THE ACCREDITATION STANDARDS & RELATED POLICIES

2023

ASSOCIATION OF ZOOS & AQUARIUMS

The Accreditation Standards & Related Policies

SIGNIFICANT ADDITIONS & CHANGES 2019–2023

2023

Animal Welfare, Care, and Management: **REVISED:** 1.2.2, 1.3.1, 1.5.0, 1.5.3, 1.5.4, 1.5.7, 1.5.9, 1.5.12, 1.5.13, 1.5.14, 1.5.16, 1.6.1

Veterinary Care: **REVISED:** 2.2.1

Conservation: **NEW:** 3.3.0, **MOVED:** 3.3.1, 3.3.2 (Now 1.8.1, 1.8.2)

Physical Facilities: **NEW:** 10.2.1.1, 10.2.1.2, **REVISED:** 10.2.1

Elephant Standards: **REVISED:** E.4.2.1.1

Ambassador Animal Policy: **REVISED**

Recommendations for Developing a Facility Ambassador Animal Policy: **REVISED**

General Administrative Policies: **NEW:** Implementation of New Standards, **REVISED:** Offsite Facilities, **REVISED:** Provisional Accreditation

2022

Definitions: **NEW**: Support Organization

Conservation: **NEW**: 3.2.3, **REVISED**: 3.2.1, 3.2.2, 3.3.1, 3.3.2

Physical Facilities: **REVISED**: 10.2.1

Cetacean Standards: **REVISED**: C.1 General Considerations

General Administrative Policies: **NEW:** Museums Within Animal Facilities

2021

Staff: **REVISED**: 7.9

Safety & Security: **REVISED**: 11.5.2

General Administrative Policies: **REVISED**: Mentoring Program

Elephant Standards: **NEW**: E-4.2.1.1

2020

Animal Welfare, Care, and Management: **NEW**: 1.4.2, 1.4.6, 1.4.9, 1.4.12, 1.4.13, **REVISED**: 1.4.0, 1.4.1, 1.4.4., 1.4.5

Veterinary Care: **REVISED**: 2.6.2

Finance: **REVISED**: 9.1, 9.2, 9.3, 9.4, 9.5

Safety & Security: **REVISED**: 11.8.1

Master & Strategic Planning: **REVISED**: 13.1

Standards For Elephant Management & Care: **REVISED**: all sections

2019

Animal Welfare & Care: **REVISED**: 1.5.5, 1.5.14

Safety/Security: **REVISED**: 11.7.1

Guest Services: **NEW**: 12.7

Master & Strategic Planning: **REVISED**: 13.1, 13.2 **NEW**: 13.3, 13.4, 13.5

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IMPORTANT NOTES REGARDING THESE STANDARDS

1. Achieving and Maintaining AZA Accreditation: To achieve and maintain AZA accreditation zoological parks and aquariums must be judged by the AZA Accreditation Commission as meeting and/or exceeding AZA standards, and embracing AZA practices and philosophies.

2. Documentation: Having proper documentation of programs, activities, and other occurrences is essential to meeting these standards. If an institution is taking proper steps to comply with a standard but fails to document such action, it will not be considered in compliance (*for example*, having determined that collectors have the necessary permits, but having no documentation of this).

3. Accreditation and certification standards: These standards are for accreditation applicants and certification applicants alike. In the case of certification, an education program is not required, nor are standards directly related to the presence of the visiting public. However, if the facility has an education program, and/or hosts public groups on a regular basis, all related standards must be met.

4. Authority: The Accreditation Commission, and its agents, shall determine if a facility is meeting standards, and incorporating modern zoological practices and philosophies. The Visiting Committee is an arm of the Accreditation Commission. However, the Accreditation Commission is the final authority in interpreting these standards and assuring they are applied equally to all.

5. Order of Sections: Placement of items in this document has no bearing on importance to accreditation processing as *all* areas are considered pertinent for the operation of a professional institution.

6. Performance standards versus engineering standards: With few exceptions, AZA standards are primarily *performance* standards (i.e., measuring the level of achievement considered acceptable to fulfill a performance characteristic, and choice in method for meeting the goal). This differs from *engineering* standards, where exact and precisely measured steps are required to fulfill an engineering characteristic, with little or no variation in method for meeting the goal.

7. Subjectivity: Due to the large number of variables existing between institutions, some standards necessarily allow for certain levels of subjectivity by both the Visiting Committee and the Accreditation Commission. In addition, the opinion of one team may be slightly different than another team. In such cases, the Accreditation Commission is the final authority in interpreting these standards and assuring they are applied equally to all.

8. Continuous Progress and Rising Standards: As the science of zoology and aquatic studies grows in knowledge, so too do AZA standards rise to accurately reflect current understanding and modern practices, and to drive continuous improvement in institutions accredited by AZA. What was acceptable under AZA standards in the past may not be considered sufficient five years later when an institution's next accreditation inspection takes place. Institutions are expected to continually progress and improve in all areas so as to keep up with rising standards and qualify for AZA accreditation.

9. Policies: It is possible that a newer version of a policy contained in this book may have become available since the book was assembled. In such a case, the most current version of the policy would apply.

DEFINITIONS

ACCREDITATION: the establishment and maintenance of professional standards and the qualitative evaluation of organizations in the light of those standards. Through this process a profession is judged based on criteria selected by experts in that field, rather than by outside agencies and/or individuals that are not actively employed in that field.

ADJACENT: Next to, close to, adjoining. AESTHETIC: pertaining to the beautiful.

ANIMAL WELFARE/WELLNESS: an animal's (or group of animals) collective physical and mental states over a period of time, and measured on a continuum from good to poor.

AQUARIUM: Usually at least one public building which contains aquatic animals. However, the animals are usually split into numerous exhibits. [For full definition see *Basic Definitions, 2023 Guide to Accreditation of Zoological Parks and Aquariums*.]

CEO/DIRECTOR: The person with the authority and responsibility for the operation of the institution. Other titles may include president, chief executive officer, superintendent, supervisor, manager, etc.

CERTIFICATION: A process similar to accreditation (see "Accreditation" above). In AZA's case, certification involves review and assessment of facilities that operate in support of zoos and aquariums, but are typically not open to the public on a regular basis.

CONSERVATION: For the purposes of AZA's accreditation program, conservation is understood to be active stewardship of the natural environment, including wildlife, plants, energy and other natural resources.

CURRENTLY ACCREDITED APPLICANTS: Currently accredited applicants are those institutions that are AZA-accredited *at the time the application is submitted and processed.*

CURRENTLY UNDER REVISION: Policies within this document are continuously being revised as science moves forward and we continue to learn new and better methods. If a policy is currently being reviewed for updating (noted as Currently Under Revision) the current policy appearing in this booklet still applies, but the notation serves as a notification that the document is being reviewed and may be updated in future editions.

DEFENSIVE INTERVAL PERIOD: a financial metric indicating the number of days an entity can operate without needing to access long-term assets or additional outside financial resources.

ENGINEERING STANDARDS: Standards that require exact and precisely measured steps to fulfill an engineering characteristic, with little or no variation in method for meeting the goal.

ENRICHMENT: A process to ensure that the behavioral and physical needs of an animal are being met by providing opportunities for species-appropriate behaviors and choices.

GOVERNING AUTHORITY: The agency with authority to govern the operations of the institution (such as the city, county/provincial, or federal government body, private corporation, foundation, society, board of directors, or other similar entities).

INSTITUTIONAL COLLECTION PLAN (ICP): An ICP is a document designed to thoughtfully assess the reasons for having each taxon in the collection. The ICP should be updated on a regular basis (minimally every 5 years). The ICP should include a statement of justification for all species and individuals in the institution's planned collection. The ICP should consider such criteria as status inthe wild, status in zoos and aquariums, existence and priorities of cooperative management programs, ability to maintain the species in a physically, psychologically and socially healthy environment, exhibit value, exhibit suitability, need for husbandry and other research, recommendations stated in AZA TAG's Regional Collection Plans and any other issues specific to the institution's mission and vision.

INTERNATIONAL INSTITUTIONS: Institutions located outside the United States may apply for accreditation under the same rules as those located within the United States. In some rare cases, processing of applications for

international institutions may not be possible within the standard six-month time frame, and may require a year or more before the Commission hearing can be scheduled. In addition, the amount of the Visiting Committee deposit may be higher due to increased travel costs associated with inspecting institutions located outside of the United States. If possible, AZA will assign an individual who is fluent in the applicant's native language to the inspection team for all international institutions, but the questionnaire and all *primary* materials submitted must be in English. If AZA is unable to assign individuals who speak the native language, the institution is responsible for providing an interpreter. Brochures and other pre-printed materials must be accompanied by a translation. If you have any questions about this please contact AZA.

MASTER PLAN: A written long-range plan that provides an organization with direction to develop or improve land, facilities, a building complex, etc.

MENTOR (PEER CONSULTANT): An individual deemed qualified and assigned by the Accreditation Commission to assist an AZA-accredited institution in addressing identified concerns or preparing for the AZA accreditation process. Non-accredited facilities see Pathway Towards Membership below.

MODERN ZOOLOGICAL PRACTICES AND PHILOSOPHIES: Understanding, engaging, and committing to the advancement of standards, practices, related policies and philosophies in all areas assessed by AZA through accreditation constitutes "modern zoological practices and philosophies". These accepted best practices and philosophies define excellence in our profession, and are what distinguish AZA-accredited institutions from other institutions that have animals for guests to see and appreciate. The word "practices" represents the tangible while "philosophies" refers to an overall perspective.

NEW APPLICANTS: "New" applicants are those institutions applying for accreditation for the first time, *or* any institution that is *not currently AZA-accredited*, regardless of whether it has been AZA-accredited in the past.

OCEANARIUM: Usually aquatic animals housed in several public buildings contained in a park setting. The exhibit scale is very large with other attractions/services scattered among the exhibits.

PATHWAY TOWARDS MEMBERSHIP: PTM is a program for non-member facilities that are interested in preparing for and eventually undergoing the AZA accreditation process, and who wish to have a Coach assist them. As part of the program a Coach will be assigned by AZA to help the facility identify areas that need to be addressed, will review and help update policies and procedures, internal documents, record keeping, and all areas involved in the accreditation and AZA membership process. The Coach can advise as to the facility's readiness, and can also provide guidance on assembling the application, if desired. Additional benefits are included with the program. Check with AZA's Membership Department for more information.

PERFORMANCE STANDARDS: standards that measure the level of achievement considered acceptable to fulfill a performance characteristic, and choice in method for meeting the goal.

PERMANENT (cultural institution): an institution founded by an authority which intends it to continue indefinitely.

POTENTIALLY DANGEROUS ANIMALS: Potentially dangerous animals are those species that could likely cause serious injury or death to a human through attack, disease transmission, etc. While some species are obviously dangerous, the Commission acknowledges there is not complete agreement of potentially dangerous species among all zoo/aquarium professionals or regulatory agencies. Member institutions are expected to provide their own analysis and justification of the species they consider potentially dangerous in their collections and to demonstrate that appropriate procedures are in place to prevent harm to staff, guests, volunteers, etc. Institutions are encouraged to err on the side of caution in determining what species should be considered potentially dangerous.

PROFESSIONAL STAFF: a paid fulltime employee who commands an appropriate body of special knowledge and has the professional training, experience and ability to reach zoological park or aquarium management decisions consonant with the experience of peers, and who has access to and knowledge of the literature of the field.

REGULAR BASIS: regular hours, so that access is reasonably convenient to the public.

RELATED FACILITY: *For the purpose of AZA's accreditation programs, a related facility is defined as:* organizations holding wildlife that are not commercial entities, and are not open to the public on a regularly scheduled, predictable basis. The facility shall be under the direction of a professional staff trained in animal husbandry, and shall be further defined as having conservation and preservation as part of its mission—a mission that shall have a beneficial, tangible, supportive impact on the zoological and aquarium professions. This includes wildlife refuges or rehab centers, non-invasive research facilities, survival centers, breeding farms, and/or similar organizations." The Accreditation Commission, and its agents, shall determine whether a facility meets the definition of a related facility.

STRATEGIC PLAN: A written plan defining an organization's strategy or direction, including making decisions on sources of funding and allocation of resources needed to pursue this strategy.

SUPPORT ORGANIZATION: A subordinate or independent organization and non-governing entity, usually a public charity, one of whose primary purpose is to support through a formal agreement an accredited zoo or aquarium by performing mutually agreed upon functions such as fund raising, endowment, membership, education, guest services and public relations.

WELFARE: (see "animal welfare/wellness" above).

WILDLIFE: non-domesticated animal life.

WILDLIFE PARK: Animals maintained in a public park setting, usually in very large exhibits that include animals which are free-ranging within the exhibit.

ZOOLOGICAL PARK: A collection of animals which are housed in many public exhibits, both indoors and outdoors. [For full definition see *Basic Definitions, 2023 Guide To Accreditation of Zoological Parks and Aquariums, page 16*.]

ACRONYMS APPEARING IN THESE STANDARDS

AAZV – American Association of Zoo Veterinarians

ACM – Animal Care Manual

AED – Automated Emergency Defibrillator

APMC – Animal Population Management Committee

ARKS – Animal Record Keeping System

AVMA – American Veterinary Medical Association

CAP – Conservation Action Plan

CBSG – Conservation Breeding Specialist Group

CEO – Chief Executive Officer

CITES – Convention on International Trade in Endangered Species

FDA – Food and Drug Administration

FEMA – Federal Emergency Management Agency

GFI – Ground Fault Circuit Interrupter

ICP – Institutional Collection Plan

ICS – Incident Command System

ID – Identification

NASPHV – National Association of State Public Health Veterinarians

OSHA – Occupational Safety and Health Administration

PPEQ – Permanent Post Entry Quarantine

RPM – Responsible Population Management

SAG – Scientific Advisory Group

SCUBA – Self-Contained Underwater Breathing Apparatus

SDS – Safety Data Sheets

SSC – Species Survival Commission

SSP – Species Survival Plan

TAG – Taxon Advisory Group

TB – Tuberculin/Tuberculosis

TRACKS® – An electronic animal records-keeping system

UL – Underwriters Laboratories

USDA – United States Department of Agriculture

UV – Ultraviolet

WAZA – World Association of Zoos and Aquariums

ZIMS – Zoological Information Management System

Accreditation Standards

PREAMBLE

AZA Accreditation – PURPOSE

AZA accredited zoos and aquariums are complicated operations with important goals. The highest goals of AZA accreditation include exemplary animal care and welfare, and inspiring guest engagement through effective education and conservation. AZA accreditation standards and requirements represent decades of modernization utilizing science, experience, and an unrelenting resolve to create a positive and lasting impact on guests, and to conserve our world's wild animals and wild places.

The AZA Accreditation Program provides all zoos and aquariums the opportunity to examine, meet, or exceed the highest standards in the profession. The accreditation process combines internal (stakeholder) and external (peer-review) top to bottom assessment, resulting in the most scrutinized, specialized and dynamic organizations in the world dedicated to animal care, welfare and well-being, public engagement, education, and conservation and science.

Institutions successfully accredited by AZA must continuously demonstrate excellence in all areas of operations and regularly adapt to new and evolving standards.

