaign, which was approved by a two-thirds majority vote by the citizens of San Francisco.

B) Financial Situation: As a result of increased attendance and development success, the financial situation of the Zoological Society has improved significantly. Revenues and endowment have grown while debt has been reduced. The zoo has met its goal of breakeven financial operations in 1997/98 and expects to achieve a surplus in 1998/99.

- 1) The Zoological Society's operating revenues have increased by \$4.5M to \$15M, while the management fee paid to the Society from the City has remained fixed at \$4M per year
- 2) The Zoological Society reached breakeven operating performance in FY 1997/98, as per its 5 year goal
- 3) The Zoological Society expects to post an operating surplus in excess of \$500,000 for FY 1998/99, although audited financial statements are not yet available. These funds will be invested back in zoo programs or used to decrease debt.
- 4) The Zoological Society's capital endowment has increased from \$1.2M to \$3.9M in six years
- 5) The zoo has earned a 22% annual return on its invested funds. This return compares to an average cost of 7% on its line of credit, indicating current investment policies have resulted in additional funds available to the zoo and increased financial flexibility as a result of the line of credit.
- 6) Cash flows for the zoo vary greatly depending on whether the zoo is raising capital funds or spending the funds on exhibits or other capital assets. Over the last 5 years, the zoo has experienced both net inflows and outflows on an annual basis, using an unsecured line of credit to finance cash needs for operations and capital projects. The balance owed on the line of credit was \$1,194,359 as of June 1999, which represents a reduction of \$1,234,391 from the borrowing peak in June 1997.
- 7) The zoo's balance sheet as of June 30, 1998, shows the zoo has \$12.4 million in total assets and total liabilities of \$4.1 million. This represents a material improvement in liability coverage over previous years.
- 8) Assuming the Zoological Society continues to keep capital expenditures apace with fundraising and that operating results remain positive, the zoo will have adequate funds to meet its current obligations.

Acknowledgements

The Budget Analyst would like to acknowledge and thank the Chairman of the Zoological Society Board of Directors, Mr. Paul Jansen, the Zoo Director, Mr. David Anderson, his deputy directors, and the management and staff of the Department for their cooperation and willing assistance during this performance audit.

The Budget Analyst would also like to thank Dr. Joel Parrott, Director of the Oakland Zoo and a zoo veterinarian, for his invaluable examination and evaluation of animal management and care at the San Francisco Zoo.

We would also like to thank Mr. Jason Yuen, former Director of Planning and Construction of the San Francisco Airport and currently, as a construction consultant, Chairman, Master Plan Programs Advisory Board, San Francisco Airport, for his invaluable guidance and assistance in examining and evaluating the Zoo's Phase II Construction Program.

We would also like to acknowledge the assistance of the Health Department's Environmental Health Division for examining food service at the Zoo; the Water Quality Division of the Public Utilities Commission for evaluating the water at the Zoo's lakes, and Mr. Severin Rizzo, Chief of Custodial Services at the San Francisco Airport, for assisting our examination and evaluation of the Zoo's custodial needs.

Section 1.1: Animal Management & Care

- ♦ The quality of animal care has improved since the Zoological Society assumed management in 1993. The veterinary program has improved dramatically. The veterinarians have an excellent working relationship with the Animal Keepers. The Animal Keepers are professional, knowledgeable, and caring as a group. An independent evaluation by Dr. Joel Parrott concluded that veterinary care at the San Francisco Zoo is excellent and general care is good. The greatest deficiency in animal care remains the physical plant.
- ♦ The Budget Analyst conducted a survey of Animal Keepers to obtain their opinions and suggestions on a variety of animal management and care issues. Among the more significant findings of that survey are that 1) morale among the various Animal Keeper Sections varies between reasonably good to extremely poor; 2) there are perceived wide variances in the levels of actual job performance and job demands placed on individual Animal Keepers; 3) many Animal Keepers believe that their experiences and opinions are not sufficiently considered or appreciated prior to initiating animal management policies; and 4) Animal Keepers have a high degree of confidence in the Zoo's Veterinarian. Ideas for improving animal and animal-related management, such as staggering Animal Keeper work hours to allow the animals more time outside and to possibly keep the Zoo open for longer hours, should be seriously considered.
- ♦ The most glaring deficiencies in animal housing and exhibit facilities, because they do not provide natural environments and/or are limited in space, are facilities for the chimpanzees, orangutans, elephants, bears, sea lions, hippopotami, giraffe, and siamang. All, with the exception of the northern bears and sea lions, are scheduled for new facilities within Phase II (by the end of 2004) of the Zoo Master Plan. If the sea lions and northern bears are to remain at the Zoo, the existing facilities should be removed and new state-of-the-art exhibits constructed within the Phase II time span. Otherwise, the animals should be relocated to other institutions with better facilities. As cited by Dr. Parrott, ten to fifteen years is too long to address the deficiencies of the existing habitats, although the habitats do meet current AZA and USDA standards.
- ♦ Zoo management has not responded appropriately to non-compliance citations resulting from inspections conducted by the Department of Agriculture, Animal & Plant Health Inspection Service (USDA-APHIS). Since 1992, the Zoo has received one official warning "ticket," five letters of warning, and two warning statements on inspection reports. Most of these deficiencies dealt with repeated maintenance problems, such as rusting wire mesh in the Primate Discovery Center and deteriorating walls of the Asian Rhino housing area. Zoo staff should promptly address the non-compliant items and similar conditions in other parts of the Zoo, rather than challenging the report citations or fixing only the specific location cited.

As part of our performance audit of the San Francisco Zoological Gardens, we examined the status of animal management and care to determine whether 1) the management and care of the living collection of the San Francisco Zoo is in accordance with applicable regulations and good practices, and 2) the Animal Management Department is accomplishing its objectives and goals in an economical and efficient manner.

To accomplish these objectives, we:

- Engaged the services of Dr. Joel Parrott, a Zoo veterinarian and Director of the Oakland Zoo, to perform an evaluation of animal management and animal care.
- Interviewed Animal Management Department personnel, including the General Curator, Associate Curators, Senior Animal Keepers, Animal Keepers, the Curator of Collections, the Commissary Manager, and the Zoo Veterinarian.
- Reviewed the 1998 and 1993 American Zoological Association (AZA) Accreditation Reports.
- Reviewed reports of inspections performed by the Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture (USDA).
- Reviewed various records and reports held by the Animal Management Department.
- Developed and administered an "Animal Keeper Questionnaire."
- Visited the San Diego Zoo, the Oakland Zoo, and the Phoenix Zoo. Obtained animal management materials from the San Diego Zoo and the Oakland Zoo.

Background

The mission of the Animal Management Division is to manage and care for the living collection of the Zoo in support of the Zoo's overall mission. In order to perform this mission, as of August 1999, the Animal Management Division includes a total of 99 employees, allocated as follows: 54 full-time, 15 part-time, nine temporary, nine intern, and 12 as-needed employees. An organizational chart of the Animal Management Department is shown on the following page (Exhibit 1.1.1). The Animal Management Division's FY 1998-99 Budget for the Zoo's Animal Services Program is \$6,970,672, which is approximately 3.3 percent greater than the \$6,745,195 expended for Animal Services in FY 1997-98, as shown in Exhibit 1.1.2.

Exhibit 1.1.2
Animal Management Division
FY 1998-99 Budget

<u>Expense</u> <u>Classification</u>	<u>Amount</u>
Primates/Carnivores	\$867,839
Hoofstock/Pachyderms	902,892
Avian	433,892
Horticulture	432,264
Maintenance	640,873
Veterinary Services	486,629
City Services (Sewer, L,H&P)	925,000
Custodial Services	412,108
Collection/Commissary	827,528
Contract Services	210,000
G & A Allocation	423,548
General Curator	127,101
Admissions	<u>281,442</u>
Total	\$6,970,672

As previously stated, with the concurrence of the AZA, the Budget Analyst obtained the services of Dr. Joel Parrot, a zoo veterinarian and Director of the Oakland Zoo, to perform an evaluation of animal management and animal care at the San Francisco Zoo. Based on our interviews, observations, and reviews of written records, we concur with Dr. Parrot's findings. We do, however, believe that the level of dissatisfaction with Zoo management expressed by Animal Keepers may be more serious and more widespread than indicated in Dr. Parrott's report.

Dr. Parrott, by virtue of his extensive experience in various branches of zoology, was able to interpret the raw data on animal management issues obtained through his observations, interviews, and reviews of written reports and to render professional judgments based on those interpretations. We believe that Dr. Parrott's evaluation report provides an accurate description of existing animal care at the San Francisco Zoo and also provides sound recommendations for improving animal management and care, animal facilities, and staff development.

As of August 1999, the San Francisco Zoo employed a total of 62 Animal Keepers and two Senior Animal Keepers (referred to collectively as Animal Keepers, for the sake of brevity), with employment statuses as follows:

An Associate Curator (Curator is the term used at zoos for a management position with animal collection responsibilities) normally heads each Division; however, the Bird Section has been without an Associate Curator since October of 1997.

Animal Keepers have varied backgrounds. The City Animal Keepers as a group are generally older, have many years of Animal Keeper experience, including experience at other animal facilities. Education among Animal Keepers ranges from a high school education to a Master's Degree. The one common element among the Animal Keepers we interviewed was a genuine concern for the well being of their animals.

Comments on Dr. Parrott's Review of Animal Management at the San Francisco Zoo

Dr. Parrott's report is appended to this section of the audit report as Section 1.1a, "Review of Animal Management at the San Francisco Zoo." Dr. Parrott's report should be read in its entirety in order to gain an understanding of the current state of animal management and care at the San Francisco Zoo and comparisons to animal management and care in the recent past.

Budget Analyst comments, primarily for purposes of clarification, elaboration, or emphasis, are discussed under the topic name found in Dr. Parrott's report.

Facilities

If the northern bears and the sea lions are to remain a part of the Zoo's animal collection, new, state-of-the-art exhibits should be constructed for those animals during the Phase II time period (Phase II projects are currently scheduled to be completed by the end of 2004).

Management

Dr. Parrott's report contains the statement "Single specimen collection holding is present, but is generally justifiable due to special circumstances on a case-by-case basis." The Zoological Society's Exhibits Committee oversees animal collection issues for the Zoo. The Budget Analyst recommends that the Exhibits Committee review plans for single specimens currently in the Zoo's animal collection, on a priority basis.

As stated by Dr. Parrott, "A more formalized keeper training program should be in place." In that regard, the Budget Analyst has provided Zoo management with a copy of San Diego Zoo's "Animal Care Keeper Handbook" which can be used as a reference to assist in developing a list of tasks that should be covered in an Animal Keeper training syllabus.

USDA Reports

Following our review of recent APHIS inspections at the San Francisco Zoo and in order to obtain a better understanding of the Zoo's compliance history with APHIS deficiency findings, we contacted the Supervisory Animal Care Specialist for the Western Region. In response to our request, the Supervisory Animal Care Specialist has provided the Budget Analyst with a letter concerning the compliance history of the San Francisco Zoo that is shown in Attachment I to this audit report section. We have summarized that compliance history, as follows:

1. For the three-year period of 1996-1998, the Zoo received four complete inspections and four additional inspections at Site 3, which is the bison site at Golden Gate Park, due to public complaints. No Category IV citations (repeat violations) resulted from the public complaint inspections. However, the Zoo received numerous Category IV citations on the complete inspections during that period.
2. Since 1992, the San Francisco Zoo has received one official warning "ticket" from the APHIS, five letters of warning, and two warning statements on inspection reports.
3. The Zoo has responded in writing to challenge many of the inspector's citations. As reported by the APHIS Regional Office, "this level of formal protestation is much higher than is usual with other licensees, most of whom work out their disagreements with inspectors' citations during the outbriefing process."

Our recommendations concerning the San Francisco Zoo's relations with the USDA-APHIS, are identical to those stated by Dr. Parrott, which we repeat here in abbreviated form, for emphasis.

1. Zoo management needs to develop a better working relationship with the USDA-APHIS. Zoo staff should promptly address noncompliant items and negotiate for the best possible reasonable length of time for compliance. Zoo staff should not challenge minor findings, and reserve appeals for the rare, major noncompliant items that may, in fact, not threaten an animal's welfare and may not fairly qualify as non-compliant.
2. Zoo management should increase the Maintenance Department to address deferred maintenance items until maintenance is reasonably caught up. One method of increasing the size of maintenance staff without increasing operating costs is to assign new maintenance staff to bond-approved repair items.
3. Zoo management should develop a maintenance quality control program to insure that significant maintenance items are identified prior to APHIS inspections.

Staff Morale

Staff morale in animal sections ranges from reasonably good to extremely poor. Our interviews of Animal Keepers and our evaluations of the Animal Keeper survey indicate to the Budget Analyst that morale issues may be more serious than those observed by Dr. Parrott. The leadership of the Board of Directors is aware that the existing environment needs to improve greatly if the organization is to move forward, and has hired top-level management staff to improve operations and communication within the Zoo organization. Also, a consultant has been retained to assist in conflict resolution. We concur with Dr. Parrott's recommendations, with the addition that "team building" should be an integral part of the development process.

Bison Exhibit: Golden Gate Park

Dr. Parrott's report includes five recommendations concerning the bison exhibit at Golden Gate Park, four of which are the responsibility of the Recreation and Park Department. The Budget Analyst has obtained a detailed listing of minor maintenance and long-term exhibit modifications that would improve the bison exhibit, according to Zoo management. We have included the listing of improvements as Attachment II to this report, and recommend that the Recreation and Park Department perform the work to complete the projects.

Master Plan and Bond Program

Dr. Parrott's statement regarding the Zoo's elephants (the San Francisco Zoo has two African elephants and two Asian elephants) is repeated here for emphasis.

"At this point, Zoo management has not decided whether African elephants or Asian elephants or both will be part of the long-term plan. This will need to be decided very soon, because elephant facilities occupy a central role in the thematic display, and will consume a significant portion of the space, funding, and energy of the Zoo. In addition, the elephant facilities are especially poor."¹

Concerning the sequencing of Phase II projects, Zoo management has explained, to the satisfaction of Dr. Parrott and the Budget Analyst, that the need to proceed with Phase II projects as currently planned is driven by the

¹ According to the Zoo's 1998 AZA Accreditation Report, the existing African elephant facilities do not comply with AZA minimum standards.

following factors: 1) the presence of existing buildings on future exhibit sites; 2) the need to develop a new disability-accessible entrance and needed visitor services, such as restrooms; and 3) the lengthy time required to design, build, and manage the introduction of animals to naturalistic, mixed-species habitats.

Bond Program Funds and Expenditures

Dr. Parrott recommends that no more than 20 to 22 percent of bond funds should be expended on "soft costs." As detailed in Section 5 of this audit report, "Capital Projects," the Budget Analyst recommends that "soft costs" be limited to 22 percent, thus saving approximately \$3.64 million that can be used to construct additional improvements.

Privatization

Dr. Parrott's statement regarding the transfer of Zoo management from the City to the Zoological Society is repeated here for emphasis.

"Conditions at the SF Zoo in virtually every category were worse when the City ran the zoo. Poor morale was a major contributing factor to the previous zoo director leaving on stress disability. The Zoo Director position remained vacant for a prolonged period of time. The Primates Discovery Center, which has had so many animal management problems, was built under previous management. Veterinary care for the animals was poor, under investigation, and lacked the confidence of the keeper staff. Most indicative of all, conditions were so poor that the SF Zoo was on the verge of losing its accreditation by the Association of Zoos and Aquariums. In 1992, the accreditation commission was very concerned about the poor physical plant, the lack of funding to make major capital improvements, and the borderline funding for operations. Accreditation was tabled for one year until the major issues of the management contract were developed. The SF Zoo was accredited in 1993, with the expectation that under the new financial arrangement of privatization, new funding sources would be developed to resolve the serious concerns of the commission."

Animal Keeper Perspectives

During the course of the preliminary survey phase of the Zoo audit, it became apparent from talking to Animal Keepers that as a group they had a number of serious concerns about animal management, in the comprehensive sense of that term. In order to collect information on the concerns in a manner that would render valuable information for improving the organization, we elected to develop an Animal Keeper questionnaire. The questionnaire was developed and disseminated to 48 Animal Keepers. We received responses from 25 of the Animal Keepers.

The auditors then compiled the responses from the individual questionnaires and provided access to that data, which is not attributed to any individual Animal Keeper, to the Chairman of the Zoological Society and to the Zoo's Director of Human Resources on a strictly confidential basis: by agreement, no other individual is permitted access to the non-attributed, compiled data. The Chairman of the Zoological Society and the Director of Human Resources collaborated to produce a synthesis of compiled responses, strictly for the Zoo's sole use and not a part of this report, in a form that could be used to develop plans for improving the Zoo's operations.

The Animal Keeper Questionnaire synthesis that follows was developed by the Budget Analyst completely independent from the syntheses compiled by the Chairman of the Zoological Society and the Zoo's Director of Human Resources.

The questions included in the Questionnaire generally pertain to the following topics concerning animal management and animal care:

- Management, including communication, priorities, allocation of resources, inclusion in decision making (consideration of ideas), support for staff development, commitment to safety, upholding work standards, and morale;
- Quality of Animal Care;
- Strong and weak elements of the animal collection;
- Zoo's Greatest Strengths/Greatest Weaknesses;
- Morale and Management/Animal Keeper relations;
- Ideas for Improving Zoo operations.

Responses to the 24 questions, many of which had sub-questions, varied widely and in some cases were contradictory. However, prevalent attitudes can be discerned in most cases. Our synopsis of the responses, subsumed under the foregoing topics, is as follows:

Management

Those sections that rated Section leadership more favorably also rated other leadership indicators and morale more favorably.

The Section with the least favorable leadership responses also expressed comments indicating intra-Section difficulties amongst Keepers.

Where significant differences in job performances occur, the belief is that adequate standards of performance should be enforced.

Many Animal Keepers believe that their counsel is sought only after decisions have been made.

Training for new Animal Keepers appears to be not standardized and inadequate.

Animal Keepers would appreciate seeing their leadership out in the Zoo on a regular basis.

Quality of Animal Care

Most think that animal care, within the limitations of the facilities afforded, is at least good.

Most think that veterinary care is excellent and believe that the Zoo is fortunate to have the services of its Veterinarian.

Some Animal Keepers cite a lack of quality time for animal enrichment and studying the animals.

The animal facilities most frequently cited as being deficient are the Chimpanzee/Orangutan facilities, the Elephant facilities (especially, the African Elephant facilities), and the Bear Grottos.

Strong and weak elements of the Animal Collection

Animal Keepers would like to see, and believe the public would appreciate, more animals.

There was a wide variance in the responses to the strong and weak elements of the collection. Based on survey responses, the following species stand out:

<u>Strong</u>	<u>Weak</u>
Gorillas	Elephants
Tigers/Lions	Bears
Kangaroos	Pygmy Hippo
Lemurs	Chimps/Orangutans
	Tomato Frog(s)

Zoo's Greatest Strengths/Greatest Weaknesses

Animal Keepers by far believe the Zoo's greatest strength lies in its dedicated, talented, staff. The Education Center, the Animal Resource Center (ARC), and the Children's Zoo are mentioned prominently.

Staffing Levels

The general consensus is that the animal sections are moderately understaffed.

Supporting Sections

Animal Keepers gave the highest rating for support to Visitor Services followed by the Horticulture Section (Veterinary Services weren't considered here).

Ideas for Improving Zoo Operations – Note: *The Budget Analyst has selected the following suggestions and opinions for improving Zoo operations from the many that we received in our survey of Animal Keepers.*

- Longer days for Animal Keepers (for example, four 10 hour shifts per week) to allow animal sufficient time outside.
- Regular and improved communications between Animal Sections concerning current animal conditions and care (e.g., a common bulletin board).
- Zoo is too small to do both elephant species well.

- More enrichment could improve animal care and the visitor's experience.
- There should be less territorialism between Animal Sections. There should be more management consistency between animal sections.
- Pay more attention to the Bird Section - it is generally overlooked and underrepresented.
- It would be great to have a behavioral specialist on staff to address enrichment and training issues – like they have at the Portland Zoo.
- Keepers should be given time to spend on enrichment and training and be made to spend less time building exhibits. (Many of our attempts at maintenance take a long time and must be re-done by the Maintenance staff).
- Aggressively address problem employees.
- Make it easier for senior people to work part time without losing seniority to the “as needed” staff.
- The recognition of the Animal Keepers as professional caretakers, and the creation of a real conservation department with a coherent theme of environmental awareness and education is the greatness potential strength of the Zoo.
- The Zoo needs to address minority attendance effectively.
- A dedicated Animal Keeper with adequate time could improve the overall appearance of an area, provide more enrichment and conditioning to make the animals visible and active for more of the day, be present to educate, answer questions, and clear-up confusion for the visitor.
- Increase operating hours by staggering keeper work shifts. This should increase revenue.
- Install educational graphics, hire more custodial staff to clean the trash up; encourage people to sit and quietly observe the animals (through good graphics and comfortable sitting areas); allow the keepers more time to be a presence in the Zoo.
- Management needs to communicate better if they want gossip to decrease.
- The Zoo as a whole has been improving in the (blank) years I've been a Keeper. There are many frustrations with my front line supervisor and some peers. I am encouraged by both this questionnaire and the new H.R. person's interest in specifics.

- Animal Keepers should not be the end all for all other departments; when something can't be accomplished by the appropriate department then it becomes the responsibility of the overburdened animal keeper staff. Is any department at the Zoo required to do similar varied work?

Animal Keeper Performance Evaluations

Zoo management has provided the Budget Analyst with a listing of regular, full-time Animal Keepers annotated to show the date on which each of the Animal Keepers last received a performance evaluation. Most of the Animal Keepers had not been evaluated within the past year, some had not been evaluated since 1989 or 1991, and some had never been evaluated.

With regard to performance evaluations of City Animal Keepers, the City's policy, which is contained in the City's "Handbook for Employees of the City and County of San Francisco," is that performance evaluations for permanent employees must be completed annually. The Zoological Society's policy is that the "frequency of performance evaluations may vary depending upon length of service, job position, past performance, changes in job duties or recurring performance problems." According to the Zoo's Director of Human Resources, the Zoo's Employee Manual, which includes the performance evaluation policy, is currently being revised. The Budget Analyst recommends that the Zoo's performance evaluation policy be amended to require annual evaluations and that a performance evaluation be completed for all Animal Keepers who have not been evaluated within the last year, whether City- or Zoological Society-employed, as soon as practicable, and annually thereafter.

CONCLUSIONS

The quality of animal care has improved since the Zoological Society assumed management in 1993. The veterinary program has improved dramatically. The veterinarians have an excellent working relationship with the Animal Keepers. The Animal Keepers are professional, knowledgeable, and caring as a group. An independent evaluation by Dr. Joel Parrott concluded that veterinary care at the San Francisco Zoo is excellent and general care is good. The greatest deficiency in animal care remains the physical plant.

The animal housing and exhibits are a mixture of old and new, demonstrating a wide range of conditions. The physical plant reflects a Zoo in transition. The newer exhibits are generally very good, as are the gorilla exhibit, koala exhibit, portions of the Primate Discovery Center, and the Children's Zoo. Excellent renovations were completed in the PDC, North American River Otter, Flamingo Lake, Tropical Building, and Warthog Exhibit. The Australian Walkabout is spacious and reflects

the energy and efforts of zoo staff. The existing housing is generally good. The Avian Conservation Center is an excellent facility. The Lorikeet Exhibit is well done and equal to any of the walk-through lorikeet exhibits currently existing in the country.

There are a number of animal exhibits that are out-of-date and can only be considered minimal facilities. The most glaring deficiencies in housing and exhibit design are the chimpanzees, orangutans, elephants, bears, sea lions, hippopotamus, giraffe, and siamang. All of these are recognized as minimal facilities by current Zoo management. All, with the exception of the bears and sea lions, are scheduled for new facilities within Phase II (\$73 million) of the Master Plan. Somewhere in-between are the enclosures for the greater cats. Although the Lion House is a public sentimental favorite, it is clearly dated in concept and design. The animal holding and exhibit facilities should be considered adequate but minimal. Many of the facilities overall show a lack of general maintenance. Rust is a major problem with the Sloat Boulevard location.

A significant concern is that of the sea lion pool and bear grottos. The polar bears and Kodiak bear do not appear in the Master Plan. However, the collection plan indicates maintaining the polar bears, with the possibility of replacing the Kodiak bear with a grizzly bear. Since Phase II of the Master Plan is scheduled to be completed by the end of 2004, this means that the bears will be in the existing grottos for ten years, and possibly longer. This is also true of the sea lion and harbor seal exhibits. A decision should be made sooner rather than later on whether these species will be part of the Master Plan. If the seals and northern bears are not part of the long-term plan for the Zoo, the animals should be relocated to other institutions with better facilities. The bear grottos should then be removed. If the animals are part of the Master Plan, the existing facilities should be removed and new state-of-the-art bear and sea lion exhibits constructed. Ten to fifteen years is too long to address these concerns.

An elephant restraint chute, which can be relocated into the new exhibit when that is completed, is needed for the African elephants. This will address a current limitation of the existing facilities for African elephant management.

The Zoo and quality of animal care have improved since the SF Zoological Society assumed management in 1993. The veterinary program has improved dramatically: it was poor and is now excellent. The veterinarians have an excellent working relationship with the keepers. The veterinary care for the animals is excellent. Diets have been reviewed, modified, and improved. Rodent control has improved from poor to good. The keepers at the SF Zoo are professional, knowledgeable, and caring as a group. Morale remains an issue and is still problematic in specific areas. Numerous new exhibits, facilities, and renovations are very good to excellent. The following list highlights the significant improvements attributable to the management since the SF Zoological Society took over:

New facilities

Avian Conservation Center

Feline Conservation Center (\$2,000,000; replaced string of cat cages)

Australian WalkAbout (\$562,000)

Puente al Sur

Lorikeets

Renovations:

Warthog exhibit (\$150,000)

Flamingo Lake (\$52,000)

River Otter exhibit (\$234,000)

Lion Cub exhibit

Aviary/Tropical Building (\$162,000)

Numerous major maintenance projects deferred from City management

A review of necropsy records reveals a mortality report well within the range of a high quality animal program in a zoo with an animal collection comparable to the size and makeup at the SF Zoo. The necropsies are well documented and supported by histopathology examinations. There were no indicators of deaths due to mismanagement in animal care or veterinary care. Strong confidence in the veterinary department among keepers ran throughout the organization. The high quality of veterinary care and high level of confidence in that care cannot be overstated. It represents a real and measurable improvement in animal care from the previous zoo management (considered poor at the time and under investigation) and prior to the SF Zoological Society management of the zoo.

A survey of Animal Keepers to solicit ideas on improving animal and animal-related management produced a number of excellent ideas for improving such management and also reinforced our opinions concerning several management issues. Among the more significant findings of the survey are that 1) morale among the various Animal Keeper Sections varies between reasonably good to extremely poor; 2) standards for selecting new animal keepers should be established, 3) there is a perceived wide variance in the performance of various Animal Keepers and a perceived wide variance in what is demanded of various Animal Keepers; 4) many animal keepers believe that their experiences and opinions concerning animal management are not sufficiently appreciated or considered prior to initiating animal management policies or implementing animal management projects; and 5) Animal Keepers have a high degree of confidence in the Zoo's Veterinarian and believe that the veterinary care afforded the animals is of the highest order.

The leadership of the Board of Directors is aware of the existing morale problems, and that the existing organizational climate needs to improve greatly if the organization is to move forward. The Zoological Society has recently hired top-level management staff to improve operations and communication within the Zoo organization. Also, a consultant has been retained to assist in conflict resolution.

Animal Keepers by far believe the Zoo's greatest strength lies in its dedicated, talented, staff. The Education Center, the Animal Resource Center (ARC), and the Children's Zoo are mentioned prominently. Also, the Zoo's location is rated a plus.

Animal Keepers would like to see, and believe the public would appreciate, more animals. (One Keeper responded to the question concerning the adequacy of staffing by saying that current staffing is adequate given that the Zoo currently has only a skeleton collection).

There was a wide variance in the responses to the strong and weak elements of the collection. Based on survey responses, the following species stand out:

<u>Strong</u>	<u>Weak</u>
Gorillas	Elephants
Tigers/Lions	Bears
Kangaroos	Pygmy Hippo
Lemurs	Chimps/Orangutans
	Tomato Frog(s)

Zoo management has not responded appropriately to non-compliance citations resulting from inspections conducted by the Department of Agriculture-Animal & Plant Health Inspection Service (USDA-APHIS). Since 1992, the Zoo has received one official warning "ticket," five letters of warning, and two warning statements on inspection reports. Most of these deficiencies dealt with repeated maintenance problems, such as wire mesh rusting in the Primate Discovery Center and deterioration in the walls of the Asian Rhino housing area. Zoo management has recently initiated a better working relationship with the USDA-APHIS, beginning with a meeting with USDA representatives in July of 1999.

At this point, Zoo management has not decided whether African elephants or Asian elephants or both will be part of the long-term plan. This will need to be decided very soon, because elephant facilities occupy a central role in the thematic display, and will consume a significant portion of the space, funding, and energy of the Zoo. In addition, the elephant facilities are especially poor.

One of the most important considerations for animal management is the microclimate along Sloat Boulevard and the Great Highway. The toll that the weather (cool, wind, fog, and salt air) takes on the structures is mentioned in the accreditation report, as is the potential for the weather's effect on the animal's health. Zoo staff at all levels were asked if the primates seemed generally comfortable or uncomfortable in this climate, to see if the clinical picture suggested that these temperatures might be too low for these animals. The general impression of staff is that the animals acclimate to the climate and do well (even those that are tropical species). Primates are exhibited in other areas in temperature North

American and voluntarily go outside when temperatures approach freezing. An advantage of this site is that the average low temperature in the coldest month is only 45 degrees. It has rarely reached freezing.

The bison exhibit in Golden Gate Park presents a special problem for all concerned. Animal care and veterinary care are the responsibility of the San Francisco Zoo. The enclosure and facility is the responsibility of the Recreation and Park Department. The animals are exhibited under the license of the San Francisco Zoo. USDA violations related to the facility result in citations given to the San Francisco Zoo, though it would be Recreation and Park' responsibility. A citizens group known as the Watch Bison Committee in Golden Gate Park monitors the site and advocates for the animals.

A site visit to the bison exhibit revealed a group of animals which appear to be in very good health. General Care of the animals themselves appears to be good, although it was difficult to see due to the generally poor condition of the site. A few piles of animal waste were present which should have been removed.

The bison exhibit physical site appeared worn and overgrown. Much of the site was overgrown with weeds, and fencing appeared old and in some cases appeared to be oriented for some previous function. "Do Not Feed" signage was present but poorly displayed. Plans for new fencing and, more importantly, restoration of the main field are in place and scheduled for construction. The Bison Watch Committee volunteers have contributed project support and general maintenance work (weed pulling etc.) but would like to see more support for the facility. The facility improvements could be achieved at minor cost.

Annual performance evaluations have not been regularly completed for most Animal Keepers.

Dr. Parrott's animal management evaluation contains the following statement regarding the transfer of Zoo management from the City to the Zoological Society:

"Conditions at the SF Zoo in virtually every category were worse when the City ran the zoo. Poor morale was a major contributing factor to the previous zoo director leaving on stress disability. The Zoo Director position remained vacant for a prolonged period of time. The Primates Discovery Center, which has had so many animal management problems, was built under previous management. Veterinary care for the animals was poor, under investigation, and lacked the confidence of the keeper staff. Most indicative of all, conditions were so poor that the SF Zoo was on the verge of losing its accreditation by the Association of Zoos and Aquariums. In 1992, the accreditation commission was very concerned about the poor physical plant, the lack of funding to make major capital improvements, and the borderline

funding for operations. Accreditation was tabled for one year until the major issues of the management contract were developed. The SF Zoo was accredited in 1993, with the expectation that under the new financial arrangement of privatization, new funding sources would be developed to resolve the serious concerns of the Commission.”

RECOMMENDATIONS

The Zoological Society should:

- 1.1.1 Acquire an elephant restraint chute as soon as possible, which can be relocated into the new exhibit when that is completed. This will address a current limitation of the existing facilities for African elephant management.
- 1.1.2 Allocate more of the Maintenance Department's time for general facility maintenance, rather than assignments to new exhibit construction projects..
- 1.1.3 Develop a better working relationship with the USDA-APHIS. Zoo staff should promptly address non-compliant items and negotiate for the best possible reasonable length of time for compliance. Zoo staff should not challenge minor findings, and reserve appeals for the rare major non-compliant items that may, in fact, not threaten an animal's welfare and may not fairly qualify as non-compliant.
- 1.1.4 Ensure that the entire Zoo management participates in regular leadership training, to cultivate skills necessary to continue to improve staff morale.
- 1.1.5 Continue development of strategic planning, definition of the organization's values, and the conflict resolution process.

- 1.1.6 Recognize that the weather at the San Francisco Zoo is at the cooler limit for keeping many tropical species, without resorting to indoor temperature-controlled exhibits. New outdoor exhibits should be designed with ample windbreaks, outdoor shelters, and on-exhibit heat sources. The animal collection should be carefully selected, as much as possible, for an animal's ability to acclimate to cooler temperatures, or select species that originate from cooler climate zones, such as tropical zones at elevation or northern climate zones.
- 1.1.7 Ensure that enrichment items are regularly added and changed within the bison exhibit.
- 1.1.8 Decide within a short time period whether sea lions and northern bears (Polar bears and the Kodiak bear) will be part of the Master Plan. If the seals and northern bears are not part of the long-term plan for the Zoo, the animals should be relocated to other institutions with better facilities. The bear grottos should then be removed. If the animals are part of the Master Plan, the existing facilities should be removed and new state-of-the-art bear or sea lion exhibits constructed within the time period of Phase II. Ten to fifteen years is too long to address these concerns.
- 1.1.9 Ensure that its Exhibits Committee, on a priority basis, review plans for single specimens currently in the Zoo's animal collection.
- 1.1.10 Carefully consider each of the ideas presented by Animal Keepers in the "Animal Keeper Perspectives" section of this audit report and implement those ideas, were warranted.
- 1.1.11 Ensure that all Animal Keepers who have not received a performance evaluation within the past year be provided a performance evaluation as soon as practicable and annually thereafter.

The Department of Recreation and Park should:

- 1.1.12 Allocate greater resources to the bison facility. The site itself actually has exceptional potential, with the cooler climate and large open setting.
- 1.1.13 Implement the Bison Exhibit minor maintenance and long-term modification improvements contained in Attachment II to this report section.

COSTS/BENEFITS

The recommendations contained in this audit section would significantly improve animal management and care. The recommendations contained in this audit section would also require significant additional costs for new, state-of-the-art northern bear and sea lion exhibits. However, according to Dr. Parrott, if the decision is made to keep the animals such costs are necessary for adequate facilities.

Significant benefits would accrue to the Zoo, its management, staff, and Animal Keepers if the recommendations concerning goal setting, communication, and trust are implemented.

United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

Animal Care
Western Region

Attachment I
Page 1 of 2
9580 Micron Ave., Suite J
Sacramento, CA 95827
Telephone: (916) 857-6205
Fax: (916) 857-6212

March 3, 1999

Re License No.: 93-C-0003

Stanton W. Jones, Zoo Audit Project Manager
Budget Analyst, Board of Supervisors
City and County of San Francisco
1390 Market Street, Suite 1025
San Francisco, CA 94102

Dear Mr. Jones:

Thank you for your letter of February 24, 1999, requesting information on the compliance history of the San Francisco Zoo. Let me first explain our system of reporting inspection findings.

Noncompliances cited on inspection reports are put into one of four categories. Category I is previously cited items that have been corrected. Category II is previously cited items that are within a correction deadline established by the inspector. Category III items are those cited for the first time, and the facility is given a deadline for correcting these items. We take this approach because we like to start with the assumption that a noncompliance exists because the licensee did not understand the regulatory requirement. We then explain the requirement and allow the licensee a specified amount of time to correct the problem. However, if the problem is not corrected within the deadline, or if the problem continues to recur, we must assume that the licensee is knowingly violating federal regulations. For example, if a licensee is cited for peeling paint in Building A, we assume that s/he does not realize peeling paint is a noncompliance, and we cite the problem with a deadline for correction. If we subsequently find peeling paint again, whether it is in Building A or some other building, we consider it a repeat violation, because the licensee should now know that peeling paint is a noncompliance, *wherever it occurs*. These repeated items are reported as Category IV noncompliances and are the most serious of the violations cited in an inspection report. It is these items which I researched in the San Francisco Zoo file. (Please note that we only maintain three years of inspection information in the files.)

Until recently, the zoo was divided into six sites for purposes of inspection. Each site was, in essence, treated as a separate facility. We have since changed that approach, and single facilities will no longer be subdivided for inspection purposes. This new approach will probably increase the number of Category IV citations at the zoo, since a Category III noncompliance will become a repeat violation if a similar noncompliance subsequently occurs anywhere within the *entire* zoo facility. The most recent inspection of the zoo, which is not yet in the file, was reported on a single document and, I understand, did contain Category IV items (repeated maintenance problems). The following is the information I obtained from our files on the zoo:

1. The zoo received four complete inspections in the period 1996-1998. Site 3 received four additional inspections, due to public complaints, during this time period, but no Category IV citations occurred on those reports. With regard to the four complete inspections:
 - a. Site 1 (primates) received Category IV citations on all four reports, all dealing with maintenance problems, plus one Category IV citation for a storage problem in April, 1996.
 - b. Site 5 received Category IV citations on two reports, both dealing with maintenance.
 - c. Sites 2, 3, and 4 each received Category IV citations on only one report. The site 2 citation was for drainage; the site 3 citation was for fence maintenance; and the site 4 citations were for maintenance problems and for failure to test water in marine mammal pools as required.
 - d. Site 6 (ARC and Children's Zoo) was the only site with no Category IV citations on reports in our files.

2. Since 1992, the zoo has received one official warning "ticket" from this office, five letters of warning, and two warning statements on inspection reports. (Please note that we began including warning statements on reports in lieu of warning letters in 1998.)
 - a. Category IV citations on inspections in December, 1994, and August, 1995, resulted in a warning letter issued in December, 1995, which noted that previous warning letters had been issued in May, 1992, and August, 1993, and that an official warning had been issued in June, 1993. All of these documents dealt with repeated maintenance problems. (Please note that enforcement letters are maintained for five years in the files, so the 1995 letter is still available, although the 1994 and 1995 inspection reports are not.)
 - b. Another warning letter was issued in October, 1996, concerning the repeated violations noted on a September, 1996, inspection (maintenance, drainage, storage).
 - c. Yet another letter was issued in June, 1997, concerning a repeated violation on the April, 1997, inspection report (fence maintenance).
 - d. In March, 1998, inspection reports for sites 1 and 5 each contained a warning statement regarding Category IV repeated maintenance violations.
3. The zoo has responded in writing to challenge many of the inspector's citations. This level of formal protestation is much higher than is usual with other licensees, most of whom work out their disagreements with inspectors' citations during the outbriefing process. The formal appeal process is usually reserved only for those instances in which the inspector and the licensee cannot come to an agreement and is usually rarely invoked.
 - a. In December, 1995, the zoo responded to our December, 1995, warning letter, challenging the two violations (primate facility maintenance and marine mammal facility maintenance) cited in the warning letter. In response to that challenge, the marine mammal facility maintenance violation was found to be invalid as a *repeated* noncompliance (i.e., the first citation of the noncompliance was valid, but the repeat citation was not).
 - b. In November, 1996, the zoo responded twice to challenge various violations listed in our warning letter of October, 1996. None of the citations in the warning letter were found to be invalid, although one Category III violation they questioned (fence maintenance), from the September, 1996, inspection was found to be invalid.
 - c. In March, 1997, the zoo challenged a February, 1997, inspection report citation from an inspection performed in response to a public complaint. The inspector's citation was found to be valid.

Hopefully, this summary of the information in our files will assist you in your audit. As you requested, I have also enclosed a copy of our regulations. If you have any questions concerning this letter or the Animal Welfare Act, feel free to contact me at the address or telephone number above.

Sincerely,

V. Wensley Koch, D.V.M.
Supervisory Animal Care Specialist
Western Region, Animal Care

Enclosure

To: Stan Jones
From: Michele
Date: 26 July 1999
CC: David Robinett

Regard: Maintenance at the Bison Paddock

Bison Exhibit Minor Maintenance

Main Field and Feed Area

- Hay manger/feeder: Some of the 2"x4" slats and the top rail need replacement. Wood needs to be sealed or repainted.
- Grading: Add substrate and grade the area around the water trough and the feed pad.
- Remove blackberry bramble from the interior of the feed storage area.
- Install sign posts at regular intervals to accommodate bison information signs.
- Perimeter fence repairs.
- Re-alignment of all gates so that space between the gates and the ground is less than three inches.
- Install a hose bib in keeper service area, so we can wash the hay manger

West Holding Paddock

- Hay manger/feeder needs replacement or extensive repair.
- Install a hose bib next to the water trough so that it can be more easily serviced.
- Re-string the perimeter hot wire.

Bison Exhibit Long-Term Modifications

- Re-configuration of the holding paddock and main exhibit. Include incorporation of a cattle chute leading to a restraint device and loading dock. Maintain a bison holding area separate from the main field.
- Addition of a cattle restraint chute/squeeze for ease of medical procedures.
- A quarantine/isolation paddock that is self contained including a feed area, shelter, and solid perimeter barriers.
- Upgrade perimeter fencing so that it is uniform. The fence should be a double fence with a 12 foot buffer zone between the bison and the public.
- Bison access to shelter/shade at all times regardless of where they are held. Include the addition of shaded areas, i.e., trees, in the main field paddock.
- Addition of behavioral and environmental enrichment opportunities for the bison including rocks, stumps, and limbs for rubbing.
- Permanent hay storage, food preparation area, and tool storage facility.
- Installation of communication devices, telephone and a radio base station.
- Upgrade access to power for tools and veterinary equipment.
- Addition of wash room and bathroom facilities for the animal care staff.
- Installation of appropriate signage and graphics.

Dan McKenna, at Rec/Park, is overseeing the renovation of the bison paddock. Mr. McKenna's number is 415 831 2745.

Dr. Parrott's Evaluation

REVIEW OF ANIMAL MANAGEMENT AT THE SAN FRANCISCO ZOO

The purpose of this report is to review the animal management program at the San Francisco Zoo. In general, animal management covers a wide range of areas, including sanitation, housing, water quality, nutrition, veterinarian care, curatorial decisions, animal disposition, and quality of staff. This report will address all of these areas. In August 1998, these areas were reviewed by an inspection team of zoo professionals, representing the Association of Zoos and Aquariums, as part of the re-accreditation process for the SF Zoo. A review of the AZA accreditation narrative report is recommended in association with the results of the findings in this report.

In addition to a general review of the animal management program and animal care at the Zoo, this report will address specific questions and issues that relate to animal care and management. Issues and concerns which were raised in discussions with the USDA, other issues detailed in an article which appeared in a May 1999 publication of The San Francisco Bay Guardian ("The Zoo Blues"), discussions with the Board of the SF Zoological Society, and any concerns regarding management expressed in a survey of the SF zookeepers will be included. Where appropriate, clear recommendations will be made.

The approach included a review of materials (including, but not limited to, financial reports, USDA inspection reports, animal keeper questionnaires, AZA accreditation reports, bond summaries, staff records and correspondence, etc.), interviews, and a tour of the physical plant. The following individuals were interviewed June 22 – 24:

Judith van Es, Human Resources Director
Ron Bernardi, Keeper (avian)
Karen Raby, Keeper (Children's Zoo)
Jill Andrews, Keeper (primates)
Dave Bocian, Keeper (primates)
Deb Cano, Keeper (carnivores)
Nancy Rumsey, Keeper (koalas)
Antonietta Brocksen, Keeper (avian)
Roger Hoppes, Associate Curator (Children's Zoo)
Michele Rudovsky, Associate Curator (hoofstock, pachyderm)
Eve Lyon, Associate Curator (primates, carnivore)
David Robinett, General Curator
Tony Bila, Human Resources
Freeland Dunker, Senior Staff Veterinarian
David Anderson, Zoo Director
Robert De Liso, Bond Program Manager
Phil Carlton, Golden Gate Park Bison
V. Wensley Koch, DVM, USDA
Michael J. Smith, DVM, USDA

Paul Jansen, President, SF Zoological Society
John Wortman, General Curator, Denver Zoo

Animal Care

Animal care is best described by reviewing each individual aspect of management, care, and well-being of the animals at the Zoo. A similar review was conducted by the AZA accreditation inspection team, and that report should be considered in addition to this report.

Facilities:

The animal housing and exhibits are clearly a mixture of old and new, demonstrating a wide range of conditions. The physical plant reflects a Zoo in transition. The newer exhibits are generally very good, as are the gorilla exhibit, koala exhibit, portions of the Primate Discovery Center, and the Children's Zoo. Excellent renovations were completed in the PDC, North American River Otter, Flamingo Lake, Tropical Building, and Warthog Exhibit. The Australian Walkabout is spacious and reflects the energy and efforts of zoo staff. The existing housing is generally good. The Avian Conservation Center is an excellent facility. The Lorikeet Exhibit is well done and equal to any of the walk-through lorikeet exhibits currently existing in the country. The newest animal exhibit complex, "Puente al Sur," is excellent.

There are a number of animal exhibits that are out-of-date and can only be considered minimal facilities. Certainly the most glaring deficiencies in housing and exhibit design (and well-known to all concerned) are the chimpanzees, orangutans, elephants, bears, sea lions, hippopotamus, giraffe, and siamang. All of these are recognized as minimal facilities by current Zoo management. Somewhere in-between are the enclosures for the greater cats. Although the Lion House is a public sentimental favorite, it is clearly dated in concept and design. The animal holding and exhibit facilities should be considered adequate but minimal. Many of the facilities overall show a lack of general maintenance. Rust is a major problem with the Sloat Boulevard location. General maintenance will be covered in greater detail under "USDA Concerns."

The Feline Conservation Center requires special consideration, due to the history and its mention in the Guardian article. The original intent and design of the FCC was to serve as an off-exhibit holding, breeding, and conservation center for cats. The original intent and design of the Feline Conservation Center (FCC) was to serve as an off-exhibit holding, breeding, and conservation center for cats. The original intent was also to provide new quarters so that the old string of cat cages could be demolished. In that regard, the FCC is a very good facility and a tremendous improvement in quality-of-life from the conditions that the animals were in. Later, a decision was made to allow public viewing of the enclosures as an exhibit. Although it is not aesthetically a strong exhibit complex for public viewing, it remains a very good facilities for its original intent (improved possibly by the addition of indoor facilities for tropical cats). The FCC definitely represents a major improvement from the previous cat cages. In fact, the accreditation report lists the FCC as an "excellent project."

The outdated animal enclosures and exhibits are the greatest concern of the general public. They were the driving force for the success of the bond measure vote and should be moved to top priority for the bond program.

Recommendations:

1. The African Savanna project should be the first elements designed and constructed, to address the needs of the chimpanzee, orangutan, elephant, lion, giraffe, and rhinoceros.
2. An elephant restraint chute should be acquired as soon as possible, which can be relocated into the new exhibit, when that is completed. This will address a current limitation of the existing facilities for African elephant management.
3. The bear grottos and sea lion should be included within the Phase II (\$70,000,000) portion of the Master Plan.
4. The maintenance department should be allocated more time for general facility maintenance, rather than assignments to new exhibit construction.

Management

A review of animal care at the zoo revealed a professional level of management throughout the animal management program. The keeper staff appeared conscientious and professional, as a group. The animal exhibit areas and holding areas are clean and well maintained, within the limitations of the physical facility. Keepers appear to be well-trained, qualified, and competent. All areas appeared to be adequately staffed to care for the animals. However, a common complaint by keepers was that the staffing level was borderline, and everyone felt pressed to complete the workload. This was also a common complaint of management. Management is confronted with a large workload, especially with the demands of growth and fundraising, which put pressure on maintaining day-to-day business. The busy workload does not appear to be at the expense of the animals. The recent hiring of a Chief Operating Officer should help upper management.

The veterinary medical program to care for the animals is excellent. The veterinary staff is excellent and is one of the most significant improvements in animal care since the SF Zoological Society assumed management of the zoo. The veterinary staff and animal management appear to have a good working relationship. A review of necropsy records reveals a mortality report well within the range of a high quality animal program in a zoo with an animal collection comparable to the size and makeup at the SF Zoo. The necropsies are well documented and supported by histopathology examinations. There were no indicators of deaths due to mismanagement in animal care or veterinary care. Strong confidence in the veterinary department among keepers ran throughout the organization. The high quality of veterinary care and high level of confidence in that care cannot be overstated. It represents a real and measurable improvement in animal care from the previous zoo management (considered poor at the time and under investigation) and prior to the SF Zoological Society management of the zoo.

A random sample review of animal diets indicated that the diets are complete and professionally designed. All diets were reviewed by a zoo nutritionist three years previous and are now collaboratively developed with veterinary and curatorial staff. The commissary appeared clean and foods were high quality. Refrigeration, storage, and food preparation areas appeared professionally managed.

Water quality for the animals appeared acceptable at all levels. Drinking water sources appeared very clean. Pools with filtration also appeared clean. Pools without filtration were drained and refilled daily. The ponds were not clear but are within guidelines for the environment.

