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City and County of San Francisco Board of Supervisors 1 Dr. Carlton B. Goodlett Place Room 244 San Francisco, CA 94102-4689

## Re; Proposal to ban elephants from San Francisco Zoo

Dear Madam/ Sir

I am writing to you about the recent decision to ban the keeping of elephants at San Francisco Zoo. As an ecologist with a long background of research and conservation of African elephants, I wish to support this ban. Zoos are unable, and are unlikely ever to be able, to provide an environment that could be considered acceptable for elephants.

I am a past member of the IUCN/SSC (World Conservation Union/ Species Survival Commission) African Elephant Specialist Group and have been involved in research on the movements and habitat use of African elephants in eastern and southern Africa since 1978. My studies of the literature and direct observations of elephants in their natural environment reinforce my understanding that they are highly intelligent and sensitive animals, deserving of a great deal more respect from us than we often provide.

They are born into a closely bonded family environment, and spend their lives interacting with their near kin and with many other, perhaps unrelated, elephants with whom they may form life-long social bonds and networks. Females spend their entire lives in family units with siblings and cousins and their offspring, and while males may leave the family at puberty, they develop flexible new relationships with other bulls and continually visit cow-calf groups, joining and re-joining groups throughout their lives. Research observing social interactions and response to playback calls has established that an individual elephant is keenly aware of the identities of 200-300 other individuals with whom they interact. They retain knowledge of these animals, show what can only be described as joy at reunions of family members, and grief at the death of family members. It is likely that the development of intelligence in a broad range of species, including primates and cetaceans as well as elephants, has evolved within such complex social environments.

In the course of a single year, an elephant may move over an area ranging in size from a few hundred to over two thousand square kilometers. One square kilometer equals 247 acres, so the area covered by an elephant with a modest 300km<sup>2</sup> range would be 74,074 acres. The lifetime range of an elephant is likely to be larger, and they can retain memories of areas they may have visited decades earlier during a rare drought or high rainfall year. In their feeding, they commonly select a diet composed of over a hundred species of plants and a rich variety of plant parts including roots and rhizomes, leaves, stems, flowers, bark, from a background of diverse environments on offer.

These facts point to the fact that elephants, in the environments in which they evolved and normally live, are rich in both social and ecological terms, and present elephants with stimulating challenges that require and support their intelligence. The environments provided by zoos -- their relatively tiny enclosures (even 10 acres is small to an elephant), their unnatural, small social groups of unrelated animals -- are impoverished by comparison, and can never even marginally approximate the experience of elephants in the wild.

The fact that elephants suffer health problems in zoos is well-documented. Keeping elephants in zoo conditions is analogous to keeping human prisoners in tiny cells and/or social isolation. That they will rarely breed, unless artificially treated with hormones, speaks volumes to their unhappiness. They typically suffer from conditions leading from this form of captivity: arthritis from standing around all day (and night – all elephants in the wild, including the largest cows and bulls, lie down to sleep for a number of hours each night), heart disease from inappropriate diets and/or stress. They often show stereotyped behaviour, rocking back and forth and swaying.

In summary, zoos are no places for elephants. They are much better off in the wild, or possibly sanctuaries, but certainly not zoos.

I strongly support your decision to keep elephants out of zoos in San Francisco, and in so doing to serve as an example to the nation as a whole.

Yours sincerely

W.K. Lindsay