AZA Accreditation – PROCESS

To achieve AZA accreditation, an institution requires extraordinary vision and leadership, and a comprehensive team effort to attain excellence in all areas of operations and management. The accreditation process begins when institutional stakeholders study and commit to the gold-level standards available under the accreditation tab at AZA.org. AZA accreditation requires full adherence to all standards on a daily basis. The core areas of self and peer evaluation include:

- ***Animal Care, Welfare, & Well-Being*** (Excellence in Animal Care and Welfare)
- ***Veterinary Care*** (Excellence in Animal Health Care)
- ***Education & Interpretation*** (Innovation in Science and Conservation Education)
- ***Conservation & Scientific Advancement*** (Measurable Impact in Science)
- ***Vision, Mission & Master Plan*** (Values, Goals, Plans, and Outcomes)
- ***Governance*** (Oversight, Ethics, and Community Leadership)
- ***Finance*** (Business Management and Accountability)
- ***Staff*** (Professional Team Development and Management)
- ***Guest Services*** (Quality Visitor Amenities and Attraction Services)
- ***Safety & Security*** (Public and Animal Safety, Staff Training, and Preparedness)
- ***Physical Facilities*** (Quality Construction, Maintenance, and Design of all Facilities)
- ***Support Organizations*** (Internal Support and Partnerships)

(continued next page)

Understanding, engaging, and committing to the advancement of standards, practices, related policies and philosophies in all areas assessed by AZA through accreditation constitutes "modern zoological practices and philosophies." These accepted best practices and philosophies define excellence in our profession, and are what distinguish AZA-accredited institutions from other institutions that have animals for guests to see and appreciate. The word "practices" represents the tangible while "philosophies" refers to an overall perspective.

Because of the many variations among institutions, the majority of AZA standards are carefully designed to be *performance* standards (i.e., assessing the level of achievement considered acceptable to fulfill a performance characteristic, and choice in method for meeting the goal). This differs from *engineering* standards, where exact and precisely prescribed steps are required to fulfill an engineering characteristic, with little or no variation in method for meeting the goal. AZA institutions may achieve performance standards in a variety of ways, but *all* standards *must* be met.

AZA Accreditation – PRODUCT

AZA accredited institutions are differentiated as exemplary facilities through the vigorous and voluntary commitment to shared high standards, achieving measurable goals, and continually pursuing outcomes that benefit animals, guests and communities. These standards include assuring excellence in animal care and welfare, conservation, education, and research. Accredited institutions house, display, present, and interpret all animals in their care in a manner that is respectful to the animal and that inspires appreciation for wildlife and nature, while prioritizing animal and human health and safety. Animals are housed and cared for in a manner that meets their social, physical, behavioral, and nutritional needs, with considerations for lifelong care. Meaningful conservation messages are integral components of exhibits and interpretation.

Distinguishing characteristics of an AZA-accredited institution include:

- Extraordinary focus on animal care, welfare, and well-being*
- Modern facilities and practices for comprehensive veterinary care
- Scientific advancement in animal care and conservation
- Focus and participation to support sustainable animal populations
- Exhibit aesthetics and habitat studies, planning, and design
- Innovative and inspirational educational programs and experiences
- Excellence in guest engagement and effective guest services
- Economic development and community partnerships
- Professional staff development and training
- Comprehensive preparedness in public and animal safety
- Sound business planning and financial management
- Dynamic and mission-driven strategic and master planning
- "Raising the bar" and regularly advancing operational standards

*AZA zoo and aquarium standards support the premise of five opportunities to thrive. These tenets propose that animals: (1) Nutrition - receive nutritionally complete diets that bring out the natural feeding response and behavior; (2) Environment - are afforded comfortable living experiences with choice and control to promote mentally and physically healthy behaviors; (3) Physical Health - experience good physical health; (4) Behavior - are provided quality spaces to live in with appropriate social groupings that promote natural, species-appropriate and motivated behavior; and (5) Psychological Wellbeing - develop natural coping skills and avoid chronic stress; and comfort, interest, and tranquility are commonly experienced.

IMPORTANT NOTE: All AZA accredited institutions and certified related facilities must follow all local, state, and federal laws and/or regulations. Some AZA standards may be more stringent than existing laws and/or regulations. In such cases, the AZA standard(s) must be met.

1. ANIMAL WELFARE, CARE, & MANAGEMENT

General Considerations:

Animal welfare, care, and sustainable population management are among the most critical and complex tasks performed by AZA zoos and aquariums. Administration and management must be guided by modern professional principles establishing plans and procedures to execute those functions.

Providing excellent animal care and public education about wildlife results in direct and indirect contact between animals and humans, whether staff, volunteers, or visitors. Benefits of such contact are multifold. They include maximizing quality in healthcare, behavior management, and sanitation, along with the educational value of connecting an increasingly urban public to animals and nature. In doing this there are significant risks to consider as well, such as injury to animals and people, psychological stress, and potential transmission of infectious disease. It is important for all zoos and aquariums to strategically assess the benefits and risks of animal contact throughout their institutions, and to implement the best, most productive and safe human-animal interactions possible. (See standard 11.4.1 for further information.)

Welfare Considerations:

AZA-accredited zoos and aquariums operate based on three core principles: animal welfare, safety, and visitor engagement. Excellence in animal welfare is the underlying foundation on which all standards and practices are premised and developed. All reasonable concerns regarding the welfare of individual animals or groups must be thoroughly assessed and corrected. Institutions are required to incorporate commonly accepted welfare guidelines and follow a documented process for assessing animal welfare and wellness. Failure to comply with all welfare-based standards present in all sections of this document will result in the loss of AZA accreditation.

1.1 Local, State, Provincial, and Federal Laws

1.1.1. The institution must comply with all relevant local, state/provincial, and federal laws and/or regulations, including those specific to wildlife. It is understood that, in some cases, AZA accreditation standards are more stringent than existing laws and/or regulations. In these cases the AZA standard must be met.

1.2. Animal Care Manuals

1.2.1. As available, the institution must review and provide access for all paid and unpaid animal care staff, to all AZA Animal Care Manuals (ACMs) that have been approved and that apply to species at the institution.

Explanation: A listing of approved ACMs is available on AZA's website at: Institutions should check regularly for updates.

1.2.2. Guidelines outlined in the Animal Care Manuals (ACMs) should be followed.

Explanation: Institutions should review the guidelines and suggestions within the ACMs as needed, and tailor their animal care programs, protocols, and exhibits accordingly. The guidelines also apply to ambassador animals.

1.3. Documents and Policies

1.3.1. The institution must follow an Institutional Collection Plan (ICP). The ICP must be re-evaluated and updated at minimum every five years.

Explanation: The purpose of an ICP is to thoughtfully assess, on a regular basis, the reason for having each taxon in the collection. The ICP must include a statement of justification for all species and number of individuals or groups in the institution's planned collection. The ICP must consider some, but not necessarily all, of the following criteria, in addition to others that may be relevant: • special welfare considerations, • status in the wild, • status in zoos and aquariums, • recommendations stated in AZA TAGs' Regional Collection Plans, • existence and priorities of cooperative management programs, • ability to maintain the species in a physically, psychologically, and socially healthy environment, • exhibit value, involvement in public informal or structured presentations/programming as an ambassador animal, • exhibit suitability (may include climatic considerations), • need for husbandry and other behavioral research, and • any other issues specific to the institution's mission and vision.

1.3.2. The institution must follow a written policy on responsible population management that incorporates all requirements contained in AZA's Policy On Responsible Population Management [AZA's "RPM Policy"]. (See pages 95 – 104 of these standards for further information).

Explanation: Policies on animal acquisition, transfer, euthanasia and reintroduction (including breeding loans) should be continually reviewed to keep them current with all applicable laws and/or regulations. Such policies must also incorporate all policies and/or resolutions adopted by AZA regarding hunting ranches, animal auctions, research, pets, participation in SSPs, and TAGs, and other issues involving the acquisition, transfer, euthanasia or reintroduction of wildlife.

Records must be maintained for all transactions involving acquisition, transfer, euthanasia or reintroduction of animals to and from the institution and must include the terms of the transaction. In making the decision to transfer an animal(s) to a non-AZA accredited facility the AZA institution must document that the receiving institution is willing and able to provide proper care and welfare for the animal(s) and that the transfer is done in accordance with AZA's RPM Policy.

Copies of all relevant permits, importation papers, declaration forms, titles, and other appropriate documents establishing a paper trail of legal acquisition must be maintained (as detailed in AZA's RPM Policy). When such information does not exist (the institution's maintenance of confiscated wildlife) an explanation must be provided regarding such animals.

1.4. Records

1.4.0. The institution must show evidence of having a zoological records management system for managing animal records, veterinary records, and other relevant information.

Explanation: The institution's zoological records management system includes the overall philosophy and operational framework by which animal records, veterinary records and

other relevant information are created and managed. The scope of records management should include all stages of the information life cycle from the time of creation, use, preservation, and disposition. Key elements include guidelines for documentation of transactions for animals or parts thereof, government/legal compliance (e.g. import/export permits, licenses), record keeping procedures (e.g. role that staff members play in creating and managing records, data flow, timeliness of records entry, data quality control, validation, extraction, analysis, reference and use, managing public requests for information), recordkeeping hardware and software specifications, records retention and archives management for long-term retention of vital records.

1.4.1. An animal inventory must be compiled at least once a year and include data regarding animals added and removed from the institution's collection whether by birth, transfer, death, or introduction to the wild.

1.4.2. The inventory must include all species owned by the institution and those on loan to and from the institution.

1.4.3. Animals must be identifiable, whenever practical, and have corresponding ID numbers. For animals maintained in colonies/groups or other animals not considered readily identifiable, the institution must provide a statement explaining how record keeping is maintained.

1.4.4. Animal records and veterinary records, whether in electronic or paper form, must be duplicated and stored in a separate location. Animal and veterinary records are defined as data, regardless of physical form or medium, providing information about individual animals, or samples or parts thereof, or groups of animals. Digital systems are preferable. A disaster preparedness and business continuity plan should be in place for vital animal and veterinary records, and those that have long-term or permanent retention requirements.

Explanation: The institution must prevent animal and veterinary records from being lost or destroyed in a catastrophe. A complete and up-to-date set of these records must be duplicated and stored in separate locations (e.g., not in the same building, if kept on site). Consideration should be given to physical distance, natural hazards, and assessment of records storage vendors to assure they provide appropriate storage conditions and adhere to federal requirements when selecting the separate location.

For electronic systems, backups should be performed weekly, at a minimum. The integrity of the backup system should be periodically assessed to assure that data can be reliably restored from the backup location.

The institution must have a copy of the software vendor's business continuity plan if animal and veterinary records are cloud hosted, and internal business continuity plans for all record systems hosted by the institution. For records maintained in paper-based systems, the institution must be able to demonstrate its process for business continuity including duplication, dispersal/remote storage, and backup/recovery procedures.

Vital animal and veterinary records are those required to reestablish animal care in the event of a disaster.

1.4.5. At least one set of the institution's historical animal and veterinary records must be stored and protected. The institution should be able to demonstrate how it provides security, protection, and long-term access for vital animal and veterinary records that have enduring legal, research, or reference value, including, but not limited to permits, titles, declaration forms, and other pertinent information.

1.4.6. The institution should develop a records retention schedule and policy for its animal and veterinary records to make certain they are created, managed, and appropriately preserved or

otherwise disposed of according to minimum legal, administrative, and historical values. [See 2.0.4 for veterinary records.]

1.4.7. A paid staff member must be designated as being responsible for the institution's zoological records management system. That person must be charged with establishing and managing the institution's animal records, as well as with keeping all paid and unpaid animal care staff members apprised of relevant laws and regulations regarding the institution's animals.

1.4.8. At least one member of an institution's paid staff responsible for animal record keeping must have the proper training required to properly manage the system.

Explanation: AZA's Institutional Records Keeping (IRK) course and the Zoological Registrars Association (ZRA) Training Certificate Program are examples of options to obtain appropriate training.

1.4.9. Training should be provided for all staff who record data directly into the institution's zoological data records system (registrars, animal care specialists, veterinarians, etc.) to assure consistent data entry and data management.

1.4.10. Animal records must be kept current.

Explanation: For animal care specialists and other paid line staff, animal events, identification, and husbandry information should be recorded in animal care specialist reports or via direct entry into the zoological records management system on the same day whenever possible, but no later than the day following. Acquisition, transfer, death, and reintroduction data should be entered into the zoological records management system within two weeks and retained for at least five years after the animal's death or transfer.

1.4.11. The institution must have a zoological records management system that provides sufficient detail to enhance husbandry, welfare, breeding, conservation, and medical health advancements to move forward the critical knowledge of the species through permanent and retrievable information and analysis.

1.4.12. When a specimen is transferred to another institution, all data for that animal within the zoological records management system, including any historical data from previous holding institutions, must be transferred with the animal to assure the receiving institution can provide the best possible animal care.

Explanation: The zoological records management system is the application in use by the transferring institution – i.e., Species360, Tracks, Oerca and other digital record keeping systems. Animal care records include, but are not limited to husbandry, medical, lab, welfare and documentation for imported animals such as cleared permits, customs clearance, wildlife agency clearance, etc.

For the sake of ease, efficiency and enhanced analytical capabilities, digital systems are preferable with records transferred in a computer readable format. If the institution does not use a digital animal management system and/or additional records are stored outside of the system, copies of all paper records for the animal must be transferred to the receiving institution.

1.4.13. For AZA studbook-managed species, all data that is required to manage these programs effectively must be submitted to Species360 for use in ZIMS for Studbooks.

1.5. Animal Welfare, Care, and Well-Being

1.5.0. The institution must have a process for assessing animal welfare and wellness.

Explanation: This process must be both proactive and reactive, transparent, and include staff or consultants knowledgeable in assessing quality of life for animals showing signs of physical or mental distress or decline. The process must also include a mechanism to identify and evaluate the welfare/wellness impacts of significant life events or changes in the animal's environment as identified by the individual institution. Examples of life events/changes could include construction events, unusual weather events, noise intrusion, change in housing, changes in animals exhibited with or nearby, change in an animal's role within the collection, or involvement in informal or structured presentations/programming as an ambassador animal, etc. Animal welfare/wellness refers to an animal's collective physical and mental states over a period of time, and is measured on a continuum from good to poor using both input and output based measures. Further information on the establishment of an animal welfare assessment process is available from AZA, and online in AZA's Accreditation Resource Center at https://www.aza.org/accred-resource-center (you will be requested to log in using your individual membership user name and password). The Resource Center includes many helpful documents on welfare assessments, including the WAZA Animal Welfare Strategy.

1.5.1. All animals must be well cared for and presented in a manner reflecting modern zoological practices and philosophies, exhibit design, and balancing animals' welfare requirements with aesthetic and educational considerations.

1.5.2. All animals must be housed in enclosures which are safe for the animals and meet their physical and psychological needs.

1.5.2.1. All animals must be kept in appropriate groupings which meet their social and welfare needs.

1.5.2.2. All animals should be provided the opportunity to choose among a variety of conditions within their environment.

1.5.3. If animal presentations are part of the institution's programs, an educational/conservation message must be an integral component. Messages may include conservation, animal welfare, natural history information, etc.

1.5.4. If an animal is acting as an ambassador, a written policy on the use of live animals in programs must be followed and incorporate the elements contained in AZA's "Recommendations For Developing an Institutional Ambassador Animal Policy" (see pages 84 – 90) and include a risk management plan for each ambassador animal (see 11.4.1). Animals in education programs must be maintained and cared for by paid and/or unpaid trained staff, and housing conditions in their primary enclosures must meet standards required for the remainder of the animals in the institution. While outside their primary enclosure, although the conditions may be different, animal safety and welfare need to be assured at all times.