Pest control also appears significantly improved over the past ten years. Past history of Norway rats at the SF Zoo now appears under greater control with the existing pest control program. The presence of mice and rats in a zoological environment can never be completely eliminated, it can only be controlled. The problem of rodents is primarily due to the necessary practice of feeding wildlife in an outdoor environment where the animals can still access the food. The exposure of that food makes it vulnerable to rodents. This exposure is controlled primarily by using fine mesh wiring (where possible) and a vigilant pest control program (poisoning, trapping, etc.). The rodent problem now appears under control at the SF Zoo.

Animal policies are within the guidelines of the AZA. San Francisco has one of the most stringent animal surplus policies in the country. The animal acquisition policy appears to be adhered to, based on the animal collection plan. The euthanasia policy is under the responsibility of the staff veterinarian. A detailed animal collection plan is in place, covering each species in the collection. A glaring exception is the lack of a plan for the future of the elephant collection. (Asian and African). The record system is complete and professionally maintained. The animal collection is included in the ISIS program.

Quarantine and isolation facilities are lacking, primarily in large hoofstock. However, this is a common problem with most zoos. Management is aware of this and hold facilities are included in the Master Plan.

An animal marking system to individually identify animals is in place and is above average. Animal enrichment was evident in numerous enclosures, to provide activities for the animals. However, more enrichment would be desirable and several keepers expressed frustration at a lack of time to devote to animal enrichment activities. The enrichment appeared to be within the professional norm.

Sociobiological concerns of various species appear to be addressed as much as is reasonable. Creating and maintaining the proper social mix of any group is always a concern of all zoos. Many different factors affect the ability to fulfill sociobiological needs. A review of San Francisco's animal inventory, collection plan, and plan for individual animals demonstrates that the zoo is aware of the challenge and is addressing it. Single specimen collection holding is present, but is generally justifiable due to special circumstances on a case-by-case basis.

The entire keeper training program was not reviewed. However, the keeper staff appeared well-trained and professional. The recent addition of a highly qualified coordinator in Human Resources should help facilitate standardization of staff training in the future. The extended use of the "full time temporary" status appears to create more of a morale problem than an animal care problem. Ample time should be allowed for the training period as new employees are hired. A more formalized keeper training program should be in place.

Calle – Elephant Tuberculosis

The management of the Asian elephants at the SF Zoo warrants special mention. This case was highlighted in the Guardian article.

In 1995, one of the two SF Zoo's Asian elephants died. For the next two years, zoo management attempted to find a companion for the remaining elephant, "Tinkerbelle." Because elephants are highly social animals, they should not be kept in a solitary environment. In 1997, "Calle," an Asian elephant at the Los Angeles Zoo, was relocated to the San Francisco Zoo. Calle was tested in Los Angeles for tuberculosis with preliminary screening tests and a trunk wash culture. She was shipped to San Francisco prior to the results of those tests being finalized. After arrival in San Francisco, the test results subsequently were found to be positive.

Upon review of this case and discussion with zoo management, several important points emerge. First of all, everyone in management acknowledged that it was a mistake not to wait until the final test results arrived prior to sending Calle to the San Francisco Zoo. The mistake was not in deciding to bring Calle to San Francisco; the mistake was not waiting until final test results were in before she went to San Francisco. Whether this turns out to be a fatal mistake remains to be seen. Following treatment, Calle now appears to no longer be shedding. The central issue is not whether Calle becomes an active clinical case, but whether through her shedding Tinkerbelle contracts the disease. Tinkerbelle may yet live a full life, without contracting TB or TB ever becoming an issue.

Other points must be considered. There was no report of prior exposure to TB in the LA herd (this was documented in the record). The LA Zoo was unaware that Calle was shedding. SF Zoo management had the opportunity to return Calle to Los Angeles. Management decided that it was in Calle's best interest to treat her in San Francisco.

The decision to bring Calle to San Francisco prior to final test results was a mistake, but it was not indicative of general mismanagement, nor does it create a pattern of mismanagement at the San Francisco Zoo. In fact, it is far more telling about management that, rather than correcting the mistake simply by sending Calle back to be the problem of the Los Angeles Zoo, Zoo management decided to rise to the challenge to treat her at considerable cost of time, money, and energy. Meanwhile, Calle has stopped shedding and is now living with Tinkerbelle.

United States Department of Agriculture (USDA) Reports

The primary concern of the USDA inspection involves ongoing general maintenance. To understand the compliance issues, it is helpful to understand the process.

The USDA is a regulatory agency, not a certifying agency, and is charged with enforcement of the Animal Welfare Act, through the Animal and Plant Health Inspection Service (APHIS). The rules and guidelines are established by Congress. Enforcement is achieved by routine, unscheduled visits by veterinary inspectors to insure that all sites licensed under the Animal Welfare Act are compliant with the federal guidelines. Items found noncompliant are cited and placed in one of four categories. Category I is previously cited items that have been corrected. Category II is previously cited items that are still within a correction deadline time frame established by the inspector. Category III items are those cited for the first time, with time allowed to correct the items. Category IV noncompliances are items that are noncompliant which have not been corrected within the allowed timeframe. Category IV noncompliant items are the main issues regarding the SF Zoo.

With this understanding, following is generally how the process actually works. The veterinary inspector will arrive at the facility unannounced, so that the organization does not “prepare” for the visit. If the inspector finds a violation, the zoo staff can discuss the nature of the violation, and then negotiate for a reasonable amount of time to correct the problem. While some problems are major, most are usually minor housekeeping issues. Minor housekeeping may be corrected on the spot, such as replacing covers to food storage or the removal of cobwebs. Other items require time, money, inconvenience, and a return visit inspection.

There are two sides to this process. On the one hand, inspections and minor infractions can be very irritating because the items can feel like minor “technical” violations which do not really represent a threat to the health of the animal. But they are violations. On the other hand, it is important to realize that the minimum standards are so minimal that it is almost embarrassing (witness animal conditions allowable for circuses). The low standards of animal care are not a reflection of the USDA; the standards are established by Congress. USDA enforces the standards. No zoo should be operating at a level in the vicinity of the minimal standards established by Congress.

The primary San Francisco Zoo non-compliant items relate to deferred maintenance. They relate to an aging facility subject to a relatively harsh marine environment, a small maintenance department trying to keep up while developing new, in-house exhibitry (warthog, lorikeet), a limitation of funds related to the management contract and limited pre-bond capital funding. Rust on the wire or rodent droppings do not constitute “inhumane conditions or feces filled cages.” Nor do they mean animals are suffering or sick. They represent a potential for problems and should be corrected. Complicating this further is the situation in the bison exhibit at Golden Gate Park. The animals are under the care of the San Francisco Zoo and under the Zoo’s USDA license; the facility is the responsibility of the Recreation and Park Department. If the Rec and Park Department fails to maintain the facility (rotting fence posts, inadequate “Do Not Feed” signage), the San Francisco Zoo is cited for non-compliance. Again, the rotting fence posts and lack of signage do not mean the animals are suffering. These conditions represent a potential for problems; they are violations and should be corrected. More significant is the non-compliant item cited for the lack of a shelter for the blackbuck. That the Blackbuck do not use the shelter is not the issue. That the blackbuck have the choice to use the shelter, and the USDA clearly points out the violation, is the issue.

Recommendations:

1. Zoo management needs to develop a better working relationship with the USDA APHIS. In my 18 years of experience working with the USDA, I have never known inspectors to be less than sincere in enforcing guidelines for animal welfare concerns, nor have they enforced rules with evidence of political motives. Zoo staff should promptly address non-compliant items and negotiate for the best possible reasonable length of time for compliance. Zoo staff should not challenge minor findings, and reserve appeals for the rare major non-compliant items that may, in fact, not threaten an animal's welfare and may not fairly qualify as non-compliant. Zoo management has already initiated a better working relationship with the Zoo Director meeting with USDA representatives in July of 1999.
2. Zoo management should increase the maintenance department to address deferred maintenance items until maintenance is reasonably caught up. One vehicle to increase the size of maintenance staff without increasing the operating overhead, is to assign new maintenance employees strictly to bond-approved repair items, thereby qualifying all costs for the force-account labor category in the bond program. Generally, force-account labor is more cost-effective than outside contracting, remains more focused, and is under direct control of zoo management. Zoo repairs and renovations are approved items under the bond program.
3. Zoo management should develop a maintenance quality control program to insure that significant maintenance items are identified prior to USDA inspections. The USDA should not be a quality control agency.

Staff Morale

Perhaps one of the greatest concerns of this management audit involves the persistent mixed morale present in the keeper staff. Poor morale has almost been endemic in the staff at the San Francisco Zoo, dating back at least to the 1960's. Historically, it has been severe at times, resulting in chronic absenteeism and tension between keeper staff and management.

Morale among the keeper staff has improved significantly since the San Francisco Zoological Society assumed management of the zoo. Poor morale remains a concern, but appears now in pockets rather than throughout the organization and does not appear as severe. However, it is nowhere near where it should be to have a vibrant and energized organization.

In discussions with keepers, attitudes ranged from individuals feeling most positive about the animals, the recent improvements, and their department, to individuals feeling negative about the values and direction of the zoo and relations with their supervisors.

Management is well aware of the pockets of animosity and poor morale. An Employment Assistance Program assessment has been completed for some employees. A consultant for conflict resolution has been hired to resolve issues. This is clearly a proactive approach to a major deep-seated problem that predates this Zoo administration. The recent hiring of a new

Human Resources Director could also be a major step toward identifying the problems and facilitating solutions.

It should be noted that there appears to be a true disconnect between poor morale and animal care. Apparently, even in those individuals who are discouraged, the sense of responsibility toward the animals has insured professional levels of care by the keepers.

Several additional points should be made. There does not appear to be significant interstaff animosity at the peer level. There appears to be no significant level of animosity between City keepers and Society keepers. The quality of interstaff relations is essentially on a personal basis.

After discussions with several keepers, the most important need appears to simply be better communication between all of the management and the keepers. Those keepers with close communication and a close working relationship with their supervisor generally had better morale. It is important to clearly state the values and vision of the organization. It is also important to establish and enforce consistent standards of performance.

Recommendations:

1. Middle management should take time to work closer with keeper staff, to develop mutual trust, respect, and understanding.
2. The entire zoo management should participate in regular leadership training, to cultivate skills necessary to continue to improve staff morale.
3. Continue development of strategic planning, definition of the organization's values, and the conflict resolution process.

Weather

Perhaps one of the most important considerations for animal management is the microclimate along Sloat Boulevard and the Great Highway. Why the City of San Francisco chose this location for the old Fleishackker Zoo is hard to understand. The toll that the weather (cool, wind, fog, and salt air) takes on the structures is mentioned in the accreditation report, as is the potential for the weather's affect on the animal's health.

The weather records for the zoo are registered at the Richmond District Station, just south of the zoo. A summary of average high temperature by month is included in this report. It is important to note that the average high temperature for any month does not exceed 66 degrees. Wind chill for this location would drop the temperature 3 to 5 degrees if there is no windbreak.

Zoo staff at all levels were asked if the primates seemed generally comfortable or uncomfortable in this climate, to see if the clinical picture suggested that these temperatures might be too low for these animals (this was suggested in the Guardian article). The general impression of staff is that the animals acclimate to the climate and do well (even those that are tropical species). Certainly, primates are exhibited in other areas in temperature North American and voluntarily go outside when temperatures approach freezing. An advantage of this site is that

the average low temperature in the coldest month is only 45 degrees. It has rarely reached freezing.

Recommendations:

1. As master planning progresses, it should be recognized by zoo management that the weather at the San Francisco Zoo is at the cooler limit for keeping many tropical species, without resorting to indoor temperature-controlled exhibits. New outdoor exhibits should be designed with ample windbreaks, outdoor shelters, and on-exhibit heat sources. The animal collection should be carefully selected, as much as possible, for an animal's ability to acclimate to cooler temperatures, or select species that originate from cooler climate zones, such as tropical zones at elevation or northern climate zones.

Bison Exhibit Golden Gate Park

The bison exhibit in Golden Gate Park presents a special problem for all concerned. Animal care and veterinary care are the responsibility of the San Francisco Zoo. The enclosure and facility is the responsibility of the Recreation and Park Department. The animals are exhibited under the license of the San Francisco Zoo. USDA violations related to the facility result in citations given to the San Francisco Zoo, though it would be Recreation and Park's responsibility. A citizens group known as the Watch Bison Committee in Golden Gate Park monitors the site and advocates for the animals.

A site visit revealed a group of animals which appear to be in very good health. An animal which lost weight and died of hepatic fibrosis was reviewed by the USDA and cleared from accusation of neglect. General Care of the animals themselves appears to be good, although it was difficult to see due to the generally poor condition of the site. A few piles of animal waste were present which should have been removed. However, the animals did not appear adversely affected.

The physical site appeared worn and overgrown. Much of the site was overgrown with weeds, and fencing appeared old and in some cases appeared to be oriented for some previous function. "Do Not Feed" signage was present but poorly displayed. Plans for new fencing and, more importantly, restoration of the main field are in place and scheduled for construction. The general impression is that the SF Recreation and Parks Department does not have much interest in this site. The Bison Watch Committee volunteers have contributed minor project support and general maintenance work (weed pulling etc.) but would like to see more support for the facility. The facility improvements could be achieved at minor cost.

Recommendations:

1. The SF Recreation and Parks Department should allocate greater resources to the bison facility. The site itself actually has exceptional potential, with the cooler climate and large open setting.

2. New fencing should be installed and oriented to maximize the available site, including areas currently overgrown with weeds or empty paddock. (SF Recreation and Parks)
3. Signage should be improved for greater visibility and a more professional presentation. (SF Recreation and Parks)
4. A simple corral and chute system should be installed to allow for safe management of the animals, including separation of problem animals and providing veterinary care. (SF Recreation and Parks)
5. Enrichment items should be regularly added and changed within the exhibit (SF Zoo)

Master Plan and Bond Program

The Master Plan and bond program were reviewed to evaluate how effectively they address animal management concerns. In many respects, the Master Plan appears excellent and well thought-out. The three zoological planning firms of CLR Design, Jones and Jones, and Portico are leaders nationwide in the field of zoological planning. Details of the exhibit layout are currently being developed. Therefore, it is difficult to comment, other than in general terms.

The overall thematic layout of the Master Plan carries an emphasis on animals from the equatorial zone (African Savanna, Asian Rainforest, South America, Great Ape Forest). As mentioned earlier, weather at the SF Zoo will be a factor, to insure that the animals selected are compatible with the Sloat Boulevard location. The animals identified so far are very popular with the general public and should be very well received. Supplemental heat and wind protection will be critical to the design.

At this point, zoo management has not decided whether African elephants or Asian elephants or both will be part of the long term plan. This will need to be decided very soon, because elephant facilities occupy a central role in the thematic display, and will consume a significant portion of the space, funding, and energy of the zoo. In addition, the elephant facilities are especially poor.

Phase II at the zoo will address many of the critical concerns of the USDA and many of the worst of the San Francisco Zoo exhibits. The most problematic exhibits are addressed in the bond program, including the chimpanzees, orangutans, African elephants, African lions, rhinoceros, giraffe, hoofstock holding and quarantine, and numerous repairs and maintenance relating to animal facility deficiencies. This is a clear sign that zoo management is well aware of the deficiencies and is actively addressing the problems. Without question, the chimpanzee, orangutan, and African elephant exhibits are of greatest concern.

A significant omission, which should not be overlooked, is that of the sea lion pool and bear grottos from the \$48 million bond program. The polar bears and Kodiak bear do not appear on the Master Plan. However, the collection plan indicates maintaining the polar bears, with the possibility of replacing the Kodiak bear with a grizzly bear. This phase of the bond program is expected to be completed in approximately seven years. This means that the bears will be in the existing grottos for ten years, and possibly longer (if future major funding becomes problematic). The same case could be made for the sea lion and harbor seal exhibits.

Recommendations:

1. The sea lion pool and bear grottos should be reprioritized to be included in the \$48 million bond program.
2. A decision should be made sooner than later on whether these species will be part of the Master Plan. If the seals and northern bears are not part of the long-term plan for the zoo, the animals should be relocated to other institutions with better facilities. The bear grottos should then be removed. If the animals are part of the Master Plan, the existing facilities should be removed and new state-of-the-art bear or sea lion exhibits constructed. Ten to fifteen years is too long to address these concerns.

All of the projects listed in the bond program are critical to the long-term health of the zoo. The need for improved concessions and a revenue-generating front entrance is magnified by a management agreement with the City of San Francisco which transferred the burden of financial viability from the City to the Zoological Society and zoo management. The revenue urgency and sense of vulnerability permeates the organization. Zoos historically were not designed to run at a profit. Zoos originally served as a public service. As the financial responsibilities shift to the SFZS, this strain carries with it the need for revenue from the gate, concessions, and fundraising. This need for revenue shows up in the programs (Ford Motor Company, white alligator) and capital improvements (Little Puffer, roller coaster). Complicating this is the honorable burden of paying staff salaries at the high end of the profession. Management cannot offer numerous free days, pay well, and de-emphasize commercial copromotions or concessions at the same time without feeling significant strain. It is important that the animal welfare issues not be overshadowed by these other zoo needs. The need for improved animal facilities is very real and was the driving force behind passage of the bond measure. Improvement in animal exhibits will drive attendance up (and therefore zoo revenue more than any other project).

Recommendations:

1. The individual projects in the bond sale remain essentially the same.
2. The priority of projects and time of construction be rearranged so that the new animal exhibits are constructed first. The education building, zoo support facilities, administration facilities, and Children's Zoo projects should be postponed. These projects total over \$9,600,000. Postponement of these projects will allow for the construction phase of the \$9,060,000 Africa. Any facilities in the way of construction should be relocated into temporary modular facilities.

It should be pointed out that delaying Children's Zoo improvements should not be overly problematic; the Children's Zoo received high marks in the AZA accreditation report, while the chimp, orangutan, elephant, and giraffe did not. Constructing the animal exhibits first will result in a major uplift in the spirit and enthusiasm of the staff and community. This will also clearly demonstrate the existing concerns of upper management for animal welfare.

Bond Program Fund and Expenditures

A review of the plan for the expenditure of bond funds reveals that expenses are expected to be approximately as follows:

Fees and Permits	1.5%
Construction Management	8%
Program Management	5%
Design	12%
SFZS Administration	4%
Total	30.5%
City SF Administration	?

This indicates over 30% of bond monies will not go directly to construction, but will be used in design and project administration. This could easily rise with cost overruns, especially in architectural services. The allowable limit is variable and established by the bond sponsoring political board, in this case the City of San Francisco. As a comparison to the 30.5% non-construction costs, the East Bay Regional Park District imposed a 15% cap on these costs in Measure AA:

“no more than 15% of grant funds shall be spent on eligible non-construction or non-acquisition costs such as directly related administration, preparation of plans and specifications, and appraisals. A fee of not to exceed 1.5% of the bond proceeds will be paid to EBRPD as an eligible cost to cover the costs of administering the Park Program. . .”

Oakland's Measure I would not allow the City of Oakland to receive any funds for administration of the bond program, in projects administered by non-profit organizations. One hundred percent of the bond monies, with interest, were turned over to the non-profit organization. The total expenditure for non-construction costs at the Oakland Zoo for Measure I are approximately:

EBZS Administration	3.5%
Project Management	3.0%
Design	<u>10.0 - 12.0%</u>
Total	16.5 -18.5%

Recommendation:

1. No more than 20 to 22% of bond funds should be spent on eligible non-construction costs, such as directly related administration and the preparation of plans and specifications. This reduction would result in an additional \$3 – 4.8 million for construction and improvements. This amount alone would allow for funding the bear grottos.

Privatization

The final question remains: "Has privatization improved animal care at the SF Zoo?"

There are actually two components to this question. First, has the zoo improved under management of the SF Zoological Society? And, second, were conditions better when the City ran the zoo? The latter question should be addressed first.

Conditions at the SF Zoo in virtually every category were worse when the City ran the zoo. Poor morale was a major contributing factor to the previous zoo director leaving on stress disability. The Zoo Director position remained vacant for a prolonged period of time. The Primates Discovery Center, which has had so many animal management problems, was built under previous management. Veterinary care for the animals was poor, under investigation, and lacked the confidence of the keeper staff. Most indicative of all, conditions were so poor that the SF Zoo was on the verge of losing its accreditation by the Association of Zoos and Aquariums. In 1992, the accreditation commission was very concerned about the poor physical plant, the lack of funding to make major capital improvements, and the borderline funding for operations. Accreditation was tabled for one year until the major issues of the management contract were developed. The SF Zoo was accredited in 1993, with the expectation that under the new financial arrangement of privatization, new funding sources would be developed to resolve the serious concerns of the commission.

The Zoo and quality of animal care have improved since the SF Zoological Society assumed management in 1993. The veterinary program has improved dramatically; it was poor and is now excellent. The veterinarians have an excellent working relationship with the keepers. The veterinary care for the animals is excellent. Diets have been reviewed, modified, and improved. Rodent control has improved from poor to good. The keepers at the SF Zoo are professional, knowledgeable, and caring as a group. Morale remains an issue and is still problematic in specific areas. But overall, morale has improved. Numerous new exhibits, facilities, and renovations are very good to excellent. The following list highlights the significant improvements attributable to the management since the SF Zoological Society took over:

New facilities

Avian Conservation Center

Feline Conservation Center (\$2,000,000; replaced string of cat cages)

Australian WalkAbout (\$562,000)

Puente al Sur

Lorikeets

Renovations:

Warthog exhibit (\$150,000)

Flamingo Lake (\$52,000)

River Otter exhibit (\$234,000)

Lion Cub exhibit

Aviary/Tropical Building (\$162,000)

Numerous major maintenance projects deferred from City management

Perhaps the most pivotal sign of improvement which will bear fruit in the near future is the development of substantial funding to address the massive capital needs of the institution. Prior to David Anderson's arrival, the City had no significant funds earmarked for the capital improvement program. Today, well over \$60,000,000 is in place in both public and private funding to address the capital needs of the zoo. It is highly unlikely that the public bond portion would be available today without the advocacy of the San Francisco Zoological Society.

The zoo was subsequently reaccredited in September 1998. The Zoo meets the professional standards of animal care required by the AZA.

Conclusions

General animal care at the SF Zoo is good. The greatest deficiency in animal care remains the physical plant. As animal care continues to improve, these priorities should be considered:

1. Replacement of the exhibits and holding facilities for the chimpanzees, orangutans, elephants, bears and sea lions.
2. Increase the size of the maintenance department with bond-funded force account labor for increased repairs, maintenance, and minor renovations. This can address the USDA concerns and general animal welfare/exhibit concerns identified by management and the keeper staff.
3. Prioritize the bond-funded capital improvement projects to construct the animal exhibits of concern first.
4. Develop a strategic plan for the zoo to clearly articulate the goals, values, standards, and mission for the entire organization.
5. The Associate Curators and General Curator should work more closely with the keepers to develop a greater degree of mutual trust, respect, and mission. The existing conflict resolution program should be taken to completion. Regular leadership training programs should be available to all of the management.
6. Develop a more cooperative working relationship with the USDA inspection program.

The USDA concerns should be adequately addressed with the availability of bond funding. The major capital improvements in the Master Plan and a larger, more focused maintenance department should adequately address the problems.

Current plans for the new zoo do not address concerns regarding the bear or sea lion exhibits. These should be included. At that point, essentially all of the pressing animal care infrastructure issues will be addressed.

Addendum

Weather Summary
Richmond District Station

<u>Month</u>	<u>Average High Temperature*</u>
January	58
February	60
March	60
April	61
May	61
June	63
July	64
August	65
September	66
October	66
November	63
December	58

3 to 5 degrees cooler – Wind Chill

* (Degrees Fahrenheit)

Section 1.2: Animal Acquisitions and Dispositions

- ♦ The San Francisco Zoo has an excellent animal acquisition and loan policy. In fact, the Zoo's policy is used as an example in the American Zoological Association's "Suggestions for Implementation of the AZA Animal Disposition Guidelines."
- ♦ The Zoo's acquisition/disposition practices have resulted in a significant reduction in the number of animals in the Zoo's collection. Excluding fishes and invertebrates, the number of Zoo animals decreased from 1,371 in 1972-73 to 895 in 1988-89 to 630 in 1997-98, a total decrease of 54 percent. The mammal count included in the total decreased from 558 in 1972-72, to 438 in 1988-89, to 276 in 1997-98, a total decrease of 51 percent. The General Curator has stated that the Zoo currently holds the species and specimens that it can care for properly and that the Zoo's collection of mammal and bird specimens will be increasing with implementation of Phase II of the Master Plan.
- ♦ In June of 1997, the Director of the San Francisco Zoo decided to request that the Asian elephant "Calle" be relocated to the San Francisco Zoo from the Los Angeles Zoo prior to obtaining the final results of a general health blood profile and a blood test to screen for tuberculosis. The decision to request shipment of the elephant prior to completion of health testing was a mistake; further tests revealed that Calle had contracted tuberculosis. As of August 1999, the cost of treating Calle's tubercular condition has been \$115,177, not including staff time. The Los Angeles Zoo has contributed \$30,000 toward that cost.
- ♦ The Zoo's practices governing animal acquisition, loan, and disposition actions should be amended to assure that such transactions fully provide for the well being of the animals. In that regard, we found that:
 1. The Zoo does not require AZA facilities requesting Zoo animals to complete an application form. Further, the Zoo does not require non-AZA members to notify the Zoo of the death or relocation of an animal that had been previously relocated to the non-AZA member by the Zoo. These provisions are recommended in the AZA Guidelines.
 2. The Zoo's "Animal Disposition Agreement," which is the contract form used to bind both AZA and non-AZA recipients of Zoo animals, does not include reference to the AZA's Code of Professional Ethics nor does the Agreement contain the AZA's recommended language requiring the acquiring organization not to sell, trade, loan, or donate the acquired animal to any inhumane research program.
 3. The Zoo's Animal Acquisition/Disposition Guidelines contain evaluation forms with appropriate questions for evaluating proposed acquisition/disposition actions. However, Zoo management does not currently complete the evaluation forms in writing.

As part of our performance audit of the San Francisco Zoological Gardens, we examined the Zoo's policies and practices for acquiring and disposing of animals. Zoos acquire, loan, trade, gift, and sell animals in order to enhance the genetic pool of species they hold, to improve their exhibits, and for other purposes. The process of acquiring and disposing of animals must be managed so as to insure that the animals are treated humanely. For this purpose, the American Zoological Association has developed guidelines for the disposition of animals for zoos and aquariums. Accordingly, the San Francisco Zoo has a responsibility to manage its animal collection in a humane manner and to develop controls that reasonably insure that recipients of their animal dispositions meet or exceed AZA requirements.

Another aspect of managing animal acquisitions and dispositions is the need for population control so as to reduce the incidence of surplus animals. One result of the process of developing and maintaining an animal collection to further the recreational, educational, and conservation goals of any Zoo is the generation of animals that are surplus to the Zoo's particular needs. One of the foremost challenges of zoos is to minimize surplus animals through such population control measures as hormonal implants for females and separation of sexes.

The primary risks that must be controlled are disposition policies and practices that could result in animals being sold at auction, being hunted on enclosed ranches, being used for human medical research or other non-sanctioned research purposes, or being given less than adequate care because of a lack of expertise or wanton disregard. To determine whether the San Francisco Zoological Society has been meeting its responsibilities in the acquisition and disposition of animals, we performed the following tasks:

- Interviewed the Curator of Collections, who is responsible for effecting animal acquisitions and dispositions at the Zoo. Also, interviewed the Animal Management Department's secretary who maintains the animal acquisition and disposition records;
- Reviewed the following documents published by the American Zoological Society (AZA): (1) "Disposition of Wild Animals from Zoological Parks and Aquariums," and (2) "Suggestions for Implementation of the AZA Animal Disposition Guidelines."
- Reviewed the following documents published by the City: (1) San Francisco Zoological Gardens Acquisition, Loan, and Disposition Policy (Recreation and Park Commission Resolution No.15944, adopted February 21, 1991); and (2) San Francisco Zoological Gardens Animal Acquisition/Disposition Guidelines (Recreation and Park Commission Resolution No.16327, adopted March 19, 1992).

- Reviewed the series of articles on animal dispositions published by the *San Jose Mercury News* in February of 1999;
- Reviewed the Zoo's animal acquisition and disposition files and documents and performed certain audit tests on those files and documents.

Animal Acquisitions and Dispositions

Each year, the San Francisco Zoo acquires numerous animals through birth, loan, purchase, or gift and disposes of numerous animals through sale, loan, gift, or the death of animals. Table 1.2.1 lists such Zoo acquisitions and dispositions for calendar years 1991 through 1998, and for the first six months of calendar year 1999. The figures include all classes of Zoo animals except invertebrates (The Zoo began including invertebrate acquisitions in 1996 but not births, deaths, or dispositions. We have excluded the invertebrate acquisitions in Table 1.2.1).

Table 1.2.1
Animal Acquisitions and Dispositions
1991 – June, 1999

<u>Year</u>	<u>Births</u>	<u>Acqui- sitions</u>	<u>Deaths</u>	<u>Dispo- sitions</u>	<u>Net</u>	<u>Cumulative Net</u>
1999 (6 mos.)	40	83	72	20	31	-210
1998	54	99	85	44	24	-241
1997	37	63	83	61	-44	-265
1996	30	107	80	36	21	-221
1995	18	72	87	64	-61	-242
1994	42	47	75	58	-44	-181
1993	34	39	84	73	-84	-137
1992	93	57	90	104	-44	-53
1991	97	41	77	70	-9	-9
Total	445	608	733	530	-210	

*Large variances shown in bold.

The totals for the eight and one-half year period covered show that the number of Zoo accessions through births and acquisitions was 1,053 and the number of losses through deaths and dispositions was 1,263, a difference of 210.

A review of Table 1.2.1 reveals that for certain periods, the variances in the number of births and acquisitions and deaths and dispositions are greater than the general averages for those statistics. In response to our request for explanations concerning those variances, the Zoo's General Curator has provided the following information:

- The 40 births for the first six months of calendar year 1999, which yields an annualized 80 births for all of 1999, is due to the seasonality of breeding. A straight line relationship does not exist in nature.
- The small number of births (18) in calendar year 1995 was due to a planned reduction, through birth control, in species housed in older exhibits that were slated for removal.
- The large number of acquisitions for calendar years 1996, 1998, and the first six months of 1999 is due to the need to fill new exhibits coming online and to fulfill the goals as stated in the Zoo's Collection Plan.
- The 72 deaths for the first six months of calendar year 1999, which yields an annualized 144 deaths for all of 1999, is due to the large number of birds and barnyard animals that were born in 1991 and 1992 that are reaching the end of their life expectancy.
- The large number of dispositions in calendar year 1992 (104) was due to the closure of a number of inadequate exhibits and the need to place the animals housed in those exhibits in other institutions.

As a result of our overview of the material concerning animal acquisition and disposition issues, we determined that the risks facing the Zoo in this area are (1) inadequate policies and procedures concerning animal acquisitions and dispositions, and (2) lack of adherence to adequate policies and procedures. Therefore, our first step was to compare the Zoo's animal acquisition and disposition policies and procedures to the AZA's documents concerning animal acquisitions and dispositions, "Disposition of Wild Animals from Zoological Parks and Aquariums," and "Suggestions for Implementation of the AZA Animal Disposition Guidelines."

The AZA "Guidelines" are not strict rules and regulations that must be adhered to by member zoos and aquariums, but suggested methods for implementing policies and procedures for enhancing the probability that an institution's animals will receive humane treatment. However, in the absence of a valid reason not to follow a particular guideline, we recommend that the Zoo adhere to the AZA Guidelines. The Zoo's Acquisition, Loan, and Disposition Policy, adopted by the Recreation and Park Commission in February of 1991, is used as an example in the AZA's "Suggestions for Implementation of the AZA Animal Disposition Guidelines."

The AZA specifies its animal acquisition and disposition policy guidelines under subject headings, such as "The Need for Education." We have followed that method in reporting on the Zoo's adherence to the AZA guidelines."

Adherence to AZA Animal Acquisition and Disposition Policy Guidelines

The need for education.

AZA guideline -- It is in the best interest of the animals, staff and public to make every effort to improve an awareness of surplus animal issues.

The San Francisco Zoo's Acquisition and Loan Policy does not address the need to improve an awareness of surplus animal issues, nor have we noted any other Zoo animal acquisition and disposition document that does. However, we consider the implementation of a policy of public awareness of surplus animal issues a sensitive subject that should be handled within the management discretion of the Zoological Society and make note of the issue here only to bring it to management's attention.

The need for application/ agreement forms.

AZA guideline -- When surplus specimens to recipients, whether or not they are AZA member facilities or animal suppliers, institutions should develop application and agreement forms which require the potential recipient to adhere to the AZA Code of Professional Ethics, all relevant AZA and member policies, procedures and guidelines.

The Zoo does not require AZA institutions requesting Zoo animals to complete an application form. The Zoo does require that non-AZA institutions complete an "Animal Recipient Profile" form for each type species applied for. The "Animal Recipient Profile" requires information concerning the institution's facilities, staffing, sources of financial support, professional affiliations and memberships, etc.

In the opinion of the Budget Analyst, the Zoo's agreement form adequately satisfies the AZA guidelines with two exceptions. The agreement does not include specific language regarding the AZA's Code of Professional Ethics nor does it include the AZA's recommended wording requiring the acquiring institution not to sell, trade, loan, or donate to any inhumane research program. These items should be added to the Zoo's agreement form.

The Need for Population Control and Disposal Procedures

AZA guidelines describe several ethical and legal methods of population control or disposal of animals.

The Zoo's Animal Acquisition and Disposition Policy adequately covers population control and disposition options.

Need for documents to be kept on file and policies to be included in members' written policy on animal dispositions.

AZA guidelines cover documents to be kept of file, readily accessible to personnel responsible for animal dispositions, and certain policies to be included in the member's written policy on animal dispositions. In the opinion of the Budget Analyst, the Zoo's documents conform to the AZA guidelines with the following three exceptions:.

The AZA policy on Hunting Ranches was not kept on file.

The Zoo's Guidelines do not refer to the AZA Animal Disposition Guidelines or to the Code of Professional Ethics.

The Zoo does not require non-AZA members to notify the Zoo in the case of death of an animal or for the purpose of requesting relocation of an animal. The Zoo's "Animal Disposition Agreement," which is the contract form for both AZA and non-AZA institutions, requires that the "Recipient shall inform the San Francisco Zoo of the destination of the subject animal(s) upon sale, donation, loan, or trade to a subsequent recipient."

We recommend that the Zoo (1) amend its guidelines to specifically refer to the AZA Animal Disposition Guidelines and to the Code of Professional Ethics, (2) amend the "Animal Disposition Agreement" to require non-AZA members to notify the Zoo in the case of the death of an animal and for the purpose of requesting relocation of an animal, and (3) maintain the AZA policy on Hunting Ranches on file readily accessible to personnel responsible for animal dispositions.

Animal Acquisition/Disposition Forms

The Zoo's Animal Acquisition/Disposition Guidelines contain appendices for (1) new species acquisition evaluation (Appendix I), (2) Animal Acquisition Form for species already in the collection (Appendix II), and (3) Animal Disposition Form (Appendix III). The appendices contain sets of well-designed questions for evaluating acquisition and dispositions. According to the Animal Management Department, although acquisition and dispositions are evaluated the forms are not completed.

We recommend that for each acquisition/disposition the appropriate form be completed and kept in the record.

As previously stated, the Zoo does not require institutions seeking to acquire Zoo animals to complete an application form. We recommend that such a form be developed and used for dispositions to all institutions. Furthermore, we recommend that the animal application form include the following questions, which are contained on page three of the Zoo's Animal Acquisition/Disposition Guidelines.

- a) Do they have expertise with species being shipped or a similar species? Are they able to handle species being shipped?
- b) Are their facilities adequate for this species including space and amenities for climatic seasonal changes? Are they able to provide species with proper diet, social and behavioral conditions?
- c) Review recipient's past history with species including reasons for mortality, propagation successes, birth rate, survival of young, hand-rearing experience.

Calle – Elephant Tuberculosis

Note: The following evaluation of the Zoo's accepting a Asian elephant named "Calle" from the Los Angeles Zoo prior to the completion of all health tests has been excerpted from Dr. Parrott's report in Section 1.1 of this audit report.

"In 1995, one of the two SF Zoo's Asian elephants died. For the next two years, zoo management attempted to find a companion for the remaining elephant, "Tinkerbelle." Because elephants are highly social animals, they should not be kept in a solitary environment. In 1997, "Calle," an Asian elephant at the Los Angeles Zoo, was relocated to the San Francisco Zoo. Calle was tested in Los Angeles for tuberculosis with preliminary screening tests and a trunk wash culture. She was shipped to San Francisco prior to the results of those tests being finalized. After arrival in San Francisco, the test results subsequently were found to be positive.

"Upon review of this case and discussion with zoo management, several important points emerge. First of all, everyone in management acknowledged that it was a mistake not to wait until the final test results arrived prior to sending Calle to the San Francisco Zoo. The mistake was not in deciding to bring Calle to San Francisco; the mistake was not waiting until final test results were in before she went to San Francisco. Whether this turns out to be a fatal mistake remains

to be seen. Following treatment, Calle now appears to no longer be shedding. The central issue is not whether Calle becomes an active clinical case, but whether through her shedding Tinkerbelle contracts the disease. Tinkerbelle may yet live a full life, without contracting TB or TB ever becoming an issue.

“Other points must be considered. There was no report of prior exposure to TB in the LA herd (this was documented in the record). The LA Zoo was unaware that Calle was shedding. SF Zoo management had the opportunity to return Calle to Los Angeles. Management decided that it was in Calle’s best interest to treat her in San Francisco.

“The decision to bring Calle to San Francisco prior to final test results was a mistake, but it was not indicative of general mismanagement, nor does it create a pattern of mismanagement at the San Francisco Zoo. In fact, it is far more telling about management that, rather than correcting the mistake simply by sending Calle back to be the problem of the Los Angeles Zoo, Zoo management decided to rise to the challenge to treat her at considerable cost of time, money, and energy. Meanwhile, Calle has stopped shedding and is now living with Tinkerbelle.”

As of August 1999, the cost of treating Calle’s tubercular condition has been \$115,177, toward which the Los Angeles Zoo has contributed \$30,000. Neither Animal Keeper nor veterinary staff costs are included in the treatment costs.

Size of the San Francisco Zoo Animal Collection

One complaint recorded in Zoo marketing surveys and voiced by numerous visitors to the San Francisco Zoo is that there are not enough animals. In order to compare recent numbers of animals in the San Francisco Zoo with such numbers in past years, and to compare those numbers with other zoos, we extracted collection counts from AZA Directories for the years shown in Table 1.2.2 on the following page.

Table 1.2.2 shows for the San Francisco Zoo that the total number of specimens for classes of zoo animals (e.g., mammals and birds) has decreased over the years as have the numbers of mammals and birds. When asked to explain why the numbers have declined over the years, the General Curator has stated that the Zoo currently holds the species and specimens that it can care for properly and that the Zoo’s collection of mammal and bird specimens will be increasing with implementation of Phase II of the Master Plan.

Table 1.2.2
Size of the San Francisco Zoo Animal Collection

												Totals, exclusive of Invertebrates & Fish		
			MAMMAL		BIRDS		REPTILE		AMPHIBIA		FISHES			
Visitors	Budget	Speci		Speci		Speci		Speci		Specim		Species	Specimens	
		Species	mens	Species	mens	Species	mens	Species	mens	Species	ens			
San Francisco														
1997-98	870,962	\$12,799,626	90	276	73	291	23	43	6	20	5	24	192	630
1996-97	850,000	\$12,125,500	88	288	79	291	21	42	4	14	6	43	192	635
1994-95	850,000	\$10,000,000	82	345	82	298	24	36	6	16	0	0	194	695
1988-89	1,142,386	\$4,143,941	103	438	150	405	23	38	8	14	0	0	284	895
1984-85	752,973	\$4,100,000	93	402	138	337	15	34	7	9	0	0	253	782
1980-81	589,263	\$1,400,000	108	481	160	440	10	22	5	5	0	0	283	948
1972-73	1,315,672	\$1,000,000	128	558	246	803	2	10	0	0	0	0	376	1,371
Oakland														
1997-98	350,000	\$3,000,000	37	180	28	84	15	24	1	1	0	0	81	289
1996-97	350,000	\$3,200,000	37	180	28	84	15	24	1	1	0	0	81	289
1994-95	350,000	\$2,019,909	36	186	32	152	13	22	1	1	0	0	82	361
1988-89													0	0
1984-85	1,000,000	\$453,000	49	153	52	163	15	58	1	1	8	8	117	375
1980-81	800,000	\$276,500	28	117	26	72	12	49	0	0	0	0	66	238
1972-73	2,000,000	\$525,337	107	490	197	778	89	164	0	0	0	0	393	1,432
Denver														
1997-98	1,560,134	\$14,908,105	122	655	167	510	94	317	24	102	228	1,641	407	1,584
1996-97	1,756,373	\$12,479,656	120	634	155	529	92	338	24	73	214	1,437	391	1,574
1994-95	1,342,136	\$7,546,266	113	564	160	618	75	178	13	52	142	115	361	1,412
1988-89	1,148,478	\$4,720,000	96	382	167	669	15	37	11	23	0	0	289	1,111
1984-85	963,139	\$2,800,000	97	474	227	974	21	35	2	3	0	0	347	1,486
1980-81	815,680	\$1,800,600	99	484	215	928	30	73	4	16	0	0	348	1,501
1972-73	775,073	\$595,000	87	372	185	576	14	36	0	0	0	0	286	984
Seattle														
1997-98	1,107,824	\$9,469,033	80	296	105	303	47	359	9	64	18	61	241	1,022
1996-97	1,000,000	\$11,500,000	79	294	111	309	49	329	9	70	20	75	248	1,002
1994-95	1,000,000	\$9,000,000	77	306	120	323	48	262	9	162	16	133	254	1,053
1988-89	941,365	\$4,300,000	85	366	114	430	46	178	9	103	1	6	254	1,077
1984-85	735,021	\$3,200,000	87	527	148	584	66	250	15	57	2	2	316	1,418
1980-81	725,000	\$1,365,000	87	458	130	437	72	346	6	63	0	0	295	1,304
1972-73	2,000,000	\$525,337	107	490	197	778	89	164	0	0	0	0	393	1,432

We recommend that the Zoo endeavor to increase the number of mammals and birds in the collection commensurate with being able to properly care for the animals.

CONCLUSIONS

The Zoo's acquisition/disposition practices have resulted in a significant reduction in the number of animals in the Zoo's collection. Excluding fishes and invertebrates, the number of Zoo animals decreased from 1,371 in 1972-73 to 895 in 1988-89 to 630 in 1997-98, a total decrease of 54 percent. The mammal count included in the total decreased from 558 in 1972-72, to 438 in 1988-89, to 276 in 1997-98, a total decrease of 51 percent. The General Curator has stated that the Zoo currently holds the

species and specimens that it can care for properly and that the Zoo's collection of mammal and bird specimens will be increasing with implementation of Phase II of the Master Plan.

In June of 1997, the Director of the San Francisco Zoo decided to request that the Asian elephant "Calle" be relocated to the San Francisco Zoo from the Los Angeles Zoo prior to obtaining the final results of a general health blood profile and a blood test to screen for tuberculosis. The decision to request shipment of the elephant prior to completion of health testing was a mistake; further tests revealed that Calle had contracted tuberculosis. As of August 1999, the cost of treating Calle's tubercular condition has been \$115,177, not including staff time. The Los Angeles Zoo has contributed \$30,000 toward that cost.

The Zoo's practices governing animal acquisition, loan, and disposition actions should be amended to assure that such transactions fully provide for the well being of the animals. In that regard, we found that:

1. The Zoo does not require AZA facilities requesting Zoo animals to complete an application form. Further, the Zoo does not require non-AZA members to notify the Zoo of the death or relocation of an animal that had been previously relocated to the non-AZA member by the Zoo. These provisions are recommended in the AZA Guidelines.
2. The Zoo's "Animal Disposition Agreement," which is the contract form used to bind both AZA and non-AZA recipients of Zoo animals, does not include reference to the AZA's Code of Professional Ethics nor does the Agreement contain the AZA's recommended language requiring the acquiring organization not to sell, trade, loan, or donate the acquired animal to any inhumane research program.
3. The Zoo's Animal Acquisition/Disposition Guidelines contain evaluation forms with appropriate questions for evaluating proposed acquisition/disposition actions. However, Zoo management does not currently complete the evaluation forms in writing.

RECOMMENDATIONS

The Zoological Society should:

- 1.2.1 Require all institutions requesting an animal from the San Francisco Zoo to complete an animal acquisition application form.

- 1.2.2 Amend the "Animal Disposition Agreement" to require that all recipients of Zoo animals notify the Zoo upon the death of an animal and to require that non-AZA recipients obtain the Zoo's approval prior to dispositioning the animal to a subsequent recipient.
- 1.2.3 Increase the number of mammals and birds in the Zoo's animal collection, commensurate with providing animal care that meets or exceeds AZA standards. Zoo management reports that the Zoo intends to increase its animal collection as facilities are rebuilt and added during implementation of Phase II of the Master Plan.

COSTS/BENEFITS

Although there are no direct savings that can be attributed to strengthening the Zoo's animal acquisition and disposition policies and procedures, by doing so, the Zoo will lessen the possibility of animals being ultimately transferred to an unsuitable facility, or used for an unsuitable purpose.

As the Zoo implements Phase II of its Master Plan, increasing the number of animals on exhibit will enhance the experience of Zoo visitors and should ultimately increase Zoo attendance and revenues.

Section 1.3: Capital Projects

- ♦ In response to Budget Analyst recommendations to increase Phase II Master Plan funding for increased construction of capital projects, the Zoological Society has made design changes to the new Administration, Quarantine, and Holding facilities that will make available an additional \$687,000 for construction of animal exhibits.
- ♦ The current Phase II budget allocates approximately 4.9 percent of total construction costs of \$48 million to Program Management, which is being performed by an outside consultant, and 3.9 percent of such costs to Zoological Society Administration, for a total of approximately 8.8 percent, or \$4,215,434. Further, the current Phase II budget allocates approximately 7.8 percent of total construction costs, or \$3,747,052, to Construction Management, which would be performed by the Department of Public Works (DPW). Thus, the total budgeted cost for these functions is currently 16.6 percent of total Phase II funding, or \$7,962,486. We recommend that this combined total of 16.6 percent be reduced to 10 percent, or \$4,800,000, in accordance with attainable program and construction management cost containment practices and in accordance with the Zoo Bond Program Report, thereby allowing an additional \$3.16 million to be expended on construction of capital improvement projects.
- ♦ The current Phase II budget allocates approximately 13 percent of total construction costs to Design Fees, based on a combination of a 14 percent factor for specialized animal facilities design and a 12 percent factor for all other projects. The total amount allocated for Design Fees, is \$6,235,722. We recommend that the combined percentage of 13 percent be reduced to 12 percent, which would produce savings of \$480,000, which can be used for the construction of additional capital improvement projects.
- ♦ The current Phase II budget allocates two percent of allowable Phase II construction costs calculated at \$40 million, or \$800,000, to the Public Art Program. The Zoological Society should negotiate with the Art Commission to reduce the percentage to 1.5 percent, thereby saving \$200,000.
- ♦ \$800,000 of the approximately \$4.53 million in cost reductions identified above should be allocated to increase construction contingency for each individual project by 2.5 percent, or from 5 percent to 7.5 percent. The remainder of the \$4.53 million in savings, or the approximate amount of \$3.73 million, should be allocated to a Management Reserve Account to be used for the construction of additional capital improvement projects to further enhance the Zoo, and to offset increased construction costs resulting from the two-year delay in issuing Zoo bonds.

As part of this management audit, the Budget Analyst reviewed and analyzed the Zoo's capital project expenditures since the SFZS took over management of the Zoo in 1993. We also reviewed the proposed capital project expenditures under the Zoo's \$73 million capital improvement project, known as Phase II of the Zoo's Master Plan. In order to assess the Zoo's past and proposed capital project expenditures, we:

- Met with the Zoo's Director, Deputy Director, Curator of Planning and Design, and the Program Manager of the Zoo's \$73 million capital project (known as Phase II of the Zoo's Master Plan);
- Interviewed personnel in the Department of Public Works, Department of Building Inspection, Planning Department, and Recreation and Park Department;
- Examined budgeted and actual capital project expenditures for the Zoo for FY 1998-99 and previous four fiscal years;
- Reviewed the Zoo's 1994 Master Plan;
- Examined planning, budget, and contractual documents for the Zoo's Phase II \$73 million capital project; and
- Obtained the services of (1) the Director of the Oakland Zoo and (2) a planning and construction consultant to evaluate Phase II plans and budgeted expenditures.

Background

A revised Master Plan for the Zoo was completed in 1994. The plan describes a four-phase program to convert the Zoo into a world-class facility. It calls for a Zoo which is divided into geographic regions according to the part of the world that the animals come from and which contains natural habitats that allow the animals to roam undisturbed.

Under the terms of the Lease Agreement between the City and the SFZS, the SFZS is required to meet two goals with respect to fundraising for the Zoo's capital projects in order to implement the first two phases of the Master Plan. The first is to raise \$10 million from private donations for a "Founder's Fund" within the first five years of the Agreement. The \$10 million was to be allocated as follows: (a) \$5 million for capital improvements (separate from the Phase II total sum of \$73 million); (b) \$2 million for operating expenses; and (c) \$3 million for the SFZS's Endowment Fund. By June 30, 1996, the SFZS met this goal by raising approximately \$11.5 million toward the Founder's Fund, of which \$6.8 million has

been expended for capital improvements. These funds were allocated for improvements and new exhibits under Phase I of the Zoo's revised Master Plan.

The second requirement under the Lease Agreement is for the SFZS to raise \$25 million in private donations for Phase II of the Zoo's Master Plan. The \$25 million is to accompany the \$48 million in proceeds from a 1997 Zoo General Obligation Bond measure, for a total of \$73 million to be used for Phase II capital improvements at the Zoo. As of December of 1999, the SFZS has raised approximately \$21 million in cash, written pledges, contingency pledges, and verbal pledges, and reports that its goal is to raise the full \$25 million in private donations by December 31, 2000.

Finally, the Zoo has received a total of \$26 million in funds from the sale of Public Safety Improvement General Obligation Bonds (known as Earthquake Safety Program II or "ESP II" bonds) that were approved by the City's electorate in 1990. These monies were earmarked to replace broken and earthquake damaged water and sewer lines at the Zoo.

Capital Expenditures – 1993 to 1998

In the five-year period since taking over management of the Zoo from the Recreation and Park Department (RPD), 1993 through 1998, the San Francisco Zoological Society (SFZS) has expended a total of \$8,627,211 on capital projects. Average annual expenditures over that time were \$1,725,000 annually. These figures include costs for professional services (such as architectural and design services), and exclude expenditures on the Zoo's Capital Campaign that totaled \$1,286,000 over the same period. Major improvements to the Zoo (over \$100,000) that were completed during this five-year period are shown in Table 1.3.1 on the following page.

As shown in Table 1.3.1, since 1993, the SFZS has expended \$4,507,931 on a total of 12 major projects including improvements to existing exhibits and the opening of new exhibits and attractions. The SFZS spent an additional \$1,827,886 on miscellaneous smaller capital improvement projects throughout the Zoo. The SFZS also expended \$858,943, or 10 percent of all expenditures on capital projects since 1993, on planning, design, and other expenses related to a proposed South American Gateway Exhibit which was never built due to lack of support and funding. A new South American Gateway exhibit is included under the Phase II project; however, it is a much scaled down version of the original exhibit, with a total cost of \$680,000 budgeted in Phase II.

Table 1.3.1
Zoo Capital Projects
FY 1993-94 – FY 1997-98

Project	Cost	Fiscal Year Completed
<i>Completed Major Projects (over \$100,000)</i>		
Otter Exhibit	\$ 234,736	1993-94
Australian WalkAbout Exhibit	561,987	1994-95
Feline Conservation Center	2,055,283	1995-96
Warthog Exhibit	105,481	1995-96
Demolition of Monkey Island and Cat Cage String	171,508	1995-96
White Alligator Exhibit	162,197	1995-96
Children's Zoo Renovation	148,216	1996-97
Elephant Exhibit Renovation	113,575	1996-97
Lion Cub Exhibit	296,478	1996-97
Lorikeet Exhibit	410,016	1997-98
Re-meshing of Primate Discovery Center	248,454	1997-98
Little Puffer Train	<u>112,737</u>	1997-98
Subtotal	\$4,507,931	
<i>Other Expenditures</i>		
South American Gateway Exhibit (exhibit was not built, majority of expenditures were for planning, design and architectural fees)	\$858,943	
Support Facilities	108,017	
Computer System	309,530	
Phase II Planning and Related Fees	902,167	
Miscellaneous Capital Expenditures	<u>1,827,886</u>	
Total	\$8,627,211	

Source: SFZS Final Trial Balance Sheets, by Program, July 1993 to June 1998.

Over this period, the Zoo also received \$26 million in Public Safety Improvement General Obligation Bonds (known as Earthquake Safety Program II or "ESP II" bonds), approved by the City's electorate in 1990. These bond monies were used for replacing and upgrading the Zoo's underground utility systems including the Zoo's sewer, water, gas, and electrical systems. As a mitigation measure, the work also included the construction of an Avian Conservation Center, a holding and breeding center for endangered birds. The vast majority of the Zoo's ESP II project was completed by early summer of 1999.

Phase II Capital Projects

In June of 1997, San Francisco voters approved a ballot measure to issue \$48 million in General Obligation Bonds in order to modernize or build new Zoo facilities. In turn, the SFZS pledged to raise a minimum of \$25 million in private donations, bringing the total to \$73 million to renovate the Zoo. The \$73 million will be used to renovate and develop the western portion of the Zoo, known as Phase II of the Zoo's Master Plan.

Phase II includes several new major exhibit areas, improvements and expansion of the Children's Zoo, improvements to other existing exhibits and the construction of a new entryway, parking lot, and support buildings. As of August of 1999, the current budgeted costs for Phase II, by major program component, are as shown in Table 1.3.2 on the following page. Table 1.3.2 shows total planned expenditures of \$76,390,000, which is \$3,390,000 more than the original Phase II Program cost. The Zoological Society plans to contribute the additional \$3,390,000 through their Capital Campaign fundraising.

After passage of the Zoo bond measure, the first stages of Phase II construction were originally planned to take place in the fall of 1998. However, due to a court challenge concerning the election, sale of the bonds was not legally permitted until the dispute was resolved in the spring of 1999. In the interim, the SFZS used a portion of its privately raised funds and a \$500,000 loan from the Recreation and Park Department to proceed with planning and initial designs for Phase II. After a two year delay, in June of 1999, the first issuance of \$16.9 million of the \$48 million General Obligation Bonds were sold. The \$16.9 million is allocated to fund design and construction of the Zoo's support and administrative facilities in addition to design of the new entry plaza, parking lot, the first section of Zoo Street, Madagascar exhibit and Africa exhibit. According to the Phase II Program Manager, to date, approximately \$8.1 million has been expended or accrued on Phase II projects.

Table 1.3.2
Zoo Master Plan, Phase II
Budgeted Cost by Major Program Component

Phase II Project	Budgeted Cost
<i>A1 and Special Projects</i> – Includes recently completed exhibits (Lorikeets, Puente al Sur, Lorikeet Exhibit, and Little Puffer Train) as well as a yet to be determined small to mid-size exhibit slated to open in 2000.	\$ 1,850,000
<i>Facility Consolidation</i> – Building or rebuilding of support facilities including a warehouse, administration offices, Education Center, and Animal Resource Center.	10,580,000
<i>Entry & Zoo Street</i> – A new parking lot and main entrance will be located along the Great Highway, western edge, of the Zoo which will lead to a main pedestrian walkway. The walkway will connect with trail loops to the major exhibit areas and will be lined with visitor services facilities including food, gifts, rentals, information kiosks, and restroom facilities.	13,180,000
<i>Zoo Street 2</i> – The second phase of the new entry and new Zoo Street.	1,120,000
<i>Quarantine & Holding</i> – Construction of a new Zoo animal quarantine and holding facility.	3,390,000
<i>Madagascar</i> – Eight acres, including renovation of the existing Primate Discovery Center, which will display a forested lemur exhibit, reptiles, and other species and fauna of Madagascar to showcase the specific projects and conservation efforts being carried out by the Zoo in Madagascar.	3,870,000
<i>Children's Zoo</i> – The existing Children's Zoo will include interactive exhibits focused on North American animals renovated to include a second contact yard and a meerkat and prairie dog exhibit..	2,650,000
<i>Children's Zoo 2</i> – Second stage expansion of the Children's Zoo described above.	520,000
<i>Africa!</i> – A savanna area connected to the Savanna B area by an animal walkway to allow for rotation of animals through the exhibits. The exhibit will be designed to house giraffe, lions, zebra, gazelle, ostrich, and crowned crane.	9,200,000
<i>Great Ape Forest</i> – Large, grassy meadow areas, trees, shrubs, vines, climbing areas, and stream to display chimpanzees and orangutans.	8,190,000
<i>Savanna B/Grand Panorama</i> – Savanna B will consist of savanna landscape offering panoramic views of mixed animal habitats. The area is planned to house elephants, rhinos, and other animals. Grand Panorama is 8.5 acres of a multi-species viewing area (animals are separated by dry moats and waterways). It will house animals from Africa and Savanna B.	8,230,000
<i>South American Gateway</i> – Several habitats interconnected by pathways containing a seasonal forest, riverbanks with underwater viewpoints and walk-through aviary. Exhibit will display animals native to South America.	680,000
Subtotal	\$63,460,000
<i>Public Art Program</i>	800,000
<i>Repair and Replacement Projects</i> – Repair and replacement of existing facilities and exhibits.	2,810,000
<i>Completed Projects</i> – Various new exhibits and renovations completed since 1993.	500,000
<i>Other Expenses</i> – Includes funds for capital campaign, bond issuance costs, interest expenses, and other miscellaneous expenditures.	5,530,000
<i>Program Reserve</i>	3,290,000
TOTAL	\$76,390,000

Sequencing of Phase II Capital Projects

The complete Phase II project is spread out over a seven-year period, with the final component to be completed by the close of 2004. According to the SFZS, Phase II construction will take place in stages in order to minimize disruption of normal operations at the Zoo and impact on the animals. New exhibits and attractions are sequenced so that a new exhibit opens each spring in order to maximize annual attendance, which peaks during the summer months. The table below shows the currently anticipated Phase II project sequencing and the projected completion dates for each segment.

Project	Anticipated Completion Date
Animal Resources Center	May 2000
Zoo Support Complex	Dec 2000
Education Building	Aug 2000
Administration Campus	Jan 2001
Quarantine & Holding	May 2001
Children's Zoo	May 2001
Parking Lot	Jun 2001
Hearst Plaza (Carousel, Café, 50% Zoo St.)	Jun 2001
Carousel (mechanical & electrical renovation)	Jun 2001
Primate Discovery Center/Madagascar	Jul 2001
Entry Plaza (remaining 50% of Zoo St.)	Aug 2001
Pachyderm Bldg.	Feb 2002
Zoo Street 2	Feb 2002
Africa!	Apr 2002
Great Ape Forest	Oct 2002
Savanna B	Oct 2003
Animal Walk	Apr 2004
Grand Panorama	Apr 2004
Children's Zoo 2	May 2004
South American Gateway	Oct 2004

Assessment of Phase II Capital Projects

As described in the Facilities Maintenance (Section 6) section of this report, inspectors from the United States Department of Agriculture (USDA) have cited the Zoo for numerous ongoing violations. The majority of these violations relate to the condition of the Zoo's animal enclosures. As a part of this audit, we obtained the services of the Director of the Oakland Zoo, Dr. Joel Parrott, who included an assessment of the Phase II program's effectiveness in addressing such animal welfare concerns in his review.

In Dr. Parrott's assessment, all of the projects listed in the Phase II program are critical to the long-term health of the Zoo. The SFZS is under pressure to generate greater revenues to support the Zoo's operating expenses. Therefore, approximately \$11.5 million of the \$73 million Phase II program, or approximately 15.8 percent, is allocated to revenue-generating concessions, such as the new parking lot, entrance, and Zoo Street facilities. However, Dr. Parrott notes that it is important that the animal welfare issues not be overshadowed by these other Zoo needs. The need for improved animal facilities is very real and was the driving force behind passage of the \$48 million bond measure, according to Dr. Parrott.

According to Dr. Parrott, the Phase II plan will address many of the critical animal welfare concerns of the USDA and address the majority of the worst of the Zoo's exhibits. The most problematic exhibits are addressed in the Phase II program, including the chimpanzees, orangutans, African elephants, African lions, rhinoceros, giraffe, hoofstock holding and quarantine, and numerous repairs and maintenance relating to animal facilities deficiencies. However, Dr. Parrott notes that improvement in animal exhibits will drive attendance up (and therefore Zoo revenue) more than any other project and that a significant omission under the Phase II program is that of the bear grottos and sea lion pool.

The polar bears and Kodiak bear currently in the Zoo's animal collection do not appear on the Zoo's Master Plan. However the animal collection plan indicates maintaining the polar bears, with the possibility of replacing the Kodiak bear with a grizzly bear. This portion of the Phase II program is scheduled to be completed in approximately seven years. This means that the bears will be in the existing grottos for ten years and possibly longer (if future funding becomes problematic). The same scenario applies to the sea lion and harbor seal exhibits.

The SFZS advises that a total of \$600,000 to \$700,000 will be expended on improvements to, but not replacement of, the existing bear grottos during Phase II. Renovations include replacement of some of the concrete in the enclosures with soft materials, the addition of enrichment devices, and repairs to roofs and interior doors. With regard to the sea lion exhibit, the SFZS reports that no monies are currently earmarked for this exhibit, however it is exploring options for improving conditions for the animals and including them under the Phase II program. These options include building a new exhibit or renovating the existing exhibit. However, Dr. Parrott's recommendation is to replace the existing bear grottos and sea lion exhibit, or to relocate the animals to zoos with adequate facilities.

After a copy of Dr. Parrott's report was provided to the SFZS, the SFZS informed us that by making cost saving changes to the new Administration, Quarantine and Holding facilities, an additional \$687,000 will become available for expenditure on animal exhibits.

Phase II Capital Project Expenditures

The breakdown of the expenditure of bond funds for the major Phase II exhibit areas reveals that non-construction expenses as a percentage of construction expenses are expected to be approximately as follows:

Construction Management	8.0%
Program Management	5.0%
Design	13.0%
SFZS Administration	<u>4.0%</u>
Total	30.0%

Phase II Program Management Review

As a part of our review of the planning, implementation, and management of Phase II, the Budget Analyst obtained the services of Mr. Jason Yuen, an architect and planning and construction consultant. Mr. Yuen is currently Chairman, Master Plan Programs Advisory Board, for the San Francisco Airport's \$2.4 billion expansion program. Mr. Yuen's consulting experience includes that as Chairman, Value Engineering Panel, for the Toronto International Airport's \$2 billion expansion program, Peer Review Consultant for the Miami International Airport's \$3.7 billion expansion, and Expert for the Commission of Inquiry on the New Hong International Airport, which was convened to determine the causes and responsibilities for the chaotic opening of that US \$12 billion new airport. Mr. Yuen was San Francisco International Airport's Chief Airport Architect from 1968 to 1979 and Director of Planning and Construction from 1979 to 1992. Finally, Mr. Yuen was retained by the Zoological Society in 1970 as an independent architect to design the reconstruction of the Children's Zoo at the San Francisco Zoological Gardens.

The following analysis of the Phase II implementation is the responsibility of the Budget Analyst. However, Mr. Yuen provided the great majority of the information contained in this analysis.

Program Construction Budget

Market conditions for construction work vary depending of the specific type of construction being performed. Current market conditions in the San Francisco Bay Area, in general, are driving construction costs to high levels. Although the proposed budget has taken current abnormal market conditions into account, it is not clear from the budget documents what portion of the cost forecasts are attributable to such market conditions.

Since market conditions will vary over the duration of this five-year program, a separate cost factor for market conditions should be identified and updated as conditions change. The Phase II Program Manager is knowledgeable about the current market conditions impacting on the cost forecasts of the individual projects.

This separation for market condition adjustments is also helpful in comparing the program's soft cost budget with other similar programs. Since the soft cost budget is presented as a percentage of the construction budget, a more accurate evaluation of the soft costs should be based on construction costs in a normal marketplace, not a temporarily inflated one. Although both costs are impacted by supply and demand, construction costs are much more sensitive to the marketplace than soft costs because 100 percent of the construction cost is derived from competitive bidding. Soft costs, on the other hand, are based mostly on salaries of existing employees and office overhead of professional services firms, which do not fluctuate as greatly as bid prices for construction work.

The current construction budget includes a 5 percent construction contingency, plus a \$3.29-million Program Reserve. These may not be sufficient. As the program proceeds, it is likely that additional unforeseen work will be required to accommodate site conditions, market conditions, misjudgment in planning, errors and omissions in design, contractors' claims, and the changing needs of the Zoo. Savings from the Public Art Program (see below) and Program Management/Administration (see below, also) could be applied to an enhanced Management Reserve Account.

Construction contingency should be increased from 5 percent to 7.5 percent for individual projects, an increase of approximately \$800,000, and the Program Reserve should be increased from \$3.29 million to \$5 million, an increase of approximately \$1.7 million, for a total increase of approximately \$2.5 million. The \$5 million should be set aside to establish a Management Reserve Account. The funds in the Management Reserve Account can be transferred to projects only with the approval of the Board of Directors of the San Francisco Zoological Society as needs arise. Any Management Reserve funds remaining at the completion of the program can be used for additional projects to further enhance the Zoo.

The current program budget also includes an \$800,000 allowance (2 percent of \$40-million in construction costs) for the Public Art Program. This allowance appears to exceed the requirements of Section 3.19 of the City's Administrative Code. The 2 percent set aside is required for buildings and aboveground structures only. The Code specifically exempts "landscape renovation projects" and "modifications to existing parks." The Code also sets forth a procedure in which the Society's Board may seek a lower percentage.

The Public Art Program budget should be recalculated based on costs for buildings and structures only, excluding all costs exempted by Section 3.19(d) of the Administrative Code. The Zoological Society should negotiate with the Art Commission to reduce the 2 percent Art Program to 1.5 percent. Reasons for the lower percentage are as follows: 1) there is a critical shortage of funds for construction; 2) in a zoo, the exhibition of animals takes precedence over the exhibition of art; and 3) in the past, the Art Commission had accepted 1.5 percent for major construction programs. Potential savings are \$200,000.

The current construction budget shows \$150,000 for design fees for the Art Program. This is not necessary. Under the City Charter, the Art Commission is the only City agency that can administer the Public Art Program. Therefore, the entire Public Art Program budget needs to be transferred to the Art Commission. The Art Commission will manage the entire procurement process, including the payment of design fees to the artists. Project designers retained by the Zoological Society should not charge fees for the Public Art Program.

Soft Costs

We define "soft costs," also known as "non-construction costs," as costs for design (architect and engineer fees), construction management, and overall program management and administration. By trade or profession, "soft costs" are costs allocated to designers, construction managers, program managers, and the in-house team that monitors the approved program. "Soft costs" do not include costs for master planning, environmental studies, site analyses, fund acquisition, or other preparatory work that is required for the implementation of the program. Other non-construction costs, such as permit fees, topographical surveys, and construction material testing, should be included in the budget for individual projects and not included as "soft costs."

The current budget projection for soft costs is 30 percent of the construction cost. When compared with other major and complex construction programs, this appears to be excessive. For example, the soft costs for the current \$2.4-billion expansion program at the San Francisco International Airport are approximately 25 percent (the program is more complex than the Zoo project; the program also experienced "waste" caused by delays). Soft costs for the existing International and South Terminals totaled approximately 15 percent. According to Oakland Zoo Director Dr. Joel Parrott, the Oakland Zoo's recent capital improvement program had a soft cost budget of 16.5-18.5 percent.

Our evaluation of the S. F. Zoo's proposed soft costs takes into consideration several factors, as follows:

1. Due to the lack of funding, the program was delayed for two years. This delay, in turn, caused a re-start of the program and necessitated discarding outdated schedules, cost estimates, phasing schemes, and other plans. The increased costs due to this re-start have not been identified but are included as a part of the overall proposed budget.
2. The design fees are higher than those for most construction projects due to the limited number of qualified firms with expertise in animal exhibition facilities. The fact that non-local design firms are used also contributes to the high cost.
3. Most individual projects in the Zoo Master Plan Program are phased to take place sequentially in loose groups due to operational requirements. Such a program requires project coordination at the program level. However, the proposed budget for program management and administration (9 percent of construction) appears to be excessive. The latest Organization Matrix shows a Program Manager, two project managers, one clerk, and as-needed personnel for scheduling, estimating, and other technical support. Given the nature of the program, the size of this program management group appears to be reasonable. What remains to be seen is the justification for the balance of the \$4.2 million in overhead administrative costs.

The proposed costs for program management and Zoological Society administration total more than \$4.2 million, or 9 percent of the \$48.6 million construction costs. This is on top of another 8 percent for construction management of individual projects. The administrative overhead of \$4.2 million over a 5-year program period would average \$840,000 per year. This amounts to 10,000 staff-hours per year at \$84 per hour, or approximately five high-salaried employees working eight hours a day everyday for the entire duration of the program — just for administrative work at the programmatic level.

As for project construction management, the grouping of projects as delineated in the phasing plans should generate savings due to the economics of increased productivity for the field staff (e.g., an inspector can monitor the contractors' work for several projects at the same time). With this in mind, the proposed 8 percent construction management fee is considerably higher than the traditional 5 percent for most projects. Regarding "soft costs," we make the following recommendations:

- Identify and separate (as a new line item) the wasted expenditures for re-starting the program due to the lack of funding for two years. Although these wasted expenditures are components of the program's overall cost, they should not be considered when judging the reasonableness of soft costs for implementing the projects.

- Make every effort to cap the design fees at a composite rate of 12 percent for specialized animal facilities work, and for all other projects. Potential savings if these percentages are realized are \$480,000.
- Reduce program management and administration costs from 9 percent to 5 percent of the construction costs. Since program management and owner's administration are somewhat commingled, where to draw the line dividing the two depends on the definition of the terms, not on what is contracted out and what is performed in-house (as currently shown in the budget). Potential savings are \$1.8 million.
- Identify and separate non-construction costs such as surveys and material testing for individual projects so that the budget for program management and administration reflects design and engineering fees, managerial expenses, and office overhead only.
- Negotiate with the Department of Public Works to reduce the construction management budget from 8 percent to 5 percent of the construction value, and explore the feasibility of consolidating projects for further reduction. Potential savings are \$1.4 million.

The recommended reductions for Program Management, Zoological Society Administration, and Construction Management from approximately 16.6 percent to 10 percent would reduce those "soft cost" allocations to the 10 percent allotted for such costs in the San Francisco Zoo Bond Program Report. We have attached the "Description of Cost Breakdown" from the Bond Program Report to this audit section as Exhibit 1.3.1.

The above recommendations should set the target for soft costs at 22 percent of an inflated construction budget. Since the current market conditions increase construction costs by perhaps as much as 10 percent, these recommendations amount to a soft cost budget of 24.2 percent of "normal" construction costs. In view of the extremely tight overall budget, the Zoological Society needs to establish challenging constraints for all expenditures at the commencement of the program. If justifiable as the program proceeds, the Zoological Society can modify the soft cost budget as necessary, transferring funds from the Management Reserve Account.

Management Oversight Issues

To successfully complete the program within a budget that includes the above recommendations, the Zoological Society needs to structure the management organization in such a way as to assure cost effectiveness in the project team's performance. Presently, the Zoological Society has adopted a turnkey approach to program management and implementation, with an oversight committee consisting of members appointed by the Zoological Society's Board. The committee's

membership includes principals of major engineering and construction firms. These members have extensive knowledge and experience in construction, design, and management. However, since the Zoological Society depends on this committee for technical monitoring and oversight, it is crucial that the committee members exercise independent judgment and express contrary viewpoints, when appropriate.

Good management calls for trust and delegation of responsibilities. However, for a large public construction project, a mechanism should be established for checks and balances, especially on fiscal matters. A second and truly independent opinion on critical issues can go a long ways in helping the Zoo Director and the Zoological Society's Board of Directors make sound decisions.

Using a part of the administrative budget, the Zoological Society should appoint an in-house Program Administrator with construction management expertise to oversee the performance of the consultants. In particular, the Program Administrator should review the Program Manager's requests for funding and approve the Program Manager's invoices. The Program Administrator should have the construction experience, the technical knowledge, the personality of a prudent naysayer, and the authority to question and challenge all expenditures and proposed expenditures on behalf of the Zoological Society. The function of Program Administrator could possibly be performed adequately on a part-time basis.

CONCLUSIONS

The San Francisco Zoological Society's Phase II Master Plan Program is an ambitious undertaking with a tight budget. However, if the Zoological Society can establish and maintain an efficient, cost-conscious management team, there are opportunities for reducing the proposed soft costs budget significantly. Any savings in soft costs would result in more funding for a better Zoo for San Francisco.

In response to Budget Analyst recommendations to increase Phase II Master Plan funding for increased construction of capital projects, the Zoological Society has made design changes to the new Administration, Quarantine, and Holding facilities that will make available an additional \$687,000 for construction of animal exhibits.

The current Phase II budget allocates approximately 4.9 percent of total construction costs of \$48 million to Program Management, which is being performed by an outside consultant, and 3.9 percent of such costs to Zoological Society Administration, for a total of approximately 8.8 percent, or \$4,215,434. Further, the current Phase II budget allocates approximately 7.8 percent of total construction costs, or \$3,747,052, to Construction Management, which would be performed by the Department of Public Works (DPW). Thus, the total budgeted cost for these functions is currently 16.6 percent of total Phase II funding, or \$7,962,486. We

recommend that this combined total of 16.6 percent be reduced to 10 percent, or \$4,800,000, in accordance with attainable program and construction management cost containment practices and in accordance with the Zoo Bond Program Report, thereby allowing an additional \$3.16 million to be expended on construction of capital improvement projects.

The current Phase II budget allocates approximately 13 percent of total construction costs to Design Fees, based on a combination of a 14 percent factor for specialized animal facilities design and a 12 percent factor for all other projects. The total amount allocated for Design Fees, is \$6,235,722. We recommend that the combined percentage of 13 percent be reduced to 12 percent, which would produce savings of \$480,000. These savings can be used for construction of additional capital improvement projects.

The current Phase II budget allocates two percent of allowable Phase II construction costs calculated at \$40 million, or \$800,000, to the Public Art Program. The Zoological Society should negotiate with the Art Commission to reduce the percentage to 1.5 percent, thereby saving \$200,000.

\$800,000 of the approximately \$4.53 million in cost reductions identified above should be allocated to increase construction contingency for each individual project by 2.5 percent, or from 5 percent to 7.5 percent. The remainder of the \$4.53 million in savings, or the approximate amount of \$3.73 million, should be allocated to a Management Reserve Account to be used for the construction of additional capital improvement projects to further enhance the Zoo, and to offset increased construction costs resulting from the two-year delay in issuing Zoo bonds.

RECOMMENDATIONS

The Zoological Society should:

- 1.3.1 Implement changes to the, Warehouse, Quarantine, and Holding facility construction plans thereby producing cost savings of \$687,000.
- 1.3.2 Reduce “soft costs” for program management and Zoological Society administration from 8.8 percent of construction costs to five percent of construction costs, thereby saving approximately \$1.82 million.
- 1.3.3 Reduce DPW construction management costs from 7.8 percent of construction costs to five percent of construction costs, thereby saving approximately \$1.34 million.
- 1.3.4 Reduce design fee costs from 13 percent of construction costs to 12 percent of construction costs, thereby saving approximately \$480,000.

- 1.3.5 Negotiate with the Art Commission to reduce Public Art Program fees from two percent to 1.5 percent, thereby saving \$200,000.
- 1.3.6 Allocate \$800,000 of the approximately \$4.53 million in cost reductions identified above to increase the construction contingency for each individual project by 2.5 percent, or from five percent to 7.5 percent.
- 1.3.7 Allocate the remaining \$3.73 million in cost reductions to the Management Reserve Account for further allocation to Phase II construction projects.
- 1.3.8 Develop a separate cost factor for market conditions and update it over the duration of the program.
- 1.3.9 Identify and separate as a new line item in the Phase II Program the wasted expenditures for re-starting the Program. Although these wasted expenditures are components of the Program's overall cost, they should not be included when evaluating the reasonableness of soft costs for implementing the projects.
- 1.3.10 Appoint an in-house Program Administrator with construction management expertise to oversee the work of the consultants. The function could possibly be adequately performed on a part-time basis.

COSTS/BENEFITS

Potential cost savings from implementing the foregoing recommendations are approximately \$4.53 million, which is approximately 9.4 percent of the \$48 million construction budget. Such savings can be used for construction of additional capital project improvements at the Zoo.

San Francisco Zoo
Bond Program Report
Appendix

DESCRIPTION OF COST BREAKDOWN

The detailed cost breakdown is presented by project. Actual project costs were determined as follows:

Construction cost is the estimated cost to construct the project program based on conceptual schematics.

Design fee is calculated at 15% of the construction estimate and includes a Project Manager during design phases. This cost is included in Project Controls.

Fees, Permits, and Art Commission are calculated at 1.5% for the Department of Building Inspection fees and permits and at 2% for the Art Commission. Portions of these fees are included in Construction Costs and in Project Controls.

Construction administration is calculated at 10% of the construction estimate and includes a full-time Project Manager at the Zoo and DPW. This cost is included in Project Controls.

Technical Services and Construction Contingency are calculated at 10% of the construction estimate. Portions of these costs are included in Construction Costs and in Project Controls.

Cost escalation is estimated at 4.5% per year on funds expended after year 2000. This cost is included in the Construction totals.

Section 1.4: Facilities Maintenance

- ♦ The Zoo is an aging facility that has experienced many years of unfunded and deferred maintenance under the City's Recreation and Park Department and now under the San Francisco Zoological Society. The effect of deferred maintenance has been compounded by aging facilities, limited funds, and a harsh ocean climate.
- ♦ A review of USDA inspection reports from 1994 to 1999 shows that the Zoo is not adequately responding to violations that have been identified by the USDA. It is the responsibility of the Zoo to evaluate all structures and exhibits in the Zoo in light of the nature of the violations identified in the USDA inspections, make such repairs and replacements throughout the Zoo, and to establish a schedule of periodic inspections. Therefore, we recommend that Zoo management develop a maintenance quality control program to ensure that significant maintenance items are identified and addressed prior to USDA inspections.
- ♦ As of July 7, 1999, the Zoo had a total of 173 maintenance requests pending. The requests range from the minor, such as requests to fix dripping faucets, to major repair projects in need of outsourcing, such as repairing floors and grading exhibit areas. The oldest dated request had been submitted two years prior to July 7, 1999.
- ♦ We found that, out of a total of 292 maintenance requests which were submitted during 1998, 227 or 78 percent were completed as of July 7, 1999 and 65 requests or 22 percent were still pending, six months to one and a half years after they had been submitted. Of the 65 work orders still pending, 32 were deemed to be "emergency" or "critical."
- ♦ The Zoo will need to continue to enhance its animal care and the quality of its visitor experience, as well as address USDA compliance issues while the new Phase II capital projects are being constructed. We recommend that Zoo management increase the maintenance department to address deferred maintenance items until maintenance is reasonably caught up. In order to accomplish this without increasing operating costs, new maintenance employees should be assigned strictly to Phase II program repair items, thereby qualifying all costs for the force-account labor category in the Phase II program. – Zoo management has recently received approval to use force-account labor to perform necessary construction work related to its Phase II "Repair and Replacement" project.

As part of this management audit, the Budget Analyst reviewed the state of facilities maintenance at the Zoo. In order to assess maintenance of the Zoo's facilities, we:

- Obtained and reviewed the Zoo's work order maintenance logs;
- Reviewed United States Department of Agriculture (USDA) inspection reports from 1994 to 1999;
- Observed Zoo facilities;
- Interviewed Zoo maintenance personnel and management;
- Obtained the services of the current director of the Oakland Zoo who issued a report, which in part addressed maintenance issues.

Assessment of Facility Conditions

The Zoo is an aging facility that has experienced many years of unfunded and deferred maintenance under the City's Recreation and Park Department. The effect of deferred maintenance has been compounded by aging facilities and the harsh ocean climate. The oldest buildings still in use by the Zoo were built in the 1920s and 1930s, many as Works Progress Administration (WPA) projects, including the Elephant House, Lion House, and bear grottos. Other major sections of the Zoo were completed in the 1960s and 1970s such as the Africa Scene, Insect Zoo, and the Animal Hospital. Later developments in the 1980s and 1990s were the Primate Discovery Center, Wolf Woods, Musk Ox Meadow, Gorilla World, Penguin Island, Koala Crossing, Otter River, Feline Conservation Center, and the Australian WalkAbout.

As reported in the Zoo's 1996 Bond Program Report, nearly three-fourths of the Zoo needs to be rebuilt. Many of the old doors that lead into and out of the exhibit areas do not function properly and expose animal keepers to unnecessary risk. Most of the older facilities are severely out of date and in a state of poor maintenance. The concrete shelters built by the WPA are no longer appropriate animal habitats, nor are exhibits that require animals to be moved into separate quarters every night. In addition, visitor facilities including restrooms, food services, and playgrounds are substandard and inadequate.

USDA Inspection Findings

The United States Department of Agriculture's (USDA) Animal and Plant Health Inspection Service is charged with enforcement of the federal Animal Welfare Act. USDA veterinary inspectors make routine, unscheduled visits to ensure that all sites licensed under the animal Welfare Act are in compliance with federal guidelines. A review of USDA inspection reports from 1994 to 1999 shows that the majority of the citations issued by the USDA concerned maintenance and repair of animal enclosures at the Zoo.

Violations found by the USDA are put into one of four categories, with Category IV as most serious. Category IV violations are those of which the Zoo has already been informed and have either not been addressed or have recurred. These violations are not just site specific. For example, if the Zoo receives a warning about peeling paint in one area the first violation will carry a Category I violation. However, if any instances of peeling paint are subsequently observed elsewhere in the Zoo, the Zoo will receive a Category IV violation. In such cases, the USDA assumes that the licensee is knowingly violating federal regulations.

The 1994 to 1999 USDA reports show that during this period, the Zoo has been making mandated repairs to areas which have been specifically identified by the USDA but has not made adequate efforts to identify and address similar deficiencies in other locations. In the most recent inspection report of February 22-24, 1999, the Zoo received three Category IV citations for previously identified items. The USDA found that the specific problems identified in the prior reports had been addressed but that the same problems were occurring elsewhere. For example, the USDA cited rusting wire mesh and areas in need of floor repair in the Primate Discovery Area and noted that the Zoo has been cited for these same types of violations in the Primate Discovery Area in the past. According to the USDA, the Zoo has made repairs in only those areas that were cited in prior inspections instead of resolving the problem in all areas of the exhibit. The Zoo advises that it is planning on addressing these items throughout the exhibit later this year.

The Zoo faces many challenges in addressing its critical maintenance needs, including limited funding, old facilities, years of deferred maintenance, and the ocean climate. However, it is not the USDA's responsibility to identify and cite similar deficiencies in all specific locations in the Zoo. Instead, it is the responsibility of the Zoo to evaluate all structures and exhibits in the Zoo in light of the nature of the violations identified in the USDA inspections, make such repairs and replacements throughout the Zoo, and establish a schedule of periodic inspections. Therefore, we recommend that Zoo management develop a maintenance quality control program to ensure that significant maintenance items are identified and addressed prior to USDA inspections.

General Maintenance Completion Rate and Backlog

The current Zoo maintenance staff consists of 12 FTEs with skills in plumbing, carpentry, electrical work and general maintenance. In general, repair requests are submitted on work order forms by staff throughout the Zoo. In addition, maintenance staff report that a large volume of requests are submitted verbally, primarily for more minor repairs. Requests, which are submitted on work order forms, are assigned the following priority codes which are then logged into a database:

1 = Emergency (includes USDA cited item or Safety Hazard of any magnitude). Must be mitigated immediately and has probably already been requested verbally. *Examples of currently pending Emergency items include: repair jaguar exhibit holding mesh chewed by animal; repair unstable gate and replace back perimeter fence in the giraffe exhibit; replace rotten wood in wild dog exhibit door with hole large enough for dog head; patch cracks in Commissary floor; and repair broken food stand windows.*

2 = Critical. Situation is stable but repercussions to the operations are severe. *Examples of currently pending Critical items include: repair rope climbing structure in Children's Zoo; repair leaky roof in carnivore staging area; repair hole in floor and crack in island of the sea lion exhibit; repair Asian rhino door latching mechanism; replace hinge on Lion building kitchen door.*

3 = Needed. The situation is being managed but there is a persistent negative effect on operations, safety, etc. *Examples of currently pending Needed items include: stabilize inflow at the Children's Zoo South Pond to prevent damage; replace food stand fence post; repair pool valve in elephant barn; install new rollers in aviary door between kitchen and exhibit; paint Children's Zoo nursery.*

4 = LAFNBNS (limping along for now but needed soon). The situation can be managed indefinitely but resolution would create positive effects on operations. *Examples of currently pending LAFNBNS items include: install radiant heater in Pygmy hippo exhibit; fill and regrade area in front of zebra yard holding pens; remove kiosk that housed computer enrichment device in Feline Conservation Center; fill in holes in black rhino yard and adjust service gate; fix door in Graphics Department.*

5 = Stable. Staff have gotten so used to working around it that it is essentially considered normal but resolution would have positive effects on operations. *There are no Priority 5 maintenance requests currently pending.*

To determine the maintenance completion rate and backlog of requests, we examined the Zoo's maintenance logs. As of July 7, 1999, the Zoo had a total of 173 maintenance requests pending. The requests range from minor, such as requests to fix dripping faucets, to major repair projects in need of outsourcing, such as repairing floors and grading exhibit areas. The oldest dated request had been submitted two years prior to July 7, 1999.

Under the Zoo's maintenance record keeping system, the date a requested repair was made is not recorded. Instead, completed projects are simply moved to a list of completed items, with no indication of the date on which they were completed. Therefore we were unable to determine the amount of time that had elapsed between the date a repair request was submitted and the date that the repair was completed.

Instead, in order to examine the Zoo's maintenance requests and develop assessment of the completion rate, we examined all repair requests submitted during 1998. A summary of those work orders is shown below:

Table 1.4.1
1998 Zoo Maintenance Work Order Requests

	<u>Number</u>	<u>Percent</u>
Completed as of 7/7/99	227	78%
Pending as of 7/7/99	<u>65</u>	<u>22%</u>
Total received in 1998	292	100%

Average monthly requests: 24

As shown in Table 1.4.1 above, a total of 292 maintenance requests were submitted during 1998. Of those, 227 or 78 percent were completed as of July 7, 1999, and 65 requests or 22 percent were still pending. The data were further evaluated to determine the nature of the pending requests. It was found that the 65 requests submitted in 1998 that were still pending were prioritized as follows:

Table 1.4.2
1998 Maintenance Requests Still Pending, by Priority Level
As of 7/7/99

	<u>Number</u>
Priority 1 (Emergency)	2
Priority 2 (Critical)	30
Priority 3 (Needed)	20
Priority 4 (LAFNBNS)	7
Priority 5 (Stable)	0
No Priority Level Indicated	<u>6</u>
	65

As shown in Table 1.4.2 above, there were 32 repair requests which had been submitted from 6 through 18 months prior and were determined to be emergency or critical situations, those which needed to be mitigated immediately or were determined to have severe repercussions to operations. Twenty of the repair requests were for Priority 3 "needed" repairs that indicate that the situation is being managed but there is a persistent negative effect on operations and/or safety.

Among the 32 repair requests which were deemed to be emergency or critical situations were repair and replacement of exhibit animal enclosure and visitor barrier fences; locks and doors to animal exhibits; damaged mesh in animal enclosures; and improvements required for animal enclosure areas subject to flooding.

Phase II (New Zoo) Repairs and Renovations

Under the Phase II plan, over \$75 million in public and private funds will be used to build new exhibits and renovate existing exhibits with nearly \$2.5 million of that amount allocated to repair and replacement projects. Repair and replacement projects include critically needed improvements to existing exhibits identified by the USDA such as to repair the bear grotto roofs, repair the wire mesh in the Primate Discovery Center, and replace the chimpanzee climbing structure. Of the \$2.5 million, \$0.5 million is earmarked for emergency maintenance. In addition, Phase II includes a new warehouse facility that will address the Zoo's limited storage capacity issues for the Zoo Maintenance Department's equipment and supplies.

The Zoo will need to continue to enhance its animal care and quality of its visitor experience, as well as address USDA compliance issues while the new Phase II capital projects are being constructed. We recommend that Zoo management increase the maintenance department to address deferred maintenance items until maintenance is reasonably caught up. In order to accomplish this without

increasing operating costs, new maintenance employees should be assigned strictly to bond-approved repair items, thereby qualifying all costs for the force-account labor category in the Phase II program. According to the Zoo's Phase II expenditure plan, \$2,470,000 has been earmarked for repair and replacement projects.

The Zoo expects to realize steadily increasing revenues from improved attendance, and revenue-generating special functions and events as the Phase II improvements get underway and new exhibits are opened. It is planned that a portion of these increased revenues would be used to support the expansion in maintenance services once the funds set aside for Phase II repair and replacement projects have been exhausted.

CONCLUSIONS

The Zoo is an aging facility that has experienced many years of unfunded and deferred maintenance while under the management of the City's Recreation and Park Department and under the San Francisco Zoological Society. The effect of deferred maintenance has been compounded by aging facilities and the harsh ocean climate. The SFZS has been working to address maintenance issues at the Zoo and faces many challenges in addressing its critical maintenance needs, including limited funding, old facilities, years of deferred maintenance, and the ocean climate.

A review of USDA inspection reports from 1994 to 1999 show that the Zoo is not adequately responding to violations, which have been identified by the USDA. It is the responsibility of the Zoo to evaluate all structures and exhibits in the Zoo in light of the nature of the violations identified in the USDA inspections, make such repairs and replacements throughout the Zoo, and to establish a schedule of periodic inspections. Therefore, it is recommended that Zoo management develop a maintenance quality control program to ensure that significant maintenance items are identified and addressed prior to USDA inspections.

As of July 7, 1999, the Zoo had a total of 173 maintenance requests pending. The requests range from the minor, such as requests to fix dripping faucets, to major repair projects in need of outsourcing, such as repairing floors and grading exhibit areas. The oldest dated request had been submitted two years prior. We found that, out of a total of 292 maintenance requests that were submitted during 1998, 227 or 78 percent were completed as of July 7, 1999 and 65 requests or 22 percent were still pending, six months to one and a half years after they had been submitted. Of the 65 work orders still pending, 32 were deemed to be "emergency" or "critical."

The Zoo will need to continue to enhance its animal care and the quality of its visitor experience, as well as address USDA compliance issues while the new Phase

II capital projects are being constructed. We recommend that Zoo management increase the maintenance department staff to address deferred maintenance items until maintenance is reasonably caught up. In order to accomplish this without increasing operating costs, new maintenance employees should be assigned strictly to Phase II program approved repair items, thereby qualifying all costs for the force-account labor category in the Phase II program. – Zoo management has recently received approval to use force-account labor to perform necessary construction work related to its Phase II “Repair and Replacement” project.

RECOMMENDATIONS

The Zoological Society should:

- 1.4.1 Develop a maintenance quality control program to insure that significant maintenance items are identified prior to USDA inspections.
- 1.4.2 Improve its maintenance work order log system by recording the date work orders were completed in order to provide Zoo management with improved record keeping and controls over the timeliness of repairs.
- 1.4.3 Increase the maintenance department staff to address deferred maintenance items until maintenance is reasonably caught up. In order to accomplish this without increasing operating costs, new maintenance employees should be assigned strictly to the Phase II program approved repair items, thereby qualifying all costs for the force-account labor category in the Phase II program.

COSTS/BENEFITS

The recommendations contained in the section will provide better quality controls, improve operations, and enhance the quality of animal exhibits and other facilities at the Zoo. Our recommendations will not result in any increase in Zoo operating costs since the recommended increase in maintenance department staff to address deferred maintenance items should be assigned strictly for the Phase II program approved repair items, thereby qualifying all costs for the force-account labor category in the Phase II program.

Section 1.5: Browse Collection

- Our examination of the Zoo's workers' compensation claim data over the past four years found that a significant portion of claims were for injuries incurred by animal keepers while collecting fresh plant and tree cuttings for animal food and enrichment, known as "browse." From July of 1995 through June of 1998, there were ten browse related workers' compensation claims at an estimated total cost to the City's General Fund of \$270,389. These injuries resulted in the loss of 477 workdays, representing 14.3 percent of all claims submitted by animal keepers who are City employees and over 40 percent of the workers' compensation benefits paid for injuries incurred during that four-year period.
- The San Francisco Zoological Society has taken effective steps to address the rate of employee injury such as contracting with the Recreation and Park Department for browse collecting and assigning responsibility for a greater portion of the Zoo's browse collection to professional in-house horticultural staff. These efforts have recently resulted in a drop in the number of browse-related injuries to City and Zoological Society staff. The Zoological Society's long-term plans also include meeting a portion of the Zoo's browse needs by planting trees and bushes within the Zoo to be used for browse.
- However, such solutions do not adequately address all of the Zoo's browse collection issues. The SFZS should establish a browse farm for the Zoo's ongoing browse needs, which could result in long term cost savings and would provide other important benefits, such as eliminating potential exposure of the animals to toxins and ensuring an ongoing adequate supply of food and enrichment materials for the Zoo's animals.

As part of this management audit, the Budget Analyst reviewed and analyzed the San Francisco Zoological Society's (SFZS) and the City and County of San Francisco's workers' compensation claims and expenditures. In order to assess workers' compensation claims and expenditures for workers at the Zoo, we:

- Obtained and reviewed documents from the SFZS and the City's Department of Human Resources, including:
 - OSHA Form 200, "Log and Summary of Occupational Injuries and Illnesses," which reports information such as the injury date, the number of lost days and number of days of restricted duty for each claim filed by an employee;

- The City Workers' Compensation "Loss Summary Report", which shows all costs incurred by the City for each claim filed by a City employee assigned to the Zoo;
 - The SFZS's Workers' Compensation "Risk Management Report", provided by the SFZS's insurance carrier, The Zenith, which shows all costs incurred by the SFZS for each claim filed by a SFZS employee.
-
- Interviewed animal keeper staff, managers, and other SFZS personnel;
 - Interviewed Recreation and Park Department personnel;
 - Reviewed Recreation and Park Department work order documentation related to browse collection; and
 - Interviewed and reviewed documents from personnel at other animal facilities with dedicated browse farms.

A Significant Portion of Workers' Compensation Costs Incurred at the Zoo are Due to Browse Collection Injuries

An examination of workers' compensation claims over the past four years found that a significant portion were for injuries incurred by animal keepers while collecting fresh plant and tree cuttings for animal food and enrichment, known as "browse." From July 1995 through March of 1999, there were ten browse related workers' compensation claims filed by City animal keepers which resulted in the loss of 477 work days at a total current and future cost to the City of \$270,389.

The San Francisco Zoo has a variety of animal species which require fresh plant and tree cuttings, or browse, to meet part or all of their dietary needs. Browse is also used by the Zoo for animal enrichment. For example, tree limbs are placed in many of the Zoo's animal enclosures to provide a more natural environment and stimulation for the animals. Browse collection needs at the Zoo have increased steadily in recent years as the Zoo has striven to provide more "naturalistic" settings for its animals, has recognized the importance of animal enrichment, and has acquired animals, such as the koalas, who require large amounts of specific plant species in their diet. Unlike some other zoos and animal facilities, the San Francisco Zoo does not have a dedicated area set aside for browse production and harvesting. Instead, browse for the Zoo's animals is collected weekly by animal keepers and other personnel from public and private properties in the City and the surrounding areas.

As of March of 1999, 28 of the Zoo's animal keepers were SFZS employees and 31 were City employees. Under the 1993 Lease Agreement between the City and the SFZS, all City employees salaries are paid by the SFZS, however, all workers' compensation payments for claims filed by City employees at the Zoo are paid by the City and not the SFZS. An examination of the City's workers' compensation data showed that there were ten browse related workers' compensation claims submitted from July of 1995 through March of 1999, an approximately four-year period. As shown in the table below, injuries to animal keepers employed by the City incurred while collecting browse resulted in estimated total costs of \$270,389 to the City and lost work time of 477 days over the four-year period. Injuries incurred during the collection of browse represented 14 percent of all claims submitted by animal keepers who are City employees and over 40 percent of the workers' compensation benefits paid and the future liability incurred by the City.

Table 1.5.1
Workers' Compensation Claims Related to Browse Collection
Animal Keepers Employed by the City
July 1, 1995 through March 14, 1999

<u>Fiscal Year</u>	<u>Number of claims</u>	<u>Number of work days missed</u>	<u>Amount paid</u>	<u>Estimated future liability</u>	<u>Total</u>
1995-96	3	288	\$ 89,207	\$ 95,893	\$ 185,100
1996-97	3	145	24,865	35,976	60,841
1997-98	4	44	9,539	14,906	24,445
1998-3/14/99	0	0	0	0	0
1995-99 Total	10	477	\$123,611	\$146,775	\$270,386
All claims*	70	1,788	\$306,748	\$335,430	\$642,178
% of all claims	14.3%	26.7%	40.3%	43.8%	42.1%

* All claims submitted by City employees assigned to the Zoo.

As shown in Table 1.5.1 above, no browse related workers' compensation claims were submitted by City employees from July 1998 through March 1999. This appears to be attributable in great part to the SFZS's success in shifting responsibility for a large portion of browse collection from animal keeper staff to professional tree cutting staff, which is discussed in more detail below.

In addition to workers' compensation claims for City employees at the Zoo, we also reviewed workers' compensation data for SFZS employees during the same period. As noted above, 28 or approximately half of the Zoo's animal keepers are SFZS employees. A review of the SFZS's workers' compensation claims data found that three browse related claims had been submitted by animal keepers employed by the SFZS between July of 1995 and March of 1999. Such claims were for relatively minor injuries and represented a total of \$2,095 in workers' compensation payments and no lost work days.

The types of browse related injuries sustained by City and SFZS animal keepers include contusions from falling equipment and branches, repetitive strain injuries from using long pole cutters to cut overhead, poison oak contracted while locating or cutting browse, and muscle sprains from uneven terrain. The two species of browse that are most commonly collected are acacia and eucalyptus. We found that while injuries were incurred while collecting all types of browse, the most serious injuries were attributable to the use of extension pole pruners used to collect eucalyptus browse from high up locations. Acacia browse collection resulted in fewer and more minor injuries, most likely because the branches suitable for browse can be cut at ground level.