Explanation: An animal is considered to be acting as an ambassador when it meets the conditions outlined in the "Guide to Assessing When an Animal is Acting as an Ambassador" flow chart. As stated in the AZA Ambassador Animal Policy, the management of ambassador animals requires special consideration. Although the housing conditions for ambassador animals may look different at times to those provided to exhibit animals, institutions must provide comparable social, physical, behavioral and nutritional opportunities to ambassador animals. Primary housing enclosures (this does not include short-term holding for programs or transport) for any given ambassador animal species must provide sufficient space for comfort, exercise, and shelter, and have sufficient

complexity for animals to engage in species-appropriate behavior. Ambassador animals should be housed socially when appropriate for the species and individual animals, except in cases where the animal(s) may not be able to thrive or compete with conspecifics (e.g. hand-reared, imprinted, or certain non-releasable rehab animals). Also, providing ambassador animals with enrichment activity and opportunity for choice and control in their environment (e.g., whether they want to participate in a program on any given day, and providing options for enrichment activities) and incorporating time limitations (including animal rotation and rest periods), where and when appropriate, is essential to ensuring effective care and management. Activities associated with programs may provide some of these needs from time to time, but should not be instead of enrichment and housing complexity in their primary enclosures. An education, conservation, and welfare message must be a component of all programs.

1.5.5. For animals used in offsite programs and for educational purposes, the institution must have adequate written protocols in place to protect the rest of the animals at the institution from exposure to infectious agents.

Explanation: To protect the health of the animals at the institution, written protocols required above, and their implementation, must include a veterinary risk assessment and veterinary approval.

1.5.6. Institutions that include elephants in their collection must follow the AZA Standards For Elephant Management & Care.

1.5.6.1. Institutions that include cetaceans in their collection must follow the AZA Standards For Cetacean Care & Welfare.

1.5.7. The animals must be protected or provided accommodation from weather or other conditions clearly known to be detrimental to their health or welfare.

Explanation: Animals must be provided with an environment in which they can acclimate sufficiently to remain healthy and support their well-being. For example, animals should be protected from excessive noise or vibration. Animals not normally exposed to cold weather in their natural habitats should be provided heated enclosures. Likewise, protection from excessive heat should be provided to animals normally living in cold climates. Protection from predation by wild or feral animals should also be considered as well as other non-environmental factors. Animals participating in presentations or programs outside of their primary enclosure must be provided protection from excess sun, heat, cold and precipitation during programs and transport to and from programs.

1.5.8. The institution must develop and implement a clear and transparent process for identifying, communicating, and addressing animal welfare concerns from paid or unpaid staff within the institution in a timely manner, and without retribution.

Explanation: A committee or some other process must be identified and communicated to all paid and unpaid staff to address any concerns for animal welfare within the institution. This committee or process is intended to supplement the normal chain-of-command to assure that any personal conflicts do not have undue influence over the process or its outcomes, or if the complainant believes that the welfare concern has not been adequately addressed through normal channels.

The committee or process should include the following elements:

- Clear communication of the process to paid and unpaid staff.
- Ready access to the committee or process by all paid and unpaid staff.

- Paid staff with the experience and authority necessary to evaluate submitted observations and implement any necessary changes.
- Timely feedback to the person submitting the observation. Examples of Institutional Animal Welfare Processes can be obtained at https://www.aza.org/accred-resource-center (you will be requested to log in using your individual membership user name and password).

1.5.9. The institution must have a regular program of monitoring water quality for fish, marine mammals, and other aquatic animals, as well as any other exhibits containing significant water features used by the animals. A written record must be maintained to document long-term water quality results and chemical additions.

Explanation: Monitoring of selected water quality parameters will provide confirmation of the correct operation of filtration and disinfection of the water supply available for the animals. Additionally, high quality water enhances animal health programs instituted for aquatic animals. Appropriate water quality parameters must also be monitored for aquatic animals while participating in programs.

1.5.10. Temporary, seasonal and traveling live animal exhibits, programs, or presentations (regardless of ownership or contractual arrangements) must be presented and maintained at the same level of care as the institution's permanent resident animals, with foremost attention to animal welfare considerations, both onsite and at the location where the animals are permanently housed.

Explanation: Institutions must perform due diligence demonstrating that the contracted vendor has the expertise, resources, and facilities to provide for the animals' physical, psychological, behavioral, and social needs. Contracted vendors should be monitored periodically to assure that proper care of the animals is being maintained.

1.5.11. Animal transportation must be conducted in a manner that is safe, well-planned and coordinated, and minimizes risk to the animal(s), employees, and general public. All applicable laws and/or regulations must be adhered to.

Explanation: Planning and coordination for animal transport requires good communication among all involved parties, plans for a variety of emergencies and contingencies that may arise, and timely execution of the transport. Safe animal transport requires the use of appropriate conveyance and equipment that is in good working order. The equipment must provide for the adequate containment, life support, comfort, temperature control, food/water, and safety of the animal(s). Safe transport also requires the assignment of an adequate number of appropriately trained personnel (by institution or contractor) who are equipped and prepared to handle contingencies and/or emergencies that may occur in the course of transport. At no time should the animal(s) or people be subjected to unnecessary risk or danger.

1.5.12. Paid and/or unpaid staff assigned to handle animals during presentations or programs must be trained and in compliance with the institution's written animal handling protocols. Staff handling of animals during animal transport and programs must be evaluated regularly to assure continued adherence to the institution's protocols. Such training must take place before handling may occur.

1.5.13. When in operation, animal contact areas (petting, feeding, touching of animals) must be supervised by trained, paid and/or unpaid staff. Contact area animals must have access to rest or escape areas where they can avoid contact with guests, if they choose.

1.5.14. If animals are housed either long-term or permanently in indoor facilities, the appropriate UV spectrum for the species (based on the knowledge available to date) must be provided in these

enclosures. [Formerly 10.3.1]

Explanation: Published scientific studies demonstrate that animals housed indoors without directly contacting sunlight, including certain invertebrates, fishes, amphibians, reptiles, birds and mammals, benefit from access to very specific ultraviolet wavelengths of light to promote mineral and vitamin metabolism, reproduction, natural behaviors and healthy immune systems. Animal care staff and exhibit designers should regularly review published scientific studies and AZA Animal Care Manuals as well as consult with AZA Scientific Advisory Groups when determining light quality needs of animals housed indoors. Animals that travel outside of their primary enclosures might receive sufficient UV light at times; however, this should not be considered as in lieu of the regular UV light cycle.

1.5.15. All animal exhibit and holding area air and water inflows and outflows must be securely protected to prevent animal injury or egress.

1.5.16. When sunlight or other lighting sources are likely to cause overheating of, or discomfort to, the animals (including Ambassador Animals before, during, or after programs and presentations), sufficient shade (in addition to adequate shelter structures) must be provided by natural or artificial means to allow all animals to protect themselves from direct sunlight. [Formerly 10.3.4]

1.6. Enrichment and Husbandry Training

1.6.1. The institution must follow a formal written enrichment program that promotes species-appropriate behavioral opportunities.

Explanation: An enrichment program should be based on current scientific, and should include the following elements: goal-setting, planning and approval process, implementation, documentation/record-keeping (see standard 1.6.3), evaluation, and reassessment. The enrichment program should also apply to animals in quarantine, as appropriate and possible. In some cases, the features and complexity of the exhibit may provide sufficient enrichment. Animals acting as ambassadors who are removed from their primary enclosure for programs or presentations might be enriched by such activity; however, participation in programming should be evaluated to determine whether the animal shows an enrichment benefit. Furthermore, participation in programs should be considered supplementary to the regular enrichment program and not be the only form of enrichment. Further information on the establishment of an enrichment program is available from AZA, and online at https://www.aza.org/accred-resource-center (you will be requested to log in using your individual membership user name and password).

1.6.2. The institution must have a specific paid staff member(s) or committee assigned for enrichment program oversight, implementation, assessment, and interdepartmental coordination of enrichment efforts.

1.6.3. Enrichment activities must be documented and evaluated, and program refinements should be made based on the results, if appropriate. Records must be kept current.

1.6.4. The institution should follow a formal written animal training program that facilitates husbandry, science, and veterinary procedures and enhances the overall health and well-being of the animals.

Explanation: An animal training program should be based on current animal training best practices in the zoological field and should include the following elements: • goal-setting (what behaviors to be trained, what species/individuals of priority), • planning (process for developing and approving training plans), and • documentation (record of success).

1.7. Commercial Collectors

1.7.1. Institutions that acquire aquatic animals from the wild must make a good faith effort to determine that collecting procedures are done in a sustainable manner.

1.7.2. Institutions dealing with commercial collectors must determine that the collectors are properly permitted to conduct legal collections of animals (including aquatic animals) from the wild.

Explanation: The institution must be proactive in ensuring that any commercial collectors utilized are properly permitted to conduct legal collections of animals from the wild.

1.8. Participation/Support

1.8.1. The institution must participate in every SSP that pertains to an animal within their collection. The institution may indicate at what level it desires to participate in each SSP. [Formerly 3.3.1]

1.8.2. The institution must actively support and participate in AZA animal programs, and cooperate in providing requested information regarding its animals in a timely fashion to AZA Program Leaders, including Studbook Keepers, SSP Coordinators and Chairs, SAFE programs, and follow agreed upon recommendations (e.g., breeding and transfer plans; acquisitions, transfers, and transitions, etc.). [Formerly 3.3.2]

2. VETERINARY CARE

Welfare Considerations:

AZA-accredited zoos and aquariums must assure the health of all animals in their care. In addition to a strong foundation of professional animal care staff, the utilization of a highly qualified veterinarian and veterinary staff, and the access to modern veterinary facilities is required. All concerns regarding the health of animals must be assessed, treated, and corrected as a priority utilizing the expertise and resources of the veterinary team and as also available through AZA and AAZV.

2.0. Veterinary Care Program

2.0.1. The institution should adopt the *Guidelines for Zoo and Aquarium Veterinary Medical Programs and Veterinary Hospitals,* and the policies developed or supported by the American Association of Zoo Veterinarians (AAZV). The most recent edition of the medical programs and hospitals booklet is available at the AAZV website, under “Publications”, at https://cdn.ymaws.com/www.aazv.org/resource/resmgr/files/aazvveterinaryguidelines2016.pdf, and can also be obtained in PDF format by contacting AZA staff.

2.0.2. The veterinary care program must emphasize disease prevention. [Formerly 2.4.1]

Explanation: Preventative medicine programs (vaccinations, TB testing, parasite exams, etc.) must be in force for all of the institution’s animals and must be under the direction of a qualified veterinarian.

2.0.3. Institutions should be aware of, and prepared for periodic disease outbreaks in wild or other domestic or exotic animal populations that might affect the institution’s animals (ex – Avian Influenza, Eastern Equine Encephalitis Virus, etc.). Plans should be developed that outline steps to be taken to protect the institution’s animals in these situations.

2.0.4. Complete medical records must be maintained on all animals in the collection that have received veterinary attention. [See 1.4.7 for animal records.]

2.1. Staff

2.1.1. A full-time staff veterinarian is recommended. In cases where such is not necessary because of the number and/or nature of the animals residing there, a consulting/part-time veterinarian must be under written contract to make at least twice monthly inspections of the animals and to respond as soon as possible to any emergencies.

Explanation: Because of their size or nature, exceptions may be made to the twice monthly inspection requirement for certain institutions (e.g., insects only, etc.).

2.1.2. So that indications of disease, injury, or stress may be dealt with promptly, veterinary coverage must be available to the animals 24 hours a day, 7 days a week.

2.2. Pharmaceutical

2.2.1. Written, formal procedures must be available to paid and unpaid animal care staff for the use of animal drugs for veterinary purposes, and appropriate security of the drugs must be provided.

Explanation: Such procedures should include at minimum the following: those persons authorized to administer animal drugs, situations in which they are to be utilized, location of animal drugs and those persons with access to them, and emergency procedures in the event of accidental human exposure. Outdated drugs must be marked as such and stored separately from all other drugs. All controlled substances must be stored in a securely locked container of substantial construction appropriate for the types of drugs in the inventory, with special attention to all Schedule II drugs. If kept on site, drugs such as Thiafentanil, Carfentinil, Etorphine hydrochloride (M99), and Diprenorphine (M50-50) must be stored in a safe or steel cabinet of a design equivalent to a U.S. Government Class V security container. [NOTE: Underwriters Laboratories (UL) listed burglary-resistant safe (UL-TL 15, TL 30, or TL 45 with a Group 1-R lock). The safe or steel cabinet shall have the following specifications or the equivalent: 30 minutes against covert entry, 20 hours against surreptitious entry, 10 minutes against forced entry, 20 hours against lock manipulation, and 20 hours against radiological techniques].

2.2.2. The use of drugs in zoos and aquariums must comply with the federal Animal Medicinal Drug Use Clarification Act of 1994 (AMDUCA) and associated regulations, as well as all other applicable federal, state, and local laws and/or regulations.

Explanation: AMDUCA provides zoo/aquarium veterinarians with prescribing and dispensing options important for the health and welfare of animals under their care; a critically important resource given the lack of drugs labeled for use in zoo/aquarium animals. Additional information concerning the requirements of extra-label drug use can be found at: https://www.avma.org/KB/Resources/Reference/Pages/AMDUCA.aspx

For the purposes of this standard, the Food and Drug Administration (FDA) definition of a drug is applicable:

- A substance recognized by an official pharmacopoeia or formulary.
- A substance intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease.
- A substance (other than food) intended to affect the structure or any function of the body.
- A substance intended for use as a component of a medicine but not a device or a

component, part or accessory of a device.

- Biological products are included within this definition and are generally covered by the same laws and regulations, but differences exist regarding their manufacturing processes (chemical process versus biological process.)

2.3. Equipment

2.3.1. Capture equipment must be in good working order and available to authorized, trained personnel at all times.

2.3.2. Institution facilities must have radiographic equipment or have access to radiographic services.

Explanation: Because of their size and/or nature, exceptions may be made for certain institutions (e.g., insects only, etc.).

2.4. Preventative Medicine

2.4.1. [See 2.0.2.]

2.4.2. Paid and unpaid animal care staff should be trained to assess welfare and recognize abnormal behavior and clinical signs of illness and have knowledge of the diets, husbandry (including enrichment items and strategies), and restraint procedures required for the animals under their care. However, animal care staff (paid and unpaid) must not diagnose illnesses nor prescribe treatment.

2.5. Necropsy

2.5.1. Deceased animals should be necropsied to determine the cause of death for tracking morbidity and mortality trends to strengthen the program of veterinary care and meet SSP-related requests.

Explanation: Necropsies provide information as to the cause of death as well as underlying pathology that may be related to nutritional status, other aspects of husbandry, or preventive medicine. Necropsy data, should be reviewed on a regular basis to identify any group health implications or necessary changes in animal management. Trained staff under the direction of a veterinarian may perform necropsies. All deceased animals (or a sampling from a mass mortality) should be evaluated by gross necropsy supported by histopathology under veterinary discretion. SSP necropsy protocols should be followed.

While a good faith effort should be made to perform a gross necropsy on all deceased animals (or an appropriate sampling from a mass mortality), there are cases, such as advanced decomposition of fish or invertebrates, in which post mortem examination is neither possible nor practical. Resources, either internal or external for histopathology and other ancillary diagnostic testing should be available and utilized at the discretion of the veterinarian.

2.5.2. The institution should have an area dedicated to performing necropsies.

Explanation: To minimize transmission of potential contagion, necropsies should be performed in a dedicated room. Alternatives to a necropsy room (such as a lab bench, cart, biosafety cabinet, or outdoor area) should be assessed for health risk posed to other animals, staff, and guests.

2.5.3. Cadavers must be kept in a dedicated storage area before and after necropsy. Remains must be disposed of in accordance with local/federal laws.