Browse Collection Background

The San Francisco Zoo does not have a dedicated area set aside for browse production and harvesting. Instead, browse for the Zoo's animals is collected from public and private properties throughout the City and the surrounding areas. Zoo staff advise that the volume of browse required by the Zoo has steadily increased as the Zoo has worked to provide more "naturalistic" settings for its animals, has recognized the importance of animal enrichment, and has acquired animals, such as the koalas, who require large amounts of specific plant species in their diet.

Collection of eucalyptus browse for the koalas was the cause of the most serious injuries among the claims we examined and presents the greatest ongoing browse collection challenge to the Zoo. The sole source of food for koalas is eucalyptus which is plentiful in the San Francisco area. However, according to animal keeper staff, the collection of eucalyptus browse for the koalas is much more difficult than it may first appear due to the specificity of what the koalas will consume and the large volume of browse that they require.

Koalas require a large volume of fresh eucalyptus browse. Keeper staff advise that each koala consumes the leaves contained on 12 to 15 branches of eucalyptus every day. With the Zoo's current collection of eight koalas, this means that 672 to 840 eucalyptus branches must be supplied per week. Second, staff report that it is desirable to supply three to four different species of eucalyptus per day in order to

keep the koalas' appetites stimulated in captivity. This means that browse collectors must travel to various locations to collect the right mix of eucalyptus species for the koalas' weekly food supply. In addition, once a suitable browse location is located, it cannot simply be returned to and re-harvested week after week. Instead, it takes several months for trees to regenerate branches suitable for subsequent harvesting. Browse collectors must take care not to overharvest since constant cutting of new growth may be detrimental to the trees.

Further complicating matters is that browse collection must be done several times per week since the koalas will eat only from very freshly cut branches which must be placed in buckets of water almost immediately after cutting. This precludes cutting and storing more than a short-term supply of eucalyptus. Also, koalas will consume only the tender new growth shoots of the eucalyptus which grow at the very top of the trees. To reach these branches, keepers used long overhead extension pole pruners which were responsible for the most serious workers' compensation claims during the period we examined, including injuries resulting from falling branches, wounds from falling poles, and repetitive strain injuries.

Zoo staff advise that the collection of browse consumes a significant portion of their time. Staff must travel all over the City and surrounding areas to harvest enough browse throughout the year to meet their animals' needs and depend on personal relationships and negotiations on a case by case basis with property owners for permission to collect browse at various properties. Zoo staff report encountering unsafe conditions when having to enter public and private lands to collect browse, such as disturbing homeless encampments, negotiating difficult terrain, and hostile property owners. In addition, it is often unknown if the trees or bushes in a browse collection site have been contaminated by toxins which may then be passed on to the animals.

Steps Taken by the Zoo to Address Browse Collection

Browse collection has been an ongoing challenge for Zoo animal keeper staff and SFZS management. To its credit, the SFZS has successfully taken steps to address the problem of worker injuries resulting from browse collection activities as reflected by the drop in browse related workers' compensation claims beginning in FY 1998-99.

In 1996, the SFZS entered into a work order agreement with the Recreation and Park Department (RPD) for tree cutting services. Under the agreement, RPD tree toppers, using an aerial lift truck, spend three days per week, four to five hours per day, cutting various eucalyptus species at sites specified each week by animal keeper staff and transporting it to the Zoo. The average cost to the SFZS for this service was approximately \$6,600 per month from July 1998 through March 1999 or

\$79,200 annually. Collection of all other types of browse continued to be performed by Zoo animal keeper staff and other Zoo personnel.

The RPD contract has relieved koala keeper staff of the bulk of browse collection activities. However, Zoo staff report that the quality and quantity of the eucalyptus collected by the RPD has been inconsistent and the koala animal keepers must continue to cut some eucalyptus as a supplement when the quality or quantity collected by the RPD is insufficient or the RPD crew is unavailable. For example, for a one month period in early 1999, the RPD's aerial extension truck was out of service, thereby necessitating collection of eucalyptus browse by the Zoo's animal keeper staff. Also, because RPD staff must be directed to the sites where the various desired species of eucalyptus can be found, a portion of a Zoo animal keeper's time still must be devoted to tracking and surveying areas for cutting. This requires travel throughout San Francisco and surrounding areas on "reconnaissance missions" in search of suitable browse and in order to secure permission to harvest browse from property owners.

Currently, the SFZS is working toward bringing all browse collection activity under the Zoo's in-house horticultural staff and terminating the RPD work order agreement. In early 1999, the SFZS hired two horticultural staff to be trained in the collection of browse who will be responsible for the collection of browse, thus relieving the Zoo's animal keepers from the bulk of this duty and freeing their time to devote to animal care, public interaction, environmental enrichment, and other projects. The SFZS is also outfitting a donated truck with an aerial lift which it believes will enable these two new horticultural staff eventually to harvest all of the eucalyptus required for the koalas. The SFZS reports that once the truck is ready, the contract with RPD for such services will eventually be discontinued. The SFZS also plans to transfer two of its eight koalas to the San Diego Zoo in order to decrease the San Francisco Zoo's browse needs.

Finally, the SFZS advises that it plans to meet some or all of its future browse needs by including plantings of species used for browse in the new Zoo design. Under current plans, trees and shrubs commonly used for browse will be planted throughout the Zoo.

Long Term Solution – Establishment of a Browse Farm

The changes being implemented by the SFZS will address some of the concerns regarding worker safety and the collection of browse, by assigning this task to trained personnel and including browse in its new Zoo plans. However, these measures do not adequately address all of the issues surrounding browse collection.

Although two additional Zoo horticultural staff have been assigned to browse collection, they are intended to replace eight to nine animal keepers who performed this work as well as a particularly dedicated and recently retired Zoo truck driver who regularly collected browse in addition to his normal duties. In addition to browse collection, the two horticultural staff are also assigned to perform regular tree work within the Zoo, such as pruning and removal of trees. Horticultural staff will also take on the added responsibility of locating suitable sites for browse collection and keeping up ongoing relationships with public and private property owners to ensure permission prior to harvesting browse. This will continue to be extremely time consuming and inefficient as staff must travel sometimes long distances to find suitable browse.

It is unclear as to whether the two Zoo horticultural staff who will be dedicated only part time to browse collection will be adequate to meet the Zoo's browse needs, particularly since it is the RPD's experience that it requires a crew of three tree toppers four to five hours per day, three days per week, just to meet the Zoo's eucalyptus browse needs. Also, browse collection will be dependent upon the reliable operation of a single aerial lift truck. Finally, it can not be assured that browse collected from properties outside of the control of the Zoo are free of toxins which may affect the Zoo's animals.

The SFZS advises that, in the future, all or a large portion of the Zoo's browse needs will be met by on-site plantings contained in the new Zoo plan. Zoo staff advise that the planting of 3,000 to 6,000 browse trees and shrubs along the perimeter of the Zoo is being considered. However, we question whether the Zoo's browse requirements and the new Zoo plans are compatible. The ideal trees for browse should be at or close to ground level and would be frequently cut. Such trees are not particularly aesthetically pleasing and may not be suitable for areas in public view. Second, due to the windy conditions at the Zoo, the perimeter landscaping should consist of dense shrubs and tall trees that are better suited to serving as windbreaks.

The best long term solution for browse collection at the Zoo is the establishment of a browse farm, particularly to meet the Zoo's eucalyptus requirements. Other zoos and animal facilities such as the San Diego Zoo and Six Flags/Marine World have established browse farms where needed species of plants are planted and harvested in one location. Eucalyptus grown on a browse farm is kept at a dwarfed size where new growth is regularly harvested so that cutting takes place at ground level, exposing employees to a significantly reduced likelihood of injury. A browse farm permits harvesting without the use of pruning poles and exposures to unfamiliar terrain, driving hazards, and the general public.

A farm would eliminate the need for staff to travel various distances daily and visit unfamiliar locations to harvest browse. Ideally, the site would be in a controlled area to ensure that no dumping of toxins or vandalism would occur at the site. In order to obtain information on the size and cost of establishing a browse farm we examined documents and conferred with staff at the San Diego Zoo, Six Flags/Marine World, and San Francisco Zoo.

Koalas consume the tender shoots contained on 12 to 15 six-foot eucalyptus branches per day. An established eucalyptus plant yields approximately eight to ten suitable branches per year. Therefore, to establish a browse farm, 438 to 684 trees per koala should be planted. In order to feed six koalas, the requirements for a eucalyptus browse farm for the Zoo are three to five acres of land suitable for growing 14 to 17 different varieties of eucalyptus. The site must have water for irrigation nearby and be accessible to equipment. Such a browse farm could be established on Zoo grounds or in another location.

Initial costs to establish a browse farm are highly dependent upon the location selected. Factors such as availability of irrigation and whether or not the Zoo must purchase or pay to lease land would have a great impact on the price. A browse farm which would address the Zoo's most pressing need for eucalyptus is estimated to range from \$76,000 to \$213,000, assuming the Zoo would not incur any costs to lease or purchase land. Ongoing costs are estimated from \$61,000 to \$68,000 per year, including staff. It is estimated that it would take three to four years for a eucalyptus browse plantation to reach sufficient size and maturity to begin harvesting. An expansion of the browse farm to include other species of plants would add approximately \$20,000 for the initial installment and materials.

In 1996, the SFZS entered into discussions with the San Francisco Sheriff's Department about establishing a browse farm on property adjacent to the San Bruno Jail facility and developed a preliminary plan. Under that plan, it was proposed that the Sheriff's Department would work with the Zoo to establish a browse farm which would also serve as a horticultural work training program for inmates. Due to changes in SFZS staffing, talks between the Zoo and the Sheriff's Department were discontinued.

Given the benefits outlined above, the SFZS should renew efforts to establish a browse farm at the San Bruno Jail site or form a similar partnership with another agency. In December of 1999, the Sheriff's Department reported to the Budget Analyst that it is still willing to consider the establishment of a browse farm at the San Bruno Jail site. The Zoo Director has advised the Budget Analyst that the Zoo will contact the Sheriff's Department in the very near future to discuss establishing a browse farm at the San Bruno Jail site.

CONCLUSIONS

An examination of workers' compensation claims over the past four years found that a significant portion of claims were for injuries incurred by animal keepers while collecting browse. From July of 1995 through June of 1998, there were ten browse related workers' compensation claims at an estimated total cost to the City of \$270,389, the loss of 477 work days, and representing 42 percent of all claims filed during that period.

The SFZS has taken effective steps to address the rate of employee injury such as contracting with Recreation and Park Department for browse collecting and assigning responsibility for a greater portion of the Zoo's browse collection to professional in-house horticultural staff. These efforts have recently resulted in a drop in the number of browse-related injuries to City and SFZS staff. The SFZS's long-term plans also the planting of trees and bushes at the Zoo to be used for browse.

However, such solutions do not adequately address all of the Zoo's ongoing browse collection needs. The SFZS should instead plan to establish a browse farm, which would provide a more efficient, safe, and stable supply of browse for the Zoo's animals.

RECOMMENDATION

The Zoological Society should:

- 1.5.1 Include an on-site or off-site dedicated browse farm in its new Zoo planning and establish such a farm as soon as possible.

COSTS/BENEFITS

Implementation of the recommendation in this section would result in estimated one time costs from \$76,000 through \$213,000, not including any costs to lease or purchase land if necessary. Annual ongoing costs are estimated to be from \$61,000 through \$68,000. Potential long term cost savings could result from averted workers' compensation claims and a reduction in Zoo staff hours required for browse collection and would provide other important benefits, such as eliminating potential exposure of the animals to toxins and ensuring an ongoing adequate supply of food and enrichment materials for the Zoo's animals.

Section 1.6: Free Admission Days

- ♦ All admissions to the Zoo are free on the first Wednesday of each month. These free days are the most highly attended of all days at the Zoo, especially during the summer months. For example, on the free day held in July of 1999, the Zoo recorded 23,771 visitors, a six-fold increase compared to the total attendance of 3,875 on the following Saturday. On the July of 1999 free day we observed the animals in the Gorilla World exhibit completely surrounded with jostling adults and children two to three persons deep. Other exhibit areas, such as the Lion exhibit, were similarly overcrowded. In the Primate Discovery Center Gift Shop, the two clerks on duty were clearly overwhelmed by the large volume of visitors. By early afternoon, the trash receptacles near the Terrace Café were filled to overflowing and long lines had formed for the playfield restrooms. We observed security staff in some areas working to keep order by reminding children to stay off of railings and not to throw objects into the exhibits.
- ♦ We recommend that the Zoo consider proposing a modification of its free day policy during the summer months to reduce stress on the Zoo's animals and facilities. This may become particularly important while the Zoo undergoes its planned capital improvements, which may concentrate or increase free day attendance during these peak summer months beyond the Zoo's capacity.
- ♦ One option would be for the Zoo to eliminate free days during peak summer months and move those free days to other times of the year when attendance would be more manageable. Or, the Zoo could limit free admission to only certain hours during peak summer months. For example, the Baltimore Zoo has free admission for children only on the first Saturday of each month between the hours of 10 a.m. and noon and the Portland Zoo has free admission on the second Tuesday of each month after 5:00 p.m. Other options are to offer free admission to children only and/or to encourage schools and other groups to limit attendance on free days (local school and other organized groups are granted free admission and out-of-County groups are granted discounted admission) by offering alternative arrangements for days that are not heavily attended.

Background

Under the Lease Agreement with the City, the Zoo is required to “retain the policy of providing free access to the Zoo on certain days.” Currently, the Zoo designates the first Wednesday of every month as a “free day” where no admission fees are charged. Monthly free days take place at institutions throughout the City, including the Academy of Sciences, Legion of Honor, Museum of Modern Art, Exploratorium, and the DeYoung Museum. Free days provide opportunities for low income families to visit the Zoo and provides wide exposure for the facility to those who might not otherwise be able or willing to pay admission.

In FY 1997-98 the S.F. Zoo had a total attendance of 826,769 visitors which generated admission fee revenues of \$2,083,983. In FY 1997-98, 422,228 out of the 826,769 total visitors (51 percent) paid admission to the Zoo. Another 192,037 visitors (23 percent) received free entry due to policies such as free days, free admission for school groups, and promotional coupons. The balance of 212,504 visitors (26 percent) received free entry as part of their paid SFZS memberships. Among visitors who paid an admission fee in 1997-98 the Zoo collected an average of \$4.94 per visitor. Averaged across all paid and free admissions (excluding member admissions), the Zoo collected \$3.39 per visitor during the same period.

In its 1997 Management/Marketing Survey, the American Zoo and Aquarium Association reported that the average percentage of visitors receiving free admission in zoos with annual operating budgets greater than \$5 million was 13 percent (not including member admissions). As noted earlier, in FY 1997-98, the percentage of free visitors to the San Francisco Zoo was 23 percent, or approximately 77 percent (10 percentage points) higher than average. This can be attributed to the Zoo’s free first Wednesdays policy, free school group admission policies, and coupons as well as a relatively low rate of attendance by paying patrons.

Attendance on Free Days

Throughout the year free days are the most highly attended days at the Zoo. Free days, particularly during the summer months, result in dramatic increases in attendance compared to regular attendance during the same time period, especially during the summer months. For example, in July of 1999, the Zoo recorded 23,771 free day visitors, a six-fold increase compared to the total attendance of 3,875 on the Saturday following the free day. The significant peaks in attendance at the Zoo on its monthly free days compared with attendance on the following day and the following Saturday are displayed in the following table:

Table 1.6.1
SF Zoo Attendance
Free Day Compared with the Weekday and Saturday Following Free Day
FY 1998-99

	<u>Free Day</u>	<u>Weekday Following Free Day</u>	<u>Saturday Following Free Day</u>
July 1998	16,756	2,537	3,339
Aug 1998	24,727	2,875	4,432
Sept 1998	8,382	1,332	4,678
Oct 1998	6,326	905	3,213
Nov 1998	3,833	825	586
Dec 1998	839	191	1,214
Jan 1999	2,638	400	2,000
Feb 1999	5,033	701	127
Mar 1999	5,283	1,069	3,131
April 1999	1,957	612	1,315
May 1999	10,257	2,750	3,925
June 1999	9,068	2,631	19,018*
Total FY 98-99	102,299	16,828	46,978
July 1999	23,771	2,623	3,875

* *Special Event*

Survey of Other Zoo and Facilities' Free Day Policies

As a part of this audit, we surveyed the free day policies of eighteen other zoos comparable to the San Francisco Zoo as well as other facilities in the Bay Area which cater to children. We found that five of the eighteen zoos and other facilities that we surveyed offered free days, as shown below:

Facilities With Free Days

Bay Area Zoos and Other Facilities

Exploratorium All admissions free first Wednesday of each month.
 Academy of Sciences All admissions free first Wednesday of each month.

Other Zoos

Baltimore Zoo Children's admissions free 10 a.m. to noon on the first Saturday each month.
 Bronx Zoo All admissions free each Wednesday.
 Oregon Zoo (Portland) All admissions free on second Tuesday of each month.

Facilities Without Free Days

Bay Area Zoos and Other Facilities

Six Flags Marine World
 San Diego Zoo
 Los Angeles Zoo
 Bay Area Discovery Museum
 Zeum
 Lawrence Hall of Science
 Sacramento Zoo
 Oakland Zoo

Other Zoos

Zoo Atlanta
 Woodland Park Zoo (Seattle)
 Louisville Zoo
 Pittsburgh Zoo
 Dallas Zoo

Source: Individual zoo and other facility Web sites, July 1999.

Impact of Free Days

The large number of visitors on free days during the peak summer months strain the Zoo's animals, staff, and aging facilities. On the July of 1999 free day we observed the animals in the Gorilla World exhibit completely surrounded with jostling adults and children two to three persons deep. Other exhibit areas, such as the Lion exhibit, were similarly overcrowded. In the Primate Discovery Center Gift Shop, the two clerks on duty were clearly overwhelmed by the large volume of visitors. By early afternoon, the trash receptacles near the Terrace Café were filled to overflowing and long lines had formed for the playfield restrooms. Security staff were observed in some areas working to keep order by reminding children to stay off of railings and not to throw objects into the exhibits. However, our overall assessment was that the Zoo was at or close to exceeding its capacity. Such large crowds are detrimental to the animals since they increase stress on the animals as well as the likelihood that the animals will be harassed or frightened.

On free days the Zoo assigns administrative staff to the grounds to assist with operations and brings in additional security and other staff. The Zoo estimates that its operating costs increase by approximately \$3,000 on peak free days for portable toilets, additional security, garbage disposal, ground repairs, additional Zoo staff and staff overtime. These costs are in part offset by a \$1.00 per person charge for admission to the Children's Zoo. The Children's Zoo fee, which is charged only on free days, is intended to keep the number of visitors to that area of the Zoo within a manageable level.

We recommend that the Zoo consider modifying the its free entry policies during summer months to reduce stress on the Zoo's animals, staff, and facilities. This may become especially important as the Zoo undergoes its planned capital improvements which could result in portions of the Zoo being closed off and thereby concentrating visitors into a smaller area. The introduction of planned popular new exhibits will

also result in even greater free day attendance, exceeding the Zoo's current capacity.

One option is for the Zoo to modify its "free day" program by eliminating the free days during peak summer months and moving those free days to other times of the year when attendance will be more manageable. Or, the Zoo could limit free admission to only certain hours during peak summer months. For example, the Baltimore Zoo has free admission for children only on the first Saturday of each month between the hours of 10 a.m. and noon and the Portland Zoo has free admission on the second Tuesday of each month after 5:00 p.m. Other options are to offer free admission to children only and/or to encourage schools and other groups to limit attendance on free days (local school and other organized groups are granted free admission and out-of-County groups are granted discounted admission) by offering alternative arrangements for days that are not heavily attended.

CONCLUSIONS

All admissions to the Zoo are free on the first Wednesday of each month. These free days are the most highly attended of all days at the Zoo, especially during the summer months. On the free day in July of 1999, the Zoo recorded 23,771 visitors, a six-fold increase compared to the total attendance of 3,875 on the following Saturday. Our assessment is that the Zoo's facility and staff are overwhelmed on these peak summer free days. In addition, the stress caused by large crowds may be harmful to the Zoo's animals.

RECOMMENDATION

The Zoological Society should:

- 1.6.1 Modify its free entry policy during summer months to reduce stress on the Zoo's animals, staff, and facilities, particularly as the Zoo undergoes its planned capital improvements.

COSTS/BENEFITS

Modifications to the Zoo's free day policy during summer months would most likely not result in any significant fiscal impact. However, stress to the Zoo's animals, facility and staff from overcrowding may be avoided if changes are made.

Section 2: Visitor Services

- ♦ Based on the Zoo's semi-annual visitor surveys, the percentage of Zoo visitors who rate their overall satisfaction as "excellent" has been slightly below 40 percent or between 40 and 50 percent since August of 1996. Prior to that, from March 1994 through February 1996 visitors reporting an "excellent" rating averaged around 30 percent. While recent trends have shown improvement, the Zoo has far to go in providing an "excellent" experience for all of its visitors.
- ♦ In the May 1999 Zoo visitor survey, when asked what one thing they would like to see changed at the Zoo, the most frequently mentioned suggestions (by 29 percent of visitors) concerned providing improved habitats for certain animals or all of the Zoo's animals in general.
- ♦ The Zoo's admission fees appear to be reasonable compared to other zoos and facilities catering to families and children in the Bay Area. In the case of its resident child and senior admission prices, the Zoo was one of the lowest priced facilities of those surveyed. According to the May 1999 visitor survey, 82 percent of respondents rated value for admission price as "excellent" or "good."
- ♦ An inspection of the Zoo's food services by the City's Department of Public Health in June of 1999 found numerous minor, but no major, health violations. However, it was noted that the Zoo's concessions "...are falling into various stages of decrepitude."
- ♦ Although the Zoo has recently made efforts to improve its restroom facilities by painting stall doors and making other repairs, the poor condition of the restrooms is in large part due to aging structures and deferred maintenance that has resulted in unsightly and hazardous conditions. Even the cleanest of restrooms would obtain a poor public rating under these circumstances.
- ♦ Exhibit signage is in poor condition in various areas throughout the Zoo. Damaged, worn out, dirty, and/or missing signage reinforces to the visitor an image of a Zoo in a state of disrepair and neglect.
- ♦ Although aged and deteriorating facilities hamper efforts to keep the Zoo grounds and facilities attractive and clean, the Zoo must allocate greater resources to managing the attractiveness, cleanliness, and information (educational and directional signage) aspects of the Zoo. The Zoo should strengthen the maintenance, horticultural, and custodial staffs, and provide them with the tools they need to perform efficiently.

As part of this management audit, we included in our review an assessment of overall satisfaction of Zoo visitors, admission prices, the quality and pricing of concessions, and the attractiveness and cleanliness of the grounds and facilities. In order to evaluate these areas, we:

- Interviewed former and current Zoo personnel, including the Zoo's former Director of Visitor Services, the Director of Operations, and Graphic Design, Facilities Maintenance and Development staff;
- Surveyed 17 facilities catering to families and children in the Bay Area and other California zoos, as well as zoos in the United States which are roughly comparable to the San Francisco Zoo in areas such as annual operating budget and attendance, in order to compare admissions fees and policies;
- Reviewed the Zoo's Visitor Surveys from 1995 to 1999;
- Reviewed a survey of Animal Keepers which was conducted by the Budget Analyst as a component of this audit;
- Examined SFZS financial records in the areas of operations, rides, food and merchandise;
- Obtained the services of a team of custodial experts who assessed the quality of housekeeping of public areas of the Zoo and provided recommendations for improvement;
- Reviewed inspection reports by the Department of Public Health of the Zoo's food concession stands; and
- Obtained information on and/or observed operations and services of other zoos and facilities.

Overall Visitor Satisfaction

The Zoo contracts with a private firm to conduct a semi-annual Visitor Survey. In order to assess the quality of Zoo visitors' experience in recent years we examined survey data from 1995 to the most recent survey, conducted in May of 1999. The surveys consist of approximately 40 questions, some of which differ slightly from year to year. Information gathered includes demographics, party size and characteristics, and the visitor's evaluation of exhibits, food and other services, suggestions for improvements, and their overall experience. Each survey was administered to between 200 to 350 visitors and surveys were conducted in the spring and summer of each year.

When asked to rate their overall satisfaction, 43 percent of visitors reported an "excellent" rating in the most recent survey administered in May of 1999. Those rating their experience as "good" was 50 percent, "fair" was 5 percent and "poor" was 2 percent. A comparison of the percentage of Zoo visitors who ranked their overall satisfaction as "excellent" from 1994 to 1999 is shown in the chart below:

**Percent of Zoo Visitors Ranking Overall Satisfaction as "Excellent"
1994-1998**

Source: San Francisco Zoo Visitor Survey Reports, March 1994 to May 1999.

As shown in the chart above, the percentage of visitors rating their overall satisfaction as "excellent" has been slightly below or in excess of 40 percent since August of 1996. Prior to that, from March of 1994 to February of 1996, visitors reporting such a rating averaged around 30 percent. This improvement is notable; however, the Zoo has far to go in providing an "excellent" experience for all of its visitors.

As noted elsewhere in this report, the Zoo contains a mix of old and new exhibits which range from the outdated concrete bear grottos to attractive and recently renovated or constructed exhibits. In the March 1999 visitor survey, those exhibits which were given high marks (in order) were the Gorillas, Lions, Children's Zoo, Monkeys, and Lorikeets. The exhibits cited most frequently by visitors when asked to describe the least enjoyable exhibit were the Elephants, Lions, Bears, and Aviary. The top reasons cited by visitors for the least enjoyable exhibits were

“couldn’t see” (21 percent), that the animals “looked sad” (21 percent), and “exhibit run down” (11 percent). When asked what one thing they would like to see changed at the Zoo, visitors gave a wide range of suggestions. The most frequently mentioned suggestions (29 percent) were directed toward providing improved habitats for certain animals or all of the Zoo’s animals in general.

The second most frequent suggestions for change, cited by 12 percent of visitors, concerned cleanliness at the Zoo. Tied as the third most frequently cited area which received suggestions for improvement, each stated by 9 percent of polled visitors, was the need to improve signage and parking at the Zoo.

Admission Fees

The admission fees at the San Francisco Zoo were compared to 17 facilities catering to families and children in the Bay Area and other California zoos, as well as to zoos in the United States which are roughly comparable to the San Francisco Zoo in areas such as annual operating budget and attendance (an exception is the Bronx Zoo, which is included for informational purposes only since the Bronx Zoo has a budget and attendance significantly higher than the SF Zoo). The facilities and their admission prices by category are shown in Table 2.1 on the following page:

Table 2.1
Comparison of Admission Fees
July 1999

	<u>Adult</u>	<u>Youth</u>	<u>Child</u>	<u>Senior</u>
San Francisco Zoo (non resident/resident)	\$9.00/7.00	\$6.00/3.50	\$3.00/1.50	\$6.00/3.50
<i>California/Local:</i>				
San Diego Zoo	\$ 16.00	\$ 16.00	\$ 7.00	\$ 16.00
Exploratorium	\$ 9.00	\$ 5.00	\$ 2.50	\$ 7.00
Academy of Sciences	\$ 8.50	\$ 5.50	\$ 2.00	\$ 5.50
Los Angeles Zoo	\$ 8.25	\$ 8.25	\$ 3.25	\$ 5.25
Bay Area Discovery Museum	\$ 7.00	\$ 7.00	\$ 6.00	\$ 7.00
Zeum	\$ 7.00	\$ 5.00	\$ 5.00	\$ 6.00
Lawrence Hall of Science	\$ 6.00	\$ 4.00	\$ 2.00	\$ 4.00
Sacramento Zoo (weekends)*	\$ 6.00	\$ 6.00	\$ 4.25	\$ 6.00
Oakland Zoo	\$ 5.50	\$ 5.50	\$ 3.00	\$ 3.00
<i>Other Zoos:</i>				
Zoo Atlanta	\$ 10.00	\$ 10.00	\$ 6.00	\$ 8.00
Baltimore Zoo	\$ 9.00	\$ 9.00	\$ 5.50	\$ 5.50
Woodland Park Zoo (Seattle) (non resident/resident)	\$8.50/7.50	\$6.00/5.25	\$3.75/3.25	\$7.75/6.75
Louisville Zoo	\$ 7.95	\$ 7.95	\$ 4.95	\$ 5.95
Bronx Zoo	\$ 7.75	\$ 7.75	\$ 4.00	\$ 4.00
Pittsburgh Zoo	\$ 6.50	\$ 6.50	\$ 4.75	\$ 4.75
Dallas Zoo	\$ 6.00	\$ 6.00	\$ 3.00	\$ 4.00
Oregon Zoo (Portland)	\$ 5.50	\$ 5.50	\$ 3.50	\$ 4.00

* The Sacramento Zoo offers a discounted weekday rate (\$5.50 adult admission).

Source: Individual zoo and other facility Web sites, July 1999.

As shown in the table, admissions fees for adults range from \$5.50 to \$16.00 for adults and \$2.00 to \$7.00 for children. The S.F. Zoo's non-resident adult admission fee of \$9.00 is in the upper third of fees charged by the surveyed facilities. The S.F. Zoo's resident adult admission fee of \$7.00 is in the mid-range. Fees charged for children's admission at the surveyed facilities range from \$1.50 to \$7.00. The S.F. Zoo's non-resident child admission fee of \$3.00 falls into the bottom third and its resident child admission fee of \$1.50 is lower than all of the surveyed facilities. The S.F. Zoo's senior admission fee of \$3.50 is also among the lowest.

The surveyed facilities provide a wide range of activities and experiences for visitors which may or may not be directly comparable to the S.F. Zoo. In addition, the quality of the exhibits and facilities varies widely. However, based on the 17 surveyed facilities, the Zoo's current admission fees appear to be reasonable compared to other facilities catering to families and children in the Bay Area and at

other comparable zoos. In the case of its resident child and senior admission prices, the S.F. Zoo is one of the lowest priced facilities. Finally, according to the latest visitor survey conducted by the Zoo in March of 1999, 82 percent of respondents rated value for admission price as "excellent" or "good" (excellent=34%, good=48%, fair=15%, poor=3%).

Food Services

There are six food service stands at the Zoo, two of which provide a larger selection of food and seating areas, The Plaza Café and The Terrace Café. The Plaza Café is located near the Primate Discovery Center and is open year round. The Terrace Café is located near the bear grottos and is open during peak periods. Four other stands are open as needed, in the summer, or only on weekends and sell simple pre-packaged foods such as popcorn, hot dogs, cotton candy, and sodas.

An inspection of the Zoo's food service stands by the City's Department of Public Health in June of 1999 found that the Zoo's food services facilities "...are falling into various stages of decrepitude." Accordingly, DPH found a number of minor violations, the majority of which concerned needed repairs and areas requiring more thorough cleaning. Most of the cited violations were remedied immediately or within the allotted timeframe, the exception being those which required replacement parts which were not readily available. The Zoo has also moved to address a longstanding problem in The Plaza Café eating area where seagulls have proved to be aggressive nuisances. In early summer of 1999, the Zoo enclosed The Plaza Café's eating area in netting which appears to be effectively deterring the seagulls.

In the May of 1999 visitor survey, 76 percent of respondents reported that food prices were excellent, good, or fair, with 24 percent stating prices were poor. In the same survey, 7 percent of respondents reported that food quality was excellent, down from 13 percent in August of 1998. Overall, 55 percent of respondents reported that food was excellent or good, 31 percent reported that it was fair, and 14 percent reported that it was poor.

Per capita food sales are slightly higher than average, ranging from \$1.99 to \$1.94 annually, compared to an average of \$1.73 for facilities with operating budgets of over \$5 million as reported by the American Zoo and Aquarium Association in its 1997 Management/Marketing Survey. However, net food services revenues declined by 60 percent (\$1.70 per capita) in FY 1997-98 in part due the introduction of new food products which did not meet sales expectations. A new Food Services manager was hired in March of 1999 after the Zoo was without a manager for a span of approximately eight months.

Housekeeping in Public Areas

As a part of this audit, a team of custodial experts conducted a walk-through inspection of the Zoo and provide recommendations for any needed improvements.

The custodial team found that some public areas in the Zoo have been maintained in excellent condition. An example they cited is the Australian Walkabout exhibit area where the animal keeper has dedicated time to assisting the housekeeping and maintenance staff. However, in other public areas, the team observed conditions greatly in need of housekeeping.

Based on their observations and subsequent discussions with housekeeping staff at the San Diego Zoo, the custodial team concluded that the San Francisco Zoo's cleaning staff of nine full time equivalent positions is clearly understaffed. This problem is compounded by a lack of basic labor-saving custodial equipment compared to other public facilities. The custodial experts found that even under the most conservative estimates, another three to four custodians/maintainers should be added to the current custodial staff of nine to have minimal staffing. The team recommends that if the current level of staffing is maintained that management should consider the use of on-call custodians or maintainers who could fill in for personnel on vacation or leave without over-extending the remaining workers. In addition, the custodial team recommends that funds be set aside to purchase labor saving equipment to facilitate cleaning tasks.

Restroom Facilities

The most visible maintenance and housekeeping problem at the Zoo is the condition of the restroom facilities. There are six restroom facilities at the Zoo, with 4-5 stalls each. Four of these are wheelchair accessible. According to the custodial team, most publications and surveys in the housekeeping field refer to public restrooms as the area in which the public obtains their primary impression of any facility. This view is supported by the Zoo's visitor surveys. Between 1994 and 1999, the most frequent complaints voiced in the Zoo's visitor surveys concerned the restroom facilities. Visitors cited that there were not enough restrooms; the facilities were dirty; too dark, and hard to find; they lacked locks and diaper changing tables; and they were not accessible for strollers.

Although the Zoo has recently made efforts to improve the restroom facilities by painting stall doors and making other repairs, a large part of the poor conditions of the restrooms is due to aging structures and deferred maintenance, which has resulted in unsightly and hazardous conditions. The Zoo's restrooms were noted to contain rusted and jagged metal covers under hand basins, makeshift plywood stall doors, a large hole in one facility's floor, and ventilation consisting only of wide open window areas. The custodial team advise that even the cleanest of restrooms would

obtain a poor public rating under these circumstances. The team found that the restrooms were being serviced daily. However, it was also evident that daily periodic cleaning, either before or after public hours, had not been scheduled and completed.

Because the restroom facilities are such an area of high visibility to the visitor, proper cleaning of these areas should be made a high priority. We recommend that, in addition to the daily servicing of restrooms, they be thoroughly cleaned either after closing hours or before opening. Sign-in sheets posted on the walls would assure the public that restrooms have been serviced as well as aid the custodial supervisor.

Other Areas

Several other areas in need of general housekeeping deserve note. At the onset of this audit, we noted that the cloth banners, food area table umbrellas, and food kiosk awnings throughout the Zoo were sorely in need of cleaning. Food service kiosk awnings throughout the Zoo and banners leading to the Feline Conservation Center were severely discolored from mold and dirt. When clean and in good condition, these items are festive and attractive additions to the Zoo. During the audit period, awnings and table umbrellas were steam cleaned which greatly improved appearances. However, Zoo staff report that steam cleaning is done on a sporadic basis and that there is no schedule for regular upkeep and cleaning. Regular cleaning and maintenance can help to slow deterioration and prolong the useful life of these items. Therefore we recommend that the Zoo establish a schedule for regular upkeep and cleaning of these items.

Exhibit Signage

Signs marking exhibits are in poor condition in various areas throughout the Zoo. Damaged, worn out, dirty, and/or missing signage reinforces to the visitor an image of a Zoo in a state of disrepair and neglect. We observed dirty, peeling sign labels, worn to the point of being unreadable, exhibits without any signage, stands with the signs obviously broken off and missing, and presumably vacant exhibits which are unmarked. In particular, signs in poor condition were noted in the Magellanic Penguin, Feline Conservation Center, Walkabout, Patas Monkey, and Lemur exhibits.

First, we found that there is no clear line of responsibility for cleaning and simple repair of the exhibit signage at the Zoo. Such tasks were previously the responsibility of the Zoo's one-person Graphics Department. In the past, the Graphics Department was aided by a volunteer who regularly cleaned the Zoo's exhibit signs. However, those tasks are no longer being performed due to turnover

in volunteer staff and an increase in Graphics Department workload generated by the expansion of the Zoo's development activities.

Signs throughout the Zoo are made out of different materials and created using various printing processes. Each type of sign requires different cleaning and repair approaches so that the signs do not become damaged by applying harmful cleaning solutions. A manual containing photos and descriptions of the different type of signs and the associated cleaning procedures for each was created by the Graphics Department in an unsuccessful effort to shift responsibility for these tasks to the janitorial staff in the Operations Department. Therefore, at present, cleaning and minor repairs of the Zoo's signage are not taking place due to a lack of a clear line of responsibility and management oversight. We recommend that management assign responsibility for inventory, minor repairs, and cleaning of signs to one department, preferably to one or two persons who would then develop knowledge of the cleaning and maintenance requirements for each type of sign.

Second, it appears that the Zoo is installing signs of inferior quality as a cost saving measure. An example is those signs located in the Walkabout exhibit which have been designed to be colorful and interactive, some of the most attractive exhibit signage in the Zoo. However, only two years after many of the exhibit's signs were replaced, nearly all are faded and chipped, with interactive elements no longer functional, and in some cases the text is no longer readable. While salt air, pollen, dampness, and harsh conditions at the Zoo contribute to the rapid deterioration of signage, we found that signs are replaced on an ad hoc basis. We recommend that a regular inspection and replacement schedule be established for all signs and that signs that are currently of poor quality or damaged should be replaced as soon as possible. In addition, the Zoo should consider the costs and benefits of obtaining higher quality which is more durable and may result in lowered long term costs as well as enhancing visitor enjoyment and projecting a more positive image of the Zoo.

Third, long term empty exhibits with old signage or no signage also project an image of neglect and can be confusing to visitors. We recommend that simple temporary signs be installed that inform visitors that exhibits are "under construction" or with another appropriate explanation.

Finally, we found that the "For Your Information" signs posted throughout the Zoo are exceptionally informative and visitor friendly. These signs contain information which has been handwritten on inexpensive temporary signs by animal keepers concerning certain exhibits or items of interest. We noted that some of the posted signs were in need of re-lettering due to faded text or required updating. We recommend that the Zoo make more efforts to ensure that the information on the "For Your Information" signs is up to date and that the text is legible.

Directional Signs

The Zoo contains a myriad of primary and secondary pathways which can be disorienting to visitors. A major improvement was the installation of directional signs were placed throughout the Zoo which are highly visible and easy to read. However, "employee only" areas are marked only by small signs which are easily overlooked. Due to the nature of the pathway system in the Zoo, it can be difficult to tell if one is entering an employee area. We observed adults and children on multiple occasions wandering into off limits areas in the Zoo which could be hazardous to visitors and disruptive to staff. It is recommended that the Zoo install large red "STOP" signs or similar highly visible and easily understood signs at entrances to "employee only" areas.

Phase II (New Zoo) Visitor Services Improvements

A major emphasis in the Phase II renovation of the Zoo will include updating visitor service facilities at the Zoo. The Phase II plan includes a new Zoo Street which will be a central boulevard through the Zoo with linked loop trails into each major exhibit area. Plans for Zoo Street include new restrooms, gift shops, information kiosks, lockers, stroller and cart rentals, and food sales. The new Zoo Street will be a significant improvement over the current facilities when it is completed (currently scheduled for completion in 2002), however, the recommendations contained in this section concerning regularly scheduled upkeep and maintenance of the new facilities and of those located in areas of the Zoo which are not included in the Phase II renovations will remain of strong importance.

CONCLUSIONS

The percentage of visitors rating their overall satisfaction as "excellent" has been slightly below 40 percent or between 40 and 50 percent since August of 1996. Prior to that, from March of 1994 to February of 1996, visitors reporting such a rating hovered around 30 percent. This improvement is notable, however, the Zoo has far to go in providing an "excellent" experience for all of its visitors.

In the most recent Zoo visitor survey (May 1999), when asked what one thing they would like to see changed at the Zoo, the most frequently mentioned suggestions (by 28 percent of visitors) concerned providing improved habitats for certain animals or all of the Zoo's animals in general.

Based on 17 surveyed facilities, the Zoo's current admission fees appear to be reasonable compared to other facilities catering to families and children in the Bay Area and at other comparable zoos. In the case of its resident child and senior

admission prices, the S.F. Zoo is one of the lowest priced facilities. According to the latest Zoo visitor survey, 89 percent of respondents rated value for admission price as “excellent” or “good.”

An inspection of the Zoo’s food concessions by the City’s Department of Public Health in June of 1999 found numerous minor, but no major, health violations. However, it was noted that the Zoo’s concessions “...are falling into various stages of decrepitude.”

Although the Zoo has recently made efforts to improve its restroom facilities by painting stall doors and making other repairs, the poor condition of the restrooms is in large part due to aging structures and deferred maintenance that has resulted in unsightly and hazardous conditions. Even the cleanest of restrooms would obtain a poor public rating under these circumstances. However, upon inspection, it was also evident that daily periodic cleaning, either before or after public hours, had not been scheduled and completed by Zoo custodial staff.

RECOMMENDATIONS

The Zoological Society should:

- 2.1 Consider the use of on-call custodians or maintainers who could fill in for personnel on vacation or leave. As resources become available, purchase labor saving equipment to facilitate cleaning tasks.
- 2.2 Ensure that restrooms are thoroughly cleaned either after closing hours or before opening, in addition to the daily servicing of restrooms. Sign-in sheets posted on the walls would assure the public that restrooms have been serviced as well as aid the custodial supervisor.
- 2.3 Review the detailed housekeeping report prepared by the custodial experts, which has been provided to the Zoo, and implement the recommendations contained in that report as resources become available.
- 2.4 Implement the following recommendations concerning signage in the Zoo:
 - Assign responsibility for inventory, minor repairs, and cleaning of signs to one department, preferably to one or two persons who would then develop knowledge of the cleaning and maintenance requirements for each type of sign.
 - Establish a regular inspection and replacement schedule for all signs and replace signs that are currently of poor quality or damaged as soon as possible. In addition, consider the costs and benefits of obtaining higher quality signage which is more durable and may result in lowered long

term costs in addition to enhancing visitor enjoyment and projecting a more positive image of the Zoo.

- Install temporary signs in empty exhibit areas that inform visitors that exhibits are “under construction” or with another appropriate explanation.
- Install “STOP” signs or similar highly visible and easy to understand signs at the pathway entrances to employee only areas in order to prevent visitors from mistakenly entering off limits areas in the Zoo which is disruptive to Zoo staff and potentially hazardous to visitors.
- Ensure that the text on the “For Your Information” signs is up to date and that the text is legible.

COSTS/BENEFITS

Implementation of our recommendations would significantly improve the appearance of the Zoo and the quality of Zoo visitors' experience. Costs to implement the recommendations range from no costs (regular servicing of restrooms and basic cleaning/maintenance of signage). Costs for purchasing labor saving equipment would depend upon the type and quantity of equipment. However, such costs may be offset by labor savings. Purchasing new signs will range from minimal amounts (for temporary signs) and between \$30 and \$500 per permanent exhibit sign.

Section 3.1: Financial and Operational Status; Compliance Issues

- ♦ The Zoological Society raised \$11,494,465 against the \$10 million minimum Founders' Fund commitment and expended in excess of \$7 million for operations in each of the first five years of the Management Agreement.
- ♦ The Zoological Society developed a planning document in July of 1993 entitled "5-Year Plan: 1993-1998." The 5-Year Plan was approved in concept on July 19, 1993, and, according to Zoo management, was used to guide the Zoo's development. The 5-Year Plan shows that the Zoological Society intended to significantly upgrade and improve Zoo facilities and the overall Zoo experience within the first five years of the Zoological Society's operation, by expending \$30 million in funds raised by the Zoological Society on capital improvements and by instituting managerial and other improvements. A motion to approve a Capital Budget in the amount of \$30 million was passed unanimously by the Board of Directors of the Zoological Society on February 28, 1994. However, only \$10,377,210 of the planned \$30 million was expended on capital improvements (\$6,803,246 in Founders' Fund monies and \$3,573,964 in Capital Campaign monies). The Zoological Society shifted its capital campaign strategy to correspond with the City's Zoo Bond program after recognizing that obtaining significant capital contributions from its donor base was not feasible without the City's capital funding commitment, given the condition of the Zoo. In the professional judgment of the Budget Analyst, the Zoological Society's inability to raise and expend the additional funds on capital projects to upgrade the Zoo and the two-year delay in Zoo Bond sales are the primary reasons the Zoological Society was unable to achieve its major operating and financial objectives during the first five years of the Management Agreement.
- ♦ Over the first five years of the Management Agreement, actual operating revenues, including bequests, were \$63,885,195 or \$15,633,805 less than the projected sum of \$79,519,000, which was the five-year operating revenue estimate presented by the Zoological Society when the Zoo Management Agreement was submitted to the Board of Supervisors for approval. Thus, the average annual operating revenue shortfall for the five-year period was \$3,126,761. Actual operating expenditures over the five-year period were \$65,755,637, or \$15,004,259 less than the projected operating expenditure estimate of \$80,759,896. Thus, the average annual operating expenditure shortfall for the five-year period was \$3,000,852.
- ♦ Zoological Society staff did not obtain required building and other permits for numerous capital projects and alterations at the Zoo. Thus, required plan checks and inspections were not accomplished and the Zoological Society did not pay required fees to the City. Accordingly, the City Attorney advises that if something happens to one of the structures because of the lack of plan checks and inspections, the City could be held liable.

As part of our performance audit of the San Francisco Zoological Gardens, we examined the extent to which the Zoological Society is accomplishing the financial and operational objectives that were defined at the time the operation of the San Francisco Zoo was transferred from the Recreation and Park Department to the Zoological Society. Also in this section of the audit we examine whether the Zoological Society is operating in compliance with the provisions of the San Francisco Zoo Lease and Management Agreement and other relevant regulations.

To accomplish these objectives, we:

- Reviewed key documents such as the Management Agreement; the Concepts of Expanded Partnership (the “Concepts”); the 1998 and the 1993 Accreditation Reports of the American Zoological Association (AZA); the Zoological Society’s Draft 5-Year Plan: 1993-1998; USDA Veterinary Inspection Reports; the San Francisco Zoological Gardens Master Plan; the San Francisco Zoo Strategic Plan: 1997-2004; and the March of 1998 Update of Strategic Plan: Financial Plan;
- Interviewed USDA staff and City and County of San Francisco staff responsible for oversight of various functions performed by the Zoo;
- Reviewed performance measures in various reports;
- Conducted visual inspections of facilities;
- Examined in detail the audited financial report for FY 1997-98;
- Examined the pre-closing trial balance report for FY 1997-98;
- Developed a detailed analysis of revenues and expenses for FY 1997-98 based on the Zoo’s pre-closing trial balance report for that year;
- Thereafter, we examined in detail the audited financial statements for FY 1989-90 through FY 1996-97 and developed detailed analyses of revenues and expenses for that period.

Background

“Concepts” for the Expanded Partnership

In early 1992, the Mayor’s Office, through the Recreation and Park Department, requested that the San Francisco Zoological Society submit a proposal to expand its role to include management of the entire Zoo, including increased private funding for Zoo operations and maintenance.

On September 1, 1992, the Recreation and Park Commission adopted Resolution No. 16420 expressing support for an expansion of the City's partnership with the San Francisco Zoological Society on the basis of a six-page document entitled "Concepts for an Expanded Partnership Lease Agreement" (the "Concepts"), which with supporting documents outlined a proposal to transfer decision-making authority and operating responsibility for the Zoo from the City to the Zoological Society (the "Proposal"). The Zoological Society's Board of Directors had previously approved the "Concepts" in April of 1992.

Funding and Accreditation Status in FY 1992-93

At the time the Zoological Society assumed operational control of the Zoo, the following conditions existed:

1. The Capital Asset Management Report of November 29, 1990, included approximately \$10.1 million in recommended capital improvements, solely for basic safety and structural improvements.
2. The American Zoological Association had tabled the Zoo's request for re-accreditation in September of 1992 due to concerns about the poor physical plant, the lack of funding to make major capital improvements, and inadequate funding for operations.
3. The Zoo's General Fund subsidy from the City was reduced by \$644,254, or by 13.5 percent, from FY 1991-92 to FY 1992-93. Eight positions were eliminated from the Zoo's FY 1992-93 General Fund budget.

Projections of Operating Revenues and Expenses Contained in the Rec/Park-Zoological Society Proposal

The "Proposal" included revenue and expense projections prepared by the Recreation and Park Department and the Zoological Society for the first five years of the proposed expanded partnership. These projections are shown in Exhibit 3.1.1 in the Appendix to this report. The budget summary shows that annual *operating expenditures* for the Zoo were expected to increase from an estimated \$11,850,254 in FY 1991-92 to \$18,821,000 in FY 1997-98, an average annual increase of approximately eight percent. Exhibit 3.1.2 in the Appendix to this report, an extract of a Zoological Society planning document, shows additional revenue and operating assumptions and projections.

Operating revenues were projected to increase by approximately 12.8 percent per year over the five-year period, including an estimated 15.7 percent average annual

increase in memberships in the Zoological Society, a 15.5 percent average annual increase in contributions and events, and an 18.8 percent average annual increase in net profits from retail sales at the Zoo.