2.6. Nutrition

2.6.1. Animal food preparation and storage must meet all applicable laws and/or regulations.

2.6.2. The institution must follow a written nutrition program that meets the behavioral and nutritional needs of all species, individuals, and colonies/groups in the institution. Animal diets must be of a quality and quantity suitable for each animal's nutritional and psychological needs.

> Explanation: Nutrition programs should be developed using the recommendations of appropriate AZA TAGs or SAGs, and the AZA Nutrition Advisory Group http://nagonline.net/guidelines-aza-institutions/feeding-guidelines/. Diet formulation criteria should include each animal's individual history and natural history, feeding ecology and behavioral needs. For institutions located in the U.S., meat processed on site must be processed following all USDA (or federal) standards. For institutions located outside of the U.S., a process equal to or exceeding that of USDA standards must be followed.

2.6.3. If the institution uses browse plants as part of the diet or as enrichment items for its animals, the items must be identified and reviewed for safety prior to use.

> Explanation: At minimum, the program should identify what plants are safe to feed and to which species, which parts of the plant are safe, whether the browse plants have been treated with any chemicals or if they are near any point sources of pollution.

2.6.3.1. The institution must assign at least one qualified paid or unpaid staff member to oversee appropriate browse material for the animals (including aquatic animals).

2.6.3.2. The institution's animal care program must address the potential risks of animals (including aquatic animals) being exposed to toxic plants growing in or near their exhibit space. Exhibits should be checked regularly during the growing season.

2.6.4. If not in separate buildings, animal food preparation areas must be physically separated from other functions such as the animal hospital (including animal treatment, isolation, holding, deceased animal storage) and employee lounges and offices. Animal food must not be stored in the same area as animal drugs. Animal food and human food must not be stored in the same location (refrigerators, freezers, etc.).

2.7. Quarantine

2.7.1. The institution must have holding facilities or procedures for the quarantine of newly arrived animals and isolation facilities or procedures for the treatment of sick/injured animals.

2.7.2. Written, formal procedures for quarantine must be available and familiar to all paid and unpaid staff working with quarantined animals.

2.7.3. Quarantine, hospital, and isolation areas should be in compliance with standards/guidelines contained within the *Guidelines for Zoo and Aquarium Veterinary Medical Programs and Veterinary Hospitals* developed by the American Association of Zoo Veterinarians (AAZV), which can be obtained at: www.aazv.org/resource/resmgr/files/aazvveterinaryguidelines2016.pdf

2.8. Pest Control

2.8.1. Pest control management programs must be administered in such a manner that the animals, paid and unpaid staff, the public, and wildlife are not threatened by the pests, contamination from pests, or the control methods used.

2.9. General Policy and Practice

2.9.1. The institution must follow a written euthanasia policy which adheres to the current AVMA Guidelines for the Euthanasia of Animals (search at AVMA.org), or the AAZV Guidelines for the Euthanasia of Nondomestic Animals (search at AAZV.org).

Explanation: The AZA Policy on Responsible Population Management: Acquisition, Transfer, Euthanasia and Reintroduction by Zoos & Aquariums, references an institutional euthanasia policy. This policy should be tailored to the needs of the institution, outlining appropriate procedures and responsibilities for all taxa within the institution's collection. All paid and unpaid animal care staff should be familiar with this policy, and the institution should advise and involve related care-givers in the decision.

3. CONSERVATION

General Considerations:

Impactful and sustainable conservation initiatives are a priority for AZA-accredited zoos and aquariums. These include contributing to and promoting the long-term survival of species in natural ecosystems, and full support of AZA *ex situ* programs such as Species Survival Plans (SSPs) and Saving Animals From Extinction (SAFE). Green practices, education, conservation studies, advocacy, and engagement programs emphasizing the institution's and community's role in ecosystem conservation and stewardship of natural resources should inspire conservation action with measurable outcomes both at the institution and in the community/society-at-large to address the causes of species endangerment.

Welfare Considerations:

Conservation ethics, practices, messaging, and funding helps improve the welfare of animals in the wild and their counterparts in human care. Animal welfare should be considered as a component of field conservation projects supported by AZA-accredited zoos and aquariums.

3.1. Mission

3.1.1. Conservation must be a key component of the institution's mission and messaging.

Explanation: For the purposes of AZA accreditation, conservation is understood to be active stewardship of the natural environment, including animals, plants, and other natural resources.

3.2. Conservation Program

3.2.1. The institution must follow a written conservation action plan/strategy with defined measurable outcomes in proportion to the size and scope of the organization with the goal of demonstrating continuous improvement in each area. The plan must include components outlining the institution's commitments to its conservation practices, including each of the following:

- Field conservation efforts (e.g., supporting local and/or global priorities including paid staff or volunteer involvement of field programs, or financial support of impactful field programs). Such programs are those that have a direct and measurable impact on

animals and habitats in the wild.

- Natural resource conservation and sustainability/green practices such as water conservation initiatives; energy use reduction and alternative sources; waste management for recyclables, compostables, combustibles, and toxic and hazardous materials; sustainable purchasing and contracts; green construction, and other green practices.
- Connecting the animal collection with saving species in the wild (e.g., conservation messaging, advocacy, supporting reintroduction programs, donating to and/or engaging in applied research, etc.)
- Conservation education, advocacy, and engagement programs measured against the written conservation goals of the institution.

Explanation: Each institution must participate in practices that implement its conservation action plan/strategy, which itself should include a variety of measurable and impactful outcomes. Metrics for monitoring and assessing impact may include, but are not limited to, measures of direct conservation impact (population sizes, area conserved, etc.), conservation spending (both gross amount and percentage of operational budget are instructive), number of staff dedicated to conservation, etc. Being the lead agency or partnering with other agencies/organizations on field conservation programs is one of the most significant ways AZA institutions can demonstrate their role in ecosystem conservation and wildlife preservation. AZA institutions have the responsibility to demonstrate responsible resource management, acting as leaders in their communities. Helping guests and paid and unpaid staff engage in the conservation commitments of the institution is core to our missions. Lists of programs and projects submitted to AZA's Annual Report on Conservation and Science (ARCS)-related surveys serves as evidence that the institution is following its conservation action plan/strategy.

3.2.2. Each institution must evaluate, measure, and monitor the impact of its written conservation action plan/strategy.

Explanation: Some form of regular evaluation of conservation efforts must occur. Measurement of impact can include assessment of achievement of programmatic goals, actual measure of impact on species and habitat conservation, and/or some other quantitative measure of success.

3.2.3. The institution must submit ARCS (Annual Report on Conservation and Science) surveys annually to AZA.

Explanation: AZA collects ARCS surveys annually from member facilities and compiles the data to illustrate the collective effort dedicated to field conservation, research, education, and green practices. Full participation is necessary to accurately measure and report the cumulative conservation activity of accredited institutions and certified related facilities to local, regional, national, and international stakeholders (e.g. community, government, funders, partners). Institutions and related facilities should maintain records of the past five years of ARCS survey submissions for review by accreditation inspectors during on-site inspection.

3.3. Participation/Support

3.3.0 The institution should participate in SAFE species programs. The institution may indicate at what level it desires to participate in each SAFE program.

3.3.1. [See 1.8.1]

3.3.2. [See 1.8.2]

4. EDUCATION AND INTERPRETATION

General Considerations:

This section includes all questions related to education and interpretation. Collectively, education and interpretation refer to: programming on-site and off-site for targeted audiences such as school groups, teachers and families, as well as all types of interpretive methods for guests, for example, graphics, exhibits, ambassador animal use, and animal care specialist talks. Institutions may differ organizationally in how they accomplish these tasks (e.g., some institutions may have an Exhibits Department, or graphics may be coordinated by the Art Department). What is key is the role of the paid and unpaid education staff in the accomplishment of these tasks. Institutions are encouraged to share educational and interpretive programming, materials, and evaluation techniques with other AZA institutions.

Welfare Considerations:

AZA-accredited zoos and aquariums must be innovative and dynamic conveyors of their science-based mission and goals. Knowledge creates awareness that leads to change, and impacts animal welfare in both AZA-accredited institutions and in the wild. Educated populations are overwhelmingly more supportive of actions and practices that promote the care, welfare, and conservation of wildlife.

4.1. Mission

4.1.1. Education must be a key component of the institution's mission.

Explanation: Education is an important component in the conservation mission of each institution. Effective educational programming is a proven method of increasing awareness and participation in stewardship of the natural world.

4.2. Education Program

4.2.1. The institution must follow a written education plan that includes goals and objectives.

Explanation: The institution's education plan must include a copy of its education vision/mission, as well as strategic goals and objectives. The plan may include a copy of the organizational chart, and description of how the education department interacts with other departments on issues such as exhibit and graphics' development, animal care specialist presentations, *in situ* conservation programs, etc. The plan should include the institution's conservation messages.

4.2.2. The education department must be under the direction of a paid staff person who is trained or has experience in educational programming. Education personnel should be involved in the development of exhibits, graphics, and interpretation, as well as all structured programs for the visiting public.

4.2.3. Institutions should participate in active, ongoing collaborative partnerships with organizations and individuals that can contribute to the expansion of their educational dimension. Such partnerships may include community groups, other informal education institutions (museums,

science centers, nature centers, etc.), school districts, institutes of higher learning, other conservation organizations and government agencies.

4.2.4. Institutions should provide paid and unpaid staff access to informational resources with the goal of supporting excellence in programs, animal management, and exhibits. These resources may include a facility library, access to an offsite library or electronic access to internet resources.

4.3. Evaluation/Interpretation

4.3.1. Classes, programs, animal talks, interpretive programs and other education programs should be evaluated on a regular basis for effectiveness and content. Programs should be updated with current scientific information, with an educational/conservation message as an integral component. These evaluations should assess more than participant satisfaction, looking also at program impact (ideally including impact on conservation-related knowledge, attitudes/affect, and behavior). Results from evaluations should be used to improve the existing programs and to create new programs.

4.3.2. The institution should have a thorough understanding of the needs of its audiences and as such provide programs to meet these needs.

Explanation: Zoo and aquarium education can be accomplished by programs offered to a wide variety of audiences and paid/unpaid staff through an assortment of programmatic methods: publications, exhibit interpretation, on-site presentations, tours, summer camps, speaker's bureau, outreach programs, teacher training, etc. The institution need not reach ALL audiences equally, but a thoughtful approach to audience selection should be evident – e.g., a clear understanding of their audience's needs, including the needs of under-represented groups and groups with special abilities. Similarly, not all types of programming must be used equally, but a thoughtful approach to program development must be evident. Programming should include local/global conservation issues and topics, the role of zoos and aquariums in conservation, information on AZA and other conservation-oriented organizations; as well as ways that the institution acts as a resource in its community for wildlife conservation education and related issues. Programming should clearly address cognitive, affective, and behavior outcomes (i.e., options for individual action that encourages stewardship in conserving the environment).

4.3.3. The exhibit graphics and other interpretive devices must be in good condition and functioning, and be based upon relevant scientific knowledge and reflect relevant interpretive methods.

Explanation: The interpretive program must be based on the thoughtful development of conservation messages for the institution. Exhibit interpretation may include information regarding the animal's natural history, conservation, care and welfare, ecology, relation to humans, correct taxonomic identification and current status (i.e., endangered or threatened), as well as botanical collections, and specific environmentally responsible behaviors visitors are being encouraged to take. In particular, inclusion of interpretation on AZA's cooperative management programs (e.g., SSPs and TAGs) is encouraged.

5. SCIENTIFIC ADVANCEMENT

General Considerations:

Contemporary animal management, welfare, husbandry, veterinary care, and conservation practices should be based in science. A commitment to scientific advancement through research studies, both basic and applied, is a trademark of the modern zoological park and aquarium. Scientific studies should be justified in terms of the contribution to the understanding of biological principles, or to outcomes that are expected to benefit humans, animals, or the ecosystem.

Welfare Considerations:

Studies performed or supported by AZA-accredited zoos and aquariums advance knowledge and understanding of animals and the individual needs of each species. Through knowledge gained, AZA-accredited institutions help to improve the welfare of animals both in human care and their counterparts in the wild.

5.0. The institution must have a demonstrated commitment to scientific study that is in proportion to the size and scope of its facilities, staff (paid and unpaid), and animals.

5.1. Scientific studies must be under the direction of a paid or unpaid staff member or committee qualified to make informed decisions.

5.2. The institution must follow a formal written policy that includes a process for the evaluation and approval of scientific project proposals, and outlines the type of studies it conducts, methods, staff (paid and unpaid) involvement, evaluations, animals that may be involved, and guidelines for publication of findings.

5.3. The institution should maximize the generation and dissemination of scientific knowledge gained. This might be achieved by participating in AZA TAG/SSP sponsored studies when applicable, conducting and publishing original research projects, affiliating with local universities, and/or employing staff with scientific credentials.

6. GOVERNING AUTHORITY

General Considerations:

The governing authority should be fully informed of and willing to support (in theory and finance) the continued advancement of the institution's mission, goals, and objectives (including, but not limited to, animal welfare, conservation projects, education, scientific studies, advancement in exhibit design, and quality visitor experience.)

Welfare Considerations:

It is critical that an AZA-accredited zoo or aquarium's governing authority provide the institution with attentive and consistent support to assure the institution's ability to continuously provide good animal welfare. Consistent and strong leadership and support by a governing authority may help avoid or mitigate shortfalls and other conditions that could potentially affect the quality of animal welfare within the institution.

6.1. The governing authority must be supportive of the institution abiding by the AZA Accreditation Standards, Code of Professional Ethics, and Bylaws.

Explanation: The Commission must be assured that the institution's governing authority understands and is supportive of the institution abiding by the AZA Accreditation Standards, Code of Professional Ethics, and Bylaws.

6.2. The governing authority must recognize and support the institution's goals and objectives.

6.3. The governing authority has the responsibility for policy matters and oversight of the institution. The CEO/Director must be responsible for the day-to-day management of the institution, including animal acquisition, transfer, welfare, euthanasia, and reintroduction, paid and unpaid staff, and programs.

6.4. While the governing authority may have input, the decisions regarding the institution's animals must be made by the professionals who are specifically trained to handle the institution's animals, staff (paid and unpaid), and programs.

6.5. The lines of communication between the CEO/Director, the governing authority, and the support organization must be clearly defined. Additionally, the governing authority and support organization must be structured so that their relationship to the professional staff (paid and unpaid) is clearly understood and followed.

Explanation: If clear lines of communication do not exist, a breakdown in the operation of the institution and care of the animals could occur. It is essential to have a good working relationship between the governing authority, support organization, CEO/Director, and the paid and unpaid staff.

6.6. The CEO/Director must have the opportunity to attend meetings that would affect operations of the institution.

7. STAFF

General Considerations:

In applying for accreditation, AZA-accredited institutions, along with their paid and unpaid staff and their governing authority, agree to abide by AZA's: • Accreditation standards and policies, • Code of Professional Ethics, • Bylaws, • Acquisition, Transfer, Euthanasia and Reintroduction Policy, • all duly adopted resolutions and position statements, and • agree to support AZA's objectives. To fulfill this commitment it is expected that an institution's professional staff and, at minimum, its senior executive (i.e., zoo or aquarium CEO/Director) should participate in AZA at the Professional Fellow level.

Welfare Considerations:

AZA-accredited zoos and aquariums must have a sufficient number of properly trained staff to care for the animals and assure good animal welfare, maintain high quality operations, and work to continually evolve (modernize) the institution. Continuing professional development of staff is required to ascertain that staff is up-to-date with the latest information and best practices.

7.1. The institution must be under the direction of a compensated CEO/Director. The CEO/Director or a designee must be available to the institution on a full-time basis.