Financial Performance

Table 3.1.1 below shows actual operating revenues compared to the projected operating revenues for FY 1993-94 through FY 1997-98 contained in Exhibit 3.1.1.

Table 3.1.1
Actual Revenues Compared to
Projected Operating Revenues

<u>Year</u>	<u>Projected Revenues</u>	<u>Actual Revenues</u>	<u>Difference</u>
1993-94	\$12,974,000	\$10,794,196*	\$2,179,804
1994-95	14,465,000	11,237,324	3,227,676
1995-96	15,922,000	12,251,313	3,670,687
1996-97	17,437,000	13,660,485	3,776,515
1997-98	<u>18,721,000</u>	<u>13,805,634</u>	<u>4,915,366</u>
Total Revenues	\$79,519,000	\$61,748,952	\$17,770,048
Bequests		<u>2,136,243</u>	
Total	\$79,519,000	\$63,885,195	\$15,633,805

Over the first five-year period of the Management Agreement, actual operating revenues, including bequests, were \$15,633,805 or approximately 19.6 percent less than projected operating revenues, which computes to an average shortfall of \$3,126,761 per year.

Table 3.1.2 below shows actual operating expenditures compared to the projected operating expenses for FY 1993-94 through FY 1997-98.

Table 3.1.2
Actual Expenses Compared to
Projected Operating Expenses

<u>Year</u>	<u>Projected Expenses</u>	<u>Actual Expenses</u>	<u>Difference</u>
1993-94	\$13,691,746	\$11,322,273*	\$2,369,473
1994-95	14,702,780	12,387,744	2,315,036
1995-96	16,107,370	13,341,740	2,765,630
1996-97	17,437,000	14,615,865	2,821,135
1997-98	<u>18,821,000</u>	<u>14,088,015</u>	<u>4,732,985</u>
Total	\$80,759,896	\$65,755,637	\$15,004,259

*Derived by allocating \$1,086,023 of City funds to revenues and expenses recorded by the Zoological Society for FY 1993-94. The Zoological Society did not assume control of the Zoo until October of 1993.

Over the first five-year period of the Management Agreement, total actual operating expenditures were \$15,004,259 or approximately 18.6 percent less than projected operating expenditures, which computes to an average of \$3,000,851 per year.

Analysis of Projected versus Actual Revenues

Table 3.1.3 below is a comparison of projected and actual operating revenue sources for the five-year period of FY 1993-94 through FY 1997-98. The major shortfalls were in Admission Fees (\$7,624,667), which are a function of the attendance shortfall; Retail Services (\$7,567,200), which were and continue to be a major problem area at the Zoo; and Membership Dues (\$2,946,213), which are due to a very large shortfall in projected Zoological Society memberships. Current Zoological Society membership is approximately 29,000. Exhibit 3.1.2 shows that the proposal projected a membership total of 47,000.

Table 3.1.3
Projected Revenue Source Amounts
Compared to Actual Revenue Source Amounts
FY 1993 94 through FY 1997-98

	Projected	Actual	Difference
Revenues			
Admission Fees	\$16,458,000	\$8,833,333	\$7,624,667
Retail Services	23,040,000	15,472,800	7,567,200
Membership Dues	9,367,000	6,420,787	2,946,213
Contributions/Events	7,310,000	7,452,038	(142,038)
Children's Zoo	1,349,000	1,009,914	339,086
Other	<u>1,995,000</u>	<u>2,560,080</u>	<u>(565,080)</u>
Total Non-Gen. Fund	\$59,519,000	\$41,748,952	\$17,770,048
Management Fee	20,000,000	20,000,000	-
Bequests		<u>2,136,243</u>	<u>(2,136,243)</u>
Total	\$79,519,000	\$63,885,195	\$15,633,805

Capital Project Funding

Section 15 of the Management Agreement, "Fiscal Matters," includes the following provisions concerning funding:

- Founders' Fund: The Zoological Society agreed to provide from private sources a minimum of \$10 million within the first five years of the Management Agreement. All amounts deposited in the Founders' Fund are to be expended approximately as follows: \$5 million shall be used to fund Zoo capital improvements; \$2 million shall be used to fund Zoo operating

expenses; and \$3 million shall be used to increase the Zoological Society's Endowment Fund.

- Capital Campaign: The Zoological Society agreed to use its reasonable efforts to initiate and complete a fund-raising campaign in a minimum amount of \$25 million to finance the construction of capital improvements at the Zoo. [The Management Agreement does not specify a time limit for completing the Capital Campaign].
- Bond Issues: The City agreed to use its reasonable efforts to place before the voters during the initial term of the Management Agreement [the first five years] a measure calling for the issuance of general obligation bonds or other acceptable method of public financing in an aggregate amount of at least \$25 million to finance capital improvements at the Zoo, including a new front Zoo entrance, new animal exhibits, and such other facilities as the City and the Zoological Society may reasonably agree [A Zoo bond measure in the amount of \$48 million was approved by the electorate in the June 1997 election. The first appropriation of that \$48 million bond measure in the amount of \$16,898,894 was approved by the Board of Supervisors in November of 1999].

The Zoological Society raised a total of \$11,494,465 for the Founders' Fund by FY 1996-97, \$6,803,243 of which was expended on capital projects, as shown in Exhibit 3.1.3 of this report. Exhibit 3.1.4 of this report lists the capital projects and amounts that were funded by the Founders' Fund.

The Zoological Society has raised a total of \$14.2 million in Capital Campaign cash and written pledges as of June 30, 1999, as shown in Exhibit 3.1.5 of this report (As reported by the Zoological Society, approximately \$21 million in cash, written pledges, contingency pledges, and verbal pledges had been recorded as of December of 1999 for the Capital Campaign).

The Zoological Society developed a planning document in July of 1993 entitled "5-Year Plan: 1993-1998." The 5-Year Plan was approved in concept on July 19, 1993, and, according to Zoo management, was used to guide the Zoo's development although never formally adopted. The 5-Year Plan, in our opinion, is an excellent document that covers the Zoo's key results areas of conservation, education, research, recreation, and economics.

Exhibit 3.1.9 of this report (16 pages) contains portions of the 5-Year Plan. Exhibit 3.1.9 shows that the Zoological Society planned to raise and expend \$30 million (\$5 million in Founders' Fund monies and \$25 million in Capital Campaign) on new capital improvements and renovation projects during the first five years of the Management Agreement. A motion to approve a Capital Budget in the amount of \$30 million was passed unanimously by the Board of Directors of the Zoological Society on February 28, 1994. However, as shown in Exhibit 3.1.6 of this report,

only a total of \$3,573,967 (\$912,645 in FY 1996-97 plus \$2,661,322 in FY 1997-98) of the Capital Campaign objective of \$25 million had been expended through FY 1997-98.

In the professional judgment of the Budget Analyst, the failure to raise the necessary funds to execute the renovation and new exhibit projects shown in Exhibit 3.1.9 was the primary reason the Zoological Society was unable to generate the attendance necessary to meet its Admission Fee and Retail Services revenue objectives, and thus generate the operating funds necessary to sufficiently improve the visitors' experience at the Zoo

Debt Financing of Operating and Capital Expenditures

In order to fund Zoo operations at a reasonable level though not generating sufficient operating revenues to do so, the Zoological Society began to incur higher long-term debt. The information that follows in this section provides an understanding of the Zoological Society's financial operations and shows why the Zoological Society found it necessary to incur the long-term debt. Most of the financial information in this section has been extracted and arrayed from the Zoological Society's Annual Audited Financial Statements. Summaries of those audited financial statements are included in Exhibit 3.1.7 of this report.

Operating Revenues and Expenses

Table 3.1.4, "Operating Revenues and Expenses," shows that operating revenues, including bequests, increased by \$1,952,207 or 15.8 percent, from \$12,361,753 (\$11,237,423 plus \$1,124,429) in FY 1994-95 to \$14,313,960 (\$13,805,634 plus \$508,326) in FY 1997-98, which computes to an annual compound rate of 5.0 percent.

Table 3.1.4
Operating Revenues and Expenses

	<u>FY 97-98</u>	<u>FY 96-97</u>	<u>FY 95-96</u>	<u>FY 94-95</u>	<u>FY 93-94</u>
Support & Revenues	\$13,805,634	\$13,660,485	\$12,251,313	\$11,237,324	\$9,708,173
Expenses	<u>14,088,015</u>	<u>14,615,865</u>	<u>13,341,740</u>	<u>12,387,744</u>	<u>10,236,250</u>
Change in Net Assets before Bequests & Adjustments	(\$282,381)	(\$955,380)	(\$1,090,427)	(\$1,150,420)	(\$528,077)
Bequests	508,326	359,043	144,445	1,124,429	
Acctng Change/Donation	<u>0</u>	<u>375,564</u>	<u>0</u>	<u>0</u>	<u>0</u>
Change in Net Assets	\$225,945	\$220,773	(\$945,982)	(\$25,991)	(\$528,077)

Table 3.1.4 also shows that Operating Expenses increased by \$1,700,271 or 13.7 percent, from \$12,387,744 in FY 1994-95 to \$14,088,015 in FY 1997-98, or at a compound rate of 4.4 percent. However, given the underfunded financial position and unsatisfactory physical condition the San Francisco Zoo was in at

the time the Zoological Society assumed management of the facility, a growth rate of 4.4 percent in expenses has not been sufficient to upgrade the quality the facility to a desired state.

As recorded in the Zoological Society's audited financial statements and as shown in Table 3.1.4, Operating Revenue and Support, which includes the \$4,000,500 management fee payment by the City to the Zoological Society, fell short of Operating Expenses by a total of \$4,006,685 for the five-year period, or by an average of \$801,337 per year. Bequests reduced the Support and Revenue shortfall by \$2,136,243, from \$4,006,685 to \$1,870,442, or by an average of \$427,248 per year. The audited financial statements and Table 3.1.4 also show that the Zoological Society first broke even on an accrual accounting basis in FY 1996-97 by showing a positive \$220,773 change in Net Assets for that fiscal year.

Cash Flows and Long-term Debt

Operating Revenues and Expenses are but one way of evaluating an organization's financial status. Additional valuable information is contained in an organization's audited Statements of Cash Flows.

Revenue and Expense accounts, accounts from which an organization's Statement of Activities (Income Statement, for private sector organizations) are derived, contain items that do not affect inflows or outflows of cash, such as contribution pledges, as a revenue source, and depreciation, as an expense source. Organizations require cash to thrive and to survive. The figures extracted from the Zoological Society's Statements of Cash Flow, displayed in Table 3.1.5 below, show that significant net outflows of cash, in the amounts of \$896,042 and \$788,589, occurred in fiscal years 1996-97 and 1997-98, respectively.

Table 3.1.5
Unrestricted Fund Cash Flows

	<u>FY 97-98</u>	<u>FY 96-97</u>	<u>FY 95-96</u>	<u>FY 94-95</u>	<u>FY 93-94</u>
Cash & Equiv:					
Beginning of Year	\$1,852,764	\$2,748,806	\$2,148,687	\$2,138,329	\$391,921
<i>Net cash provided by (used in):</i>					
Operating Activities	(\$96,756)	(\$1,893,583)	(\$302,464)	\$148,572	\$1,487,776
Investing Activities	(93,328)	208,096	(68,996)	(38,446)	(28,883)
Financing Activities	<u>(598,505)</u>	<u>789,445</u>	<u>971,579</u>	<u>(99,768)</u>	<u>287,515</u>
Net Increase (decrease)	(\$788,589)	(\$896,042)	\$600,119	\$10,358	\$1,746,408
Cash & Equiv:					
End of Year	\$1,064,175	\$1,852,764	\$2,748,806	\$2,148,687	\$2,138,329

The figures also show that the Zoological Society ended each of those fiscal years with cash and cash equivalents in the amounts of \$1,852,766 and \$1,064,177, respectively. However, as shown in the Table 3.1.6, the Zoological

Society required those funds to cover the significant accounts payable less accounts receivable balances.

Table 3.1.6
Accounts Payable compared to Accounts Receivable

	<u>FY 97-98</u>	<u>FY 96-97</u>	<u>FY 95-96</u>	<u>FY 94-95</u>	<u>FY 93-94</u>	<u>FY 89-90</u>
Accounts Receivable	\$377,978	\$689,970	\$721,757	\$495,932	\$608,743	\$0
Accounts Payable	<u>1,611,830</u>	<u>2,047,932</u>	<u>3,321,456</u>	<u>2,468,834</u>	<u>2,580,304</u>	<u>119,903</u>
Receivables less Payables	(\$1,233,852)	(\$1,357,962)	(\$2,599,699)	(\$1,972,902)	(\$1,971,561)	(\$114,746)

The great majority of the accounts receivable amounts were due the Zoological Society by the City. Also, the majority of the accounts payable amounts were due the City by the Zoological Society.

As shown in Table 3.1.7 on the following page, the Zoological Society began to incur significant amounts of long-term debt in FY 1994-95, which peaked in FY 1996-97 in the amount of \$2,428,741.

Table 3.1.7
Long-term Debt

	<u>FY 97-98</u>	<u>FY 96-97</u>	<u>FY 95-96</u>	<u>FY 94-95</u>	<u>FY 93-94</u>
Current Portion of Long-term Debt	\$8,389	\$2,405,791	\$1,604,296	\$960,805	\$62,485
Long-term Portion of Long-term Debt	<u>1,821,847</u>	<u>22,950</u>	<u>35,000</u>	<u>95,000</u>	<u>355,000</u>
Total	\$1,830,236	\$2,428,741	\$1,639,296	\$1,055,805	\$417,485

In its most recent long-term debt agreement, the Zoological Society, in August of 1998, entered into an unsecured revolving line-of-credit agreement with a bank. According to the audited financial statements for FY 1997-98, the Zoological Society may borrow up to \$5 million at the Bank's Reference Rate minus 0.25 percent through August 1, 2005. Interest is due monthly with principal payments starting August 1, 2000, at \$33,333 per month. As of August 20, 1999, the balance owed on the unsecured revolving line-of-credit was \$1,194,350.45.

In addition to Cash and Cash Equivalents balances averaging \$1,990,552 for fiscal years 1993-94 through 1997-98 in its Unrestricted Fund, the Zoological Society had Unrestricted Fund Investment balances averaging \$1,693,184 for the same time period. Some have suggested that the Zoological Society's long-term debt could be eliminated by using Investment funds to repay the revolving line-of-credit balance, but that to do so would be unwise because the Investments are achieving a much higher rate-of-return than the loan rate. Table 3.1.8 shows the Zoological Society's Unrestricted Fund Investment balances for FY 1993-94 through FY 1997-98 and the Investment Income derived there from for the same time period.

Table 3.1.8
Unrestricted Fund Investments and
Investment Income

	<u>FY 97-98</u>	<u>FY 96-97</u>	<u>FY 95-96</u>	<u>FY 94-95</u>	<u>FY 93-94</u>
Unrestricted Investments	\$1,895,779	\$1,631,356	\$1,933,372	\$1,622,781	\$1,382,633
Investment Income	\$397,722	\$306,125	\$225,690	\$173,077	226,415

In FY 1997-98, the Zoological Society achieved an investment return of approximately 22.6 percent (determined by adding the fiscal year 1997-98 and 1996-97 ending balances, dividing that sum by two, and then dividing that sum into the investment income figure of \$397,722), which is far in excess of the approximately 6.95 percent paid on its revolving line-of-credit. Also, it is true that the Investment balance could be used to pay off the loan balance, but only for the existing loan balance. And then the Investment Income, which is used to fund Operating Expenses, would be significantly reduced. If subsequent years bore sizeable cash outflows, as occurred in FY 1996-97 and FY 1997-98, the Zoological Society would have to borrow additional funds, because the Investment balances would be depleted.

The Budget Analyst is not suggesting that the Zoological Society should use its Investment balance to pay off its long-term loan balance. We are simply stating that the Zoological Society is not generating sufficient cash to fund its current level of expenses and that the Zoological Society should take steps to enhance operating revenues. Although we believe that there are some efficiencies that can be achieved in the Zoo's operations, as are discussed in this audit report, we also are not suggesting that the level of outlays be reduced in total, which we think would result in reduced revenues. Our point is that the Zoological Society must increase revenues to fund activities that will increase Zoo attendance or it will be saddled with a significant level of debt as the Master Plan exhibits are completed and become operational.

Meeting Minutes of the Zoological Society's Finance Committee

The Budget Analyst obtained the meeting minutes of the Zoological Society's Finance Committee for the period of January 1997 through March of 1999. The following two quotes included in the meeting minutes for the dates indicated further attest to the Society's cash needs:

Friday, December 12, 1997

"Item 4. Cash availability for operations is week to week with no reserves for the winter slow business cycle. (Name) directed (Name) to clear his calendar and prepare a schedule of cash flow for the next meeting."

Friday, January 16, 1998

- "Item 3 An eight-week cash flow analysis was presented to the committee indicating an immediate (End of January) need for cash to fund operating deficits generated in the first five months of the fiscal year. After a thorough discussion a motion was made to increase Bank Borrowing up to an additional \$500,000 to cover interim cash needs. Funds to be repaid by the end of the Fiscal Year."

What the Zoological Society Should Do in the Near Term to Increase Revenues and Improve the Zoo

The first six recommendations of this report section are a near-term action plan that is based on our total evaluation of the Zoo's operating and financial status and how best to bridge the time span from now until substantial completion of Phase II in 2002/2003. Some of these recommendations also appear in other sections of this audit report pertaining to the particular subject they address.

Expense Control

The Budget Analyst has developed detailed expense schedules from the Zoo's Trial Balance reports for fiscal years 1989-90 through 1997-98, which we used for analytical reviews in some of the sections of this audit report. The schedules consist of 22 pages, 11 for each half of the total period covered. One page of the schedules is shown in Exhibit 3.1.8 of this report.

Concerning Exhibit 3.1.8, the Food Services section highlighted in the upper portion of the exhibit shows Food Sales and Cost of Goods Sold figures for fiscal years 1994-95 through 1997-98. Although externalities can skew expected relationships, in general, a positive correlation between Food Sales and Cost of Goods Sold for Food Services in any given year should occur. Note that Food Sales decreased by \$258,898 from FY 1996-97 to FY 1997-98, from \$1,691,136 to \$1,432,238. However, instead of decreasing, Cost of Sales increased between the two fiscal years by \$2,973, from \$564,693 to \$567,666. According to Zoo management, Cost of Goods Sold did not show a corresponding decrease with the reduction in Food Sales because a new Visitor Services Manager experimented with food service promotions that proved to be unprofitable.

The Zoological Society needs to closely control expenses on a monthly basis, and for that purpose the Director of Finance publishes a Statement of Income and Expenses. However, the schedule shown in Exhibit 3.1.8 provides detailed revenue and expense information over an extended time base that normalizes seasonal effects. We recommend that the Zoological Society develop and use revenue and

expense schedules of the type shown in Exhibit 3.1.8. Accordingly, we have provided the set of schedules covering fiscal years 1989-90 through 1997-98, in electronic form to the Zoological Society's Deputy Director.

Effects of Revenue Shortfalls on Zoo Staff

The revenue shortfalls experienced by the Zoological Society have had a very negative effect on Zoo staff. Many questions to Zoo staff concerning an operational issue have been answered with "that's not in the budget" or with "we don't have funding for that." As Dr. Parrott states in his evaluation beginning at the bottom of page 34 of this audit report, "The revenue urgency and sense of vulnerability permeates the organization."

Compliance with Management Agreement Requirements

By virtue of the provisions contained in the Management Agreement between the City and the Zoological Society, the Zoological Society assumed a set of obligations and compliance requirements contained in various City, state, and federal laws, rules, and regulations. This audit report section cites certain compliance requirements and provides a description of the Zoological Society's adherence to the requirements.

Section 6.1: This section is concerned with the **timeliness of payments** made by the San Francisco Zoological Society to the City for services rendered.

Status: Payments for services due the City by the Zoological Society have not always been made in a timely fashion, as documented in Section 1.3 of this audit report.

Section 9.1: This section requires that the Zoological Society shall cause both itself and the Zoo to be at all times (1) **accredited in good standing** with the American Zoological Society, and (2) **licensed** with the United States Department of Agriculture.

Status: The Zoo has maintained its accreditation with the AZA and its license with the USDA. However, Zoo management has not appropriately addressed the inspection findings of the USDA, as covered in Section 1.1 of this audit report. Zoo management has taken steps to correct this situation.

Section 10.1: This section is concerned with the **capital improvements** made by the Zoological Society and specifies that (1) the Zoological Society shall provide copies of the final, as-built plans to the Department of Recreation and Park, and (2) any alterations of capital improvements made by the Zoological Society shall comply with applicable local, state, and federal laws, rules and regulations, and the Zoological Society shall obtain permits for such alterations and capital improvements.

Status: A major deficiency exists with respect to the requirement to obtain permits for alterations and for capital improvements. Table 3.1.9 shown below lists alterations and capital projects performed at the Zoo for which our review of Department of Building Inspection permit files indicate that building, electrical, plumbing, or mechanical permits, as may be required by the individual project, were not obtained by the Zoological Society. Table 3.1.9 also contains approximate costs for DBI plan check and building permit fees, but not additional fees, such as electrical and plumbing permit fees, that may be applicable to individual projects. The Budget Analyst is recommending that DBI defer such fees so that the Zoo can apply those funds to construction modifications needed to bring the capital projects constructed without permits into compliance with the Building Code. Zoo management has begun to work with staff of the Department of Building Inspection (DBI) to comply with permit requirements.

Table 3.1.9

Zoo Projects without Building Permits on File

Project	Date	Cost	Bldg. Permit Cost	Plan Check Cost	Total Plan Check and Permit Costs
Triple Grotto Project	93/94	\$12,816	\$264.55	\$132.28	\$396.83
Visitor Services Renovation	93/94, 94/95	69,345	900.90	450.45	1351.35
Flamingo Project	93/94, 94/95	38,600	619.45	309.73	929.18
Monkey Island	95/96	18,221	362.05	181.03	543.08
Service/Support Renovation	93-98	118,418	1,253.75	629.75	1,883.50
Warthog Exhibit	95/96	105,481	1,172.50	587.60	1,760.10
Children's Zoo Renov.	95-98	148,216	1,441.25	727.35	2,168.60
Elephant Renovation	95-97	113,575	1,222.50	613.60	1,836.10
Mothers Bldg. Renov.	95-97	27,593	494.33	247.16	741.49
Aye Aye Exhibit	97-98	67,429	885.30	442.65	1,327.95
Kodiak Bear Exhibit	97-98	28,526	505.70	252.85	758.55
South American Gateway	94/95	8,845	199.35	99.78	299.13
Picnic/Overnight	97/98	34,196	573.95	286.98	860.93
Lion Cub Exhibit	96/97	280,825	2,266.25	1,156.35	3,422.60
Improvement LGFP&R	95/96	8,438	199.55	99.78	299.33
Demolition Cat/Monkey	95/96	163,994	1,535.00	776.10	2,311.10
Macropod Exhibit	94/95	475,616	3,485.00	1,790.10	5,275.10
White Alligator	95/96	150,681	1,447.50	730.60	2,178.10
Support Facilities	95/96	104,168	1,166.25	584.35	1,750.60
Puente Al Sur	98/99	250,671	2,078.75	1,058.85	3,137.60
Total			\$22,073.88	\$11,157.34	\$33,221.22

Section 12.2: This section specifies that the Zoological Society shall care for all Zoo animals in accordance with all federal, state, and local laws and regulations, and in accordance with the policies and guidelines adopted by the AZA.

Status: As reported in Section 1.1 of this audit report, based on Dr. Joel Parrott's comprehensive evaluation, veterinary care at the San Francisco Zoo is excellent and general care is good, although the existing Zoo facilities limit the ability of management to provide desirable habitats. Further, according to Dr. Parrott, current animal care is vastly superior to that which was provided in the late 1980's and the early 1990's. As stated in Dr. Parrott's report, the Zoo should continue to improve its animal enrichment activities.

Section 12.4: This section specifies that the Zoological Society shall provide animal and veterinary care to the bison at Golden Gate Park and consultation regarding capital improvements to the bison exhibit located therein.

Status: Section 1.1 of this audit report covers the actions required of the Department of Recreation and Park to improve conditions for the bison in Golden Gate Park.

Section 13.1: This section specifies that the Zoological Society shall maintain the Zoo in a clean, safe, and sanitary and sightly condition.

Status: As reported in Sections 1.4 and 2 of this audit report, much remains to be accomplished to bring the buildings and grounds up to an attractive condition.

Section 15.1 Founders' Fund: \$10 million

Section 15.2. Capital Campaign. \$25 million

Section 15.3. SFZS Revenue: Payment of Expenses

Under Section 15.1 of the Management Agreement, the SFZS agreed to establish a "Founders' Fund" from private sources in the minimum amount of \$10 million within the first five year term of the Management Agreement. Section 15.1 further specifies that monies expended from the Founders' Fund would be approximately as follows: \$5 million for Zoo capital improvements; \$2 million for Zoo operating expenses; and \$3 million to increase the SFZS Endowment Fund (a fund containing restricted contributed assets whereby only income generated by the assets may be used for operating purposes). Exhibit 3.1.3 of this report shows that the Zoological Society collected a total of \$11,494,465 in fulfillment of its Founders' Fund commitment. Exhibit 3.1.4 of this report shows the specific projects, totaling \$6,803,246 in Founders' Fund monies, which were funded in accordance with the Agreement.

Under Section 15.2 of the Management Agreement, the SFZS agreed to use its reasonable efforts to initiate and complete a fund-raising campaign (the "Capital Campaign") in the minimum amount of \$25 million to finance the construction of capital improvements at the Zoo. Exhibit 3.1.5 of this report shows the periods in which Capital Campaign funds in the amount of \$14,174,411 (\$9,380,309 in cash and \$4,794,102 in written pledges) have been received. Exhibit 3.1.6 shows the projects to which Capital Campaign funds in the amount of \$5,775,870 have been applied.

Section 15.10: This section specifies that within 30 days after the end of each fiscal year, the Zoological Society shall arrange for an audit of its books and records by an independent, certified public accountant approved by the Controller. Section 15.10

further specifies that the Zoological Society shall deliver to the Recreation and Park Commission for its acceptance an original, signed copy of such annual report by the earlier of 30 days after the completion of the audit or 120 days after the end of the fiscal year covered by the audit.

Status: For fiscal years 1993-94 through 1997-98, the letters signed by the auditors transmitting the audited financial statements to the Zoological Society are dated no later than September 12. However, for fiscal year 1998-99, the audited financial statements had not been presented to the Recreation and Park Commission by November 19, 1999.

Section 16.2: This section specifies that the Zoological Society shall **provide public access to information** concerning the operation of the Zoo to the same extent that such information would have been available to the public pursuant to local ordinances if the Department had continued to operate the Zoo in the same manner as it did prior to the date of the Agreement.

Status: The Joint Zoo Committee reviews major Zoo activities and decisions in public and solicits public comment. The Zoological Society is now serving an expanded function with a citizenry accustomed to reviewing and questioning everything. In our opinion, the Zoological Society has nothing to hide and in certain respects, has performed admirably. We therefore urge a more "open door" policy to public inquiries and requests for information.

Section 17: Insurance.

Status: Insurance requirements and issues are covered in Section 13.3 of this audit report.

5-Year Plan: 1993 – 1998

As previously stated, The Zoological Society developed a planning document in July of 1993 entitled 5-Year Plan: 1993-1998. The 5-Year Plan was not formally adopted, but was used as a working document to guide the Zoo's development. The 5-Year Plan covers the Zoo's key results areas of conservation, education, research, recreation, and economics. The Zoological Society has accomplished many of the objectives contained in the 5-Year Plan, including a significant number of new capital improvements and renovation projects that we have included in the Introduction to this audit report. The 5-Year Plan included objectives and, in some cases, detailed plans for specific capital projects with an estimated cost of \$10 million, including an African Savanna project, visitor pathways, options for empty exhibit spaces, and renovation projects

One Year Plan (Of the 5-Year Plan)

Objective: Eliminate caged feeling and improve animal conditions.

Renovate or demolish empty exhibits

Reduce chain link, asphalt, replant and add color, particularly at Entrances and Loop System.

Objective: Improve visitor experience

Improve cleanliness throughout park.

Provide more information on Zoo programs, animals, and plans.

Establish visual identity, unified graphics.

Comment: We cannot emphasize too strongly how important a clean, attractive facility with informative and unified graphics signage is to the impression made on Zoo visitors. This issue is addressed in Sections 1.1, 1.4, and 2 of this audit report.

Objective: Develop integrated trained professional staff

Improve customer service skills of all staff and volunteers

Improve internal communications and build pride in institution

Improve planning skills of senior management

Comments: Zoo management should continue to stress the importance of good customer service.

Internal communications, particularly within the Animal Management Department, are in great need of improvement. A significant communications problem exists between many of the Animal Keepers and Zoo management, as cited in Section 1.1 of this audit report.

The Zoo needs to improve its planning processes, particularly at the top level. The Zoo Director, with the assistance of his primary staff, but with the opportunity for feedback from everyone who works at the Zoo, should establish ambitious but attainable objectives, measurable in construct and numbering between five and seven, that everyone in the Zoo can relate to. Those objectives should be based on the Zoo's "Key Results Areas" (KRAs) and should, in general, provide the basis for objective setting down through the organization.

The Oakland Zoo has a workable set of objectives, which we have provided to San Francisco Zoo management. Also, we have provided the Zoo Director with a time-tested text on setting goals and objectives that should assist the organization in developing good objectives, action plans, and controls.

The One Year-Five Year Plan: Goal #6: Community

Objective: Establish target objectives to increase ethnic diversity in Board of Directors, staff, volunteers, and community served.

Comment: The San Francisco Zoological Society has not achieved ethnic diversity within its Board of Directors. Table 3.1.10 shows the ethnic status of the Zoological Society's Board of Directors.

Table 3.1.10
Ethnic Diversity: San Francisco Zoological Society
Board of Directors
April 1999

<u>Ethnicity</u>	<u>Number</u>	<u>Percentage</u>
White	53	93.0
African American	2	3.5
Hispanic	0	0.0
Asian	2	3.5
Native American	<u>0</u>	<u>0.0</u>
Total	57	100.0

As shown, as of September 1999, the San Francisco Zoological Society Board of Directors consisted of 53 White members, two African American members, no Hispanic or Native American members, and two Asian members.

In addition to the foregoing, ethnic minorities are not represented in any of the management positions reporting to the Director of the Zoo.

Women are especially well represented throughout the management and staff of the Zoo.

CONCLUSIONS

The Zoological Society has met or is meeting the minimum financial obligations contained in the Management Agreement. However, those financial obligations do not insure the development of a quality facility.

The Zoological Society developed a planning document in July of 1993 entitled "5-Year Plan: 1993-1998." The 5-Year Plan was approved in concept on July 19, 1993, and, according to Zoo management, was used to guide the Zoo's development although never formally adopted. The 5-Year Plan shows that the Zoological Society intended to

significantly upgrade and improve Zoo facilities and the overall Zoo experience within the first five years of the Zoological Society's operation, by expending \$30 million in funds raised by the Zoological Society on capital improvements and by instituting managerial and other improvements. A motion to approve a Capital Budget in the amount of \$30 million was passed unanimously by the Board of Directors of the Zoological Society on February 28, 1994. However, only \$10,377,210 of the planned \$30 million was expended on capital improvements (\$6,803,246 in Founders' Fund monies and \$3,573,964 in Capital Campaign monies). The Zoological Society shifted its capital campaign strategy to correspond with the City's Zoo Bond program after recognizing that obtaining significant capital contributions from its donor base was not feasible without the City's capital funding commitment, given the condition of the Zoo. In the professional judgment of the Budget Analyst, the Zoological Society's inability to raise and expend the additional funds on capital projects to upgrade the Zoo and the two-year delay in Zoo Bond sales are the primary reasons the Zoological Society was unable to achieve its major operating and financial objectives during the first five years of the Management Agreement.

Over the first five years of the Management Agreement, actual operating revenues, including bequests, were \$63,885,195 or \$15,633,805 less than the projected sum of \$79,519,000, which was the five-year operating revenue estimate presented by the Zoological Society when the Zoo Management Agreement was submitted to the Board of Supervisors for approval. Thus, the average annual operating revenue shortfall for the five-year period was \$3,126,761. Actual operating expenditures over the five-year period were \$65,755,637, or \$15,004,259 less than the projected operating expenditure estimate of \$80,759,896. Thus, the average annual operating expenditure shortfall for the five-year period was \$3,000,852.

The retail sales contribution to Zoo revenue generation has been particularly poor. As shown in Table 3.1.3, for the five-year period of FY 1993-94 through FY 1997-98, actual retail sales revenue was \$7,567,200 less than projected. Further, a financial report generated by the Zoological Society entitled "Revised Expected Budget Fiscal Year 1998-99" shows a \$537,428 negative variance for "Retail Operations," which constitutes approximately 81 percent of the entire negative variance amount of \$664,444.

The Zoological Society has significantly increased its long-term debt to cover operating deficits and to provide advanced funding for capital projects. Long-term debt peaked in FY 1996-97 at \$2,428,741.

The revenue shortfalls experienced by the Zoological Society have had a very negative effect on Zoo staff. Many questions to Zoo staff concerning an operational issue have been answered with "that's not in the budget" or with "we don't have funding for that." As Dr. Parrott states in his evaluation beginning at the bottom of

page 34 of this audit report, "The revenue urgency and sense of vulnerability permeates the organization."

Zoological Society staff did not obtain required building and other permits for numerous capital projects and alterations at the Zoo. Thus, required plan checks and inspections were not accomplished and the Zoological Society did not pay required fees to the City. Accordingly, the City Attorney advises that if something happens to one of the structures because of the lack of plan checks and inspections, the City could be held liable.

Our review of the "5-Year Plan: 1993-1998" revealed that the Zoological Society has accomplished many of that document's objectives and goals, including many of the accomplishments cited in the Introduction to this audit report. However, in addition to effectively managing Phase II of the Master Plan, other objectives important to the Zoo's success, such as improving internal communications and developing a Board of Directors and that reflects the ethnic diversity of the City, need to be emphasized.

The Zoo has maintained its accreditation with the AZA and its license with the USDA. However, Zoo management has not appropriately addressed the findings resulting from USDA inspections, as covered in Section 1.1 of this audit report.

For FY 1998-99, the Zoological Society did not transmit its audited financial statements to the Recreation and Park Department within 120 days of the end of the Society's fiscal year (June 30th of each year), as required by Section 15.10 of the Management Agreement.

RECOMMENDATIONS

The Zoological Society should:

- 3.1.1 Thoroughly clean up the Zoo and keep it that way.
- 3.1.2 Construct high quality signage.
- 3.1.3 Increase the number of mammals and birds in the Zoo collection commensurate with being able to care properly for the animals.
- 3.1.4 Beautify empty exhibits with conservation projects, landscaping, or anything else that is attractive and fits the motif of a Zoo whose primary concerns are conservation, education, and quality animal care.
- 3.1.5 Set goals for the Zoo that all of its employees can relate to and feel a part of.

- 3.1.6 Increase efficiencies by controlling expenses, including using the type of expense schedule shown in Exhibit 3.1.8.
- 3.1.7 Continue working with the Department of Building Inspection to obtain permits on all facilities maintenance projects and capital projects that require permits but that were not obtained prior to performing the work.
- 3.1.8 Emphasize to the Zoo staff that City, state, and federal rules and regulations are to be followed, especially with regard to obtaining building permits.
- 3.1.9 Emphasize to the Zoo staff that USDA inspections are to be responded to in an appropriate manner.
- 3.1.10 Enhance efforts to achieve the objectives and goals set in the 1993 planning document that have not yet been accomplished.
- 3.1.11 In accordance with Section 15.10 of the Management Agreement, deliver to the Recreation and Park Commission for its acceptance an original, signed copy of the Zoological Society's audited annual financial statements by the earlier of 30 days after the completion of the audit or 120 days after the end of the fiscal year covered by the audit.
- 3.1.12 Adopt a more "open door" policy to public inquiries and requests for information.

COSTS/BENEFITS

The recommendations contained in the section will enhance expense control and have the potential to significantly increase Zoo attendance and thus, Zoo revenues. Costs for signage and additional custodial resources would be incurred, but are required to improve the attractiveness of the Zoo and for educational purposes in any case. Our recommendations will not result in any increase in Zoo operating costs for maintenance since the recommended increase in maintenance department staff to address deferred maintenance items should be assigned strictly for the Phase II program approved repair items, thereby qualifying all costs for the force-account labor category in the Phase II program. Additional costs, in excess of currently planned A-1 exhibit costs, may be required to fund first-class A-1 exhibits.

Although there are no direct savings that can be attributed to the objectives and compliance issues covered in this section, by implementing the recommendations contained herein the Zoo will strengthen its organization and avoid any costs which may accompany non-compliance with the Management Agreement or other City, state, or federal rules and regulations.

Section 3.2: Payment and Invoicing Procedures for City Services Provided to the Zoo

- ◆ Section 6.1 of the Management Agreement requires that the Zoological Society pay to the City the cost of all services provided by the City to the Zoological Society within 30 days of receipt of a written invoice. However, the Zoological Society was late in paying the majority of Recreation and Park Department invoices on time for City services provided to the Zoo. Of a total of 169 invoices issued from October 1993 to April 1999, 137 or 81 percent were paid late. The payments sampled were late an average of 34 days ranging from 1 day to 111 days overdue. The cost to the City, in terms of lost income from interest yields the City would have otherwise earned from invested funds, was \$80,262 over the course of five years.
- ◆ Independent of and in addition to the late payments caused by the Zoological Society, the Recreation and Park Department failed to invoice the Zoological Society in a timely manner after services were rendered to the Zoo. The longest delays in issuing invoices involved sewer service and water charges, maintenance services, and light, heat and power charges. For example, sewer service charge invoices sampled were delayed an estimated average of 284 days ranging from 122 to 726 days late. The delays experienced from October 1993 through December 1998 resulted in a loss of income from interest yields in the estimated amount of \$149,724 over the course of five years.
- ◆ The present system of appropriating funds to cover Zoo sewer service and Zoo light, heat, and power expenses in the annual Recreation and Park Budget and then having the Department bill the Zoo to reimburse the City for those expenditures is cumbersome and not cost effective. It has contributed significantly to costly delays in processing invoices and payments.
- ◆ Accordingly, at the suggestion of the Budget Analyst, the Public Utilities Commission (PUC) has agreed to have its Clean Water Department and Bureau of Light, Heat, and Power bill the Zoological Society directly instead of billing the Recreation and Park Department for PUC services at the Zoo. The Zoo Society has expressed its agreement to the change to direct billing.
- ◆ Implementation of our recommendations should result in avoiding the loss of interest income to the City in an estimated amount of \$50,000 per year.

Background

Under Section 6.1 of the Management Agreement, the Zoological Society is required to pay the City the cost of all services provided by the City to the Zoo within thirty days of receipt of written invoices from the Recreation and Park Department.

The costs of services provided generally are classified into two categories: payroll costs, and non-payroll costs.

Payroll costs cover the salary and fringe benefit costs (excluding the cost of workers compensation premiums or claims) of Civil Service personnel directly employed at the Zoo.

Non-Payroll costs cover utility services provided by the City Public Utilities Commission such as water, sewer and light, heat, and power. Miscellaneous services, such as general maintenance and repair, and other various services such as tree topping and emergency repairs, which are Recreation and Park Department General Fund costs, are also included.

As part of our performance audit of the Zoo we examined the payment record of the Zoological Society to determine whether the Society has conformed to the 30-day requirement in paying for invoiced City services. This review included the following:

1. An analysis of the Recreation and Park Department's Zoo Abatement Salary Billing Schedule, a Zoo Maintenance Cost Recovery Schedule, a Zoo Utilities (Telephone and PG&E) Schedule, and a Zoo Abatement Sewer Service Charge Schedule. These schedules all show the service period, invoice date, due date, amount due, payment date, and check number from June 1997 to April 1999.
2. An examination of the Zoological Society's file of payment checks, Recreation and Park invoices, and monthly bank statements covering services provided from October 9, 1993, to April 15, 1999.
3. The San Francisco Treasurer's Table of Earned Interest Yields from invested Pooled Funds by month and fiscal year, for the period of FY 1976-77 through May 1999. This table was utilized to calculate costs to the City in lost interest income yields resulting from late payments and late invoicing.

Compliance With Lease and Management Agreement

Our review of the cited documents revealed that for the period of October 1993, to April 1999, 137 or 81 percent of 169 total invoices were paid late by the Zoological Society resulting in a loss of interest income to the City estimated at \$80,292, as shown below: (Detail in Tables I and II)

<u>Type of Invoice</u>	<u>Number of Invoices</u>	<u>No. of Invoices Paid Late</u>	<u>Estimated Loss of Interest Yields</u>
Payroll	137	110	\$62,704
Non Payroll	<u>32</u>	<u>27</u>	<u>17,588</u>
Total	169	137	\$80,292

However the foregoing does not accurately reflect the entire cost of late processing. An integral part of the audit involved the review of the Recreation and Park Department billing documents to determine whether invoices have been processed in a timely and effective manner. Unduly late preparation and submission of invoices, as well as delinquent payments, contribute to the loss of interest yields which otherwise could be realized through the Treasurers' investments.

It became evident during the course of review of the relevant documentation that there was a much greater loss of interest yield income to the City incurred from delays in submitting invoices for non-payroll services by the Recreation and Park Department than the losses resulting from late Zoological Society payments. For example, sewer service charge invoices sampled were delayed an average of 284 days ranging from 122 to 726 days late. The estimated loss to the City from these delays totals \$149,724 and is summarized below (See Tables III, IV and V for details).

<u>Table</u>	<u>Service Type</u>	<u>Service Dates</u>	<u>Estimated Lost Income</u>
Table III	Sewer Service and Water	3/95-6/98	\$91,651
Table IV	Utilities (Heat, Light & Power, Telephone)	1/96-12/98	22,792
Table V	Maintenance (misc. repairs, tree service)	10/93-10/96	<u>35,281</u>
	Total		\$149,724

Recreation and Park Department staff attribute the delays to staffing reorganization, staff turnover and absences, some inadvertence, sporadic submission of time sheets by maintenance crews, and sporadic billing by Light, Heat and Power.

The magnitude of the volume of overdue payments and delayed invoicing is illustrated by the financial data shown below. This information was included in the annual Independent Auditor's reports to Zoological Society by the Certified Public Accountancy firm of Pannell, Kerr, and Forster.

<u>Total Operating Expenses Incurred by the Zoo and Reimbursable to the City</u>		<u>Estimated Amounts of Reimbursable Expenses Remaining Outstanding</u>
<u>Fiscal Year Ending</u>		
June 30, 1994	\$3,025,953*	\$1,349,286
June 30, 1995	3,837,482	1,668,386
June 30, 1996	3,685,052	2,492,820
June 30, 1997	3,559,276	1,245,721
June 30, 1998	3,084,384	804,725

* Prorated for effective date of lease, October 9, 1993.

Section 6.1 of the Management Agreement requires that the Zoological Society and Recreation and Park Commission develop a process to document the provision of services and payment thereof in accordance with the Agreement. The Recreation and Park Department did not develop a system for this purpose until June 1997 – three years and nine months after the Agreement became effective. At that time, the Department installed a billing and tracking procedure, whereby staff can keep track of the status of issued invoices. In addition, in July 1997, the Department developed a quarterly billing procedure to expedite the recovery of Zoo maintenance costs.

While there appears to be some improvements in the billing performance of the Recreation and Park Department since the inception of the 1997 billing system, invoicing delays continue to occur due to staffing problems, late billing by the Light, Heat and Power Bureau, and sporadic submission of maintenance crew time sheets. Furthermore, it does not appear from the record that the Department's billing system has resulted in any improvement in the promptness of Zoological Society payments since June 1997. As a matter of fact, more invoices were paid late by the Society after June 1997, than before. (See Table I & Table II)

The Recreation and Park Department reports that it does not date stamp invoices when they are sent to the Zoo for payment. During the course of the audit we also found that the Zoological Society does not date stamp the invoices when they are

received. (We found only one invoice with a date-received stamp). As a result, we had to rely on actual invoice dates, Zoological Society dates on its payment checks, and a large sample of Zoological Society's monthly bank statements showing the dates each Zoological Society check was cashed. For most cases, particularly for Recreation and Park payroll invoices, the actual invoice date coincided with the date it was submitted to the Zoo. We recommend that the routine practice of date stamping all invoices and payments when received and sent by both the Zoological Society and the Recreation and Park Department be implemented. It is essential to the effective management of a billing and collection system.

CONCLUSIONS

Section 6.1 of the Management Agreement requires that the Zoological Society pay to the City the cost of all services provided by the City to the Zoological Society within 30 days of receipt of a written invoice. However, the Zoological Society was late in paying the majority of Recreation and Park Department invoices on time for City services provided to the Zoo. Of a total of 169 invoices issued from October 1993 to April 1999, 137 or 81 percent were paid late. The payments sampled were late an average of 34 days ranging from 1 day to 111 days overdue. The cost to the City, in terms of lost income from interest yields the City would have otherwise earned from invested funds, was \$80,262 over the course of five years.

Independent of and in addition to the late payments caused by the Zoological Society, the Recreation and Park Department failed to invoice the Zoological Society in a timely manner after services were rendered to the Zoo. The longest delays in issuing invoices involved sewer service and water charges, maintenance services, and light, heat and power charges. For example, sewer service charge invoices sampled were delayed an estimated average of 284 days ranging from 122 to 726 days late. The delays experienced from October 1993 through December 1998 resulted in a loss of income from interest yields in the estimated amount of \$149,724 over the course of five years.

The present system of appropriating funds to cover Zoo sewer service and Zoo light, heat, and power expenses in the annual Recreation and Park Budget and then having the Department bill the Zoo to reimburse the City for those expenditures is cumbersome and not cost effective. It has contributed significantly to costly delays in processing invoices and payments.

Accordingly, at the suggestion of the Budget Analyst, the Public Utilities Commission (PUC) has agreed to have its Clean Water Department and Bureau of Light, Heat, and Power bill the Zoological Society directly instead of billing the Recreation and Park Department for PUC services at the Zoo. The Zoo Society has expressed its agreement to the change to direct billing.

Implementation of our recommendations should result in avoiding the loss of interest income to the City in an estimated amount of \$50,000 per year.

RECOMMENDATIONS

The Zoological Society and Recreation and Park Department should:

- 3.2.1 Arrange for the Zoo to be directly billed for sewer service and light, heat and power costs by the Clean Water Department and Bureau of Light, Heat and Power, respectively. This should expedite timely payment by the Zoological Society and free Recreation and Park staff to devote more labor-intensive time to billing and collection procedures for maintenance and payroll costs. The Recreation and Park Commission budget should be adjusted accordingly.
- 3.2.2 Set up and maintain a date stamping procedure to better manage, control, and expedite payments by the Society and facilitate timely invoicing by the Department.

COSTS/BENEFITS

Billing the Zoological Society directly will expedite prompt payment for sewer and light, heat, and power services and enable Recreation and Park Department staff to more promptly bill for maintenance and personnel services. This should result in the avoidance of an estimated loss of interest income to the City in the amount of \$50,000 annually.

Section 3.3: Compliance With Insurance Requirements

- ♦ Section 17.1 of the Management Agreement requires that, subject to the approval of the City Risk Manager as to the insurers and policy forms, the Zoological Society shall place and maintain throughout the term of the Agreement, and pay the cost thereof, various types of insurance coverages. The Management Agreement also provides for periodic reviews of the Zoological Society's insurance coverages, but does not specify a time period for such review.
- ♦ Prior to this performance audit, the Zoological Society did not obtain the City Risk Manager's approval of the insurers, policy forms, and insurance coverages procured, as required by the Management Agreement, and the coverages were never reviewed.
- ♦ The City Risk Manager has recently reviewed the insurance coverages and has determined that the provision limiting the policy forms and amount of both Malpractice and Commercial Crime Insurance to those in effect on the commencement date of the Management Agreement is ambiguous. To remedy this situation, the Department of Recreation and Park and the Zoological Society should develop a Memorandum of Understanding (MOU) to clarify specific amounts of coverage and minimum limits.
- ♦ The Zoological Society maintains Property Insurance on City-owned Zoo buildings, even though such coverage is not currently required by the Agreement. The City Risk Manager believes that Property Insurance coverage is essential. Because the Recreation and Park Department does not insure its real property, the City Risk Manager recommends that the Zoological Society continue to provide such coverage without interruption, for the duration of the Management Agreement. Therefore, we recommend that the Department of Recreation and Park and the Zoological Society develop an MOU providing that the Zoological Society maintain Property Insurance of City-owned buildings for the duration of the Management Agreement.
- ♦ We recommend that the Department of Recreation and Park and the Zoological Society develop an MOU to provide that insurance coverage reviews occur every two years, or sooner if warranted by a substantial change in circumstances.

Background

Section 17.1 of the Management Agreement sets forth the types of insurance policies and coverages that the Zoological Society is required to procure, maintain, and pay the costs thereof throughout the term of the Agreement. The insurers and policy forms are expressly made subject to the approval of the City Risk Manager.

Section 17.2 of the Management Agreement includes several miscellaneous insurance provisions such as special endorsements, document delivery and notice requirements, and procedures for periodic review.