7.2. In the event a CEO/Director has several "jobs" (i.e., also directs other areas of a park system), clear priorities must be established, with each job having separate and distinct descriptions.

7.3. There must be an adequate number of trained paid and unpaid staff to care for the animals and to manage the institution's diverse programs.

Explanation: Although there is no set formula for prescribing the size of the staff (paid and unpaid), some of the criteria that may be used to define what is considered "adequate" include the number and type of species within the institution, the general condition of the animals and exhibits, and past staffing practices.

7.4. Compensation for paid staff should be competitive with other similar positions in the local/regional/national market, as appropriate.

Explanation: Institutions must be able to recruit and retain qualified paid staff. Competitive compensation is a key component in recruitment and retention of paid staff. Some positions can be successfully recruited for locally, while others are competitive on a more regional or national basis (e.g., animal care specialists).

7.5. Paid full-time staff members should receive opportunities for training and development.

Explanation: All paid full-time staff institution-wide should be provided opportunities for training and professional development. Funding should be provided for travel, meeting/conference participation, tuition, on-line training, and other professional opportunities when possible. Training and development opportunities may also be offered by qualified staff within the institution.

7.6. To support the operations of the institution, all paid and unpaid staff must maintain a professional attitude and behavior in all working relationships.

7.7. The institution should encourage paid and unpaid staff to actively participate in AZA committees and programs, as well as programs developed by other conservation-oriented organizations, including through virtual means such as email, teleconference, etc.

7.8. Paid and unpaid staff must be provided access to the latest edition of the AZA accreditation standards and related policies (available at https://www.aza.org/accred-materials).

Explanation: It is important that paid and unpaid staff understand the significance of accreditation and what to expect during the accreditation process and Visiting Committee inspection.

7.8.1. The standards and related policies should be reviewed by institutional leadership annually to maintain continued compliance between accreditation visits.

7.9. The institution must follow a written diversity, equity, access, and inclusion program. Programs must be proactive and transparent, with measurable goals for assessing progress, and must have a paid staff member(s) or committee responsible for oversight.

Explanation: Programs must reflect recognition of the important connection between mission and diversity, and present an on-going effort to enhance diversity, equity, access, and inclusion. Efforts must address areas including paid and unpaid staff, guests/audience, and supplier diversity. Programs must be evaluated at least annually for effectiveness and content, and refinements made as needed. Further information on the establishment of a DEAI program is available from AZA, and online at https://www.aza.org/accred-resource-center (you will be requested to log in using your individual membership user name and

password).

7.10. Programs utilizing volunteers (unpaid staff) should also include provisions for recruitment, interviewing, retention, and training, and periodic evaluation. This process must be under the supervision of a paid staff member(s) charged with overseeing volunteer programs.

7.11. The institution's CEO/Director must hold individual membership in AZA at the Professional Fellow level.

Explanation: The CEO/Director of an institution that is not AZA-accredited at the time application is made must obtain individual membership as a Professional Fellow at such time as accreditation of the institution is granted.

7.12. Institutions should encourage paid staff to assume leadership roles in AZA animal programs. Institutions with paid staff in leadership roles in these programs must provide continuing support to the staff member assigned and take steps to assure that the staff member assigned manages the program efficiently, and communicates with participants in a timely manner.

8. SUPPORT ORGANIZATION

Welfare Considerations:

It is important for an AZA-accredited zoo or aquarium's support organization to recognize and understand the components of good animal welfare and to support the institution in areas that will enhance its ability to continuously provide good welfare to the animals in its care (for example, funding staff training and development, etc.). Support organizations that are primarily focused on individual institution memberships should support animal welfare through communications with the membership about the care provided daily by the institution to assure good welfare for the animals in its care.

8.1. The support organization must recognize the overall authority of the institution's CEO/Director, and the role of the governing authority, for the management of the institution and its programs.

Explanation: The institution's CEO/Director must have final authority over the support organization regarding the animals, exhibits, paid and unpaid staff, programs, long-range plan, and any matters affecting the institution.

8.2. A support organization must share the institution's goals and objectives and provide resources/support for same.

Explanation: A support organization must have a good working relationship with the institution and share its objectives.

8.3. A formal agreement must be in place that delineates the roles and responsibilities of the support organization. This agreement must be kept up to date, reflecting the most current relationship, and be adhered to in practice.

9. FINANCE

Welfare Considerations:

A healthy, stable financial condition is critical to assuring the institution's ability to continuously provide good animal welfare. An inadequate financial position and/or contingency plan have a direct and negative affect on the quality of animal welfare and continued modernization of the institution.

9.1. The institution, regardless of whether operating on a profit or nonprofit basis, must provide sufficient evidence of its financial stability by submitting adequate financial reports, including operating and capital budgets.

Explanation: Proof of adequate financial support includes the submission of operating and capital budgets that clearly show sources of income, as well as expenses and any debt. Budget submissions should include sufficient detail on expenditures for facilities maintenance, animal care, professional development, and depreciation. In the case of financial reports other than audited statements, the Primary Reviewer or the Commission shall determine what constitutes *sufficient evidence*.

9.2. The institution must be able to provide compensation sufficiently competitive to recruit and retain professional, qualified staff.

Explanation: The financial information must include a breakdown of salaries or salary ranges for all paid full-time staff. Institutions should participate in AZA's salary survey and other financial benchmarking efforts.

9.3. General liability insurance coverage, via independent carrier or internal means, must at minimum be provided for visitors, paid and unpaid staff, and physical facilities.

Explanation: The amount and nature of insurance coverage should be sufficient to cover any reasonably anticipated incident.

9.4. The institution must indicate sources and amounts of funding for capital improvements and major maintenance, repairs, and replacements.

Explanation: Capital improvements, maintenance, and major repairs include renovations, maintenance of buildings/grounds/exhibits, new construction, and demolition of outdated structures.

9.5. The institution, regardless of whether operating on a profit or nonprofit basis, must have a written contingency plan in the event that significant decreases in operating income should occur.

Explanation: A financial contingency plan should contain sufficient detail to explain how the institution will provide for critical animal and operating needs over a three to six month period (i.e., a defensive interval period). [See "Definitions", page 5]

9.6. Institutions owned by individuals must have a written contingency and/or financial succession plan in place in the event of the death or incapacitation of the owner(s).

10. PHYSICAL FACILITIES

General Considerations:

While the Commission is interested in the institution's future plans, accreditation will be based upon operations and facilities existing at the time of the Visiting Committee inspection. Consideration will also be given to historical patterns and repetitive issues, if they exist.

All United States institutions must comply with the Americans with Disabilities Act.

Welfare Considerations:

The condition, size, appropriateness, and functionality of animal areas have a direct impact on animal welfare. AZA-accredited zoos and aquariums must consider these factors when assessing welfare for each individual animal or group of animals in their care. Institutions are required to incorporate commonly accepted welfare guidelines and follow a documented process for assessing animal welfare and wellness, especially the spaces in which they live. All facilities within an institution reflect the organization's commitment to quality and modernization.

10.1. Housekeeping, Improvements, and Maintenance

10.1.0. The institution should be in good repair (buildings, exhibits, walkways, railings, structures, signage, etc.).

10.1.1. Good housekeeping must be regularly practiced.

Explanation: Pest control, proper drainage, clutter in work areas, excessive use of extension cords, "permanent" extension cords, and other housekeeping activities require continuous attention.

10.1.2. The institution should follow a written capital improvements, major repair and replacement program.

Explanation: The capital improvements, major repairs and replacement program should include a description of how facilities are assessed along with a written schedule of current and anticipated renovations, new construction, improvements to existing buildings, grounds, exhibits, and demolition of outdated structures.

10.1.3. The institution should follow a written maintenance plan that outlines the institution's strategy for identifying and addressing maintenance and major repairs in a timely manner. The plan should include a schedule of improvements, anticipated cost and timetable for completion, and a plan for funding maintenance needs.

10.2. Equipment

10.2.0. All mechanical equipment must be kept in working order.

10.2.1. Critical life-support systems for the animals, including but not limited to plumbing, heating, cooling, aeration, and filtration, must be equipped with a warning mechanism, and emergency backup systems must be available. Warning mechanisms and emergency backup systems must be tested at least annually.

Explanation: Facilities such as aquariums, tropical rainforest buildings, or other exhibits which rely on climate control for life-sustaining conditions must have emergency backup

systems and a mechanism for warning if those systems are malfunctioning. The life-support assessment and warning mechanisms may be automated systems or may be monitored by qualified paid or unpaid staff. If monitoring is intermittent, its frequency must be such that life support failures will be identified before deleterious effects occur.

10.2.1.1. Enclosures (tanks) used to exhibit or maintain fish and/or aquatic invertebrates must have a warning mechanism to alert staff about critical life support failures in a timely manner. A risk assessment should be performed for each enclosure (tank) in order to identify the critical parameters needing to be monitored. Automated systems are preferable, but not mandatory. In those cases, in which manual monitoring is relied upon, the interval for system evaluation must be less than the survival time for enclosure inhabitants in case of a life support failure.

Explanation: Aquatic systems with fish and/or aquatic invertebrates are particularly threatened by life support system failures. The inability of the system to maintain adequate water flow, oxygen, temperature, and gas saturation can result in catastrophic morbidity/mortality in tank occupants. Shallow, warm water, high biological loaded enclosures, such as stingray touch tanks, are especially vulnerable. Monitoring protocols, either automated or manual, must be developed in a manner capable of detecting system failures prior to the onset of untoward effects on the tank occupants.

10.2.1.2. Staff, paid or unpaid, responsible for monitoring life support function for aquatic animal enclosures must be trained to recognize and mitigate life support system anomalies.

Explanation: The effectiveness of a life support monitoring system reliant on manual evaluations is dependent on the training of the paid or unpaid staff doing the monitoring. These individuals must be trained to recognize life support system failure(s); potential impacts that such failures may have on system inhabitants; troubleshooting and mitigation of system failures; and the application of emergency measures taken to preserve animal health in the face of life support system failure(s).

10.2.2. Systems and methods for fire protection and security must be in place and functional to provide a reasonable level of safety on a 24-hour basis. Routine maintenance records that detail safety checks of the equipment should be kept current.

Explanation: Any appropriate combination of night security, patrols, fire and smoke detection systems and alarms, monitors, or building design features can be used. Compliance with local building codes is required, including fire extinguishers, sprinkler systems, etc.

10.3. Animal Enclosures

10.3.1. Lighting must be sufficient in all indoor facilities, including night houses, so that maintenance can be accomplished and animals can be observed. A means for emergency lighting must be available.

10.3.2. Ventilation must be sufficient in all indoor facilities, including animal holding.

10.3.3. All primary animal enclosures (exhibits, holding areas, hospital, and quarantine/isolation) must be of a size and complexity sufficient to provide for the animal's physical, social, and psychological well-being. AZA housing guidelines outlined in the Animal Care Manuals should be followed.

10.3.4. [See 1.5.16]

10.4. Public Areas

10.4.1. Lighting in public areas must be sufficient for the safe maneuvering of the visiting public.

10.4.2. All walkways must be kept in good repair.

11. SAFETY/SECURITY

Welfare Considerations:

One of the three core principles upon which AZA-accredited zoos and aquariums operate is safety. Facilities must be properly maintained, infrastructure sound, proper practices in place, staff aware and trained, and a culture of safety inherent throughout the institution. All reasonable concerns regarding the welfare of individual animals or groups, visitors, and staff must be thoroughly assessed and corrected.

11.1. General

11.1.1. The institution must be in compliance with all applicable laws and/or regulations regarding employee and volunteer training for safety in the workplace.

11.1.2. Training and procedures must be in place regarding zoonotic diseases.

Explanation: Diseases that can be transmitted between animals and humans (Zoonotic disease, zoonoses) present a potential risk for paid and unpaid staff and the visiting public. The institution should design facilities, develop animal care protocols and present animals for public contact in ways that minimize this risk (e.g., hand-washing or hand sanitizing stations and signage, where applicable, etc.). Institutions must train appropriate paid and unpaid staff in methods to prevent zoonotic disease. The National Association of State Public Health Veterinarians (NASPHV) has prepared a Compendium of Measures to Prevent Disease Associated with Animals in Public Settings which should be followed by institutions presenting animals for public contact (http://www.nasphv.org/documentsCompendiumAnimals.html).

11.1.2.1. The institution must have an occupational health and safety program.

Explanation: An effective occupational health and safety program is based on hazard identification and risk assessment. The nature of the program will depend upon animal species, potential hazards, facility design, and workplace activities. The extent and level of participation (e.g. vaccinations, TB testing, parasite exams, immunizations, personal protective equipment, etc.) will vary depending upon potential hazard exposure and risk management.

11.1.3. A tuberculin (TB) testing/surveillance program must be established for appropriate paid and unpaid staff in order to assure the health of both the paid and unpaid staff and the animals.

11.1.4. Paid and unpaid staff working with toxic/hazardous materials must be trained in the proper handling, labeling, and storage of those materials. The institution must follow a written policy on those procedures and it must be available to handlers.

11.1.5. Whether paper or electronic, Safety Data Sheets (SDS) must be located in areas for easy access by paid and unpaid staff.

11.2. Emergency Procedures

11.2.0. A paid staff member or a committee must be designated as responsible for ensuring that all required emergency drills are conducted, recorded, and evaluated in accordance with AZA accreditation standards (*see 11.2.5, 11.5.2, and 11.7.4 for required drills*).

11.2.1. The institution should have an automated emergency defibrillator (AED) and must provide training to appropriate paid and unpaid staff.

11.2.2. The institution must have appropriate alarms and fire extinguishers readily available and provide training to appropriate paid and unpaid staff.

11.2.3. The institution must have a written plan available for first-aid and other various health emergencies and provide training to appropriate paid and unpaid staff.

11.2.4. All emergency procedures must be written and provided to appropriate paid and unpaid staff. Appropriate emergency procedures must be readily available for reference in the event of an actual emergency.

Explanation: An integrated emergency management and response system should combine zoo/aquarium personnel and appropriate local agencies in any incident management planning and response. An example is the US-based "Incident Command System" (ICS). ICS is a standardized, on-scene, all-hazards incident management system. ICS enables a coordinated response among various jurisdictions and agencies, and provides a clear chain of command and structure; this allows local zoo/aquarium paid and unpaid staff to fully participate with other agencies through a unified command structure. It establishes a shared understanding through common language and processes, and collaborative objectives for planning and managing resources that allow for the integration of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure. Interactive web-based training for ICS-100 is free, and can be found at the US FEMA webpage (https://training.fema.gov/emiweb/is/icsresource/trainingmaterials.htm).

11.2.5. Live-action emergency drills (functional exercises) must be conducted at least once annually for each of the four basic types of emergency (fire; weather or other environmental emergency appropriate to the region; injury to visitor or paid/unpaid staff; and animal escape). Four separate drills are required. These drills must be recorded and results evaluated for compliance with emergency procedures, efficacy of paid/unpaid staff training, aspects of the emergency response that are deemed adequate are reinforced, and those requiring improvement are identified and modified. *(See 11.5.2 and 11.7.4 for other required drills).*

Drills Required: 4 annually (see 11.5.2 & 11.7.4 for other required drills.

Explanation: Emergency drills determine if institution paid and unpaid staff are aware of emergency procedures, and understand their respective duties and responsibilities. Emergency drills enable the institution to identify potential areas that could cause problems in the case of an actual emergency. The institution must have in place appropriate emergency procedures to handle the four basic types of emergencies identified above, and procedures for additional types of emergencies to which the institution may be particularly vulnerable. Paid and unpaid staff must be trained in these procedures, and records of such training must be maintained.

For the purposes of AZA accreditation standards, a "drill" is a pre-planned, simulated interactive exercise that tests the capability of an organization to respond to an emergency event. It should be designed to physically re-create an emergency situation and subsequent response outside of an actual emergency or warning, such as a storm warning.

Results stemming from an actual emergency are of interest, and must be appropriately analyzed, but cannot be counted as a drill for accreditation purposes. These live-action drills may be supplemented (not replaced) with table-top drills or other emergency preparedness scenarios.

11.2.6. The institution must have a communication system that can be quickly accessed in case of an emergency.

Explanation: There should be immediate access to designated persons in case of an emergency via walkie/talkie, pager, mobile telephone, intercom, telephone, alarm, or other electronic devices.

11.2.7. A written protocol should be developed involving local police or other emergency agencies and include response times to emergencies.

11.3. Facilities/Animal Exhibits

11.3.1. All animal exhibits and holding areas must be secured to prevent unintentional animal egress.

Explanation: Particular attention must be given to shift doors, gates, and animal care specialist access doors (as well as double-door safe entry systems), and exhibit barrier dimensions and construction, to provide for staff (paid and unpaid) and public safety. Locking or latching mechanisms are necessary to meet this standard for dangerous animals.

11.3.2. All exhibit service areas must be safely lighted, free of debris and other hazards, and provide space to allow for safe servicing. Also, service exit doors must be clearly marked and in good working order. All locks and shift doors must be in good working order.

11.3.3. Special attention must be given to free-ranging animals so that no undue threat is posed to either the institution's animals, the free-ranging animals, or the visiting public. Animals maintained where they will be in contact with the visiting public must be carefully monitored, and treated humanely at all times.

11.3.4. Electrical service in all wet environments, aquatic exhibits, and associated service areas must be equipped with ground fault circuit interrupters (GFI).

11.3.5. All public access areas must be equipped with exit signs. Doors must be unobstructed, open outward, and be equipped with emergency hardware.

11.3.6. There must be barriers in place (for example, guardrails, fences, walls, etc.) of sufficient strength and/or design to deter public entry into animal exhibits or holding areas, and to deter public contact with animals in all areas where such contact is not intended.

11.4. Risk Management

11.4.1. A written risk management plan must be developed and implemented.

Explanation: Risk management is defined as identification and assessment of potential risk for injury/harm to the visiting public, and employees, and mitigating or preventing injury or harm via best-practice methods. Examples of risk to employees include potential contact with any of the institution's animals, wet floors and poor lighting and ventilation in work areas, poorly constructed/planned exhibit service areas, cluttered work space, inadequate training, animal shift mechanisms not in proper repair, and potential contact with narcotic drugs and used hypodermic needles.

Examples of risk to the visiting public include human-animal contact, wet floors, poor

lighting, insufficient barrier fencing, cracks and/or holes in visitor walkways, condition of handrails, steps and walkways, rotted wood, etc. Such potential hazards must be minimized whenever possible.

While recognizing potential benefits of human-animal contact, the institution's risk management plan should follow best practices to protect humans (paid and unpaid staff, visitors, etc.) and animals from potential injury or disease resulting from physical contact with each other. The plan should include a written assessment and determination of those species and individual animals with which staff (paid and unpaid) and visitors may, or must not, have direct or indirect contact.

11.5. Dangerous Animals

11.5.1. Institutions maintaining venomous animals must have appropriate antivenin readily available, and its location must be known by all paid and unpaid staff working in those areas. An individual must be responsible for inventory, disposal/replacement, and storage of antivenin.

Explanation: It is the responsibility of the institution to verify that appropriate antivenins are available locally for all venomous species maintained at their institution, and for which antivenin is produced. Institutions may rely on the antivenin supply of local hospitals and treatment facilities, but it is also the institution's responsibility to guarantee that these inventories are maintained adequately. Such arrangements must be documented.

Antivenin intended for use in humans should be managed and stored in accordance with local, regional and federal regulations. Suitable procedures should be developed and implemented in collaboration with appropriate human health professionals.

11.5.2. Institutions maintaining venomous animals must have emergency alarm systems and/or protocols in place specifically addressing animal bite injury, attack, or escape from enclosure. All areas housing venomous animals must be equipped with appropriate alarm systems, and/or have protocols in place to notify paid and unpaid staff in the event of a venomous animal emergency. These systems and/or protocols must be routinely checked to assure proper functionality. Live action envenomation drills must be conducted at least annually to assess emergency alarm systems and/or protocols. The live action envenomation drill is in addition to the emergency drills required in 11.2.5 and 11.7.4 and the drill should be recorded and evaluated in the same manner as other emergency drills. *(see 11.2.5 and 11.7.4 for other required drills)*.

Drill Required: 1 annually (see 11.2.5 & 11.7.4 for other required drills.

11.5.3. Institutions maintaining potentially dangerous animals must have appropriate safety procedures in place to prevent attacks and injuries by these animals. Appropriate response procedures must also be in place to deal with an attack resulting in an injury. These procedures must be practiced routinely per the emergency drill requirements contained in standards 11.2.5, 11.5.2, and 11.7.4. Whenever injuries result from these incidents, a written account outlining the cause of the incident, how the injury was handled, and a description of any resulting changes to either the safety procedures or the physical facility must be provided to AZA staff, and maintained on file at the institution for five years from the date of the incident.

11.6. Security/Firearms

11.6.1. Adequate security systems must be provided on a 24-hour, year-round basis.

Explanation: The Commission recognizes that all institutions may not be able to provide security personnel on a 24-hour basis; however, every attempt should be made to provide security when the institution is closed to the visiting public. Security responsibilities should include regular rounds of the entire institution to detect problems. If it is impractical to provide security personnel, the Commission may approve the use of electronic systems or

other security measures.

11.6.2. Security personnel, whether employed by the institution, or a provided and/or contracted service, must be trained to handle all emergencies in full accordance with the policies and procedures of the institution. In some cases, it is recognized that Security personnel may be in charge of the respective emergency (i.e. shooting teams).

11.6.3. Stored firearms must be in a locked cabinet of sufficient construction and design to impede unauthorized entry, and located in a secure area and accessible only to authorized personnel trained in their use. Personnel authorized to utilize firearms must have training and regular practice.

11.7. Diving

General Considerations:

For the purposes of accreditation, the term "underwater diving" includes the diving mode in which the diver uses self-contained (SCUBA) or surface supplied compressed air and/or "breath-hold diving" in which the diver uses no self-contained or surface-supplied compressed air (ie, snorkeling or skin diving).

Further information on how dive programs are evaluated is available from AZA, and online at https://www.aza.org/accred-resource-center (you will be requested to log in using your individual membership user name and password).

11.7.1. Institutions which utilize underwater diving as a part of regular operations and/or maintenance shall meet minimal operational safety standards for such diving. Such institutions must comply with applicable laws and regulations for their location and follow standards mandated by the Federal Occupational Safety and Health Administration (OSHA) if located in the U.S. If the institution is located outside of the U.S. it must comply with that country's equivalent body.

Explanation: Underwater diving programs range in complexity from intermittent exhibit maintenance to bona fide *in situ* scientific diving. Additionally, recreational diving in the form of "pay to dive with…" programs may be offered to zoo and aquarium visitors. Institutions located in the U.S. must make an assessment of their individual underwater diving components in order to determine which OSHA standard (commercial diving, scientific diving, recreational diving) is most appropriate for that aspect of the institution's underwater diving program. Since federal OSHA regulations do not specifically address breath-hold diving, attention should be given to how the activity conforms to the OSHA general duty clause (employers are required to provide their employees with a place of employment that "is free from recognizable hazards that are causing or likely to cause death or serious harm to employees.") A risk assessment should be done that includes consideration of shallow water blackout (http://www.shallowwaterblackoutprevention.org/). A protocol that is designed to minimize these risks, provide training, and outlines an emergency plan should be in place, implemented, and documented. If the institution is located outside of the U.S., it must comply with that country's equivalent, and should also do a risk assessment that includes consideration of shallow water blackout (http://www.shallowwaterblackoutprevention.org/). A protocol that is designed to minimize these risks, provide training, and outlines an emergency plan should be in place, documented, and implemented.

11.7.2. Institutions which utilize underwater diving as a part of regular operations and/or maintenance must appoint a dive safety officer with the credentials, responsibilities, and authority to fulfill that role. At minimum, a dive safety officer should be a certified recreational dive instructor, or an

equivalent, to meet the credentialing requirement.

Explanation: Underwater diving programs vary in their complexity, work load, size, and function from institution to institution. While the qualifications of the dive safety officer must be commensurate with the nature of the institution's dive program, the individual in this role must be trained to evaluate and remediate dive skills in an underwater setting. The dive safety officer's responsibilities must be structured such that she/he is familiar with and capable of assessing dive safety.

11.7.3. Institutions which utilize underwater diving as a part of regular operations and/or maintenance must follow a dive manual which has, as one of its components, a section on diving safety.

11.7.4. Institutions which utilize underwater diving as a part of regular operations and/or maintenance must conduct at least one live-action emergency dive safety drill annually. These drills must be recorded and evaluated to assure that procedures are being followed, that training for paid and unpaid staff is effective, and that what is learned is used to correct and/or improve the emergency procedures. Records of these drills must be maintained and improvements in the procedures duly noted whenever such are identified. *(See 11.2.5 and 11.5.2 for other required drills.)*

Drill Required: 1 annually (see 11.2.5 & 11.5.2 for other required drills.

Explanation: at least one live-action drill is required annually. Additional practice exercises may consist of a variety of activities, including discussions, tabletop simulations, or actual drills. A drill is defined as a training exercise that physically re-creates an emergency situation and response outside the circumstances of an actual emergency. Results stemming from an actual emergency are of interest, but may not be counted as a drill for accreditation purposes.

11.7.5. Institutions which utilize underwater diving as a part of regular operations and/or maintenance must develop and implement a dive emergency plan for each tank into which divers enter. All divers must be trained in the procedures associated with emergency plans associated with tanks in which they dive.

11.8. Perimeter Fence

11.8.1. Perimeter fencing must be separate from all exhibit fencing or other enclosures, and be of good quality and construction. All facilities must be enclosed by a perimeter fence which is at least 8' in height (2.4 meters) or by a viable barrier. The fence must be constructed so that it protects the animals in the facility by restricting animals outside the facility and unauthorized persons from going through it or under it and having contact with the animals in the facility, and so that it can function as a secondary containment system for the animals in the facility.

Explanation: There are rare instances where the terrain surrounding the facility provides a viable barrier. The Accreditation Commission will determine what constitutes a "viable barrier" and must approve a waiver. However, most facilities must be enclosed by a perimeter fence. Facilities located in rural areas within the U.S. and which are PPEQ-approved (permanent post-entry quarantine) mustmeet special USDA standards for fencing. Institutions which are entirely enclosed within a building may be exempt from this requirement.

12. GUEST SERVICES

General Considerations:

All United States institutions must comply with the Americans with Disabilities Act.

Welfare Considerations:

Visitor perception drives success. AZA-accredited zoos and aquariums must continually strive to provide diverse, high quality experiences for all guests. Leadership in animal care and welfare requires building and maintaining living environments that present well to the visitor and support healthy animals engaged in natural behaviors. This is among the top things guests cite as leading to a positive impression of the institution and an overall inspiring experience.

12.1. The institution must provide accessibility and public amenities for all visitors, and should address the needs of both children and adults.

Explanation: Each institution must consider accessibility for all visitors as improvements are made.

12.2. The institution must have certain basic facilities to accommodate guests, including restrooms, food and beverage services, and rest areas.

12.3. The institution should have common conveniences for guests, including gift facilities, institution trail maps (paper or electronic), unobstructed and visible directional signage, etc.

12.4. The institution must present to the visiting public a positive, professional, clean, and aesthetically pleasing environment.

12.5. The institution should have a guest services training program, especially for front-line paid and unpaid staff that have a potential for regular engagement with guests. A guest services training program should, among other options, include training in staff courtesy, how to handle guest complaints, knowledge about wayfinding and daily activities, the importance of communicating to guests about the meaning of AZA accreditation, and mission-based messaging.

12.6. The institution should have a process for acquiring and evaluating guest feedback regarding their experiences. This information provides the institution with a better perspective on areas of strengths, and opportunities for improvement. Common methods for acquiring guest feedback include in-person and/or self-guided kiosk surveys, comment cards, online feedback (e-mails), and “secret shopper” programs.

12.7. The institution’s website should be professional in appearance and content and should provide up-to-date information such as hours of operation, admission information, location, programs, and AZA affiliation.

13. MASTER & STRATEGIC PLANNING

Welfare Considerations:

As a science-based institution focused on animal care and welfare, conservation, and the continued advancement of visitor and community engagement, a strong commitment to master and strategic planning for continuous change and evaluation is the foundation of adhering to "modern zoological practices and philosophies". Strategically assessing all aspects of operations and routinely renovating and/or replacing old exhibits with new modern habitats that are designed with animal welfare in mind, is something that is expected of all AZA-accredited institutions. In addition, continuous and careful planning for new and innovative education programs and guest experiences reflects commitment to professionally recognized best practices and modern philosophies.

13.1. The institution should follow a written master plan and strategic plan regarding facility innovation, planning, growth and community development, and should review or update the plans every five years at minimum. *(See pages 6 -7 for definitions of master plan and strategic plan.)*

13.2. Maintaining and advancing "modern zoological practices and philosophies" should be incorporated into the institution's master plan and strategic plan. *(See page 6 for definition of modern zoological practices and philosophies," and see the Preamble for further clarification.)*

13.3. The institution's master plan and strategic plan should incorporate its mission, and the organizational values, goals, and objectives used in the design and development of animal exhibits and visitor experiences.

13.4. Animal welfare (including requirements under standard 1.5.0) must be applied or considered during the design and development of all new and/or renovated animal facilities (including exhibit space *and* holding areas).

Rev: 11/2021

ADDITIONAL STANDARDS FOLLOW:

SEE ALSO:

AZA STANDARDS FOR ELEPHANT MANAGEMENT & CARE

Approved March 2011, Revised April 2012, Revised May 2020

Introduction

This revision of the Standards includes updated information from AZA's policy on Maximizing Occupational Safety of Elephant Care Professionals at AZA-accredited and AZA-certified Facilities which was distributed on August 15, 2011 and updated on September 12, 2014, as well as updated science-based information about elephant welfare.

The Standards are written to focus on a results-based assessment. They serve as a guide for institutions to measure their success in enhancing occupational safety and welfare for elephants and for AZA accreditation inspectors to measure the success of AZA's elephant care programs. Thus, in addition to each Standard, there is a Measurement and an Explanation to assist with understanding and meeting or exceeding each Standard.

The ultimate goals of these Standards are to provide the safest work environment for elephant care professionals and to provide the highest quality of elephant management and care which will result in excellent overall elephant well-being in our institutions. Ultimately, the success of AZA's elephant care programs will allow AZA institutions to contribute to elephant conservation and ensure that elephants are in our future for generations to come.

AZA Accreditation Policies on Variances

(excerpted from General Administrative Policies of the AZA Accreditation Commission)

Elephant Management and Care – Requesting A Temporary Variance Under the AZA Standards. Institutions requesting a temporary variance under the AZA Standards For Elephant Management & Care should submit that request to the AZA Accreditation Commission at the time it becomes apparent that a temporary variance may be needed. The request should be in the form of a letter detailing the temporary variance being requested, and should include all necessary documentation. The Commission will consider the requested temporary variance and will thereafter notify the institution of its decision. Temporary variances must be re-applied for prior to the expiration date contained in the variance, or documentation must be provided that the reason for the temporary variance has been addressed. **NOTE**: institutions not currently AZA-accredited must be in full compliance with AZA standards at the time application is made.