To determine whether the Zoological Society fully complied with the insurance provisions of the Agreement, we:

- Reviewed the insurance provisions of the Management Agreement to determine the types of insurance coverages and policy limits required.
- Interviewed the Recreation and Park Department Property Management Assistant in charge of insurance to determine whether the insurance coverage was properly documented for the Zoo.
- Obtained copies of all required Certificates of Insurance from the Recreation and Park Department and the Zoological Society.
- Delivered the Certificates of Insurance along with the insurance provisions of the Management Agreement to the City Risk Manager for his review.
- Interviewed the City Risk Manager for his evaluation of the insurers, determination of Zoological Society's compliance with provisions of the Management Agreement, and to obtain his recommendations concerning insurance.

Compliance with Lease and Agreement Requirements

In general, Section 17 of the Management Agreement specifies requirements for (1) types and amounts of insurance required, (2) review and approval by the City's Risk Manager, (3) notice of cancellation, non-renewal, etc. and delivery of certificates to the City, (4) periodic review of types of insurance and limits, and (5) other specific requirements.

At the outset of the insurance audit, we found that the policy forms and insurers had never been approved by the City Risk Manager since the commencement of the Agreement.

Accordingly, we obtained copies of certificates from the Recreation and Park Department and the Zoological Society and delivered them to the City Risk Manager, along with an outline of the Agreement insurance provisions for his review in April 1999. This was the first time the City Risk Manager was presented with any documentation of Zoo insurance coverage.

The City Risk Manager reviewed the certificates and determined the following:

1. The insurers providing the insurance certificates to the Zoological Society are satisfactory to the City.
2. The coverage and limits of the various types of liability insurance required by the Management Agreement have been met. To the credit of the Zoological Society, the coverage provided for General Liability Insurance is greater than the Management Agreement requirement.
3. The coverage for Errors and Omissions Insurance for Zoological Society Officers and members of its Board of Directors is greater than required by the Agreement.
4. Although not required by the Agreement, the Zoological Society, on its own initiative has procured blanket property insurance covering Zoological Buildings owned by the City. The Recreation and Park Department does not carry property insurance for its facilities.
5. The Malpractice Liability Insurance carried by the Chief Veterinarian with coverage limits of \$1,000,000 for each occurrence and \$3,000,000 aggregate is probably adequate. The Assistant Veterinarian coverage limits of only \$300,000 each occurrence and \$900,000 aggregate could be increased to the same coverage level for the Chief Veterinarian for a premium increase of \$26 per year and it is so recommended.
6. The determination of the adequacy of Commercial Crime Insurance covering employee dishonesty, loss inside/outside, or forgery, requires an inspection and analysis of the equipment, procedures, and hiring practices by the Insurance Carrier to define the extent of the risk to be covered. The meaning of the coverage clauses cited on the certificate are not clear without viewing the total policy, and the adequacy of the coverage consequently could not be determined by the Risk Manager.
7. Sections 17.1(e) and 17.1(f) of the Management Agreement, pertaining to Malpractice Liability of Veterinarians and Commercial Crime Insurance, respectively, are considered ambiguous by the City Risk Manager. They provide merely that these policies be carried "in the same general form

and amount as that in effect on the commencement date.” We recommend that a letter of clarification as to the specific details regarding the forms and amounts required for these policies be provided by the Zoological Society to the Recreation and Park Department when the policies are reviewed.

Section 17.2.5 of the Agreement requires that the Zoological Society and the City periodically review the limits and types of insurance carried in light of the general commercial practice in the City and County and to adjust amounts, coverages, and rates in conformance to comparable risks. No period for review is established in the Agreement and no review of the actual policies by the City has been conducted since the commencement date, approximately 6 years ago.

The City Risk Manager recommends that all policies be reviewed routinely every two years or earlier if circumstances, such as the scope and nature of operations, are substantially changed. We concur.

Section 17.2.4 of the Management Agreement requires the Zoological Society to deliver complete copies of insurance policies promptly upon City’s request. The Recreation and Park Department reports that it has never requested copies of actual policies because the certificates of insurance are all that staff feels is needed for Property Management Division purposes. As a result, the City has never received copies of the policies since the commencement of the Management Agreement.

Accordingly, we recommend that the City, through the Recreation and Park Commission, request complete copies of all Zoological Society insurance policies for review under Section 17.2.5. The Zoo Bonds sale of June 16, 1999, should result in a substantial increase in the scope of zoo operations sufficient to warrant a review by the City Risk manager and Zoological Society to determine whether the current policy forms and coverage are sufficient and appropriate.

Section 17.2.4 also requires that the Zoological Society provide the City with certificates at least 30 days before the expiration dates of expiring policies. The Property Management Assistant reports that this requirement is never met, despite numerous requests for the certificates. The City Risk Manager reports that conformance to this requirement is not a common practice in the insurance industry and we therefore concur with the Property Management Assistant’s recommendation to require delivery of certificates as soon as possible, but no later than the expiration dates of the coverage.

CONCLUSIONS

Section 17.1 of the Management Agreement requires that, subject to the approval of the City Risk Manager as to the insurers and policy forms, the Zoological Society shall place and maintain throughout the term of the Agreement, and pay the cost thereof, various types of insurance coverages. The Management Agreement also provides for periodic reviews of the Zoological Society's insurance coverages, but does not specify a time period for such review.

Prior to this performance audit, the Zoological Society did not obtain the City Risk Manager's approval of the insurers, policy forms, and insurance coverages procured, as required by the Management Agreement, and the coverages were never reviewed.

The City Risk Manager has recently reviewed the insurance coverages and has determined that the provision limiting the policy forms and amount of both Malpractice and Commercial Crime Insurance to those in effect on the commencement date of the Management Agreement is ambiguous. To remedy this situation, the Department of Recreation and Park and the Zoological Society should develop a Memorandum of Understanding (MOU) to clarify specific amounts of coverage and minimum limits.

The Zoological Society maintains Property Insurance on City-owned Zoo buildings, even though such coverage is not currently required by the Agreement. The City Risk Manager believes that Property Insurance coverage is essential. Because the Recreation and Park Department does not insure its real property, the City Risk Manager recommends that the Zoological Society continue to provide such coverage without interruption, for the duration of the Management Agreement. Therefore, we recommend that the Department of Recreation and Park and the Zoological Society develop an MOU providing that the Zoological Society maintain Property Insurance of City-owned buildings for the duration of the Management Agreement.

We recommend that the Department of Recreation and Park and the Zoological Society develop an MOU to provide that insurance coverage reviews occur every two years, or sooner if warranted by a substantial change in circumstances.

RECOMMENDATIONS

The Zoological Society should:

- 3.3.1 Increase the Malpractice Liability Coverage for the Assistant Veterinarian to the same level as that for Chief Veterinarian. The increased cost of \$26 in the

annual premium is minimal compared to the increase in the amount of coverage.

The Recreation and Park Department and the Zoological Society should:

- 3.3.2 Develop a Memorandum of Understanding (MOU) to clarify specific amounts of coverage and minimum limits for both Malpractice Liability Insurance and Commercial Crime Insurance.
- 3.3.3 Develop an MOU providing that the Zoological Society maintain Property Insurance of City-owned buildings for the duration of the Management Agreement
- 3.3.4 Develop an MOU to provide that insurance coverage reviews occur every two years, or sooner if warranted by a substantial change in circumstances.

COSTS/BENEFITS

Implementation of our recommendations should facilitate the continuing maintenance of insurance coverage at appropriate levels and costs.

Section 3.4: Recreation and Park Commission Representation at Joint Zoo Committee Meetings

- ♦ Section 16.3 of the Management Agreement specifies that the “Joint Zoo Committee,” which was established in 1982 prior to the Management Agreement and which consists of three members of the Recreation and Park Commission and three members of the Zoological Society’s Board of Directors, shall be maintained throughout the term of the Agreement and shall hold public meetings at least 11 times per calendar year to discuss and hear public testimony regarding major policies affecting the Zoo, including without limitation the setting of fees, new animal exhibits, animal acquisition and disposition policies, land use, and capital and operating budgets.
- ♦ Although the Joint Zoo Committee is an advisory committee without any legislative authority, the Budget Analyst considers that a balanced representation between Recreation and Park Commissioners and Zoo Society Board Directors at Joint Zoo Committee meetings is required for effective public/private management of the Zoo. Virtually, all major operational and financial matters and proposals are submitted to the Joint Zoo Committee for recommendation and referral to the full Recreation and Park Commission.
- ♦ Analysis of the minutes of the Joint Zoo Committee meetings for calendar years 1997 and 1998 revealed a wide disparity between the attendance by members of the Recreation and Park Commission and attendance by members of the Board of Directors of the Zoological Society. For the 22 meetings reviewed, the Recreation and Park Commission was fully represented by three Commissioners only 13.6 percent of the time whereas the Zoological Society was fully represented by three Directors 95.5 percent of the time. Further, nine of the 22 meetings reviewed included an agenda item that covered budget issues. The Recreation and Park Commission had full representation by three Commissioners at only two of the nine meetings, whereas the Zoological Society had full representation by three Directors at each of the nine meetings. Such poor attendance by Recreation and Park Commissioners does not, in the judgment of the Budget Analyst, provide for effective public/private management of the Zoo.
- ♦ Accordingly, we recommend that the Recreation and Park Commissioner members of the Joint Zoo Committee make it a priority to attend every Joint Zoo Committee meeting.

Section 16.3 of the Lease and Management Agreement provides that the standing committee known as the Joint Zoo Committee shall be maintained throughout the duration of the Agreement. The Committee consists of three members of the Zoological Society Board of Directors and three members of the Recreation and Park Commission. The responsibilities of the Committee are as follows:

1. To hold regular public meetings at least 11 times per calendar year.
2. To discuss and hear public testimony regarding major policies of the Zoo, such as:
 - a) the setting of fees
 - b) new animal exhibits
 - c) animal acquisition and disposition
 - d) land use, and
 - e) capital and operating budgets.

The Committee can recommend whether or not the policies and issues it considers be presented to the full Recreation and Park Commission for formal approval. The Agenda of each meeting is published in advance of the meeting date and forwarded to the Committee members.

The Committee members of the Recreation and Park Commission and the Board of Directors of the Zoological Society each have a vote to exercise at each Committee meeting. Committee meetings are open to the public and public comments are taken into consideration.

The Joint Zoo Committee is an essential component in the public/private partnership concept of management undertaken through the Lease and Management Agreement between the City and County of San Francisco and the San Francisco Zoological Society. Virtually all major operational and financial reports and proposals affecting the Zoo are first submitted to the Joint Zoo Committee for recommendation and referral to the full Recreation and Park Commission.

Attendance Record of Joint Zoo Committee Members

In our professional judgment, full representation at the Joint Zoo Committee meeting by both Commissioners and Zoological Society Board of Directors is crucial to effective oversight of the Zoo, consistent with the public-private partnership concept of management of the Zoo. Accordingly, we reviewed the minutes of 22 Joint Zoo Committee meetings held from January 1997 through December 1998 and determined the following (See Table 3.4.1 for details):

Table 3.4.1
Joint Zoo Committee Attendance

No. of Members Attending Each Meeting	Recreation and Park		Zoological Society	
	No. of Meetings	Attendee Subtotal	No. of Meetings	Attendee Subtotal
0	2	0	0	0
1	7	7	0	0
2	10	20	1	2
3	<u>3</u>	<u>9</u>	<u>21</u>	<u>63</u>
Number of Meetings	22		22	
Total No. of Attendees for the 22 Meetings		<u>36</u>		<u>65</u>

- The Recreation and Park Commission had three Commissioners in attendance at only three or 13.6 percent of the 22 meetings whereas the Zoological Society was fully represented by three Directors at 21 or 95.4 percent of the 22 meetings.
- For the total 22 meetings the City, represented by the Recreation and Park Commissioners, had a cumulative total of 36 representatives at these meetings compared to a cumulative total of 65 representatives of the Zoological Society at the same meetings. This disparity provided the Zoological Society with a significant advantage in voting power.

Attendance Record Relative to Budget Hearings

On November 20, 1997, the full Recreation and Park Commission considered legislation to formally end its right to review the Zoo Budget amid much public controversy. Section 15.9 of the Lease and Management Agreement authorizes the Commission to provide comments or suggestions to the Zoo Society on a submitted budget, but can disapprove it only if the revenues are projected to be expended for purposes inconsistent with the Management Agreement.

Based on the discussion recorded in the minutes of the meeting, the Commissioners felt that their power to review was too limited in view of their responsibility to respond to adverse public reaction to budget item detail over which they had no control. Accordingly, the Commission adopted Resolution #9711-156, which states: "Resolved that this Commission does approve to amend Sections 15.9 and 15.10 relating to the Commission approval of the Zoo's Society budget and acceptance of its annual audits."

Apparently no further action was taken on the Resolution, since the Management Agreement of 1993 was automatically extended without modification in 1998.

Because of the Commission's concern over the limited power to review budgets, we examined the role of the Joint Zoo Committee in the budget review process. Under Section 16.3, its power is advisory, but it can raise questions and make recommendations in open public meetings. As a practical matter, more influence can be asserted at the Joint Zoo Committee level prior to the submission of budget to the full Recreation and Park Commission. It is unlikely that the Zoological Society would forward a budget to the Recreation and Park Commission without recommendation for approval by the Committee. For this reason, we reviewed the Joint Zoo Committee's meeting minutes to determine the rate of Recreation and Park Commissioners' attendance when the Meeting Agenda includes budget matters. Our findings are as follows:

- Nine of the 22 meetings reviewed included an Agenda item that covered budget issues. The Recreation and Park Commission had full representation by three Commissioners at only two of the nine meetings whereas the Zoological Society had full representation by three Directors at each of the nine meetings.
- For all nine meetings that covered budgetary issues Recreation and Park Commissioners had a cumulative total of 17 representatives present as compared to a cumulative total of 27 representatives of the Zoological Society by its Directors.
- The relative proportion of the Recreation and Park Commissioners and Zoological Society Directors attending Joint Zoo Committee meetings not covering budget matters was not significantly different than the attendance ratios for meetings covering budget matters (Please refer to Table 3.4.2).

CONCLUSIONS

The Recreation and Park Commissioners, by attending Joint Zoo Committee meetings on a part-time basis, have not fully represented the City.

This disparity in attendance provided the Zoological Society with a significant advantage in influence, which could be utilized to the disadvantage of the City. The checks and balances of the private/public concept of management cannot, in our opinion, be achieved without equal participation of the responsible Joint Zoo committee members.

RECOMMENDATION

We recommend that the Recreation and Park Commission:

- 3.4.1 Ensure to the extent possible that three members of the Recreation and Park Commission attend each meeting of the Joint Zoo Committee.

COSTS/BENEFITS

Implementation of our recommendation should improve the effectiveness of the public/private partnership through a full representation of the City's interests at Joint Zoo Committee meetings.

TABLE 1.5.2
 Joint Committee Meetings, January 1, 1997 - December 2, 1998
 Attendance Record of Rec-Park Commissioners & Zoo Society Board Directors*

Meeting Dates	Meetings Including Budget Matters		Meetings Not Including Budget Matters		All Meetings		Comments
	No. of Commissioners Present	No. of Directors Present	No. of Commissioners Present	No. of Directors Present	Total Commissioners Present	Total Directors Present	
1/1/97	-	-	-	-	-	-	Meeting Cancelled
2/5/97	-	-	0	3	0	3	
3/5/97	1	3	-	-	1	3	
4/2/97	2	3	-	-	2	3	
5/7/97	3	3	-	-	3	3	
6/4/97	-	-	2	3	2	3	
7/2/97	-	-	0	3	0	3	
8/6/97	-	-	2	3	2	3	
9/3/97	3	3	-	-	3	3	
10/1/97	-	-	2	2	2	2	
11/5/97	2	3	-	-	2	3	
12/4/97	-	-	1	3	1	3	
1/7/98	-	-	3	3	3	3	
2/4/98	-	-	2	3	2	3	
3/16/98	-	-	2	3	2	3	
4/1/98	1	3	-	-	1	3	
5/6/98	2	3	-	-	2	3	
6/3/98	2	3	-	-	2	3	
7/1/98	-	-	2	3	2	3	
8/5/98	-	-	-	-	-	-	Meeting Cancelled
9/7/98	-	-	1	3	1	3	
10/7/98	1	3	-	-	1	3	
11/4/98	-	-	1	3	1	3	
12/2/98	-	-	1	3	1	3	
Total	17	27	19	38	36	65	

* Source: Minutes of Joint Zoo Committee Meetings, January 1997 - December 1998.

Section 4.1: Fundraising & Development

- ♦ From FY 1993-94 through FY 1998-99, the Zoological Society raised a total of approximately \$47.5 million in contributions, membership dues, fund raising, and bequests for operations and capital projects.
- ♦ We found that, in general, the Development Department has been able to meet its fundraising goals for annual operating expenses. In addition, the Zoological Society has raised approximately \$21 million of the \$25 million required for capital improvements under the lease agreement, including written, contingency, and verbal pledges.
- ♦ There is potential for improvement in certain areas. For example, there is potential to improve the Zoological Society's performance in recruiting and retaining members. Also, costs for certain fundraising activities are excessive.
- ♦ The Zoological Society should implement cost reduction measures, including eliminating one Events staff position and the Associate Membership Director position, and continue to evaluate the profitability of certain events in order to determine whether there is potential to reduce costs or increase revenues, or whether certain events should be discontinued.
- ♦ The implementation of our recommendations would result in savings of approximately \$108,391 annually and would improve the profitability and performance of the Zoological Society's Development programs.

As part of our performance audit of the San Francisco Zoological Gardens, we examined the Zoological Society's fundraising and development functions in order to evaluate its ability to raise funds for both operating expenses and capital projects through memberships, individual and corporate gifts, events, Board of Directors contributions, and bequests.

To accomplish these objectives, we:

- Interviewed personnel in the Development Department, including the Development Director, Associate Director of Development, Director of Major Gifts, Events Director and Membership Director;
- Reviewed documentation on the Zoological Society's current and past fundraising efforts and membership and event literature;

- Examined budgeted and actual expenditures for the Fundraising, Membership and Events programs for the current and past five fiscal years;
- Reviewed performance measures such as returns on investment and the number and level of contributions, grants and memberships, in order to evaluate fundraising efforts; and
- Conducted research of development practices at comparable zoos and other similar organizations.

Fundraising for the Annual Operating Budget

As part of the 1996 Strategic Plan for the Zoo, the consulting firms of CLRdesign Inc. and Schultz & Williams Inc. examined the percentage of annual operating revenue that came from various funding sources, including admission fees, visitor revenue, memberships, development, and public subsidies, at 73 zoos and at the 33 zoos with annual operating budgets in excess of \$5 million, using data from a 1996 American Zoological Association (AZA) survey. The results of this analysis, as well as current data for San Francisco Zoo, are shown in Table 4.1.1 below.

Table 4.1.1
Percentage of Operating Revenues from Various Funding Sources,
1996 - 1999

Funding Source	Zoos with Annual Operating Budgets ≥ \$5 million (1996)	Average for all Zoos (1996)	San Francisco Zoo (1997)	San Francisco Zoo (1999)
Admission Fees	27.5%	35.1%	17.1%	17.0%
Visitor Revenue	22.9%	22.7%	27.2%	30.5%
Membership	10.6%	9.7%	10.4%	10.3%
Development	7.9%	9.6%	14.3%	15.0%
Public Subsidy	38.0%	36.8%	31.0%	26.0%

As shown in Table 4.1.1, San Francisco Zoo receives a lower percentage of its operating revenue from admission fees and public subsidies than the other zoos in the survey. Moreover, these percentages have declined since 1997. The Strategic Plan concluded that, as a result, this places more pressure on the Zoological Society to raise operating revenue through its Development, Membership and Visitor Services Programs.

The Development Department is divided into three programs: Fundraising, Membership, and Events. Staffing levels for each program are shown in Table 4.1.2 below.

Table 4.1.2
Staffing Levels by Program,
Zoological Society Development Department

	<u>No. of FTEs</u>
<u>Fundraising:</u>	
Development Director	0.5
Associate Director of Development	0.5
Director of Major Gifts	0.6
Administrative Assistant	1.0
Office Assistant*	0.5
Subtotal - Fundraising	3.1
<u>Membership:</u>	
Membership Director	0.6
Associate Director of Membership	1.0
Membership Assistants	3.2
Subtotal - Membership	4.8
<u>Events:</u>	
Events Director	1.0
Associate Director of Events	1.0
Office Assistant*	0.5
Subtotal - Events	2.5
Total - Development	10.4

* This position is shared by Fundraising and Events.

All of the positions shown above are responsible for raising money to fund the Zoo's annual operating budget. The Development Director oversees the entire Development Department, as well as the Marketing Department. The Associate Director of Development handles corporate and foundation gifts and writes grant proposals. The Director of Major Gifts is responsible for generating individual and Board member contributions. The Membership Director and Associate Director of Membership recruit and retain members through on-site sales, renewal requests, direct mail campaigns, telemarketing, the Adopt-An-Animal Program, and other methods. The Membership Assistants process memberships and staff the Membership booth located at the Zoo's main entrance. The Events Director and Associate Director of Events plan, organize, and produce fundraising and member events such as Night Tour, Twilight Safari, Sex Tour, Zoo Fest, and Zoo Fest for Kids. As of the writing of this report, the Development Director reported that the functions of the Associate Director of Development had been modified to include corporate sponsorships and to exclude foundation gifts. The job title has been changed to Director of Corporate Relations.

Table 4.1.3 shows the FY 1998-99 operating budgets for the Fundraising, Membership and Event Programs.

Table 4.1.3
FY 1998-99 Operating Budgets,
Fundraising, Membership and Event Programs

	Fundraising	Membership	Events
REVENUES			
Individual Contributions	\$ 520,000	\$ -	\$ -
Foundation Contributions	\$ 150,000	\$ -	\$ -
Corporate Contributions	\$ 275,000	\$ -	\$ -
Board Member Contributions	\$ 450,000	\$ -	\$ -
Membership Dues	\$ -	\$ 1,484,000	\$ -
Adopt-an-Animal Program	\$ -	\$ 109,000	\$ -
Fundraising Events	\$ -	\$ -	\$ 657,785
TOTAL REVENUES	\$ 1,395,000	\$ 1,593,000	\$ 657,785
EXPENDITURES			
Personnel Expenses	\$ 216,077	\$ 245,445	\$ 101,684
<u>Non-Personnel Expenses:</u>			
Office Supplies	\$ 8,500	\$ 29,050	\$ -
Printing/Design	\$ 14,350	\$ 35,900	\$ -
Postage	\$ 10,000	\$ 32,450	\$ -
Annual Fund Expenses	\$ 29,000	\$ -	\$ -
Donor Relations	\$ 17,500	\$ -	\$ -
Other Expenses	\$ 13,000	\$ 34,780	\$ -
Computer Consulting	\$ -	\$ 22,040	\$ -
Direct Mail Member Acquisition	\$ -	\$ 80,001	\$ -
Direct Mail Membership Renewal	\$ -	\$ 42,600	\$ -
Telemarketing	\$ -	\$ 35,000	\$ -
Membership Benefits	\$ -	\$ 16,018	\$ -
Zoo Views Membership Publication	\$ -	\$ 151,074	\$ -
On-site Membership Sales	\$ -	\$ 17,400	\$ -
Member Event Expenses	\$ -	\$ 30,200	\$ -
Fundraising Event Expenses	\$ -	\$ -	\$ 213,394
Total - Non-Personnel	\$ 92,350	\$ 526,513	\$ 213,394
Capital Campaign Offset	\$ (112,320)	\$ (31,680)	\$ -
TOTAL EXPENDITURES	\$ 196,107	\$ 740,278	\$ 315,078

As shown in Table 4.1.3, budgeted revenues exceed expenditures for all three programs. Based on our review of budgeted and actual net income over the period from FY 1993-94 through FY 1997-98, we found that the Development Department has in general been able to meet its fundraising goals for its operating budget.

Fundraising for Capital Projects

Under the lease agreement between the City and the Zoological Society, the Zoological Society is required to meet two goals with respect to fundraising for capital projects. The first goal was to raise \$10,000,000 from private donations for a "Founder's Fund" within the first five years of the agreement. This \$10 million was to be allocated as follows: (a) \$5 million for capital improvements; (b) \$2 million for

operating expenses; and (c) \$3 million for the Zoological Society's Endowment fund. Over the four-year period from July 1, 1992 through June 30, 1996, the Zoological Society raised \$11,494,465 towards the Founder's Fund, supplemented by \$1,570,092 in Zoological Society transition funds, which were expended as follows: (a) \$6,803,243 for capital improvements (Phase I); (b) \$2,044,304 for operating expenses; and (c) \$3,217,010 for the Endowment Fund. The unexpended balance of \$1 million was carried forward to the Phase II Capital Campaign (discussed below).

The second requirement under the lease agreement was for the Zoological Society to raise \$25 million in private donations for the Phase II Capital Campaign "in accordance with the terms of [the] Agreement." This \$25 million would accompany the \$48 million to be generated through proceeds from the 1997 bond measure, for a total of \$73 million for capital improvements. There has been some debate over whether the Zoological Society has met this second fundraising requirement. This is because the phrase "in accordance with the terms of [the] Agreement" can be interpreted in either of two ways: (1) the initial five-year term of the agreement, or (2) the terms of the agreement in general. Some have argued that the Zoological Society should have raised the \$25 million within the first five years of the agreement, or by October 1998. Section 3.1 of this audit report shows that the Zoological Society planned to raise the \$25 million during the first five years of the agreement. However, according to the City Attorney's Office, the reference to "terms" does not refer specifically to the initial five-year term, but rather to the general terms of the agreement, which provides for a maximum term for the agreement of 99 years.

Because of a lawsuit seeking to throw out the June 1997 election results, the sale of the \$48 million in bonds, which was originally scheduled to take place in the autumn of 1998, has been delayed until the summer of 1999. The Development Director reports that the Zoological Society's current goal is to raise the full \$25 million in private donations by December 31, 2000. The privately raised funds would be used to fund design and other preconstruction activities, as well as post-construction costs such as furnishings, fixtures, etc.

The Phase II Capital Campaign officially started on June 1, 1997. Contributions to the Phase II Capital Campaign through December 20, 1999, are shown in Table 4.1.4 below.

Table 4.1.4

**Contributions to the Zoological Society's Phase II Capital Campaign
through December 20, 1999**

	<u>Amount</u>
<u>Payments Received:</u>	
Prior to FY 1996-97	\$ 699,233
FY 1996-97	\$ 822,563
FY 1997-98	\$ 4,302,427
FYs 1998-99 and 1999-00 thru 12/20/99)	\$ 6,079,049
Total - Payments Received	\$ 11,903,272
Written Pledge Receivables	\$ 5,984,577
Contingency Pledges (3)	\$ 2,016,000
Verbal Pledges (5)	\$ 1,134,500
Total	\$ 21,038,349

As reflected in Table 4.1.4, the Zoological Society raised \$21,038,349¹ in contributions through December 20, 1999. Of this amount, \$11,903,272 represents actual cash receipts, and \$5,984,577 is written pledges payable between April 1, 1999 and June 30, 2003. Contingency pledges, in the amount of \$2,016,000 are written commitments that are contingent upon the occurrence of a specific event, e.g., groundbreaking, matching grants, etc. Lastly, the Zoological Society has received \$1,134,500 in verbal pledges.

Capital Fundraising Staff

In addition to raising funds for the Zoo's annual operating budget, certain Zoological Society staff, including the Development Director, the Associate Director of Development, the Director of Major Gifts, and the Membership Director, also spend a portion of their time raising money for the \$25 million Phase II Capital Campaign. In return, the Development Department's operating budget receives a capital campaign offset of \$144,000 annually. In addition, there are three full-time staff dedicated solely to raising money for the Phase II Capital Campaign: one Special Projects Director, one Associate Campaign Coordinator and one Associate Director of Events. According to the Development Director, these three positions are limited-tenure positions that will be eliminated once the capital campaign has been completed. The FY 1998-99 budget for Phase II Capital Campaign fundraising activities is \$480,000 (including personnel and the \$144,000 offset for the operating budget).

¹ The \$14.2 million cited in Section 3.1 as the amount collected thus far in the Capital Campaign was provided by the Zoo in accordance with accounting principles that exclude contingency and verbal pledges, and was the amount collected as of June 30, 1999.

Evaluating the Zoo's Fundraising Efforts

Memberships

Memberships are considered to be the foundation of support for zoos and other non-profit organizations. Once the Zoological Society converts a visitor to a member, that member becomes an important source of revenue for the Zoo through membership dues, contributions and member events. In addition, by cultivating relationships with its members over time, the Zoological Society hopes to develop as many members into large donors and Board members as possible. Thus, recruiting and retaining members is key part of successful fundraising over the long term.

The Zoological Society currently has approximately 29,000 household memberships, an increase of 7.4 percent (1.2 percent annually) from approximately 27,000 memberships in 1993. According to the Membership Director, the Zoological Society retains between 60 and 70 percent of its members annually. Thus, on an annual basis, the Zoological Society must recruit at least 8,700 to 11,600 new members just to maintain the same number of memberships as the year before. New members are acquired primarily through on-site sales at the Zoo's Membership booth, as well as through direct mail campaigns.

As part of the 1996 Strategic Plan, the Zoological Society's success at converting visitors to members was evaluated by comparing the membership attendance ratios of San Francisco Zoo and seven other zoos. The zoos surveyed included four California AZA accredited zoos (Los Angeles, Marine World Vallejo, Oakland and Sacramento), one zoo with a comparable metropolitan service area (Philadelphia), and two zoos with comparable annual attendance (Toledo and Atlanta). The Budget Analyst updated this analysis to reflect 1997 data from a 1998 AZA survey. The results are shown in Exhibit 4.1.1 below.

Exhibit 4.1.1

**Memberships as a Percentage of Annual Attendance,
San Francisco Zoo and Seven Comparable Zoos, 1997**

As shown in Exhibit 4.1.1, while San Francisco Zoo ranks fourth among the eight zoos in converting visitors to members, its membership attendance ratio of 3.3 percent is below the average of 3.6 percent for the seven other zoos. Thus, as also concluded in the 1996 Strategic Plan, there is potential for the Zoological Society to convert a higher percentage of its visitors to members as other zoos have, such as Toledo and Philadelphia.

Fundraising

In FY 1997-98, the Zoological Society received \$4,134,153 in operating revenue through fundraising, memberships, and events. The Zoological Society received 295 individual contributions ranging from \$500 to over \$25,000 in value and 70 corporate and foundation contributions ranging from \$1,000 to over \$50,000 in value. In addition, fundraising events often generate many individual and corporate contributions in addition to the ticket proceeds. The Zoological Society also has a "Monarch Association", which consists of 85 individuals who have included the Zoological Society in their wills.

As part of the 1996 Strategic Plan, the Zoological Society's success at raising funds for the annual operating budget was evaluated by comparing the dollars raised per Development/Membership staff person at San Francisco Zoo and eight other zoos,

based on 1995 data. The zoos surveyed included Portland, Brookfield (Chicago), San Diego, St. Louis, Cincinnati, Bronx, Lincoln (Chicago), and Phoenix. The results showed that between \$133,000 (Phoenix Zoo) and \$700,000 (Portland Zoo) was raised per staff person, with an average of \$357,000 per staff person, compared to \$266,000 per staff person at San Francisco Zoo. Based on the Zoological Society's audited FY 1998-99 financial statements, revenues from contributions, bequests, membership dues, and fund raising and events, each Development/Membership staff person currently raises an average fundraising of \$422,370.

Return on Investment

One way of evaluating the Zoological Society's performance in fundraising and development is to examine return on investment (ROI), which represents revenue as a percentage of expenses. Based on our research, we identified the following recommended minimum returns on investment for three major categories of fundraising: (a) Memberships – 288 percent, (b) Events – 200 percent, and (c) Major Gift Fundraising – 500 to 550 percent.² The Zoological Society's actual returns on investment for FY 1993-94 through FY 1997-98 for each of these activities are shown in Table 4.1.5 below. It should be noted that the amounts shown under "Expenses" in Table 4.1.5 include allocated administrative costs in order to more accurately reflect the true costs of each of these activities.

Table 4.1.5

Zoological Society Returns on Investment for Fundraising Activities, FY 1994-95 through FY 1998-99

	1997-98 Actual	1996-97 Actual	1995-96 Actual	1994-95 Actual	1993-94 Actual
MEMBERSHIP					
Revenues	\$ 1,468,542	\$ 1,427,557	\$ 1,442,214	\$ 1,377,622	\$ 1,242,419
Expenses	\$ 933,024	\$ 1,001,692	\$ 1,325,750	\$ 1,326,528	\$ 1,180,774
Return on Investment	157.4%	142.5%	108.8%	103.9%	105.2%
EVENTS					
Revenues	\$ 733,266	\$ 449,097	\$ 441,994	\$ 357,460	\$ 358,326
Expenses	\$ 414,719	\$ 392,963	\$ 336,583	\$ 295,469	\$ 209,664
Return on Investment	176.8%	114.3%	131.3%	121.0%	170.9%
FUNDRAISING					
Revenues	\$ 1,932,345	\$ 1,797,537	\$ 975,188	\$ 1,771,643	\$ 1,078,278
Expenses	\$ 247,459	\$ 307,861	\$ 277,079	\$ 162,037	\$ 189,244
Return on Investment	780.9%	583.9%	352.0%	1093.4%	569.8%

² Adapted from "ROI Analysis", published by the Nonprofit Management Group of Baruch College of the City University of New York (CUNY), 1993.

As shown in Table 4.1.5, the returns on investment for Membership and Events have been well below the industry standards of 288 percent and 200 percent, respectively, in each of the past five fiscal years, indicating that the Zoological Society may be incurring excessive costs for these two activities. On the other hand, Major Gift Fundraising has had returns on investment that have been above the industry standard of 500 to 550 percent for the past two fiscal years. In response to the Budget Analyst's ROI analysis, Zoo management has stated that the Zoo's allocation of overhead expenses to the Development Department has been more than is warranted and with proper allocation, the ROIs for Membership and Events exceed industry standards.

The Budget Analyst also examined the returns on investment for specific events in order to identify whether certain events were more profitable than others. We found that three events, Zoo II Lion House Party, Zoo Run and Zoo Fest, have consistently had returns on investment that were below the industry standard of 200 percent. In fact, according to the Events Director, Zoo Run was discontinued in FY 1998-99 precisely for this reason. On the other hand, Twilight Safari, Sex Tour, and Zoo Fest for Kids have generally had returns on investment in excess of 200 percent. Based on this information, the Zoological Society should continue to evaluate whether certain events should be discontinued due to their lack of profitability, or if there is any potential to reduce costs or increase revenue for these events in order to improve their returns on investment.

Lastly, the Budget Analyst examined returns on investment for the Zoological Society's capital fundraising campaigns, including the Founder's Fund and the Phase II Capital Campaign. Based on actual fundraising expenditures of \$574,349 and revenues of \$13,064,557 between FY 1992-93 and FY 1995-96, the Zoological Society had a return on investment of 2,275 percent for its fundraising activities related to the Founder's Fund. Based on projected fundraising expenditures of approximately \$2,059,912 (based on actual fundraising expenditures through April 1, 1999) and projected revenues of \$25 million, the Zoological Society will have a return on investment of approximately 1,214 percent for its fundraising activities related to the Phase II Capital Campaign. As such, it appears that the Zoological Society is well above the industry standard of 550 percent in its capital fundraising activities.

Suggestions for Reducing Costs

While the Development Department appears to be meeting its fundraising goals in general, there is still potential for improvement in certain areas. Based on our discussions with Zoological Society personnel and our examination of the Department's staffing levels and line item expenditures, we have identified the following areas where costs could be reduced in the Development Department:

- According to Development staff, the San Francisco Zoo is somewhat unique in that it has Events staff dedicated solely to organizing and producing events. In other organizations, events are often organized and produced by fundraising staff and/or third party contractors. As such, we recommend that one Events position (the Associate Director of Events) be eliminated and that part of the responsibility for organizing and producing events be transferred to existing staff in the Fundraising and Membership Programs. Eliminating this position would result in annual savings in salaries and fringe benefits of approximately \$39,752.
- Based on our review of staff functions in the Membership Program, we recommend dividing and transferring the current duties of the Associate Membership Director, which include oversight of the Adopt-an-Animal Program and the planning of member events, among the three existing full-time Membership Assistants, and eliminating the Associate Membership Director position. This would result in savings in salaries and fringe benefits of \$41,639 annually.
- Through vendor discounts, there may be opportunities to consolidate and reduce printing, design, postage and office supply costs, which are spread throughout several programs and line items in the Development Department's budget. Reducing these costs, which total \$265,525 for FY 1998-99, by 10 percent would result in savings of approximately \$27,000 per year.

Implementing the above recommendations would result in savings of \$108,391 annually and would improve the profitability and performance of the Zoological Society's Development programs.

CONCLUSIONS

We found that, in general, the Development Department has been able to meet its fundraising goals for annual operating expenses. The Zoological Society has raised approximately \$21 million of the \$25 million required for capital improvements under the lease agreement.

There is potential for improvement in certain areas. For example, there is potential to improve the Zoological Society's performance in recruiting and retaining members. There are also indications that the Department may be overstaffed and/or that staff members are not generating as much revenue as would be expected. Also, costs for certain fundraising activities are excessive.

The Zoological Society should implement cost reduction measures, including eliminating one Events staff position and the Associate Membership Director position, and continue to evaluate the profitability of certain events in order to

determine whether there is potential to reduce costs or increase revenues, or whether they should be discontinued.

The implementation of our recommendations would result in savings of approximately \$108,391 annually and would improve the profitability and performance of the Zoological Society's Development programs.

RECOMMENDATIONS

The Zoological Society should:

- 4.1.1 Implement measures to improve and evaluate member recruitment and retention.
- 4.1.2 Implement cost reduction measures in the Fundraising, Membership and Events Programs as recommended in this section.
- 4.1.3 Continue to evaluate the profitability of certain events to determine whether they should be discontinued, or if there is any potential to reduce costs or increase revenues for these events. Zoo management has advised the Budget Analyst that all events are periodically reviewed in order to evaluated their profitability.

COSTS/BENEFITS

Implementation of the recommendations in this section would result in savings of approximately \$108,391 annually and would improve the profitability and performance of the Zoological Society's Development programs.

Section 4.2: Marketing & Public Relations

- ♦ The Zoo Society spent over \$4.2 million on marketing over the past six years, and its marketing budget increased by 136 percent (27 percent annually) between FY 1993-94 and FY 1998-99.
- ♦ During the same time period, attendance increased by only 19 percent (3.8 percent annually). In addition, in two years when marketing expenditures increased, attendance decreased, and in another year when marketing expenditures declined, attendance increased.
- ♦ Moreover, in the late 1980s, when the Zoo did not have a marketing budget, there were some years in which attendance exceeded 1,000,000 visitors versus the actual attendance of 842,958 visitors for FY 1998-99.
- ♦ Since large marketing expenditures do not necessarily result in increased attendance, the Zoo Society should limit its marketing budget to 5.0 percent of annual operating expenses.
- ♦ The Zoological Society should ensure that the corporate sponsorship program is consistent with its mission of conservation, education, and recreation. Zoo management has advised the Budget Analyst that each corporate sponsorship program is reviewed to insure its compatibility with the Zoo's mission.

As part of our performance audit of the San Francisco Zoological Gardens, we examined the Zoological Society's marketing and public relations program in order to evaluate whether its objectives, use of media, and staffing levels were consistent with best practices and with marketing and public relations practices at similar organizations.

To accomplish these objectives, we:

- Interviewed personnel in the Marketing Department, including the Marketing Director and the Director of Public Relations;
- Reviewed key Marketing Department documents such as publicity reports, marketing strategic plans, media timelines, newsletters, advertising contracts, and other documents.

- Examined budgeted and actual expenditures for the Marketing Department for the current and past five fiscal years;
- Reviewed performance measures such as attendance records and visitor survey results in order to evaluate the impact of marketing expenditures; and
- Conducted research of marketing practices at comparable zoos and other similar organizations.

Background

Marketing and public relations for the Zoo have been the responsibility of the Zoological Society since even before the public-private partnership between the City and the Zoological Society was created in 1993. The Zoological Society hired its first Marketing/Public Relations Director in 1993. In 1994, the functions of marketing and public relations were separated when the Zoo Society added a second position, a Public Relations Director. A third position, a Marketing Communications Manager, was also added at that time. In 1999, the Marketing Department still consists of the same three full-time positions. In addition, the Zoo Society has a Graphics Curator, who dedicates a portion of her time to designing graphics and published materials for the Marketing Department.

The responsibilities of the Marketing Director include developing marketing plans, creating and implementing advertising campaigns and promotions, and cultivating corporate sponsorships. The Marketing Director reports directly to the Director of Development. The Public Relations Director, who reports to the Marketing Director, is responsible for maintaining relationships with the media, arranging media events, writing press releases, tracking Zoo publicity, and other duties. The Marketing Communications Manager, who also reports directly to the Marketing Director, is the editor of *Zoo Views*, the Zoo's quarterly membership publication, and is responsible for designing and maintaining the Zoo's map and website.

The goal of marketing is specifically to increase attendance. While the goal of public relations is primarily to create awareness and to build the Zoo's image, positive publicity, such as feature news stories on new or popular Zoo exhibits, can boost attendance as well. The main difference between the marketing and public relations functions is that marketing utilizes mostly paid advertising to attract attention, while the exposure obtained through public relations is free of cost. For instance, in FY 1997-98, the Zoo was featured in (a) 146 stories in the *San Francisco Chronicle* and *Examiner* newspapers, (b) 149 news stories on television; (c) two *National Geographic Specials*; (d) six books; and (e) four special productions, including a Disney film. This publicity, although not always positive, was free to the Zoo (except for the salary and benefits of the Public Relations Director).

The Marketing Department attempts to meet its objectives in a variety of ways, including:

- Extensive print, outdoor, television and radio advertising (paid and donated) to promote special exhibits, events and/or the Zoo in general;
- Obtaining exposure in local media through feature stories and other media coverage;
- Obtaining sponsors for special exhibits, events and other activities held at the Zoo throughout the year;
- Holding marketing events, aimed to boost attendance during off-peak periods (e.g., "Fall Fest" in September, 1998, "Boo at the Zoo" in October, 1998, and the Gorilla Naming Contest in November, 1998);
- Creating a unified visual identity and packaging for on-site graphics, published materials and advertising.

Evaluating the Impact of Marketing Expenditures

The Marketing Department's budgeted and actual expenditures from FY 1993-94 through FY 1997-98 are shown in Table 4.2.1 below:

Table 4.2.1
Marketing Department Budgeted vs. Actual Expenditures,
FY 1993-94 through FY 1997-98

	<u>Budgeted</u> <u>Expenditures</u>	<u>Actual</u> <u>Expenditures</u>	<u>Variance</u>	<u>% Over/</u> <u>Under</u> <u>Budget</u>
FY 1997-98	\$ 861,280	\$ 853,190	\$ 8,090	-0.9%
FY 1996-97	\$ 456,180	\$ 743,808	\$ (287,628)	63.1%
FY 1995-96	\$ 859,125	\$ 794,318	\$ 64,807	-7.5%
FY 1994-95	\$ 489,234	\$ 606,104	\$ (116,870)	23.9%
FY 1993-94	\$ 280,200	\$ 374,902	\$ (94,702)	33.8%
Average	\$ 589,204	\$ 674,464	\$ (85,261)	22.5%

As indicated in the table above, the Marketing Department has overspent its original budget and/or received budget increases in three of the past five fiscal years.

The FY 1998-99 budget for marketing is \$885,012. The Marketing Department's line item expenditures from FY 1993-94 through FY 1998-99 (budgeted) are shown in Table 4.2.2 below.

Table 4.2.2
Marketing Line Item Expenditures,
FY 1993-94 through FY 1998-99

	<u>FY 1998-99</u> Budgeted	<u>FY 1997-98</u> Actual	<u>FY 1996-97</u> Actual	<u>FY 1995-96</u> Actual	<u>FY 1994-95</u> Actual	<u>FY 1993-94</u> Actual
Personnel	\$ 178,514	\$ 145,224	\$ 153,909	\$ 151,862	\$ 129,962	\$ 89,738
Advertising	\$ 499,002	\$ 484,233	\$ 379,594	\$ 448,664	\$ 343,820	\$ 142,610
Professional Fees	\$ 72,200	\$ 82,711	\$ 52,651	\$ 21,364	\$ 39,398	\$ 38,818
Printing/Design	\$ 42,000	\$ 42,777	\$ 48,748	\$ 50,427	\$ 43,922	\$ 69,010
Graphics Expense	\$ 40,000	\$ 33,873	\$ 39,495	\$ 51,620	\$ 3,278	\$ -
Public Relations	\$ 15,000	\$ 17,614	\$ 15,978	\$ 12,346	\$ -	\$ -
Photography	\$ 11,000	\$ 10,401	\$ 17,991	\$ 13,736	\$ -	\$ -
Special Events	\$ 2,400	\$ 3,745	\$ 5,631	\$ 4,209	\$ 12,564	\$ 8,974
Miscellaneous	\$ 24,896	\$ 32,612	\$ 29,811	\$ 40,090	\$ 33,160	\$ 25,752
Total	\$ 885,012	\$ 853,190	\$ 743,808	\$ 794,318	\$ 606,104	\$ 374,902

As shown in Table 4.2.2, the Zoo Society spent \$4,257,334 for marketing between FY 1993-94 and FY 1998-99 (budgeted). Marketing expenditures increased by 136 percent overall, or an average of 27 percent per year, between FY 1993-94 and FY 1997-98. The largest increase was in the Zoo Society's first full fiscal year of managing the Zoo, in FY 1994-95, when actual expenditures increased by 62 percent, from \$374,902 to \$606,104. Advertising costs, by far the largest expense (56 percent of current budgeted expenditures), increased by \$356,392 (250 percent or an average of 50 percent annually), from \$142,610 to \$499,002, during the same time period.

Benchmarks

In 1996, the Zoo Society retained the firms of CLRdesign inc., a zoological planning and design firm, and Schultz & Williams, Inc., a marketing and economic analysis firm, to complete a strategic plan for the Zoo. This report stated that zoos with aggressive marketing programs allocate between four and seven percent of their annual operating budgets for advertising expenses.

In addition, as part of that study, four California AZA accredited zoos (Los Angeles, Marine World Vallejo, Oakland and Sacramento), one zoo with a comparable metropolitan service area (Philadelphia), and two zoos with comparable annual attendance (Toledo and Atlanta) were selected as a basis for comparison to San Francisco Zoo. Using data from a 1996 AZA survey, the consulting firms found that the seven comparable zoos spent between 2.3 percent and 12.2 percent of their operating budgets on advertising expenditures, with a median expenditure of 4.2 percent of operating costs. The results of this survey are shown in Table 4.2.3 below:

Table 4.2.3
Advertising Expenditures as Percentage of
Annual Operating Budget at Comparable Zoos¹

Zoo	Percentage
Marine World Africa (Vallejo)	12.2%
Philadelphia Zoo	5.8%
Los Angeles Zoo	4.6%
Sacramento Zoo	3.8%
Toledo Zoo	2.8%
Oakland Zoo	2.3%
Zoo Atlanta	n/a
Median	4.2%

On the contrary, the report stated that San Francisco Zoo spent only 2.0 percent of its operating budget on advertising, therefore implying that San Francisco Zoo is spending less than it should be in these areas. However, this statistic is misleading because it does not take into account the expenditures incurred by zoos for marketing activities other than advertising. For example, the Zoo Society's FY 1998-99 budget includes \$499,002 for paid advertising, which represents 3.7 of the Zoo Society's operating budget. However, the Zoo Society's total marketing budget for FY 1998-99 is \$885,012, or 6.5 percent of operating expenditures. In addition, San Francisco Zoo receives a substantial amount of in-kind (free) advertising and promotion.

In addition, the Budget Analyst contacted the California Academy of Sciences, located in Golden Gate Park, in order to find out how much this organization spends on marketing. The Academy of Sciences reported that its FY 1998-99 budget for marketing is \$589,000, significantly lower than the Zoo's current total marketing budget of \$885,012, while the Academy of Sciences' budgeted FY 1998-99 attendance of 900,000 is slightly higher than the Zoo's budgeted attendance of

¹ 1996 AZA Survey, as cited in CLRdesign inc. and Schultz & Williams, Inc. Strategic Plan, 1997 – 2004, November, 1996, Table 7.

880,000. Also, the Academy of Sciences' marketing budget of \$589,000 (including advertising) represents just 3.3 percent of its overall operating budget.

The Effect of Marketing Expenditures on Attendance

Since the primary goal of marketing is to increase attendance, the Budget Analyst examined the effect of marketing expenditures on Zoo attendance. Table 4.2.4 shows the Zoo's annual attendance from the first fiscal year in which the Zoo Society assumed management of the Zoo (FY 1993-94) through FY 1998-99 (projected).

Table 4.2.4
Annual Attendance at San Francisco Zoo,
FY 1993-94 – FY 1998-99

<u>Year</u>	<u>Attendance</u>	<u>% Change from Prior Year</u>
FY 1993-94	690,145	
FY 1994-95	731,232	6.0%
FY 1995-96	822,465	12.5%
FY 1996-97	870,962	5.9%
FY 1997-98	826,769	-5.1%
FY 1998-99 (Projected)	822,822	-0.5%

As previously noted, marketing expenditures increased by 136 percent (27 percent annually) from FY 1993-94 through FY 1998-99. As shown in Table 4.2.4, during the same time period, attendance increased by approximately 19 percent (an average of 3.8 percent annually).

Exhibit 4.2.1 shows the annual percentage change in marketing expenditures versus the annual percentage change in attendance over the six-year period from FY 1993-94 through FY 1998-99.

Exhibit 4.2.1

Percentage Changes in Marketing Expenditures and Attendance
San Francisco Zoo, FY 1993-94 – FY 1998-99

As illustrated in the graph above, there does not appear to be a strong positive correlation between marketing expenditures and attendance. For example, both marketing expenditures and attendance increased from FY 1993-94 through FY 1995-96, but in FY 1996-97, attendance increased by 5.9 percent despite a reduction in marketing expenditures of 6.4 percent. In FY 1997-98 and FY 1998-99, attendance declined by 5.5 percent overall, despite an overall increase in marketing expenditures of 19 percent. Also, a significant increase (62 percent) increase in marketing expenditures in FY 1994-95 resulted in only a marginal increase in attendance of 6.0 percent in that year.

Some possible explanations for these discrepancies are the effects of weather, publicity, new animal exhibits and other factors on attendance. For example, the Zoo experienced a 30 percent decline in attendance during the third quarter of FY 1997-98 (January through March, 1998), which could be attributable to the effects of El Niño and/or the bad publicity resulting from the proposed admission fee increase. The increases in attendance during FY 1995-96 and FY 1996-97 could be attributed in part to the extensive free publicity that the Zoo received on the June, 1997 bond measure, the white alligator exhibit and the alligator from Mountain Lake Park between April, 1996 and November, 1997. As these examples illustrate,

many factors other than marketing expenditures have an impact on attendance. Thus, it can be concluded that increasing the Zoo's marketing budget will not necessarily lead to an increase in attendance.

This conclusion is further supported by the Zoo's experience with marketing and attendance during the late 1980s. The Zoological Society reports that funding was earmarked for advertising for the first time in FY 1993-94. The Zoo Society reports that, prior to 1993, the Zoo relied primarily on free publicity in order to attract attention and thereby increase attendance. However, despite the lack of funding for marketing and advertising prior to FY 1993-94, the Zoo had some years in which annual attendance exceeded 1,000,000 visitors. Exhibit 4.2.2 below shows the Zoo's annual attendance for the years up through the Zoo Society's takeover in 1993.

Exhibit 4.2.2
Annual Attendance at San Francisco Zoo
FY 1987-88 – FY 1993-94

As shown in Exhibit 4.2.2, attendance was over 1,000,000 from FY 1987-88 through FY 1989-90, peaking at 1,160,000 in FY 1988-89. These were years in which the Zoo Society did not have a separate advertising or marketing budget. The severe decline in attendance in the early 1990s can most likely be attributed to the overall deterioration of the Zoo, rather than to the Zoo's lack of advertising. For example, in 1992, the Zoo was threatened with losing its accreditation from the AZA due to the poor conditions at the Zoo. The publicity surrounding the creation of the public/private partnership between the Zoo Society and the City in 1993 may have

also contributed to poor attendance in the early 1990s. Attendance reached its lowest point in FY 1993-94 with 690,145 visitors.

Therefore, large expenditures on marketing do not necessarily lead to increased attendance. Many other factors, including weather, new animal exhibits, public perception, and the quality of the visitor experience and the animal collection, also significantly impact attendance.

Market Penetration

To compare San Francisco Zoo's attendance and market penetration with that of other comparable zoos, the Budget Analyst updated an analysis completed as part of the above-cited 1996 Strategic Plan. Table 4.2.5 shows the annual attendance, metropolitan service area population, and market penetration rates for San Francisco Zoo and for seven comparable zoos, based on 1997 data from a 1998 AZA survey.

Table 4.2.5
Annual Attendance, Metro Population & Penetration Rates
at San Francisco Zoo and Seven Comparable Zoos, 1997

Zoo	Attendance	Metro Population	% Penetration
Toledo Zoo	802,648	470,000	170.8%
Sacramento Zoo	450,000	1,800,000	25.0%
Zoo Atlanta	688,000	3,000,000	22.9%
Philadelphia Zoo	1,100,000	5,400,000	20.4%
Oakland Zoo	350,000	3,000,000	11.7%
Marine World Africa (Vallejo)	1,100,000	10,000,000	11.0%
Los Angeles Zoo	1,342,000	14,000,000	9.6%
Median			20.4%
San Francisco Zoo	870,962	6,000,000	14.5%

Table 4.2.5 shows that, even though San Francisco Zoo advertises more than most of the seven other zoos, San Francisco Zoo has penetrated only about 14.5 percent of its market, compared to a median of 20.4 percent for the seven other zoos. It is also interesting to note that the zoos that spend the highest percentage of their operating budgets on advertising (Marine World Africa, Los Angeles Zoo and Philadelphia Zoo) have among the lowest penetration rates. In addition, Toledo Zoo, which ranks fifth in terms of advertising expenditures, has the highest market penetration rate. These statistics further indicate that high advertising and marketing expenditures do not always lead to high market penetration.

Visitor Survey Results

The Marketing Department conducts visitor surveys twice per year (one in the spring and one in the summer) in order to collect data on visitor demographics, visitor experience, and many other variables. Some of the questions asked in the survey concern visitors' exposure to the Zoo's advertising. Exhibit 4.2.3 below shows the percentage of respondents and the percentage of Bay Area residents who had recently seen or heard advertising for the Zoo prior to their visit, based on the results from the surveys conducted in August of 1994 through 1998.

Exhibit 4.2.3
% of Visitors Exposed to Zoo Advertising,
1994 - 1998

As shown above, the percentage of respondents who had been exposed to Zoo advertising increased from 25 percent in August, 1994, to 48 percent in August, 1996, but then declined to 28 percent in August, 1997. In August, 1996, 57 percent of Bay Area residents had been exposed to Zoo advertising, but this percentage dropped to 30 percent in August, 1997 and increased to 43 percent in August, 1998. A review of the survey results also showed that television and newspapers seemed to be the most effective means of advertising the Zoo, followed by street banners and billboards.

Again, visitor awareness of the Zoo's advertising campaigns does not correlate well with marketing and advertising expenditures. Advertising and marketing expenditures dropped in FY 1996-97, but 1996 was the year with the highest

number of positive survey responses. Also, despite increased expenditures in FY 1997-98, the percentages exposed to Zoo advertising fell.

Furthermore, the visitor surveys are not necessarily a reliable indicator of how many visitors are exposed to Zoo advertising. When responding to these survey questions, visitors are not required to differentiate between paid advertising and free publicity. Thus, it is possible that many of the visitors who respond positively to having seen Zoo advertising may have in fact seen a feature story in the newspaper or on the news, which would have been free of cost to the Zoo. This is supported by the fact that the Zoo received a great deal of free publicity in August of 1996, the same month in which the highest percentage of visitors and Bay Area respondents had reported seeing or hearing Zoo advertising, concerning the white alligator exhibit and the alligator found in Mountain Lake Park. Moreover, the Zoo receives a substantial amount of free advertising each year (estimated at \$700,000 in FY 1998-99), so it cannot be determined whether the advertising that respondents may have seen was paid or free advertising. Therefore, even if a large percentage of survey respondents consistently claimed that they had seen Zoo advertising, this would not necessarily prove the effectiveness of paid advertising and would not warrant an increase in the Zoo's advertising budget.

Placing a Limit on Marketing Expenditures

The Zoo Society's significant increase in marketing expenditures over the past six years did not result in consistent and significant increases in annual attendance. Nonetheless, a marketing program is still a necessary part of improving the public's perception of the Zoo. A marketing program will be especially important over the next several years as the capital program gets underway, as the promotion of the Zoo's new and upgraded exhibits will be needed in order to attract visitors and help restore attendance to its former levels of over 1,000,000 annually. Moreover, it could be argued that marketing has a latent effect on its audience, i.e., providing consistent and repeated exposure to advertising and promotional campaigns over a long period of time may lead to more significant increases in attendance over the long term. Lastly, advertising in the form of billboards and regular print ads has more of a long-lasting effect than one-time television or newspaper stories, since this type of advertising results in consistent and repetitive exposure.

However, there are many factors other than advertising that affect attendance, such as weather, free publicity, past visitor experience, and overall public perception. Since increasing marketing expenditures is not a proven way of increasing attendance, it would be prudent to place a limit on how much of the Zoo Society's operating budget is allocated to marketing. The Budget Analyst recommends that the Zoo Society limit marketing expenditures to 5.0 percent of the Zoo Society's total operating budget.

The Zoo's FY 1998-99 annual budget for marketing of \$885,012 represented 6.5 percent of its operating budget of \$13,666,914. However, as reported by Zoo management, the \$885,012 figure includes funding for Graphics (\$40,000) and Professional Fees (\$72,200) that are not related to Marketing activities. Excluding those activities from the Marketing budget results in a Marketing budget of \$772,812. In order to reduce this percentage to 5.0 percent or approximately \$683,346, the Zoo Society would have to implement some cost-cutting measures. The Budget Analyst has the following suggestions:

- Certain functions performed by the three existing Marketing positions could be eliminated or transferred to other Zoo departments in order to allow the elimination of one of these three positions. In addition, certain extensive management reports completed by the Public Relations Director, such as the Annual Publicity Report, do not provide much value and should no longer be completed.
- The Zoo Society should consider conducting visitor surveys only once per year rather than twice per year. In addition, there may be other opportunities to consolidate and reduce printing and design costs, which are spread throughout several line items in the Marketing Department's budget.

Reducing marketing expenditures to 5.0 percent of the Zoo Society's annual operating budget would result in savings of approximately \$89,466 per year. As of the writing of this report, the Zoo Society had reported that its FY 1999-00 marketing budget represented 5.0 percent of the Zoo Society's total operating budget. Nonetheless, the cost reduction measures noted above should still be implemented.

Corporate Sponsorships

Another responsibility of the Marketing Department is to obtain corporate sponsorships for the Zoo. Corporate sponsors agree to provide funding for new exhibits, maps, membership newsletters, signs, and banners, in return for free exposure through the Zoo's sponsorship recognition programs. In FY 1997-98, the Zoo Society raised \$297,575 through corporate sponsorships. The Zoo Society's FY 1998-99 budget for sponsorship revenue is \$250,000. The Zoo Society has a sponsorship consultant, who receives up to 10 percent of sponsorship revenue for each new sponsor it attracts. The Zoo currently has 17 corporate sponsors, including well-known companies such as Ford Motor Company, Eastman Kodak Company, Mervyn's, Haagen-Dazs, Pepsi-Cola, and See's Candies. At the writing of this report, the Zoo Society reported that the corporate sponsorship program was being transferred to the Development Department.

The updated Strategic Financial Plan completed by Schultz & Williams in March, 1998 stated that “corporate sponsorships and marketing partnerships represent one of the single largest revenue opportunities that remain untapped by zoological institutions.” While this may be true, the Zoo should also be careful not to appear as if it is overly exploiting its resources or that it is attracting corporate sponsors whose images may not be consistent with the Zoo’s stated missions of habitat preservation, environmental education and conservation. This could lessen the visitor experience and worsen the Zoo’s public perception. As such, the Zoo Society should ensure that the corporate sponsorship program is consistent with its mission.

CONCLUSIONS

The Zoo Society spent over \$4.2 million on marketing over the past six years, and its marketing budget increased by 136 percent (27 percent annually) between FY 1993-94 and FY 1998-99.

During the same time period, attendance increased by only 19 percent (3.8 percent annually). In addition, in two years when marketing expenditures increased, attendance decreased, and in another year when marketing expenditures declined, attendance increased.

Moreover, in the late 1980s, when the Zoo did not have a marketing budget, there were some years in which attendance exceeded 1,000,000 visitors versus actual FY 1998-99 attendance of 842,958 visitors.

Since large marketing expenditures do not necessarily result in increased attendance, the Zoo Society should limit its marketing budget to 5.0 percent of annual operating expenses. This would save over \$89,466 annually. In addition, the Zoo Society should ensure that its corporate sponsorship program is consistent with its mission.

RECOMMENDATIONS

The Zoological Society should:

- 4.2.1 Limit marketing expenditures to no more than 5.0 percent of its annual operating budget.
- 4.2.2 Implement cost-cutting measures in its Marketing Department in accordance with the guidelines in this report.
- 4.2.3 Ensure that the corporate sponsorship program is consistent with the Zoo Society's mission.

COSTS/BENEFITS

Establishing a 5.0 percent limit on marketing expenditures would enable the Zoo Society to reduce expenditures by approximately \$89,466. It cannot be determined how a reduction in marketing expenditures would affect annual attendance, given that there does not appear to be a correlation between marketing expenditures and attendance. Nonetheless, if the Zoo Society focuses its efforts more on obtaining free advertising and publicity, as recommended in this report, there could be a minimal or even a positive effect on attendance.

Section 4.3: Cash Handling

- ♦ The Budget Analyst audited the procedures employed by the Zoo to ensure the security of cash and cash handlers. In general, we found that those procedures need to be significantly improved. We have provided Zoo management with our recommendations concerning safety and security of cash handling operations on a confidential basis in order to prevent sensitive information from being made public. Zoo management has provided the Budget Analyst with a set of actions that have been and will be taken to increase the security of cash handling operations.
- ♦ The Zoo's Cash Handling Manual defines a cash overage or underage as 1) a deviation of more than \$5 from the amount of sales recorded on the cash register, or 2) a one percent deviation from the amount of sales recorded on the cash register. Our review of cash handling revealed that for the month audited, 81 of 577 cash register tallies, or approximately 14 percent, resulted in cash overages or underages. Further, only 46 percent of the underages and overages resulted in issuance of a Cash Handling Notification, although procedures provide that every cash overage or underage should result in a Cash Handling Notification.
- The Zoo Cash Handling Manual we originally audited was not current and consistent, nor was there a control in place to ensure that each Cash Handler received a Cash Handling Manual. During the course of this performance audit, Zoo management developed a new Cash Handling Manual that meets auditing standards and has instituted a control to ensure that the Cash Handling Manual is issued to all Cash Handlers.
- The Budget Analyst conducted audit tests to evaluate the following cash handling operations for September 1998:
 - Reconciled cash receipts to bank deposits, computer summaries of cash received, and bank deposit statements;
 - Reconciled Daily Sales Summaries to the General Ledger and to the Zoo's financial statements;
 - Traced the opening statement balance to the ending balance on the prior checking account reconciliation. Traced deposits in transit on prior reconciliations to deposits on the current statement.No irregularities were noted as a result of the foregoing audit tests.

As part of our performance audit of the San Francisco Zoological Gardens, we examined the Zoological Society's cash handling activities of the Visitor Services Sections of the Zoo to determine whether the Zoo's cash handling policies and procedures provide adequate control over the handling, safeguarding, and recording of cash collections and to determine whether those policies and procedures are being followed at the cash handling locations throughout the Zoo and at the Cash Control site.

To accomplish these objectives, we:

- Reviewed policy statements, flow charts, and written procedures for the Zoo's Cash Handling function;
- Observed cash handling activities;
- Examined Daily Summary written entries to note any adjusted entries without proper justification;
- Compared statistics on cash receipts and sales per monthly summaries to determine whether they balance to the financial statements;
- Traced daily deposits and transfers on bank statements to summaries of cash receipts, sales, and statistics;
- Traced checking account opening statement balances to the ending balances on prior reconciliations.

Background

Cash handling operations at the Zoo are divided into two different revenue sources, with the following expected revenues for FY 1998-99:

Visitor Services	\$6,932,139
Development Department	<u>4,288,525</u>
Total	\$11,220,664

Visitor Services cash collection activities include the sale of admission tickets, concession tickets, food, and gifts. Development Department cash collection activities include 1) membership sales; 2) receipt of estate bequests and corporate, foundation, and individual donations; and 3) sale of Adopt-an-Animal memberships. Only a small percentage of the Development Department transactions involve currency.

The scope of this cash-handling audit was confined to cash collections, deposits, and security. Cash was considered to be any type of payment for goods or services, including coin, currency, checks, money order, or credit card.

The Visitor Services functions is organized in to five service areas, as follows:

Food Services
Merchandise
Children's Ticket Booth
Admission Gates
Administration

The service areas are staffed by 72 full-time and 23 part-time positions. Of these 95 total positions, 85 positions are Cash Handlers involved in sales to Zoo visitors.

The Zoo's Finance Director has primary management and oversight responsibility for cash handling at the Zoo.

Policies and Procedures

The Zoo has a Cash Handling Manual that provides procedures for cash handling at the following sites: Food Services, Merchandise, Children's Ticket Booth, and Admission Gates. Although the Manual contains an easy-to-read, generally sound set of cash handling procedures, improvement is needed in the following areas:

- Food Services, unlike the other cash handling sites, does not require the customer's signature on the cash register receipt in the event of a refund;
- The procedures for charge card refunds only address Merchandise sites, and not the sites of the other three customer cash handling sections;
- The procedures for overages apply only to Food Services sites;
- The procedure for endorsement of checks is written only for Merchandise sites;
- Procedures for customer claims of incorrect change apply only to Food Services sites;
- The procedure requiring that all receipts from voided sales and refunds are to be bound with a rubber band and turned into the Visitor Services office in the cash bag applies to all of the sales sites except the Children's Zoo Ticket Booth.
- Procedures do not address cash handling requirements for the Carousel.

We found that the Cash Handling Manual had not been widely distributed among the managers of the cash handling sites or among the cash handlers. In fact, the acting Food Service Manager, who is also the Operations Manager, and the Gift Shop Manager were unaware of the existence of the Manual. Further, these two managers have stated that the Cash Handling Manual had not been issued to any

new employee under their control since the last cash-handling workshop, which they believe occurred sometime in 1997.

All Zoo employees who participate in cash handling should be issued a Cash Handling Manual that has been updated to incorporate the above noted improvements and afforded the opportunity to receive answers to questions concerning the various procedures contained therein, including emergency procedures.

We recommend that Zoo management hold a workshop on cash handling, issue each employee involved in cash handling a Manual, and institute procedures that each new employee is issued a manual and has the opportunity to learn correct cash handling procedures.

Cash Register Procedures

The Cash Handling Manual requires that a receipt is to be given to each customer who makes a purchase. However, based on our observations, we determined that Cash Handlers do not consistently issue a receipt to customers for purchases. The purpose of issuing a receipt to customers for purchases is to reduce the risk of 1) employees pocketing funds and 2) customers being short-changed. According to the Zoo's Finance Director, Zoo management recognizes employees are not consistently providing cash receipts, and that several control measures are being developed to deal with the problem. In particular the Finance Director stated that signage will be posted to inform customers that they will receive a free product if they do not receive a receipt with their purchase.

Following the Cash Handling workshop previously recommended, we recommend that Zoo management institute the control of informing Zoo visitors that if a Cash Handler does not provide the visitor with a receipt at the time of purchase, the visitor will be given a free product.

The Cash Handling Manual defines a cash underage or overage as 1) a deviation of more than \$5 from the amount of sales recorded on the cash register, or 2) a one percent deviation from the amount of sales recorded on the cash register. In order to determine the magnitude of cash variances, we reviewed the results of the cash tallies for September 1998. We determined that 81 of the 577 cash register tallies during the audit period, or 14 percent, reported cash count variances (either an overage or an underage). The total amount of underages was \$915.14 and the total amount of overages was \$460.88. A total of 41 different Cash Handlers were responsible for the cash variances.

To reduce the incidence of cash count variances, we recommend that Zoo management institute the following controls:

- Conduct unannounced mid-day audits of registers;
- Consider placing video cameras at strategic cash handling points, as is done at the Oakland Zoo.

The Cash Handling Manual states that cash handlers are to receive a Cash Handling Notification, which is a warning of violation, for each underage or overage. In order to determine whether this control was being practiced, we reviewed the file containing the Cash Handling Notifications for September 1998. We determined that of the 81 cash variances for that period, only 37 Cash Handling Notifications had been issued, which is approximately 46 percent of the total cash variances.

Cash handling managers, when informed about the disparity between cash variances and Cash Handling Notifications, stated that cash variances are often due to faulty register keys and honest mistakes. However, no documents exist to account for such occurrences when cash variances exist.

We recommend that Zoo management follow the cash handling procedures requiring that a Cash Handling Notification be issued for each cash variance, or that notation be made to the cash handling file explaining that the cash variance was due to an equipment problem or other extenuating circumstance.

Security Procedures During Transport of Funds To and From the Cash Control Site and at the Cash Control Site

The Budget Analyst audited the procedures employed by the Zoo to enhance the security of cash. In general, we found that those procedures need to be significantly improved. We have provided Zoo management with our recommendations concerning safety and security of cash handling operations on a confidential basis in order to ensure that sensitive information that could possibly be detrimental to the safety and security of its employees involved in cash handling is not made available to aid any unauthorized or unlawful action concerning its cash handling operations

Cash Reporting

The Budget Analyst conducted audit tests to evaluate the following cash handling operations for September 1998:

- Reconciled cash receipts to bank deposits, computer summaries of cash received, and bank deposit statements;

- Reconciled Daily Sales Summaries to the General Ledger and to the Zoo's financial statements;
- Traced the opening statement balance to the ending balance on the prior checking account reconciliation. Traced deposits in transit on prior reconciliations to deposits on the current statement.

No irregularities were noted as a result of the foregoing audit tests.

CONCLUSIONS

The Budget Analyst audited the procedures employed by the Zoo to ensure the security of cash and cash handlers. In general, we found that those procedures need to be significantly improved. We have provided Zoo management with our recommendations concerning safety and security of cash handling operations on a confidential basis in order to prevent sensitive information from being made public. Zoo management has provided the Budget Analyst with a set of actions that have been and will be taken to increase the security of cash handling operations.

Zoo Cash Handlers do not consistently provide customers with purchase receipts, increasing the possibility of an irregularity.

The Zoo's Cash Handling Manual defines a cash overage or underage as 1) a deviation of more than \$5 from the amount of sales recorded on the cash register, or 2) a one percent deviation from the amount of sales recorded on the cash register. Our review of cash handling revealed that for the month audited, 81 of 577 cash register tallies, or approximately 14 percent, resulted in cash overages or underages. Further, only 46 percent of the underages and overages resulted in issuance of a Cash Handling Notification, although procedures provide that every cash overage or underage should result in a Cash Handling Notification.

The Zoo Cash Handling Manual we originally audited was not current and consistent, nor was there a control in place to ensure that each Cash Handler received a Cash Handling Manual. During the course of this performance audit, Zoo management developed a new Cash Handling Manual that meets auditing standards and has instituted a control to ensure that the Cash Handling Manual is issued to all Cash Handlers.

RECOMMENDATIONS

The Zoological Society should:

- 4.3.1 Update the Cash Handling Manual to incorporate needed improvements cited in this audit report section.
- 4.3.2 Hold a workshop on cash handling, issue each employee involved in cash handling a Cash Handling Manual, and institute procedures that each new employee is issued a manual and has the opportunity to learn correct cash handling procedures.
- 4.3.3 Following the Cash Handling workshop previously recommended, institute the control of informing Zoo visitors that if a Cash Handler does not provide the visitor with a receipt at the time of purchase, the visitor will be given a free product.
- 4.3.4 Follow the cash handling procedures requiring that a Cash Handling Notification be issued for each cash variance, or that notation be made to the cash handling file explaining that the cash variance was due to an equipment problem or other extenuating circumstance.
- 4.3.5 The Zoological Society's financial auditors should review the implementation of increased cash handling safety and security as part of their audit of internal controls.

COSTS/BENEFITS

The recommendations contained in this section will enhance cash handling controls. Enhancing the security and safety of the cash handling operation will require some costs. However, the benefit of safety and security enhancement far outweigh the cost of reasonable measures that can be taken.

Section 4.4: Purchasing

- ♦ The Zoo has a rudimentary purchasing system, with the only significant control being payment for goods and services. Functional managers, such as the Commissary Manager (Animal Food), the Merchandise Sales Manager, and the Food Services Manager all order, receive, and authorize payment for goods from various vendors of their selection, primarily without contracts. This is a fundamental violation of the “separation of duties” internal control principle.
- ♦ The primary control over the purchasing system, authorization for payment, is exercised by the Finance Director, who until very recently also had primary staff responsibility for the purchasing function. This also is a fundamental violation of the “separation of duties” internal control principle.
- ♦ The Zoo does not have a purchasing policy and procedures manual that provides rules and guidance on economic quantity ordering, documentation requirements, inventory requirements, internal control requirements, and which also includes a purchasing “code of ethics.”
- ♦ According to the Zoo’s new Deputy Director, who has recently assumed responsibility for the management of purchasing, the Zoo will transition to a formal purchasing system, with centralized ordering, commencing upon completion of the new Zoo warehouse, which is scheduled for completion in late 2000.

As part of our performance audit of the San Francisco Zoological Gardens, we examined the Zoological Society’s system for purchasing materials and supplies, animal food, merchandise for resale, and restaurant food items in order to determine whether the controls over the purchasing system are reasonably adequate.

To accomplish these objectives, we:

- Interviewed the Zoo managers who are involved in the procurement of goods including the Finance Director, the Merchandise Sales Manager, the Commissary Manager (for animal food), the Food Services Manager, and the Zoo’s Deputy Director.

- Reviewed the methods used by the managers to select vendors, place orders, and submit invoices to Finance for payment.
- Reviewed prices paid for selected items to prices paid for like items by the City Purchasing Department in order to determine whether there are opportunities for savings by the Zoo.

Current Purchasing System

The Zoo purchases goods in the categories and approximate amounts shown in Table 4.4.1, on an annual basis. Each individual manager who receives goods from an outside vendor orders such goods, annotates the invoice with the account to be charged, and transmits the invoice to the Finance Department for payment. Thus, the Commissary Manager orders, receives, and authorizes payment for animal food, the Food Services Manager orders, receives, and authorizes payment for food items, etc. Proper internal purchasing controls require separation of ordering, receiving, and payment responsibilities.

The Zoo does not have a policies and procedures manual which would establish general policies for selecting vendors, determining economic ordering points, etc., and describing how the system is to work. We recommend that the Zoo develop a purchasing policies and procedures manual that covers the foregoing purchasing activities and that also covers contract documents, internal control requirements, documentation requirements, inventory requirements, and a code of ethics.

Table 4.4.1

Categories of Goods and Supplies and Amounts Ordered Annually

<u>Category</u>	<u>Amount</u>
Office Supplies	\$78,535
Computer Supplies	2,400
Other Supplies	45,814
Printing/Design Supplies	323,051
Building Materials	200,654
Animal Supplies	<u>480,649</u>
Total	\$1,131,103

Although there are some contracts with vendors for goods, such as for some Food Services needs, the large majority of the Zoo's purchasing needs are satisfied by vendors without contracts. Some of these purchasing relationships have existed for many years. We recommend that the Zoo review these long-standing relationships

to determine whether prices, quality, and delivery/shipment services are competitive with the market and to establish contracts where such contracts would be beneficial.

Controls Over Purchasing

A formal purchasing system, such as that used by the City, employs strict separation of the primary duties of placing orders, receiving goods, and effecting payment as a preventive control to provide reasonable assurance that no one individual will defraud the organization. However, controls have costs, and with smaller organizations, such as with the Zoo, it is often necessary to combine some duties and employ compensating controls, such as close supervision and unannounced audits, to lessen the opportunities for irregularities.

At the outset of our audit, the Zoo's purchasing function was the primary staff responsibility of the Director of Finance, who is also one of the authorized signatories in the Zoo's system of requiring dual signatures on checks. Combining those responsibilities in one staffperson unnecessarily, in our opinion, violates the separation of responsibilities control. As of the writing of this report, primary staff responsibility for the Zoo's purchasing has been assumed by the recently appointed Deputy Director.

Prices Paid for Goods

In order to determine whether there are opportunities for price savings in Zoo purchasing, we asked the City's Purchasing Department to review a sample of the prices paid by the Zoo for a variety of food items. That review, as shown below in Table 4.4.2, reveals that in some cases the City is obtaining better prices than the Zoo, and vice versa.

Table 4.4.2
Food Pricing Comparison

<u>Description</u>	<u>Zoo Price</u>	<u>CCSF Price</u>	<u>CCSF Details</u>
Burgers	\$37.80/cs	\$1.41/lb	80% lean USDA Choice, Round
Bacon	26.90/cs	2.19/lb	sliced, skinless, 16-18 slices/lb
Hot Dogs	15.35/cs	1.70/ lb	all beef, < 20% fat, 8 links/lb
Mixed Vegetables	21.80/cs	15.88/cs	20 lb/cs, grade A
Hamburger Buns	.89/pkg	.95/pkg	12 count/ egg type
Hot Dog Buns	1.00/pkg	1.68/pkg	12 count/ egg type
Oranges	13.48/cs	15.00/cs	113 count/ choice
Apples	13.21/cs	16.00/cs	113 count/ red delicious
Strawberries	13.50/cs	9.00/cs	#1 table, 12 pints/cs
Grapes	10.00/cs	17.00/cs	Table Seedless Red
Bananas	.83/lb	12.50/cs	Roughly 40 lb/cs, green tip

We have included prices for commodities based on disparate sizes in some cases, such as cases versus pounds, since the Zoo can obtain quotes based on the quantities used by the City. Some of the price differences of like measures may be due to differences in quality. However, we believe that the Zoo may be able to achieve some savings by comparing its purchasing requirements to like commodities procured by the City and taking the necessary steps to obtain better prices, where applicable. For those commodities not procured by the City, such as some types of animal food, we recommend that the San Francisco Zoo check its prices with those obtained by the Oakland Zoo or with another zoo.

A New Purchasing System

The position of Deputy Director/Chief Operating Officer, which had been vacant for more than one year, was recently filled. The incumbent, who has a background in administration and operations, has begun to implement new methods and procedures to strengthen the Zoo's operations. According to the Deputy Director, the Zoo plans to centralize the purchasing system as soon as planned facilities are completed to accommodate centralized ordering, receiving/quality assurance, and warehousing. The Deputy Director believes that a purchasing position created to perform those functions would pay for itself, and we agree that such a centralized purchasing system would be a significant improvement over the existing purchasing system.

CONCLUSIONS

We found that the Zoo has a primitive purchasing system that has worked reasonably well but lacks controls to provide reasonable assurance that irregularities or fraud will not occur or that optimal prices, quality of goods, and delivery/shipment services are being obtained.

According to the Zoo's Deputy Director, the Zoo intends to transition to a centralized purchasing system, which should, in our opinion, significantly improve the Zoo's purchasing function.

The Zoo Society should implement the recommendations made in this section, which are enumerated below.

RECOMMENDATIONS

The Zoological Society should:

- 4.4.1 Establish a formal purchasing system with written procedures and with a Zoo employee responsible for placing purchase orders based on valid purchase requisitions and economic order quantities for common items.
- 4.4.2 Review major recurring supply requirements and establish contracts with vendors, where such contracts would be beneficial to the Zoo.
- 4.4.3 Review prices paid by the City and by another zoo for items used by the San Francisco Zoo in order to obtain the best value available.

COSTS/BENEFITS

Implementation of the recommendations in this section would result in savings of an undetermined amount annually, would improve the operation of the Zoological Society's purchasing function, and would provide reasonable assurance against fraud.

Expanded Partnership
Budget Summary

Source: San Francisco Zoological Society/
San Francisco Recreation and Park Department
Expanded Partnership Proposal, Sept. 1992

REVENUE	1991-92 (actual)	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	Pct. Change	Avg. Annual Increase FY94-FY98
Admission Fees	1,935,000	2,310,000	2,418,000	3,010,000	3,312,000	3,782,000	3,936,000	4.07%	11.49%
Zoological Society:									
Retail Services (Gross)	2,674,000	3,240,000	3,570,000	3,980,000	4,640,000	5,150,000	5,700,000	10.68%	11.98%
SFZS Membership	1,069,000	1,150,000	1,400,000	1,600,000	1,860,000	2,127,000	2,380,000	11.89%	15.70%
Contributions & Events	738,000	910,000	1,065,000	1,285,000	1,460,000	1,635,000	1,865,000	14.07%	15.47%
Children's Zoo	219,000	226,000	238,000	250,000	275,000	288,000	300,000	4.17%	5.94%
Other	452,000	225,000	285,000	340,000	375,000	455,000	540,000	18.68%	19.25%
Subtotal-SFZS	5,149,000	5,750,000	6,556,000	7,455,000	8,610,000	9,655,000	10,785,000	11.70%	13.41%
Total Non-General Fund	7,084,000	8,060,000	8,974,000	10,465,000	11,922,000	13,437,000	14,721,000	9.56%	12.83%
City Subsidy	4,766,254	4,122,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	0.00%	0.00%
TOTAL	11,850,254	12,182,000	12,974,000	14,465,000	15,922,000	17,437,000	18,721,000	7.36%	8.99%
EXPENSE									
Animal Care Division	4,031,436	4,299,992	4,587,677	4,862,937	5,154,713	5,679,386	6,203,688	9.23%	7.62%
Operations Division	1,594,890	1,633,508	1,692,669	1,766,616	1,968,009	2,107,288	2,233,726	6.00%	6.52%
Public Services Division	2,400,045	2,899,948	2,725,904	3,000,223	3,306,484	3,504,873	3,715,165	6.00%	7.76%
Administration & Utilities	1,698,863	2,133,878	2,375,498	2,638,004	2,888,184	2,849,453	3,020,421	6.00%	7.22%
Retail Expense	1,922,000	2,138,000	2,320,000	2,547,000	2,970,000	3,296,000	3,648,000	10.69%	11.31%
TOTAL	11,850,254	12,765,126	13,691,746	14,702,780	16,107,370	17,437,000	18,821,000	7.91%	8.08%
Deficit*	0	(583,126)	(717,746)	(237,780)	(185,370)	0	(100,000)		
*To be funded from \$2 million contribution from Founder's Fund									
Retail Sales: Net Profit	752,000	1,102,000	1,250,000	1,433,000	1,670,000	1,854,000	2,052,000	10.60%	18.81%

Objectives & Assumptions of Financial Projections

Attendance	724,000 to 1,080,000 over five years, 8%/yr
Membership	27,000 to 47,000
Average member dues	\$45 to \$51 per year
Annual contributions	\$940,000 to \$1,865,000 per year
Other income	\$160,000 to \$500,000 per year
Visitor Services	\$3,080,000 to \$5,130,000
Per cap, V.S.	\$3.85 to \$4.75
Admissions	\$1,888,000 to \$3,780,000
Per cap, admissions	\$2.36 to \$3.50
Annual expenses	increasing 3% - 6%/yr above adds
City subsidy	\$4 million per year, five years
Transition funding	up to \$2 million over 4 years

San Francisco Zoological Society
 Capital Expenditures - Founder's Fund/Zoo 2000
 April 23, 1999

	<u>S. F. Zoo Society</u>	<u>Contributions</u>	<u>Estate Bequests</u>
Contributions: Fiscal Year 92/93	\$ -	\$ 4,529,721	\$ 304,311
Fiscal Year 93/94		3,042,668	471,119
Fiscal Year 94/95	700,000	560,524	1,124,429
Fiscal Year 95/96	242,500	374,748	144,445
Fiscal Year 96/97			
	942,500	8,507,661	2,044,304
			8,507,661
			942,500
Total Contributions			11,494,465
Expenditures: Fiscal Year 91/92		144,040	
Fiscal Year 92/93		319,005	
Fiscal Year 93/94		2,039,021	
Fiscal Year 94/95		2,476,348	
Fiscal Year 95/96		1,168,143	
Fiscal Year 96/97		428,040	
Fiscal Year 97/98		228,066	
Fiscal Year 98/99		580	
		6,803,243	6,803,243
Sub-Total			4,691,222
Phase II, Capital Campaign include in above Revenues (Donor Request)			(1,000,000)
Contribution to Endowment Fund			(3,217,010)
Transition Funds Used in Operations from Estate Bequests			(2,044,304)
Transition Funds Provided by San Francisco Zoological Society			1,570,092
Balance of Founder's Fund			\$ -

 Wayne Reading, Finance Director

5/4/99
 Date

San Francisco Zoological Society
Capital Expenditures - Founder's Fund/Zoo 2000
April 23, 1999

Project Description	Account Number	Total Amount	Fiscal Year 6/30/92	Fiscal Year 6/30/93	Fiscal Year 6/30/94	Fiscal Year 6/30/95	Fiscal Year 6/30/96	Fiscal Year 6/30/97	Fiscal Year 6/30/98	Fiscal Year 3/31/99
Capital Campaign	30-11-2001-0000	\$ 574,349	\$ 80,584	\$ 67,375	\$ 10,910	\$ 292,213	\$ 123,267			
Research & Enrichment (Animal)	30-11-2011-0000	106,518	34,590	47,307	26,802	(2,181)	-			
Zoo 2000 - Professional Fees	30-11-2010-6501	64,286	2,898	1,643	50,391	-	1,351			
Zoo 2000 - Architectural Services	30-11-2010-6531	25,306	17,248	3,294	4,400	364	-			
Zoo 2000 - Graphics/Interpretive	30-11-2010-6532	24,520		5,822	14,559	4,139	-			
Zoo 2000 - Owner/Direct Prof Svc	30-11-2010-6533	13,404		7,725	-	-	5,679			
Zoo 2000 - Meeting Expense	30-11-2010-6610	28,583	(150)	42	28,691	-	-			
Zoo 2000 - Other Expense	30-11-2010-6901	626,887	8,870	5,611	4,192	88,082	151,709	149,589	218,834	
Penguin Pool Project	30-11-2010-7002	1,188		465	-	723	-			
Giraffe Exhibit	30-11-2010-7003	1,297		-	1,297	-	-			
Snow Leopard Project	30-11-2010-7004	7,811		-	5,014	2,797	-			
Avian Conservation (SFZS portion)	30-11-2010-7005	40,257		-	-	15,900	19,565	4,792		
Triple Grotto	30-11-2010-7006	116,739		103,923	12,816	-	-			
Visitor Services Renovation	30-11-2010-7007	100,019		30,672	54,305	15,015	27			
Flamingo Pool	30-11-2010-7008	52,269		13,666	3,901	34,234	468			
Monkey Island	30-11-2010-7009	32,407		14,185	-	-	18,222			
Service & Support Renovation	30-11-2010-7010	125,581		8,424	50,377	39,293	6,529	20,950		
Otter Pool	30-11-2010-7011	234,736		-	249,621	(14,885)	-	-		
Carousel Renovations	30-11-2010-7012	17,430		-	17,112	-	-	318		
Amenities	30-11-2010-7013	69,609		-	19,244	50,365	-	-		
Improvements	30-11-2010-7014	131,495		-	18,175	9,260	66,245	37,815		
Renovations	30-11-2010-7015	30,554		-	10,359	-	9,685	10,510		
Warthog Exhibit	30-11-2010-7016	105,481		-	-	-	105,481	-		
Children's Zoo Entrance	30-11-2010-7017	146,444		-	-	-	45,172	101,272		
Asian Elephant Renovation	30-11-2010-7018	113,150		-	-	-	42,250	70,900		
Mother's Building	30-11-2010-7019	27,593		-	-	-	9,618	17,975		
Feline Conservation Center	30-11-2012-0000	2,064,142		8,851	1,303,589	746,210	9,951	141	(4,600)	
South America Gateway	30-11-2013-0000	850,947		-	145,266	605,394	108,287	-		
Orangutan Forest	30-11-2014-0000	12,624		-	-	3,126	9,498	-		
Entrance Improvement	30-11-2016-0000	13,668		-	-	13,668	-	-		
Lion Cubs Exhibit	30-11-2017-0000	417		-	-	-	417	-		
LGFP&R Improvements	30-11-2018-0000	17,890		-	-	416	8,438	9,036		
Demolition Cat Cages/Monkey Is.	30-11-2020-0000	171,510		-	-	7,212	164,298	-		
Australian Walk/About	30-11-2021-0000	561,991		-	-	552,624	9,367	-		
Aviary-White Alligator	30-11-2022-0000	162,198		-	-	-	157,464	4,734		
Support Facilities	30-11-2023-0000	107,534		-	-	12,379	95,155	-		
- Elephant Statue	30-11-3090-7003	3,515		-	-	-	-	-	3,515	
- Mountain Lion Statue	30-11-3090-7004	3,515		-	-	-	-	-	3,515	
- Playfield - "Friend"	30-11-3090-7005	7,382		-	-	-	-	-	6,802	500
Total Capital Expenditures		\$ 6,803,246	\$ 144,040	\$ 319,005	\$ 2,039,021	\$ 2,476,348	\$ 1,168,146	\$ 428,040	\$ 228,066	\$ 500

Wayne Leasing 4/28/99

SAN FRANCISCO ZOOLOGICAL SOCIETY
PHASE II - CAPITAL EXPANSION PROGRAM
CAPITAL CAMPAIGN REVENUES
September 10, 1999

	<u>Total Revenues</u>
Prior Year Receipts	\$ 699,233
Fiscal Year ending June 30, 1997	822,563
Fiscal Year ending June 30, 1998	4,055,425
Fiscal Year ending June 30, 1999	3,803,088
Total Cash Received	<u>9,380,309</u>
Pledge Receivables at June 30, 1999	4,794,102
Total Pledges and Cash at June 30, 1999	<u><u>\$ 14,174,411</u></u>

Wayne Reading, Finance Director

September 10, 1999

SAN FRANCISCO ZOOLOGICAL SOCIETY
 PHASE II - CAPITAL EXPANSION PROGRAM
 CAPITAL EXPENDITURES
 April 26, 1999

Description	Total	Fiscal Year 1996/97 06/30/97	Fiscal Year 1997/98 06/30/98	Fiscal Year 1998/99 03/31/99
Capital Campaign Expenses	741,986	\$ 256,607	\$ 274,450	\$ 210,929
Committee To Rebuild The Zoo	328,855	268,000	60,855	
Strategic Plan	78,882	78,882	-	-
Lion Cub Exhibit	296,063	292,676	3,387	-
Geese Sculpture	14,358	14,358	-	-
Old Capybara Exhibit Renovation	1,532	1,532	-	-
Bilabong Exhibit	590	590	-	-
Aye Aye Exhibit	67,430		67,430	-
Phase II Project Design/Architect	742,320		334,950	407,370
Phase II Project Management	672,258		318,220	354,038
Phase II Project - Zoo Administration	337,024		249,003	88,021
Safari Trams	57,528		57,528	-
Computer System	449,559		309,532	140,027
Lorikeet Exhibit	410,019		410,019	-
Primate Discovery Center Remeshing	331,216		248,455	82,761
Asian Elephant Renovation - (Calle)	36,406		15,172	21,234
Li'l Puffer Train	757,073		112,737	644,336
Renovations	12,845		12,845	
Carousel Maintenance	5,836		5,711	125
Aviary Lead Abatement	30,400		30,400	
Renovation Mother's Building	3,240		3,240	-
Food Service Renovation	1,357		1,357	-
Other Renovations	4,666		4,666	-
Avian Conservation Center	4,946		4,946	-
Kodiak Bear	42,388		28,526	13,862
Rainbow Meadow	48,785		34,197	14,588
Chimpanze Renovations	6,055		6,055	
Pygmy Hippo Pool Renovation	6,030		1,899	4,131
Animal Resource Center (ARC)	111,221		65,742	45,479
Renovation of Lion Exhibit-West Exterior	3,175			3,175
Anteater, Tapir and Condor (A-1)	144,555			144,555
Interest Expense	27,272	-	-	27,272
Total Expenditures	\$ 5,775,870	\$ 912,645	\$ 2,661,322	\$ 2,201,903

2,202,483
 238,201

Wayne R. ...
 FINANCE DIRECTOR 4/27/99

WayneR

4/26/99

Summary of Statements of Financial Position

	FY 1997-98	FY 1996-97	FY 1995-96	FY 1994-95	FY 1993-94	FY 1992-93	FY 1991-92	FY 1990-91	FY 1989-90
Assets									
Current assets									
Cash and cash equivalents	\$1,064,175	\$1,852,764	\$2,748,806	\$2,148,687	\$2,138,329	\$391,921	\$347,356	\$715,043	\$1,371,774
Receivables									
City and County of SF	333,332	666,669	706,591	421,406	477,527	0	0	0	0
Other	44,646	23,301	15,166	74,526	131,216	119,268	70,258	267,904	1,242,893
Inventories	366,054	274,530	308,790	294,622	223,726	220,255	189,375	218,619	236,471
Prepaid expenses	206,157	149,374	192,287	182,204	204,451	112,780	99,936	146,258	150,065
Total current assets	\$2,014,364	\$2,966,638	\$3,971,640	\$3,121,445	\$3,175,249	\$844,224	\$706,925	\$1,347,824	\$3,001,203
Investments	\$1,895,779	\$1,631,356	\$1,933,372	\$1,622,781	\$1,382,633	\$1,174,510	\$1,161,518	\$1,139,171	\$0
Restricted assets									
Cash and cash equivalents	\$2,534,532	\$375,667	\$509,420	\$242,501	\$433,136	\$709,123	\$136,914	\$0	\$0
Contributions receivable	3,105,415	1,546,431	2,741,461	4,306,709	5,811,353	4,956,467	1,100,800	600,000	700,000
Investments	2,662,119	2,041,201	0	0	0	0	0	0	0
Total restricted assets	\$8,302,066	\$3,963,299	\$3,250,881	\$4,549,210	\$6,244,489	\$5,665,590	\$1,537,714	\$600,000	\$700,000
Net property and equipment	\$214,191	\$144,153	\$119,987	\$139,436	\$175,830	\$237,318	\$270,646	\$332,778	\$405,550
Deferred charge	0	34,319	102,947	171,575	316,503	442,694	130,064	0	80,000
Total assets	\$12,426,400	\$8,739,765	\$9,378,827	\$9,604,447	\$11,294,704	\$8,364,336	\$3,806,867	\$3,419,773	\$4,186,753
Liabilities and Net Assets									
Current liabilities									
Accounts payable	\$808,105	\$782,986	\$828,636	\$800,448	\$1,581,018	\$449,209	\$248,874	\$298,991	\$348,035
Due to the City and County of SF	803,725	1,330,949	2,492,820	1,668,386	1,349,286	0	0	0	262,227
Accrued expenses	700,455	482,665	588,161	531,413	386,155	270,077	232,941	183,378	10,000
Deferred revenue	4,713	0	7,135	69,393	172,400	227,542	1,557,600	1,019,057	1,682,835
Current portion of long-term debt	8,389	2,405,791	1,604,296	960,805	62,485	62,485	0	0	100,000
Total current liabilities	\$2,325,417	\$5,002,391	\$5,521,048	\$4,030,445	\$3,551,344	\$1,009,313	\$2,039,415	\$1,501,426	\$2,403,097
Long-term debt-- net of current portion	1,821,847	22,950	35,000	95,000	355,000	217,485	165,000	25,000	35,000
Total liabilities	\$4,147,264	\$5,025,341	\$5,556,048	\$4,125,445	\$3,906,344	\$1,226,798	\$2,204,415	\$1,526,426	\$2,438,097
Net assets									
Unrestricted	(\$22,930)	(\$248,875)	(\$28,102)	\$917,880	\$943,871	\$1,471,948	\$1,602,452	\$618,317	\$628,695
Temporarily restricted	6,739,947	2,654,598	2,913,357	3,654,286	5,542,660	4,623,090	0	151,833	120,067
Permanently restricted	1,562,119	1,308,701	937,524	906,836	901,829	1,042,500	0	1,123,197	999,894
Total net assets	\$8,279,136	\$3,714,424	\$3,822,779	\$5,479,002	\$7,388,360	\$7,137,538	\$1,602,452	\$1,893,347	\$1,748,656
Total liabilities and net assets	\$12,426,400	\$8,739,765	\$9,378,827	\$9,604,447	\$11,294,704	\$8,364,336	\$3,806,867	\$3,419,773	\$4,186,753