Elephant Management and Care – Special Welfare Variance. In cases where an elephant's physical and/or psychological welfare is believed to be at risk by implementation of a standard, an institution may request a special welfare variance under the AZA Standards For Elephant Management & Care. To qualify for a special welfare variance, the elephant(s) in question must be considered geriatric, and the institution must provide evidence that the elephant's welfare will be at risk without the variance, or that moving the elephant could result in serious injury or death. Evidence must be in the form of documentation from the institution's veterinary and animal management professional staff. The request for a special welfare variance must be in the form of a letter detailing the variance being requested, and containing all necessary documentation. The AZA Accreditation Commission will consider the request and will thereafter notify the institution of its decision. If granted, the variance will be for three (3) years and must be re-applied for prior to the expiration date contained in the variance. If granted, institutions must submit an annual report documenting the status and health of the elephant(s), including veterinary records, assessments, behavioral profiles, and the written recommendations of the institution's veterinary and animal management professional staff. **NOTE**: for the purpose of this variance, welfare is defined as physical health and function, and psychological well-being.

Elephant Management and Care – Substantial Compliance Extension [to an existing variance]. In cases where a deadline is set in a standard, and an institution has an existing variance until that deadline but has not yet achieved full compliance by the deadline, a Substantial Compliance Extension of the existing variance may be considered by the AZA Accreditation Commission. Approval may be granted only if the institution can demonstrate clear and steady progress toward compliance with the standard, is actively engaged and working

towards full compliance, and has identified a realistic completion date. Regular updates will be required until compliance is achieved, and the Commission may require an inspection of the elephant program, at its discretion, as a condition of maintaining accreditation.

Standards

E.1. Abiotic Environmental Variables (address both exhibit and off-exhibit areas)

E.1.1 Temperature

Standard – Outdoor – Daytime: Sufficient sheltered areas must be provided to protect elephants from adverse weather. Water suitable for drinking or bathing must be available at all times to meet the elephant's cooling needs in the ambient environment.

Measurement: No instances of frostbite, heatstroke, sunburn, illnesses, or elephant deaths related to environmental temperature/weather exposure.

Explanation: Water, mud, dust, soil, or sand must be available for elephants to dust themselves to assist with thermoregulation. Sufficient sheltered areas must be provided to protect elephants from adverse weather. When exposure to prolonged sunlight is likely, sufficient shade by natural or artificial means shall be provided to allow all elephants the choice to seek protection from direct sunlight. A sufficient number of shaded areas must be provided to assure that all individuals can have access to shade when desired and that subordinate elephants are not excluded from the shade. Elephants exposed to temperatures below 40°F (5°C) for longer than 60 minutes, must be monitored hourly to determine when to provide access to supplemental heat, direct sunlight, or access to indoor barn stalls or other options for thermal management.

Standard – Outdoor – Nighttime: Elephants kept outdoors when temperatures are under 40°F (5°C) overnight, must be provided with supplementary heat and adequate shelter from adverse weather.

Measurement: No instances of frostbite, illnesses or elephant deaths related to environmental temperature/weather exposure.

Explanation: Institutions should consider designing facilities and habitats that allow elephants outdoor access as much as possible – weather, health, and safety permitting. Elephants can tolerate moderate temperature extremes if they have been acclimatized to the ambient conditions. Multiple sheltered areas must be provided to ensure that all elephants have sufficient access to shelter and protection from the elements. Institutions may install outdoor heat sources to extend the amount of time the elephants are able to remain outside. Radiant or forced air heating are examples of acceptable heat. There may be a need to provide supplemental heat for young, geriatric, or compromised elephants at temperatures above 40°F (5°C).

Standard – Indoor: Indoor areas must be heated to a minimum temperature of at least 55°F (13°C) during the colder months of the year. One room must be capable of maintaining a temperature of at least 70°F (21°C) and be free of drafts for accommodating sick or debilitated elephants. Care should be taken to control excessive heat indoors.

Measurement: No instances of illnesses or elephant deaths related to environmental temperature/weather exposure.

Explanation: At elevated indoor temperatures, the use of fans, cross-ventilation, access to water, cool substrate, allowing elephants access to an outside area, or other cooling measures should be employed as needed. Elephants should be provided with the opportunity to thermoregulate themselves as much as possible.

E.1.2 Humidity and Ventilation

Standard: Indoor ventilation systems for elephants should provide enough fresh air to meet the respiration needs of the elephants, control moisture build-up within the structure, and move enough air to dilute airborne disease organisms.

Measurement: Fresh air and good quality air flow are evident in the barn and are provided through passive and/or mechanical systems.

Explanation: At elevated indoor temperatures, the use of fans, cross-ventilation, access to water, cool substrate, allowing elephants access to an outside area, or other cooling measures should be employed as needed.

E.1.3 Illumination

Standard: Ample lighting must be provided for elephant care professionals and other employees to work safely around elephants, day or night.

Measurement: When elephant care professionals are working around or interacting with the elephants, the elephants should be able to be clearly seen and their movements/behavior observed at all times within their indoor areas. Adequate light must be provided to monitor the safe use of all equipment (ERD) and the movement of all doors and gates.

Explanation: Natural daylight cycles are adequate for elephants, even in temperate regions. When kept indoors for extended periods, fluorescent, or incandescent lights provide a sufficient spectrum of illumination. Skylights, in addition to interior lighting, are effective and recommended.

E.1.4 Facilities

E.1.4.1. Space guidelines

E.1.4.1.1. Indoor space

Standard: Indoor facilities must provide sufficient space and environmental complexity to both allow for and stimulate natural behavioral activities and social interactions resulting in healthy and socially well-adapted elephants. Indoor facilities must provide adequate room for elephants to move about and lie down without restriction (Holdgate et al., 2016b). Appropriate space should be available to allow elephants to be separated either through individual stalling or through the use of tethers (See 3.3.2.7 Restraint). Indoor housing for both males and females must be designed to accommodate an elephant that can reach up to 24 ft (7.3 m) vertically. All ceilings, wire, pipes, etc. must be out of reach or adequately protected.

Measurement: Elephants that are thriving exhibit a natural behavioral repertoire at a normal frequency when in any space at the facility. If there are elephant behavioral, social, or medical issues shown to be caused by insufficient space, there must be a program in place (from a programmatic and/or facility perspective) to address the issue.

Explanation: Space is one of the most difficult measures to standardize (Meehan, et al., 2016b). There is no scientific data which clearly indicates the amount of space needed for an elephant to be healthy and socially well-adapted. Meehan et al. (2016b) state that the facility size alone is not correlated with individual elephant welfare. It is the quality of the overall programmatic approach to good elephant management, the quality of its social life, and the quality of the space from an elephant's perspective that determines adequacy of the facility as it relates to elephant welfare, not simply the square footage of the environment (Greco et al., 2016b; Holdgate et al., 2016a). For facilities in climates that require elephants to be indoors for significant amounts of time, it is highly recommended

that larger interior common spaces be developed to enhance social interactions and allow for greater movement and diversity of space during inclement weather conditions as well as overnight. Minimum recommended stall space (i.e. temporary holding, overnight, etc.) is not less than 600 sq ft (56 sq m) for males or females with calves, and not less than 400 sq ft (37 sq m) for females.

E.1.4.1.2. Outdoor space

Standard: Outdoor habitats must provide sufficient space and environmental complexity to both allow for and stimulate natural behavioral activities and social interactions resulting in healthy and socially well-adapted elephants.

Measurement: Elephants that are thriving exhibit a natural behavioral repertoire at a normal frequency when in any space at the facility. If there are elephant behavioral, social, or medical issues shown to be caused by insufficient space, there must be a program in place (from a programmatic and/or facility perspective) to address the issue.

Explanation: Space is one of the most difficult measures to standardize (Meehan et al. 2016b). There is no scientific data which clearly indicates the amount of space needed for an elephant to be healthy and socially well-adapted. Meehan et al. (2016b) state that total exhibit size alone is not correlated with individual elephant welfare. It is the quality of the overall programmatic approach to good elephant management and the quality of the space from an elephant's perspective that determines adequacy of the facility as it relates to elephant welfare, not simply the square footage of the environment (Greco et al., 2016b; Holdgate et al., 2016a). Thus, if the elephants are healthy and socially adapted, then whatever is being provided meets the Standard. Recommended minimum size for outdoor habitats is not less than 5400 sq ft (500 sq m) per elephant.

E.1.4.1.3. Behavior

Standard: The facility and program provides a complex physical and social environment which stimulates natural behaviors, social interactions and activity levels resulting in healthy, socially well-adapted elephants.

Measurement: The elephants are physically healthy and socially well-adapted without aberrant behavior or excessive aggression within the social group. Elephant behavior fits a natural frequency and diversity of behaviors, and elephants are provided with opportunities for choice, cognitive challenges, and complex behavioral repertoires.

Explanation: There is no current data to indicate what amount of activity, or what daily walking distance is most appropriate for optimal elephant welfare. The basic needs may be different for each elephant. Since the goal is healthy, socially well-adapted elephants, how it is achieved is less important than that it is achieved. Studies of Asian and African elephants in zoos have shown that elephants walk an average of 5.3 km/day with no significant difference between species, also indicating that there are associations between distance walked and social, housing, management (such as diverse feeding strategies), and demographic factors (Greco et al., 2016; Holdgate et al., 2016a). No association between distance walked and health or behavioral outcomes were found.

E.1.4.1.4. Exhibits and renovations

Standard: All institutions planning new construction or modifying existing elephant facilities must include the following: adequate infrastructure to manage and care of elephants with barriers in place that provide employee safety space; facilities to safely accommodate adult males; and, adequate infrastructure to minimize the need for regular tethering. The design of indoor and outdoor areas must contain areas where elephants can exercise and socialize together, and avoid socializing if/when desired.

Measurement: Design plans for exhibits and renovations are reviewed and are consistent with the AZA Standards for Elephant Management and Care.

Explanation: AZA's commitment to elephants will only be successful if all facilities live up to their commitment to care for growing family herds and adult males, and to comply with SSP breeding recommendations. A key consideration in the design of elephant facilities is the promotion of species-appropriate behaviors. Elephants are a social species and herds often perform activities together, such as feeding, drinking, walking, resting, and wallowing. Enrichment opportunities should be integral parts of both indoor and outdoor areas (Greco et al., 2016a). Outdoor areas should encourage locomotion for exercise and natural footwear. Rocks, tree stumps, or large sturdy objects should be provided in the habitats so that the elephants may use them as visual barriers and/or for rubbing and scratching. The use of both wet and dry wallows is encouraged to assist with skin care and protection against the sun and biting insects. Barriers within and between habitats should allow some degree of auditory, olfactory, and tactile contact between separated herd members as appropriate at their choice.

E.1.4.2 Substrates

E.1.4.2.1. Outdoor

Standard: Outdoor habitat surfaces must consist primarily of natural substrates (e.g., soil, sand, grass). Elephant areas must have a variety of substrates, must be able to be cleaned easily, and must have good drainage to prevent unwanted standing water.

Measurement: Elephant feet are in good condition and need only periodic pad and nail trimming. Excessive buildup of dead skin is not apparent and dusting materials are available for the elephants and used at a normal frequency.

Explanation: Providing a combination of hard substrates to promote normal wear of footpads and soft substrates, such as earth and sand, to promote dust bathing is preferred. Recent studies have shown that decreased time spent on hard substrates may enhance foot and musculoskeletal health, and encourage recumbent rest, and thereby enhance elephant welfare (Holdgate et al., 2016b; Miller et al., 2018;). Providing a variety of soft substrates will promote behaviors, such as foraging, wallowing, bathing, digging, and resting. The use of both wet and dry wallows is encouraged to assist with skin care and protection against the sun and biting insects. Elephants may rest on mounds of earth (Holdgate et al., 2016b).

E.1.4.2.2 Indoor

Standard: Indoor substrate must be able to be cleaned daily and must be quick to dry. Hard floor surfaces must be relatively smooth to prevent excessive pad wear, but not so smooth that they become slippery when wet.

Measurement: Indoor floors are cleaned daily and dry within two hours of cleaning. Elephant feet are in good condition and show no excessive pad wear due to floor roughness and no elephant injuries due to slipping on the floors.

Explanation: Recent studies have shown that decreased time spent on hard substrates will enhance foot and musculoskeletal health, and encourage recumbent rest, and thereby enhance elephant welfare (Holdgate et al., 2016b; Miller et al., 2018;). Some institutions use sand, barn stall mats, straw, or shavings for insulation and/or to provide a softer surface for elephants to stand or lie on. In new construction and renovations, natural, changeable indoor substrate should be considered.

E.1.4.3. Change and variation in the environment

Standard: All institutions must have a written environmental enrichment plan for their elephants and show evidence of implementation (See 4.4 Enrichment).

Measurement: Enrichment plan and records of daily enrichment activities are reviewed. Elephants are provided with complex environmental and enrichment opportunities that elicit a normal frequency and diversity of behaviors.

Explanation: An effective enrichment program, including environmental, social, and cognitive enrichment, should promote species-appropriate behaviors (Greco et al., 2016a). Varied terrain and habitat furniture provide more complexity in the environment as well as exercise opportunities, such as walking, turning, reaching, stretching, climbing, bending, digging, pushing, pulling, and lifting. A good environmental enrichment program includes the rotation of exhibit furniture and enrichment items on a regular schedule.

E.1.4.4. Cleaning

Standard: Enclosures, both indoor and outdoor, must be cleaned of feces and urine daily.

Measurement: Daily cleaning is observed.

Explanation: Frequent daily manure removal is recommended and may be necessary for both sanitary and aesthetic reasons.

E.1.4.5 Safety and Containment

E.1.4.5.1 Containment

Standard: Elephant containment barriers must be sufficient to prevent elephant escapes.

Measurement: There must be no failure of containment barriers.

Explanation: A recommended minimum height of walls, cables and horizontal railings for adult elephants is 8 ft (2.4 m). The use of electric fences is not sufficient as a primary containment barrier. A wide variety of building materials can be used for elephant containment barriers. The barriers must be safe for the elephants, must be able to withstand an elephant's strength, must contain the elephant in a specific space, and must prohibit direct contact between elephants and the visitors. Recommended materials for barriers include solid concrete, rock walls or horizontal steel rails, pipe, or cable.

E.1.4.5.2 Elephant care barriers and restraints

Standard: All institutions must have adequate infrastructure to manage and care for elephants with barriers and/or tethers in place to increase occupational safety. All elephant care professionals at AZA facilities with elephants must not share the same unrestricted space with elephants, except for certain, limited exceptions. [NOTE: see E.4.2.1 for details]

Measurement: Adequate infrastructure exists and is used by elephant care professionals to care for elephants without sharing the same unrestricted space with the elephants, except in certain, well-defined circumstances.

Explanation: AZA is committed to maximizing the safety of elephant care professionals. In order to maximize safety while working in restricted contact, elephant care professionals must always monitor the position of themselves and their elephant(s) in relation to the barrier/tethers, the reach of the elephant(s) especially the reach of the trunk and the behavior of the elephant(s). The head and/or torso of a person must never cross the plane of the primary containment barrier unless the elephant is on tethers. Routine husbandry should not be performed exclusively while elephants are on tethers.

E.1.4.5.3 Dry moats

Standard: The use of dry moats with steep sides and hard bottoms as primary containment should be limited.

Measurement: A written elephant moat extraction protocol must be in place for facilities employing moats out of which an elephant cannot easily climb.