Office of the Budget Analyst

Section 3.1: Financial and Operational Status, and Compliance Issues

Summary of Statements of Activities

	FY 1997-98	FY 1996-97	FY 1995-96	FY 1994-95	FY 1993-94	FY 1992-93	FY 1991-92	FY 1990-91	FY 1989-90
Support and revenues									
<i>Unrestricted</i>									
Contributions	\$1,481,762	\$1,651,843	\$830,743	\$652,176	\$1,114,577	\$991,024	\$528,714	\$452,551	234,187
Membership dues	1,371,903	1,344,028	1,358,507	1,224,374	1,121,975	1,118,758	1,061,970	1,128,506	1,035,681
Visitor services	3,605,182	3,542,328	3,153,665	2,682,326	2,489,299	2,308,749	2,736,106	2,790,555	2,796,142
Children's Zoo		223,723	206,463	196,026	189,092	501,976	222,071	212,664	234,776
Education and travel programs	121,982	99,178	77,683	71,339	51,181	44,682	56,073	55,124	55,968
Fund raising and ticketed events	743,100	449,272	495,891	519,591	517,381	509,707	378,188	461,945	409,754
Gate admissions	2,083,983	2,043,988	1,902,671	1,718,415	1,084,276				37,372
Management fee	4,000,000	4,000,000	4,000,000	4,000,000	2,913,977				
Interest and other	397,722	306,125	225,690	173,077	226,415	106,320	30,021	85,660	83,691
<i>Unrestricted Operating Revenues</i>	<i>\$13,805,634</i>	<i>\$13,660,485</i>	<i>\$12,251,313</i>	<i>\$11,237,324</i>	<i>\$9,708,173</i>	<i>\$5,581,216</i>	<i>\$5,013,143</i>	<i>\$5,187,005</i>	<i>\$4,887,571</i>
Net assets released for restricted purposes	3,127,892	1,735,881	1,459,608	2,633,372	2,141,194	419,610	0	0	0
<i>Total unrestricted support and revenues</i>	<i>\$16,933,533</i>	<i>\$15,396,366</i>	<i>\$13,710,921</i>	<i>\$13,870,701</i>	<i>\$11,849,367</i>	<i>\$6,000,826</i>	<i>\$5,013,143</i>	<i>\$5,187,005</i>	<i>\$4,887,571</i>
Total restricted support and revenues	4,338,767	112,418	(710,241)	(1,883,367)	1,069,292	4,127,876	324,557	955,413	1,162,927
<i>Total support and revenues</i>	<i>\$21,272,300</i>	<i>\$15,508,784</i>	<i>\$13,000,680</i>	<i>\$11,987,334</i>	<i>\$12,918,659</i>	<i>\$10,128,702</i>	<i>\$5,337,700</i>	<i>\$6,142,418</i>	<i>\$6,050,498</i>
Expenses									
<i>Program Services</i>									
<i>Unrestricted</i>									
Cost of goods and services provided	\$3,462,870	\$2,935,346	\$2,520,960	\$2,160,330	\$1,949,104	\$2,059,921	\$1,996,517	\$2,010,956	1,974,733
Animal collections, exhibits and zoo impr.	2,893,053	1,780,210	1,871,121	2,894,278	2,657,534	915,355	550,772	482,927	501,642
Membership activities	664,593	729,664	1,072,401	1,100,357	904,517	878,037	810,008	810,474	655,780
Expenditures for 'oo	1,789,972	1,428,674	1,396,813	1,620,420	1,088,320	884,253	821,198	693,635	727,739
City operations	6,050,471	6,113,997	5,765,292	4,980,115	3,791,617	0	0	0	0
<i>Total unrestricted program services</i>	<i>\$14,860,959</i>	<i>\$12,987,891</i>	<i>\$12,626,587</i>	<i>\$12,755,500</i>	<i>\$10,391,092</i>	<i>\$4,737,566</i>	<i>\$4,178,495</i>	<i>\$3,997,992</i>	<i>\$3,862,894</i>
Total restricted program services	0	0	0	0	0	0	\$111,923	\$728,963	213,146
<i>Total program services</i>	<i>\$14,860,959</i>	<i>\$12,987,891</i>	<i>\$12,626,587</i>	<i>\$12,755,500</i>	<i>\$10,391,092</i>	<i>\$4,737,566</i>	<i>\$4,290,418</i>	<i>\$4,726,955</i>	<i>\$4,076,040</i>
Supporting services									
<i>Unrestricted</i>									
General administration	\$1,319,264	\$1,405,586	\$1,205,775	\$1,030,530	\$993,900	\$618,789	\$611,190	\$556,254	\$29,347
Repairs and maintenance	576,032	570,544	327,290	485,524	481,442	185,025	172,812	214,796	186,034
Fund raising	401,006	1,339,321	615,534	708,265	460,769	533,514	438,019	445,115	355,467
Rent					9,743	28,121	29,582	30,201	30,090
Interest	58,653	48,404	26,162	41,302	40,498	28,315	5,990	6,254	19,340
<i>Total unrestricted supporting services</i>	<i>\$2,354,955</i>	<i>\$3,363,855</i>	<i>\$2,174,761</i>	<i>\$2,265,621</i>	<i>\$1,986,352</i>	<i>\$1,393,764</i>	<i>\$1,257,593</i>	<i>\$1,252,620</i>	<i>\$1,120,278</i>
Total restricted supporting service	0	0	0	0	0	0	80,584	18,152	81,243
<i>Total supporting services</i>	<i>\$2,354,955</i>	<i>\$3,363,855</i>	<i>\$2,174,761</i>	<i>\$2,265,621</i>	<i>\$1,986,352</i>	<i>\$1,393,764</i>	<i>\$1,338,177</i>	<i>\$1,270,772</i>	<i>\$1,201,521</i>
<i>Total expenses</i>	<i>\$17,215,914</i>	<i>\$16,351,746</i>	<i>\$14,801,348</i>	<i>\$15,021,121</i>	<i>\$12,377,444</i>	<i>\$6,131,330</i>	<i>\$5,628,595</i>	<i>\$5,997,727</i>	<i>\$5,277,561</i>

Section 3.1: Financial and Operational Status, and Compliance Issues

Summary of Statements of Activities

	FY 1997-98	FY 1996-97	FY 1995-96	FY 1994-95	FY 1993-94	FY 1992-93	FY 1991-92	FY 1990-91	FY 1989-90
Excess of expenses over support and revenues before bequests	4,056,386	(842,962)	(1,800,668)	(3,033,787)	541,215	3,997,372	(290,895)	144,691	772,937
Bequests	\$508,326	\$359,043	\$144,445	\$1,124,429					
Cum. effect of an acct. change	0	375,564	0	0	0	1,537,714	0	0	-
Change in net assets	\$4,564,712	(\$108,355)	(\$1,656,223)	(\$1,909,358)	\$541,215	\$5,535,086	(\$290,895)	\$144,691	\$772,937
<i>Net unrestricted assets, beginning of year</i>	<i>(\$248,875)</i>	<i>(\$28,102)</i>	<i>\$917,880</i>	<i>\$943,871</i>	<i>\$1,471,948</i>	<i>\$1,602,452</i>	<i>\$770,150</i>	<i>\$748,762</i>	<i>809,363</i>
Net restricted assets, beginning of year	3,963,299	3,850,881	4,561,122	6,444,489	5,665,590	0	1,123,197	999,894	166,356
Total net assets, beginning of year	\$3,714,424	\$3,822,779	\$5,479,002	\$7,388,360	\$7,137,538	\$1,602,452	\$1,893,347	\$1,748,656	\$975,719
Prior period adjustment - discounting pledge receivables					(\$290,393)				
Net assets, beg. of year as restated					\$6,847,145				
Net assets, end of year	\$8,279,136	\$3,714,424	\$3,822,779	\$5,479,002	\$7,388,360	\$7,137,538	\$1,602,452	\$1,893,347	\$1,748,656
Staffing: Total	227	204	215	233	220	175			
Full-time	130	133	132	131	115	106			
Part-time	97	71	83	102	105	69			
Total Contributions	\$8,681,251	\$3,223,782	\$1,538,794	\$1,384,311	\$3,821,212	\$5,520,745	\$751,691	893,423	1,117,000
Zoo Attendance: Total	826,769	870,262	821,915	731,232	690,212	722,400			
Members	212,504	211,259	203,207	172,903	105,145				
Paying	422,228	411,900	377,334	338,251	313,694				
Non-paying	192,037	247,103	241,374	220,078	271,373				
Number of Mammal Specimens	276	288	335		345	435			438
Revenues									
SFZS (Unrestricted)	\$16,933,533	\$15,396,366	\$13,710,921	\$13,870,701	\$11,849,367	\$6,000,826	\$5,013,143	\$5,187,005	\$4,887,571
City and County of San Francisco						5,622,189	5,277,112	5,466,829	5,246,892
Subtotal	\$16,933,533	\$15,396,366	\$13,710,921	\$13,870,701	\$11,849,367	\$11,623,015	\$10,290,255	\$10,653,834	\$10,134,463
Restricted Support and Revenues	4,338,767	112,418	(710,241)	(1,883,367)	1,069,292	4,127,876	324,557	955,413	1,162,927
Total Revenues	21,272,300	15,508,784	13,000,680	11,987,334	12,918,659	15,750,891	10,614,812	11,609,247	11,297,390
Expenses									
SFZS (Unrestricted)	\$17,215,914	\$16,351,746	\$14,801,348	\$15,021,121	\$12,377,444	\$6,131,330	\$5,436,088	\$5,250,612	\$4,983,172
City and County of San Francisco						5,622,189	5,277,112	5,466,829	5,246,892
Subtotal	\$17,215,914	\$16,351,746	\$14,801,348	\$15,021,121	\$12,377,444	\$11,753,519	\$10,713,200	\$10,717,441	\$10,230,064
Restricted Expenses							192,507	747,115	294,389
Total Expenses	\$17,215,914	\$16,351,746	\$14,801,348	\$15,021,121	\$12,377,444	\$11,753,519	\$10,905,707	\$11,464,556	\$10,524,453
Revenues less Expenses	\$4,056,386	(\$842,962)	(\$1,800,668)	(\$3,033,787)	\$541,215	\$3,997,372	(\$290,895)	\$144,691	\$772,937

Office of the Budget Analyst

Section 3.1: Financial and Operational Status, and Compliance Issues

Summary of Statements of Cash Flow

	FY 1997-98	FY 1996-97	FY 1995-96	FY 1994-95	FY 1993-94	FY 1992-93	FY 1991-92	FY 1990-91	FY 1989-90
Cash flows from operating activities									
<i>Change in net assets</i>									
Adjustments to reconcile change in net assets to net cash provided by (used in) operating activities									
Depreciation and amortization	\$80,924	\$120,190	\$128,379	\$137,006	\$144,619	\$115,475	\$97,474	\$207,746	\$203,664
Loss (gain) on investments	(444,656)	(404,944)	(81,897)	(33,686)	2,720	(16,983)	-	-	-
Discounting pledge receivables	125,625	(233,557)	(84,759)	(50,778)	82,078	-	-	-	-
Change in accounting principle	-	(375,564)	-	-	-	(1,537,714)	-	-	-
(Inc.) dec. in operating assets									
Receivables	(\$1,572,617)	\$1,160,374	\$1,224,182	\$1,544,533	(\$1,855,732)	(\$1,042,077)	(\$303,154)	\$1,074,989	(\$914,030)
Inventories	(91,524)	34260	(14,168)	(70,896)	(3,471)	(30,881)	29,244	17,852	66,329
Prepaid expenses	(56,783)	42,913	(10,083)	22,247	(91,671)	(12,844)	46,322	3,807	(20,441)
Inc. (dec.) in operating liabilities									
Accounts payable	\$25,119	(\$45,650)	\$28,188	(\$430,570)	\$981,809	\$335	(\$50,116)	(\$49,044)	(\$40,806)
Due to City and County of SF	(\$27,224)	(1,227,874)	824,434	319,100	1,349,286	-	-	0	-
Accrued expenses	217,790	(39,493)	56,748	145,258	116,078	37,136	49,563	(78,849)	44,890
Deferred revenues	4,743	(7,135)	(62,258)	(103,007)	(\$5,142)	192,656	528,542	(683,778)	75,361
Net cash provided by (used in) operating activities	\$2,326,109	(\$1,084,835)	\$352,543	(\$430,151)	\$1,211,789	\$240,189	\$106,980	\$637,414	\$187,904
Cash flows from investing activities									
Increase in deferred charges					(\$2,100)	(\$205,230)	(\$130,064)	\$0	\$0
Purchase of property and equipment	(\$116,643)	(\$75,728)	(\$40,302)	(\$31,984)	(15,940)	(44,691)	(35,342)	(54,974)	(48,836)
Purchase of investments	(2,510,259)	(1,481,437)	(524,148)	(434,154)	(280,606)	(260,712)	(22,347)	(1,139,171)	-
Proceeds from sale of investments	2,269,574	822,760	495,454	427,692	269,763	264,703	-	-	-
Net cash used in investing activities	(\$357,328)	(\$734,405)	(\$68,996)	(\$38,446)	(\$28,883)	(\$245,930)	(\$187,753)	(\$1,194,145)	(\$48,836)
Cash flows from financing activities									
Payments on S/T notes payable	\$0	\$0	(\$5,685,703)	(\$850,000)	(\$200,000)	\$0	\$0	\$0	\$0
Proceeds from S/T notes payable	-	-	6,329,194	500,000	350,000	200,000	-	-	-
Due to (from) net assets									
Payments on long-term activities	(7,413,617)	(5,724,080)	(60,000)	(2,391,377)	(62,485)	(27,485)	-	(100,000)	(111,135)
Proceeds from issuance of L/T debt	6,815,112	6,513,525	-	3,029,697	200,000	150,000	150,000	-	-
Net cash provided by (used in) financing activities	(\$598,505)	\$789,445	\$583,491	\$288,320	\$287,515	\$322,515	\$150,000	(\$100,000)	(\$111,135)
Net inc. (dec.) in cash and cash equivalents	\$1,370,276	(\$1,029,795)	\$867,038	(\$180,277)	\$1,470,421	\$316,774	\$69,227	(\$656,731)	\$27,933
Cash and cash equivalents: beginning of year	\$2,228,431	\$3,258,226	\$2,391,188	\$2,571,465	\$1,101,044	\$784,270	\$715,043	\$1,371,774	\$1,343,841
Cash and cash equivalents: end of year	\$3,598,707	\$2,228,431	\$3,258,226	\$2,391,188	\$2,571,465	\$1,101,044	\$784,270	\$715,043	\$1,371,774

Office of the Budget Analyst

	FY 1998-99 Budget	FY 1997-98 Actual	FY 1996-97 Actual	FY 1995-96 Actual	FY 1994-95 Actual
Fund 10 Totals					
Fund 10 Revenues	\$ 4,169,385	\$ 4,416,288	\$ 3,739,832	\$ 2,945,521	\$ 3,531,558
Fund 10 Expenses	1,547,069	1,604,886	1,676,537	1,920,549	1,748,016
Fund 10 Net	\$ 2,622,316	\$ 2,811,402	\$ 2,063,295	\$ 1,024,972	\$ 1,783,542
Program 20: Public Service					
Operations Department					
Food Services					
Revenues					
Sales					
al of Vacation Pay Accrual	\$ 1,741,960	\$ 1,432,238	\$ 1,691,136	\$ 1,636,346	\$ 1,401,890
Less: Cost of Goods Sold	592,266	567,666	564,693	531,177	460,147
Gross Margin	\$ 1,149,694	\$ 864,572	\$ 1,126,443	\$ 1,105,169	\$ 941,743
Expenses					
Payroll Expenses	\$ 643,550	\$ 586,145	\$ 641,590	\$ 608,215	\$ 546,496
Non-payroll Expenses	136,223	188,153	249,487	188,311	168,006
Total Expenses	779,773	774,298	891,077	796,526	714,502
Food Services Net	\$ 369,921	\$ 90,274	\$ 235,366	\$ 308,643	\$ 227,241
Program 20: Public Service					
Merchandise					
Revenues					
Sales					
al of Vacation Pay Accrual	\$ 1,429,224	\$ 1,236,519	\$ 1,439,497	\$ 1,170,617	\$ 976,399
Rental Revenue	95,425	86,941	-	-	Revers
Revenue Total	\$ 1,524,649	\$ 1,323,460	\$ 1,439,497	\$ 1,170,617	\$ 976,399
Less: Cost of Goods Sold	643,151	566,641	703,812	589,039	449,178
Gross Margin	\$ 881,498	\$ 756,819	\$ 735,685	\$ 581,578	\$ 527,221
Expenses					
Payroll Expenses	\$ 485,963	\$ 484,382	\$ 436,436	\$ 368,547	\$ 324,917
Non-payroll Expenses	132,096	111,504	124,837	62,198	66,702
Total Expenses	618,059	595,886	561,273	430,745	391,619
Merchandise Net	\$ 263,439	\$ 160,933	\$ 174,412	\$ 150,833	\$ 135,602
Larkleet Exhibit					
Revenues					
Nectar Sales	\$ 173,250	\$ 30,022			
Photo Sales	110,880	28,816			
Revenue Total	284,130	58,838			
Less: Cost of Goods Sold	8,663	43,050			
Gross Margin	\$ 275,467	\$ 15,788			

Office of the Budget Analyst

BACKGROUND

In June of 1991 the Zoological Society Board of Directors and the Recreation and Park Commission adopted a revised "Mission and Goals for the San Francisco Zoological Gardens." Shortly thereafter a comprehensive review of the ZOO 2000 Master Plan was completed, under the leadership of the Zoo's new director David E. Anderson. The ZOO 2000 Master Plan and \$26 million capital campaign to complete Phase I was re-established by the Board of Directors.

In February, 1992, the City of San Francisco, facing serious budget deficits, asked the Zoological Society to expand its role and take on responsibility for managing the entire Zoo operation. A year later the Board of Supervisors gave conceptual approval, subject to its final approval of a formal Lease Agreement and the Society's ability to secure a \$10 million Founder's Fund.

At July 15, 1993, Lease Agreement approval is pending and the shift to Society management will commence October 1, 1993. The Society has \$8 million in commitments and \$6.9 million in pending requests towards the Founders' Fund, and is prepared meet its obligations under the terms of the Lease Agreement. A \$30 million capital campaign plan has been prepared to complete Phase I of ZOO 2000. This Five-Year Plan has been developed to guide the re-birth of the San Francisco Zoological Gardens and meet the challenges of private management in this unique partnership with the City of San Francisco.

ASSESSMENT: STATE OF THE ZOO TODAY

In the past two years the Zoo's budget was cut by nearly \$1 million, 8 Civil Service positions and 3 Zoo Society positions were cut, and the Zoo's re-accreditation application was tabled by the American Association of Zoological Parks and Aquariums due to lack of adequate financial support for the institution. These problems were documented in the media, and resulted in public support for transferring the Zoo to the Society as a long-term solution. In an uncertain financial and political climate, the Board of Directors and donors have hesitated to make major gifts for capital contributions; renovations and construction have been delayed, and attendance has continued downward to 722,000 (FY '93), dropping 100,000 in a single year.

GOAL #7 LEADERSHIP

To achieve excellence for the San Francisco Zoological Gardens through wise stewardship in the use of resources, ethical management and responsiveness to community needs and concerns.

1. Provide management training for professional staff 1994
2. Develop Board leadership and increase participation
 - by establishing committee organizational structure effective for large board
 - by clarifying Board's role in monitoring policy
 - by increasing use of expertise provided by Board
3. To increase leadership fundraising capability of Board
 - formalize evaluation process to increase number of directors with capability to contribute and raise funds
 - establish and increase goals for Board giving as percent of annual and capital campaigns
4. To increase stature of San Francisco Zoological Gardens
 - seek volunteers and directors well-known in philanthropic, corporate and academic community
 - increase Zoo Director's participation in top-tiered business, professional, government and community organizations
5. Establish team management in Animal Care Dept. Plan 1994, in 1995
6. Zoo staff will be participants in professional community.
7. Develop good union relationships
 - Personal contacts 1994
 - Union project for Zoo 1994
 - Union Family Day at the Zoo 1994
8. Zoo will be recognized as model for public/private partnership.
 - Progress noted - 1994
 - Turnaround noted - 1995
 - Zoo as local model - 1996
 - Zoo as national model - 1998

CAPITAL PROJECTS

BUDGET EST.

1.FELINE BREEDING CENTER	\$800,000
2.LEOPARDS OF ASIA	\$3,500,000
3.ORANGUTAN EXHIBIT	\$4,500,000
4.RENOVATIONS	\$4,200,000
5.QUARANTINE	\$2,000,000
6.AFRICAN SAVANNA	<u>\$10,000,000</u>

SUBTOTAL	\$25,000,000
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ENDOWMENT FUND	\$3,000,000
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TRANSITION FUND	<u>\$2,000,000</u>
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TOTAL	\$30,000,000
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ALTERNATES:

AVIAN CONSERVATION CENTER	\$1,000,000
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MONKEY ISLAND	\$4,000,000
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CAPITAL PROJECTS - 5 YEAR PLAN

ZOO 2000 AND FOUNDERS FUND		
TRANSITION	\$2.0	
ENDOWMENT	\$3.0	
CAPITAL	\$25.0	
		\$30.0 MILLION

CAPITAL PROJECTS - 5 YEAR PLAN MILESTONE COMPLETION DATES

Feline Breeding Center Activities

Planning and Design.....30-SEP-93
FBC Groundbreaking.....01-OCT-93
Construction Completed.....01-APR-94
Move Cats to FBC and Open Exhibit.....01-MAY-94

Leopards of Asia Exhibit Activities

Planning and Design.....31-AUG-93
Renovate Lynx Cage at Lion House.....01-MAY-94
Australia / Kangaroo area Complete.....01-MAY-94
Demolish Existing Cat Cages (Groundbreaking).....01-JUN-94
Construction Completed.....30-APR-95
Move Cats and Open Exhibit.....01-JUN-95

Orangutan Field Station Activities

Planning and Design.....01-JAN-94
Field Station Groundbreaking.....01-JUL-95
Construction.....01-JUL-96
Open Orangutan Field Station Exhibit.....01-JUL-96

African Savanna Activities

Planning and Design.....01-JUL-96
Groundbreaking.....01-JUL-96
Construction Completed.....01-JUL-98
African Savanna Phase Open.....01-JUL-98

Quarantine Facility

Planning and Design.....01-JAN-95
Groundbreaking.....01-JAN-96
Construction Completed.....01-JUL-97

General Activities (Renovations)

Cosmetics and Landscaping at Entrances Complete.....30-SEP-93
Banners and Informational Signage.....30-SEP-93
Landscaping and Chain Link Fence.....30-SEP-93
Monkey Island Demo Completed.....01-JAN-94
Monkey Island Backfilled and Planted.....01-MAR-94
Monkey Island Groundbreaking for New Exhibit.....
Monkey Island New Exhibit Completed.....
Monkey Island Lake Trail Complete.....01-APR-94
Otter Exhibit Renovation Complete.....01-JAN-94
Outdoor Aviary Renovated And Birds Exhibited.....01-APR-94
Bunker Grotto Renovation for Meercat Complete.....01-APR-94
Education Center Relocation Complete.....01-JUN-94
Lion House Open to Public.....30-SEP-93
Penguin / Elephant Area Renovation Complete.....01-MAY-94

RENOVATIONSExhibit 3.1.9
Page 6 of 16

ZONE A LEOPARD DEPENDENT ITEMS		BUDGET EST.	ZONE F SECONDARY LOOP		BUDGET EST.
AUST. / ROO RENOVATIONS		\$75,000	BACKSTRING		\$50,000
LYNX CAGE AT LION HOUSE		\$50,000	BLACKBUCK		\$40,000
ZEBRA YARD (CATWALK TO FBC)	INC. IN FBC		NYALA		\$20,000
OPEN LION HOUSE RR	INC. IN LH (G)		WATER BUFFALO		\$20,000
GREY ROO RELOCATION	INC. IN AUST.				
ZONE B MAIN WALKWAY LOOP			ZONE G SECONDARY LOOP		
FLAMINGO		\$125,000	ELEPHANT HOUSE PH2		\$350,000
SIAMANGS/BIRDS		\$50,000	AFRICAN SCENE		\$50,000
KOALAS		\$10,000	ASIAN RHINO		\$50,000
MONKEY ISLAND DEMO		\$175,000	LION HOUSE / GROTTOS		\$80,000
LAKE TRAIL		\$50,000			
BUNKER GROTTOS		\$100,000	ZONE H SECONDARY LOOP		
PENGUIN/ELEPHANT AREA		\$60,000	GORILLAS		\$25,000
OTTER		\$25,000	MUSK OX		\$20,000
TRIPLE GROTTO		\$175,000	POOL PICNIC AREA		\$50,000
			EMPLOYEE PARKING		\$20,000
			WILD DOGS		\$50,000
ZONE C ENTRANCE / AMENITIES			ZONE I SECONDARY LOOP		
NEW RESTROOMS (ADA)		\$350,000	CHILDRENS ZOO		\$75,000
ENTRANCES (N & S)		\$150,000	ANIMAL RESOURCE CENTER		\$10,000
AMENITIES (ADA)		\$80,000	CAROUSEL		\$100,000
MOTHERS BLDG/PLAYFIELD		\$120,000	RESEARCH		\$25,000
ZOO 2000 STORY - SIGNAGE		\$150,000			
ZONE D SECONDARY LOOP			SUBTOTAL F - I		\$1,035,000
INDOOR AVIARY		\$50,000	ZONE J FINANCED ACTIVITIES COSTS NOT INCLUDED		
OUTDOOR AVIARY		\$100,000	PHONE SYSTEM	EST.	\$150,000
SEALIONS		\$50,000	ZEBRA TRAINS	EST.	\$200,000
PDC		\$150,000			
BEAR GROTTOS		\$25,000			
ZONE E OPERATIONAL / MISC.					
EDUCATION MOVE/EQUIPMENT		\$250,000			
MAINTENANCE SHOPS		\$450,000			
VEHICLE PORT		\$25,000			
HOSPITAL		\$75,000			
ADMINISTRATION		\$100,000			
GIRAFFE		\$20,000			
GGP BISON		\$125,000			
SUBTOTAL A - E		\$3,165,000	TOTAL RENOVATIONS A-J		\$4,200,000

CAPITAL PROJECT PLANNING

A. VISITOR PATHWAYS.

A plan to best utilize existing pathways in coordinating a thematic visitor experience has been developed. The concept is a central or main loop accessible from both entrances with secondary loops branching off into a thematic exhibit experience. The main loop concentrates on high profile areas such as the lion house, elephant house and plaza areas. The five secondary loops identified will provide a more geographic theme experience. The routing plan layout is as shown on the attached plan and described below:

Main Loop - The main loop will bring visitors from each entrance to a main corridor around the elephant house.

Secondary Loops - These loops will route visitors through five thematic areas which are:

1. Childrens Zoo
2. Macropods and Aviary
3. Bears and Africa
4. Cats and Asia
5. Primates

B. CAPITAL IMPROVEMENT PRIORITIES

The projects planned for Phase I are based on the initial capital campaign of \$30 million and institutional needs. The priority is as follows:

1. **Feline Conservation Center** - The feline conservation center is a small cat facility. It will house from 9 to 12 animals and is located next to what was formerly known as the Directors House. This facility is required to provide new homes for all the current small cats during construction of the new Leopards of Asia Exhibit. Some of these animals will move into the new Leopard exhibit; others will remain in the FCC. In the future the FCC will specialize in other species of cats.
2. **Leopards of Asia** - This exhibit is based on the conceptual designs from The Portico Group. It will replace our existing deteriorating small cat housing. It is located at the current cat exhibit area and expands to include the current grey kangaroo area.
3. **Orangutan Exhibit** - the Orangutan exhibit is based on the current conceptual design by the Portico Group and addresses the needs for improved facilities to manage these primates. It includes an interpretive area Field Station. It is located

in the far eastern corner near the current bear grottos and llama exhibit.

4. Renovations - These are zoo wide renovations and improvements necessary to address a good portion of public, animal and staff needs as well as esthetic enhancements.
5. Quarantine Facility - This is a new veterinary facility necessary to provide proper care and health management of current and future animals both entering and leaving the Zoo. It is necessary to have this facility operational in order to manage the animal collection during the course of masterplan development.
6. African Savanna - This is the initial expansion phase of ZOO 2000. It encompasses a multi-species African savanna complex. This project will completely renovate an area from the current Avian Conservation Center to Gorilla World. The new entrance should be constructed at the same time to maximize the visitor experience and circulation.

C. PLANS FOR CURRENTLY EMPTY EXHIBIT SPACE

Current empty exhibit space will be immediately improved or used as follows:

PDC Aviary	Remove mesh and develop botanical showcase
Lion Grottos tiger, siberians, sumatrans	Relocate animals as follows, from west to east: White and African lions.
South "Bunker" Grottos	Demolish and landscape.
North "Bunker" Grotto	Renovate for small mammal.
Lion House Exterior Cage	Lynx Exhibit
Lion House interior	Develop program for all day use: - Open restrooms - Exhibit Gallery - Children's conservation science project display.
Penguin rearing / mural yards Interim use until open: - Penguin rearing yard - Mural yard	Open to Asian Elephants To be determined Swans
Elephant House Interior - Short term	Storage area

Monkey Island

- Short term

Demolish, landscape,
mini-phase 1 with animals
Gateway to South America

- Long term

Lower Lake

- South end

Close north portion of path
around Monkey Island and open
lake perimeter trail along the
lake and take advantage of the
view

- North end

Retrofit for grey kangaroo

Outdoor Aviary

Replace exterior mesh and
develop for South American
birds

D. SHIFTING ANIMALS

Shifting of existing animals is required for capital improvements
and establishing the thematic visitor experience.

- Move grey kangaroos to north portion of the lower lake.
Moving of the grey kangaroos is required before the Leopard
exhibit construction can begin.
- Move the ostrich to African area, acquire mates
- Move the llamas to the old cheetah area or surplus them.

E. RENOVATION PRIORITIES.

The main objectives of the renovation projects are to address safety issues for the public staff and animals, develop geographic areas as much as possible with the current collection, and general enhancement of the institution. In addition consideration is given to how each renovation will impact the following:

1. Reduction of the "caged" feeling of exhibits
2. Develop a more "natural" exhibit presentation
3. Geographical grouping of animals
4. Relationship to masterplan
5. Timing of major capital projects
6. Public comfort
7. Revenue impact
8. Animal status

The renovations have been divided into 10 zones. The renovations in each zone are related based on the objectives listed above. The 10 zones established are labeled ZONE A through J.

ZONE A renovations are projects directly related the Leopards of Asia exhibit. These must be completed before construction of this new exhibit.

ZONE B projects are all centered around the planned central visitor pathway loop. All the identified renovations are in long term high visibility areas. This zone also addresses a large portion of public, staff and animal needs.

ZONE C is primarily related to visitor amenities.

ZONES D, F, G, H and I encompass the secondary visitor pathway loops.

ZONE E renovations incorporate operational needs and satellite areas.

ZONE J are major equipment needs - Zebra Train and telephone system, for which financing would be available.

ZONE A

1. Australia / Macropod Area
 - New fencing, landscaping and irrigation.
 - Graphics.
 - Grey Kangaroo exhibit - north end of lower lake.
 - Develop mixed exhibit.

This zone basically involves reworking of the entire area as far as fencing and grading, and providing new animal shelters.

2. Lynx exhibit at lion house
 - Replace mesh and install viewing glass.
 - Paint.
 - Rework interior into suitable habitat.
 - Enrichment.
 - Rework night quarters.
3. Zebra Paddocks
 - Rework fence line and develop for feline center "catwalk" access.
4. Open Lion House 10-5 (Presently only open 2-3 for feeding).
 - Lion house restroom will have to be open to the public because the Leopard of Asia exhibit requires the demolition of the restroom facility by the grey kangaroos.
 - Graphics and possible door rework for access.
 - Interior space would be available for gallery & education.

ZONE B

5. Plaza
 - Additional table/umbrella seating.
 - Drinking fountain.
 - Landscaping.
 - Founders' Fund recognition area
6. Flamingo Exhibit
 - Renovate in-house to clean up area and provide nesting. Major renovation to occur with siamang/bird string.
7. Siamangs / Birds
 - Paint framing and structure.
 - Trim trees and add landscaping.
 - Rework electrical and provide new heaters.
 - Address rodent proofing.
8. Koalas
9. Monkey Island (short term)
 - Demolish and remove existing rockwork and framing.
 - Demolish old night quarters.
 - Replace railing.
 - Develop landscape plan.
 - Close off north portion of walkway.
10. Lake Trail
 - Block off tunnel entrance to Monkey Island.
 - Clear old service path and continue around lake perimeter with new path to open up lake view and experience.
 - Landscaping.

11. Bunker Grottos

- Demolish South and landscape out.
- Renovate North for small mammal.

- Landscape.

12. Penguin Plaza (Asian Elephant area)

- Rework and paint rails and handrail system.
- Repair walkway (paving).
- Landscape and irrigation.

13. Otter Exhibit

- Rework pool water lines.
- Renovate island, rock work, landscape.
- Add enrichment.
- Provide night quarters.
- Esthetically enhance, reduce asphalt, plant.

14. Triple Grotto

- Landscaping (Completed).
- Keeper work area.
- "Hot Spots" to grottos.
- Rework electrical service.
- Re-roof structure.
- Paint structures.
- Graphics and Docent Area.

ZONE C

15. New Restrooms

- Develop new restrooms, demolish Playfield, under ADA requirements.

16. Entrances (North and South)

- Signage at Sloat and Skyline.
- Repair perimeter fencing.
- Landscaping along Sloat fencing.
- Handicapped ramp from Sloat to ticket booths.
- New turnstiles.
- Lighting.
- Landscaping.
- Graphics.
- Have city repair/replace Sloat median fencing.

17. Amenities

- New waste receptacles, baby changing tables, heat lamps, signage, directionals, lockers for public use, etc.

18. Mothers building / Playfield area

- Improve restroom.
- Handicapped access to gift shop.
- Landscaping.
- Stroller / cart storage.
- Public service graphics.
- Childrens zoo entrance improvements.

19. Zoo 2000 Story

20. Interpretative ADA

- Identify handicapped routes, facilities and amenities throughout institution.

ZONE D

21. Indoor Aviary

- Provide bird holding area.
- Rodent-proofing.
- Repair rockwork and pool.
- Review lighting and electrical.
- Graphics.

22. Outdoor Aviary

- Remove exterior and replace mesh structure.
- Retrofit to avian exhibit, South American theme.
- Repair pool.
- Landscaping.

23. Sealions

- Seal keeper / food prep area.
- Resurface / seal pool.
- Retrofit rockwork.
- Graphics.
- Remove asphalt, create viewing, landscape.

24. PDC

- Repair corrosion on exterior structure and paint.
- Fix up aviary and exhibit birds.
- Replace drinking fountain.
- Remove aviary mesh and develop horticultural showcase.

25. Bear Grottos

- Resurface pools.
- Repair pool drain lines and valves.
- Enrichment (i.e. logs / trees).
- Collection system for testing pool water.
- Rework sliding night quarter doors.

ZONE E

26. Education center relocation

- Relocate education facilities to directors house area.
- Access from zoo road.

27. Maintenance Shops

- New maintenance shop, consider prefab, storage.

28. Vehicle Port

- New covered area for institutional vehicles and equipment to protect them from environment.

- 29. Hospital
 - Upgrade electrical.
 - Cover holding pens.
 - Repair roof.
- 30. Administration
 - Office trailers.
 - Landscaping.
- 31. Giraffe Exhibit
 - Rework doors.
 - Rework fence and public view rail.
- 32. GGP Bison
 - New viewing areas with graphics.
 - New feed manger.
 - Keeper service area.
 - Graphics.

ZONE F

- 33. Backstring
 - Relocate llamas.
 - Rework fencing to contain rhinos.
 - Demolish llama yard pool.
 - Fencing and grading.
 - Remove rail along pathway.
 - Landscaping.
- 34. Blackbuck
 - Rework fencing, add landscaping.
 - Provide viewing areas. Remove fence and contain animal by moat.
- 34. Nyala
 - Same as blackbuck.
- 35. Water Buffalo
 - Rework fencing.
 - Landscape.

ZONE G

- 36. Elephant House Phase II
 - Install elephant containment structure (i.e. squeeze system).
 - Reinforce structure as necessary.
 - Upgrade hydraulic system on doors and gates.
 - Remove concrete yard for African elephant exhibit.
 - Floor heat system.

37. African Scene
- Remove handrail and chain link along pathways.
 - Fix planters, add landscaping.
 - Open up elephant exhibit to rhino.
 - Rework night quarters.
 - Re-roof facility.
 - Provide equipment access.

38. Asian Rhino
- Improve containment barrier.
 - Repair pool.
 - Grade exhibit and add rocks.

39. Lion House / Grottos (exterior)
- Clean up and landscape.
 - Repair irrigation system.
 - Paint (interior and exterior).
 - Prepare interior for all day use.
 - Graphics.
 - Rodent / Gull control.

ZONE H

40. Gorillas
- Graphics.
 - Add "hot spots."
 - Repair stream system.
 - Rework video system.
41. Musk Ox
- Repair fencing and holding pens.
42. Picnic area
- Clean and landscape.
 - Set up for group functions.
43. Employee Parking Area
- Clean up and landscape.
44. Wild Dogs - add interpretive, landscape improvements.

ZONE I

45. Childrens Zoo
- Provide handicapped access as necessary.
 - Rework area inside entrance to an exhibit.
 - Remove castle.
 - Paint facilities as needed.
 - Improve nature trail and stations.
 - Graphics.
 - Grain storage.

- 46. Avian Conservation Center
 - Possible tertiary mitigation.
- 47. Animal Resource Center
 - Minor improvements, plan new facility for C.Z. area.
- 48. Carousel
 - Upgrade mechanics (gears, shaft, etc.).
 - Restore animals.
 - Repair and repaint structure.
- 49. Research
 - Add modular building adjacent to FBC and Education Dept.

ZONE J

- 50. Financed activities
 - Phone system / institution communications.
 - New Zebra Trains.

January 3, 2000

Harvey Rose
Board of Supervisors' Budget Analyst
1390 Market Street, Suite 1025
San Francisco, CA 94102

Dear Mr. Rose:

The San Francisco Zoological Society acknowledges and thanks the Budget Analyst for the Performance Audit of the San Francisco Zoo and appreciates the opportunity to respond. This audit helped us reflect on our progress and focus our plans for the future, and we are rapidly implementing the recommendations that continue our progress.

We are in the midst of a complex transformation of a Zoo that was in decline and our aspirations for the new Zoo are high.

We are pleased to see three major themes in the audit:

1. Confirmation of significant progress, particularly in the area of animal care;
2. Encouragement to continue to improve the Zoo; and
3. Affirmation that plans for the New Zoo are sound.

For years, the San Francisco Zoo has played a valuable role in the lives of millions of people in the Bay Area and beyond. Nevertheless, through many of its years, the Zoo was under-funded and neglected. Only the hard work and determination of Civil Service and Society staff kept this much-loved institution functioning in the early 1990's. The transformation from an outdated facility to a modern, successful Zoo began in 1993 with the signing of the Expanded Partnership, a management lease agreement through which the San Francisco Zoological Society accepted responsibility for managing the Zoo. The efforts and dedication of the Board of Directors, staff, and many volunteers have reversed the decline that jeopardized the Zoo's accreditation by the American Zoo and Aquarium Association (AZA).

The citizens of San Francisco strongly endorsed revitalizing the Zoo by passing Proposition C, the Zoo Bond, in June 1997. We are grateful for this vote of confidence and for the bond funds, which will be augmented by over \$25 million raised by the Zoological Society. The turnaround of the Zoo is far from complete, but with support of the citizens of San Francisco, our generous donors, and committed staff we are on the path to creating an exciting new Zoo that advances conservation.

Confirmation of Progress

Progress at the Zoo has resulted in improvements for all of our major constituents: the Animals, our Visitors, the Global Conservation Community and our partner, the City of San Francisco.

THE SAN FRANCISCO ZOOLOGICAL SOCIETY
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206

Dr. Joel Parrott, Director of the Oakland Zoo and an expert consultant selected by the auditor, noted that "The Zoo and the quality of animal care have improved since the SFZS assumed management in 1993." We are particularly pleased to see the acknowledgement that "veterinary care at the San Francisco Zoo is excellent." Assuring the well being of the animals is our primary concern, and we have devoted significant resources and attention to that goal. The report confirms independent AZA accreditation findings: the Zoo is on the right path and a broad-based recovery is well underway.

The turnaround is touching all aspects of the Zoo. New exhibits, renovations to exhibits, and enhanced visitor service facilities contributed to an attendance increase of over 20%. Increasing attendance has allowed us to keep ticket prices at levels the Budget Analyst describes as "quite reasonable" while expanding free access to the Zoo and increasing education and conservation programs. Surveys show that over 90% of visitors to the Zoo rate their overall satisfaction with their visit as good or excellent.

In addition to serving the local community, the Zoo has made important contributions to conservation and science around the world. The Zoo actively participates in field conservation programs such as those in Madagascar. Our veterinary staff contributes to scientific research in the diagnosis and treatment of disease in exotic animals. Our participation in Species Survival Plans (SSP) and significant success in breeding programs advances the conservation of endangered species such as the lowland gorilla, bald eagle, black rhinoceros, snow leopard and ring-tailed lemur.

Every achievement of the Zoo enhances its value as an asset of the City of San Francisco. Our Partnership has resulted in a vastly improved and financially viable Zoo. The Zoo was re-accredited by the AZA in 1994 and 1998. Over the last 6 ½ years, the Society raised over \$47.5 million in private contributions and pledges in its drive to transform the Zoo. Our \$25 million capital campaign, initiated in 1997, now stands at over \$21 million, and we expect to reach our goal by December 2000.

Progress has not come easily. It became clear early in the Partnership that the combination of deteriorated facilities and poor public perception of the Zoo would require evolving strategies to carry out the transformation. This culminated in the coordinated Zoo Bond and Capital Campaign in 1997. The success of these two initiatives set us on the road to financial and rebuilding success. The 2½ year delay in gaining access to the bond funds (caused by the 49er stadium bond lawsuit) prevented us from reaching aggressive early targets. We are relieved those funds finally are available. While the current construction boom will put pressure on construction costs, we will continue to develop our plans to meet our rebuilding goals. We began construction of the New Zoo in the fall of 1999 with the groundbreaking for our first facility, the new Animal Resource Center.

Encouragement to Continue to Improve the Zoo

The audit report includes many ideas and recommendations. Not surprisingly, many of the recommendations highlight issues that were recognized as challenges even before the Partnership. Over the past six years, as resources became available, we addressed the highest priority needs. This has resulted in significant progress, and we will continue to tackle challenges and implement solutions.

Because of the cooperative working relationship with the audit team, findings were discussed throughout the audit process. Many of the recommendations involved areas in which we already have begun making changes such as cash handling, purchasing, facilities maintenance, personnel management, invoicing, capital projects, and USDA relations. For example, all of the issues raised by the USDA in their last visit have been addressed, and we are negotiating lower capital project fees for the Phase II construction program.

Although we question some analyses and recommendations, we are committed to ensuring the Zoo makes the best possible use of the audit findings. We will continue to assess all of the recommendations in detail and implement those that enhance the Zoo.

Sound Plans for the Future

We share the perspective of the voters, AZA, USDA and the Budget Analyst that the greatest obstacle to becoming a much better Zoo is the aged physical facilities.

Dr. Parrott concluded that "Phase II (the planned construction program) will address many of the critical concerns of the USDA and many of the worst exhibits . . . This is a clear sign that Zoo management is aware of the deficiencies and is actively addressing the problems." These conclusions echo the feedback we independently received from the directors of the highly respected zoos in San Diego, New Orleans, and Denver when they reviewed the plans at our request in 1997.

The new San Francisco Zoo will be characterized by naturalistic habitats that support multiple species in typical social groupings. In collaboration with our animal keepers, we are designing exhibits that meet the highest standards for animals, visitors, and staff. As we add facilities, we will dramatically increase the number of animals and add new species. In addition to building major new exhibits such as Lemur Forest, Africa Savanna, and the Great Ape Forest, we will continue to explore creative, lower cost renovations to maximize the impact of our rebuilding program.

The comfort of Zoo visitors is an important consideration in the renovations. We will add new parking, restrooms, visitor service facilities, and indoor dining. The new Education Center, adjacent to our expanded Children's Zoo, will better serve the children and families who rely on the Zoo for learning and entertainment.

The Zoological Society appreciates the time and effort you and your team devoted to conducting and preparing this audit, and we value the opportunity to review the Zoo's progress and plans.

The Zoological Society will continue on its path of creating a globally recognized Zoo that is a credit to our community. We have dedicated our efforts toward creating an institution that contributes to education and conservation in a manner never possible with the aged facilities now being replaced. The success of the Partnership Agreement can be seen in every way. Our committed and respected staff will continue to work hard to provide new exhibits, healthy animals, greater visitor satisfaction, increased attendance, and award-winning education programs.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Jansen', with a long horizontal flourish extending to the right.

Paul J. Jansen
Chairman, Board of Directors

A handwritten signature in black ink, appearing to read 'D. E. Anderson', with a large, stylized initial 'D' and a horizontal flourish.

David E. Anderson
Zoo Director

City and County of San Francisco

Recreation and Park Department

MEMORANDUM

DATE: December 29, 1999

TO: Stan Jones
Budget Analyst

FROM: Joel Robinson *JP*
Acting General Manager

PREPARED BY: Jaci Fong *JP*

CC: Mary King-Gorky

SUBJECT: Performance Audit of the San Francisco Zoo

The Recreation and Park Department has reviewed your draft of the Performance Audit of the San Francisco Zoo, dated December 1999, and generally agree with the findings and recommendations of the Budget Analyst. Staff will work with the San Francisco Zoological Society, within the parameters of our management agreement, to address the issues and recommendations identified in the Performance Audit.

In response to your specific recommendations to the Recreation and Park Department, Staff will take the following actions:

Recommendation:

- 1.1.15 *Allocate greater resources to the bison facility. The site itself actually has exceptional potential.*

Response:

The Department must constantly weigh the multitude of demands for the limited capital resources we have available to address the requirements of its constituents and aging infrastructure. Through the budget process we will request additional funds to address the long-term modifications and improvements recommended in Attachment II.

Recommendation:

- 1.1.16 *Implement the Bison Exhibit minor maintenance and long-term modification improvements contained in Attachment II to this report section.*

Response:

Attachment II

<i>Bison Exhibit Minor Maintenance</i>	Projected completion date
Main Field and Feed Area <ul style="list-style-type: none"> • Hay manger/feeder: Some of the 2"x 4" slats and top rail need replacement. Wood needs to be sealed or repainted. • Grading: Add substrate and grade the area around the water trough and the feed pad. • Remove blackberry bramble from the interior of the feed storage area. • Install signposts at regular intervals to accommodate bison information signs. Requires Braille. • Perimeter fence repairs. • Re-alignment of all gates so that space between the gates and the ground is less than three inches. • Install a hose bib in keeper service area, so we can wash the hay manger. 	<ul style="list-style-type: none"> • By January 31, 2000 • By February 29, 2000 • By January 31, 2000 • By April 15, 2000 • By April 15, 2000 • By February 29, 2000 • By February 29, 2000
West Holding Paddock <ul style="list-style-type: none"> • Hay manger/feeder needs replacement or extensive repair. • Install a hose bib next to the water trough so that it can be more easily serviced. • Re-string the perimeter hot wire. 	<ul style="list-style-type: none"> • By March 31, 2000 • By February 29, 2000 • By June 30, 2000
Bison Exhibit Long-Term Modifications <ul style="list-style-type: none"> • Re-configuration of the holding paddock and main exhibit. Include incorporation of a cattle chute leading to a restraint device and loading dock. Maintain a bison holding area separate from the main field. • Addition of a cattle restraint chute/squeeze for ease of medical procedures. • A quarantine/isolation paddock that is self contained including a feed area, shelter, and solid perimeter barriers. • Upgrade perimeter fencing so that it is uniform. The fence should be a double fence with a 12-foot buffer zone between the bison and the public. • Bison access to shelter/shade at all times regardless of where they are held. Include the addition of shaded areas, i.e., trees in the main field paddock. • Addition of behavioral and environmental enrichment opportunities for the bison including rocks, stumps, and limbs for rubbing. • Permanent hay storage, food preparation area, and tool storage facility. • Installation of communication devices, telephone and a radio base station. • Upgrade access to power for tools and veterinary equipment. • Addition of washroom and bathroom facilities for the animal care staff. • Installation of appropriate signage and graphics and Braille translation. 	<ul style="list-style-type: none"> • Pending funding availability. • Pending funding availability. • Same as above • By June 30, 2000 • Completed • Completed • Pending funding • Pending funding • Pending funding • GGP Master Plan issue • By April 15, 1999

Recommendation:

3.2.1 Arrange for the Zoo to be directly billed for sewer service and light, heat and power costs by the Clean Water Department and Bureau of Light, Heat and Power, respectively. This should expedite timely payment by the Zoological Society and free Recreation and Park staff to devote more labor intensive time to billing and collection procedures for maintenance and payroll costs. The Recreation and Park Commission budget should be adjusted accordingly.

Response:

Staff will investigate this suggestion, and make this request of the PUC.

Recommendation:

- 3.2.2 *Set up and maintain a date stamping procedure to better manage, control, and expedite payments by the Society and facilitate timely invoicing by the Department.*

Response:

Approximately 3 years ago, the Department implemented new procedures to insure the timely processing of payments. Department policy is to process any payments received within 24 hours. In addition, billing for maintenance and payroll costs at the Zoo is now done on a monthly basis by revenue staff. The Zoological Society will be reminded that per the terms of our management agreement, payments are due within 30 days. If payments are not received within 30 days, Staff will follow-up with the Zoo, and request payment both by phone and in writing as appropriate.

Recommendation:

- 3.3.2 *Develop a Memorandum of Understanding (MOU) to clarify specific amounts of coverage and minimum limits for Malpractice Liability Insurance and Commercial Crime Insurance*

Response:

Staff will discuss this recommendation with the Zoological Society. If they are in agreement, Staff will draft a Memorandum of Understanding for approval by the Recreation and Park Commission.

Recommendation:

- 3.3.3 *Develop an MOU providing that the Zoological Society maintain Property Insurance of City-owned buildings for the duration of the Management Agreement.*

Response:

The Zoological Society presently provides this insurance on a voluntary basis. They have indicated that they would not agree to an agreement making this insurance mandatory. If we can negotiate an agreement, Staff will draft a Memorandum of Understanding for approval by the Recreation and Park Commission.

Recommendation:

- 3.3.4 *Develop an MOU to provide that insurance coverage reviews occur every two years, or sooner if warranted by a substantial change in circumstances.*

Response:

Staff will discuss this recommendation with the Zoological Society. If they are in agreement, Staff will draft a Memorandum of Understanding for approval by the Recreation and Park Commission.

Recommendation to the Recreation and Park Commission:

- 3.4.1 *Ensure that three members of the Recreation and Park Commission attend each and every meeting of the Joint Zoo Committee.*

Response:

Although this recommendation was not made directly to the Department, Staff will communicate the concern of the Budget Analyst to the Recreation and Park Commission, through the Commission Secretary.