Explanation: Dry moats may pose a substantial threat to elephants, especially those out of which an elephant cannot easily climb. Where present, moats should be wide enough for an elephant to turn around, have a soft, dry bottom, and should include a gradually sloped ramp so that the elephant can easily climb out of the moat or ditch.

E.1.4.5.4 Doors and gates

Standard: Doors and gates must be in good condition and must be engineered to withstand an elephant's strength.

Measurement: All doors and gates are observed operating properly and containing elephants. No elephant or personnel injuries because of hydraulic or electrically-powered door operation have occurred.

Explanation: Door and gate design is extremely important to ensure the safety of both elephants and elephant care professionals. If hydraulic or electrically powered drives are used to operate doors or gates, there must be a manual back-up system or a back-up generator in place in case of failure or electrical outage. Door operation must be continually monitored with a direct line of sight or with video the entire time the door is in motion to prevent elephant or human injury.

E.1.4.5.5 General exhibit considerations

Standard: Ceiling and fixture heights (e.g., lights, heating units, plumbing, etc.) must be built so that elephants do not harm themselves or damage the facility.

Measurement: There should be no elephant injuries due to poor design or insufficient heights of ceilings and fixtures.

Explanation: Areas for both males and females must be designed to accommodate an elephant that can reach up to 24 ft (7.3 m) vertically. All ceilings, wire, pipes, etc. must be out of reach or adequately protected.

E.1.4.5.6 Safety assessment program

Standard: Each institution must have an established method of regularly evaluating its elephant facility and program safety. The institution must document and be able to demonstrate how safety is assessed on a regular and consistent basis and how safety issues are resolved. Facilities shall conduct safety evaluations at least semi-annually. Each institution must specifically address its elephant program in the risk management policy required by AZA Accreditation Standard 11.4.1.

Measurement: Program and facility safety evaluations and safety issue resolutions are documented. All identified safety issues are resolved or are in the process of resolution.

Explanation: Each institution should establish a safety assessment program based on its own needs and resources. A safety assessment program may include a safety assessment team, including elephant care team and management, animal health care team and experts in risk management and safety.

E.1.4.6 Transport

Standard: All applicable Federal regulations and/or IATA Live Animal Regulations must be met and AZA Recommended Elephant Preshipment Guidelines and AZA Transport Guidelines for Elephants should be followed.

Measurement: Elephant transports have been accomplished safely and in an appropriate manner.

Explanation: Elephants are typically transported in trailers or crates specifically designed for moving elephants. The trailer compartment or crate used for transport should be sized so that the elephant can stand up comfortably, but not turn around. The elephant should not be compressed by the containment front or back. The trailer or crate should be equipped with tethering options as needed. Elephants should be monitored and provided with food and water at regular intervals during the transport. The IATA Live Animal Regulations are available for purchase at https://www.iata.org/publications/store/Pages/live-animals-regulations.aspx Guidelines for transport and pre-shipment testing are available from the AZA Elephant TAG/SSP Veterinary Advisor (Miller, 2018c-d).

E.1.5 Water

E.1.5.1 Water quality

Standard: Water suitable for drinking must be made available at all times. Frequent drinking opportunities throughout the day may be necessary to meet the elephant's needs in the ambient environment.

Measurement: Water sources for all elephant indoor and outdoor areas are identified and method of delivery determined is appropriate.

Explanation: Most facilities provide either continually running or automatic watering devices in outdoor habitats and barns. If these are not present, the method of providing potable water at all times must be identified and written protocols in place to ensure appropriate water availability to the elephants.

E.1.5.2 Presentation of water, and water sources

Standard: While outdoors and weather permitting, elephants must have regular access to water sources, such as a pools, waterfalls, misters/sprinklers, or wallows that provide enrichment and allow the elephants to cool and/or bathe themselves.

Measurement: Outdoor water sources are present in sufficient quantity to accommodate all elephants at one time.

Explanation: It is recommended that pools be constructed with rounded edges, and without corners. Artificial pools should have multiple and/or lengthy gently sloping exit and entrance areas, with non-slip surfaces, and at an angle no greater than 30°. Vertical sides on pools should be avoided in areas where elephants have direct access to the pool side. Steps should be wide enough for elephants to place more than one foot on at a time and

small enough for baby elephants to step up or down. There should be more than one entry/exit point to the pool in order to prevent one elephant from inhibiting the exit or entrance of other elephants into or out of the pool. It is recommended that one body of water or pool be deep enough to allow for buoyancy, as this can allow for non weight-bearing exercise and that it be deep enough to allow an adult to be fully immersed when laying on its side, or at least six feet deep. However, shallow wading and splashing pools are also excellent activity areas for elephants and are to be encouraged.

E.2. Biotic Variables

E.2.1 Food and Water

E.2.1.1 Provision of food and water

E.2.1.1.1 Water

Standard: When water containers are used, drinking water must be cleaned and refreshed daily. Containers must also be cleaned daily. (See E.1.5.1 Water quality).

Measurement: Water sources are clean and water is fresh.

Explanation: The ability to monitor water consumption by the elephants may be important in sick or compromised elephants.

E.2.1.1.2 Food (See 3.1 Diet for all life stages)

E.2.1.1.3 Food item – variability

Standard: Elephants must be offered a balanced diet composed of an appropriate variety of food items provided in quantities that are sufficient for each elephant to maintain weight and appropriate body condition. Diets must be developed under the direction of the institution's nutritionist, veterinarian, and/or consultant.

Measurement: Diet sheets and written feeding protocols are reviewed and determined to be aligned with the recommendations. Elephant weights and/or body condition scores are reviewed.

Explanation: Nutritional content is a critical tool for assessing overall nutritional well-being. Daily intake records may also be valuable to maintain. Recommended food items include hay, supplemented with fruits, vegetables, a pelleted supplement (Williams et al., 2014). Fresh browse should be made available daily, if possible. Overall energy content of the diet must be assessed in relation to the body condition scores for each elephant and diet composition adapted as needed. AZA Nutritional Guidelines for Elephants are available upon request from AZA Elephant TAG/SSP Nutrition Advisor.

E.2.1.1.4 Feeding schedules and variability food presentation

Standard: Varied feeding schedules dispersed both spatially and temporally throughout the day and night are required.

Measurement: Written feeding protocols and schedules are reviewed.

Explanation: Mechanisms to deliver food to elephants during the day and night should be implemented (e.g., changing animal care team schedules, automated feeders, hanging feeder nets, etc.). Highly unpredictable feeding schedules can be associated with decreased risk of obesity and other positive welfare outcomes (Greco et al., 2016a; Morfeld et al., 2016). Feeders should be located in multiple locations to discourage undue

competition or aggression over feed items.

E.2.1.1.5 Opportunities to forage for food

Standard: Opportunities must be provided for elephants to acquire food using multiple foraging behaviors. Food must be provided in areas where it is less likely to be soiled. Excess or waste food must be removed daily.

Measurement: Written feeding and enrichment protocols are reviewed.

Explanation: Opportunities for searching, browsing, grazing, reaching, opening, etc. can be provided by scatter-feeding, hiding foods in crevices and substrates around the exhibit, or by using elevated feeders such as hanging hay nets that encourage an elephant to reach for and manipulate its trunk to gain access to the food. Mechanisms that promote physically active feeding behaviors can be incorporated into a comprehensive enrichment plan for the elephants (Greco et al., 2016a).

E.2.2 Social Considerations

E.2.2.1 Group Composition

E.2.2.1.1 Age and sex structure of social group

Standard: Each zoo with elephants must have a minimum of three females (or the space to have three females), two males or three elephants of mixed gender.

Measurement: The institutional commitment to elephants must be reviewed. If the institution is not in compliance with the Standard, plans for meeting the Standard and a timeline must be submitted to the AZA Accreditation Commission.

Explanation: Good welfare is supported by spending more time in larger, stable social groupings (Meehan et al., 2016a) If a zoo cannot meet this Standard in terms of space, they must apply for a variance. If a zoo does not meet the social requirements, they must apply for a variance. In the case of social requirements, before the variance can be issued by the AZA Accreditation Commission, the zoo (a) must describe their plan to obtain additional elephants or describe their plan for de-acquisitioning their elephants, and (b) must describe what will occur if they experience the loss of one elephant. [NOTE: see Accreditation Policies On Variances in the Introduction section of these standards on page 43 for further details on variances.]

E.2.2.1.2 Adaptable management

Standard: All facilities must include the ability to flexibly manage their elephants, allowing the separation of groups or individuals as required.

Measurement: Each institution must be able to demonstrate and/or describe how they would successfully isolate individuals or groups as needed for elephant management or care.

Explanation: The ability to adapt to changing conditions and situations is critical to the success of any elephant program.

E.2.2.1.3 Male elephant socialization

Standard: If an institution cares for one or more males, separate facilities for isolation must be available, and a program of social contact in place.

Measurement: Each institution must be able to demonstrate and/or describe how they would successfully isolate and socialize males, if needed.

Explanation: Males may be housed alone, but not in complete isolation; opportunities for tactile, olfactory, visual, and auditory interaction with other elephants must be provided (Rasmussen et al. 1982). In the wild adult males are primarily solitary. However, they do have regular contact with other elephants. Guidelines for the development and long-term management of all-male elephant herds are needed as this may become increasingly important with increased breeding success in the future and the production of more male calves.

E.2.2.1.4 Birth and postpartum management

Standard: Facilities for birth and postpartum management must be available.

Measurement: Each institution with current and future breeding females must be able to demonstrate and/or describe how they would successfully manage and care for elephant mothers and calves during birth and postpartum period. Written protocols must be in place for births and reintroductions of mothers/calves to herd.

Explanation: First time mothers in particular may require significant management. Initial protection of the calf and management of the mother are critical to a successful birth. Introduction of the new calves and mothers to the herd must be accomplished both cautiously and expeditiously. Reintroduction of the calves and mothers to the herd should be accomplished when appropriate and safe for the mother/calf.

E.2.2.1.5 “Emigration” of adolescents

Standard: Offspring should remain with their mothers until they are naturally weaned and mother and calf are acclimated to separation.

Measurement: Offspring are remaining with their mothers until they are at least three years old.

Explanation: Natural, gradual weaning of offspring is preferred when possible (Prado-Oviedo et al., 2016). Some flexibility is necessary in cases of health challenges, maternal rejection and/or when infants cannot be re-established in their social group. In cases of maternal rejection, calves should be introduced to other conspecifics as soon as possible. Males are generally managed with the herd during adolescence until natural age-related behavioral changes may indicate separation. There is no specific age when this may occur. Indicators that males may need to be separated include aggression, play-fighting, or reproductive behavior that causes disruption within the herd or risk of injury to individuals in the herd. Guidelines for the development and long-term management of all-male elephant herds are needed as this may become increasingly important with increased breeding success in the future and the production of more male calves.

E.2.2.1.6 Multigenerational herds

Standard: When possible, multigenerational herds should be maintained.

Measurement: Multigenerational herds are being maintained when possible.

Explanation: Both elephant SSPs prioritize the maintenance of stable, social multi-generational groupings that include both juvenile and adult elephants (Meehan et al., 2016a; Prado-Oviedo et al., 2016). Much of the behavioral repertoire of elephants is learned, rather than innate. A multi-generational herd allows the transfer of species-appropriate behaviors within a herd through experience and observational learning.

E.2.2.1.7 All male herds

Standard: There are no standards for all male herds at this time, though standards may be developed in the future.

Measurement: Not applicable at this time.

Explanation: Guidelines for the development and long-term management of all-male elephant herds are needed as this may become increasingly more important with increased breeding success in the future and the production of more male calves.

E.2.2.1.8 Variations in social affiliation

Standard: A behavioral profile must be maintained for each individual elephant and updated annually.

Measurement: Profiles are reviewed.

Explanation: The elephant care team must be aware of each elephant's social compatibility and the dominance hierarchies of the herd. Institutions must have the ability to manage social compatibility as well as dominance and aggression among an elephant herd. Institutions must have the ability to manage introductions and separations of elephants, including; a new female to an existing herd, females to males for breeding, calves to their mothers, and calves and mothers to the herd. Elephant areas must be designed to allow for separate and group housing during periods of social incompatibilities, without interfering with the normal movement of elephants in and out their living space.

E.2.2.1.9 Inter-individual distances

Standard: Facility must be designed and resources must be provided to allow for ample feeding, shade, water, and wallowing locations.

Measurement: Facility must have sufficient structures for all elephants to participate in natural behaviors.

Explanation: Elephants are a social species and herds often perform activities together, such as feeding, drinking, walking, resting, and wallowing.

E.3. Health and Nutrition

E.3.1 Diet for all life stages

Standard: Elephants should be fed according to the recommendations of the AZA Nutritional Guidelines for Elephants (Williams et al., 2014). Diet and exercise programs must be in place for elephants.

Measurement: Diet and exercise programs are reviewed and show evidence of being modified, as needed, to maintain elephant physical well-being.

Explanation: A nutritionally complete and well-balanced diet is essential for elephants to thrive. Obesity is a health concern for all animals, including elephants, and excessive weight gain should be avoided due to its negative effect on health, reproduction, and welfare (Morfeld et al., 2016). For infants, a normal growth rate should be 1 to 2 lbs per day over the first three years. Excess weight early and too rapid growth may cause long-term harm to the elephant's physical well-being. Significant exercise and limiting the high-energy supplements will help control weight gain in calves and elephants of all ages. If changes are made to diets as a result of seasonal availability of items, then care should be taken to implement changes gradually (over 1-2 weeks) to avoid digestive upsets (Ullrey et al., 1997). AZA Nutritional Guidelines for Elephants are available upon request from AZA Elephant TAG/SSP Nutrition Advisor.

E.3.2 Influence of the following variables on dietary requirements

E.3.2.1 Body size

Standard: Elephant weights and/or body condition scores must be recorded, at minimum, three times a year. Diet and exercise programs must be in place for elephants.

Measurement: Weight records and/or body condition scores are reviewed. Diet and exercise programs are reviewed and show evidence of being modified, as needed, to maintain elephant physical well-being.

Explanation: Several models exist for assessing elephant body condition (Morfeld et al., 2016; Sreekumar and Nirmalan, 1990; Wemmer, 2006).

E.3.2.2 Reproductive status

Standard: Elephants' diets should be carefully monitored during pregnancy, and elephants should engage in a prenatal exercise program to control excessive weight gain during pregnancy.

Measurement: Weight records and/or body condition scores should be reviewed.

Explanation: Elephants should be prevented from significant weight gain during pregnancy.

E.3.2.3 Activity levels

Standard: Activity levels should be sufficient to maintain the physical and psychological well-being of the elephant.

Measurement: Exercise protocols are reviewed.

Explanation: In the absence of scientific data to indicate the precise amount of activity needed to maintain good physical and psychological well-being of an elephant, activity levels, weight, body condition, and diet composition and consumption should be holistically reviewed regularly to maintain appropriate overall health parameters.

E.3.2.4 Browse program

Standard: Every institution must have a browse program/protocol as a part of their elephant management program.

Measurement: Browse protocol and elephant health/dental records are reviewed.

Explanation: Elephants must be provided with browse material large enough to avoid molar impaction and rotation. Since elephant teeth migrate forward (not vertically), it is important that the right type of food is offered to promote dental health and allow for the natural progression of each molar.

E.3.3 Medical management

Standard: A veterinarian with experience in large mammal medicine must be on call at all times to deal with routine elephant health evaluation and treatment and medical emergencies.

Measurement: Records of annual medical exams and other treatments are reviewed. Copies of AZA Elephant TAG/SSP medical protocols should be on file and are utilized at the institution.

Explanation: The elephant care team must work closely with the veterinary and nutrition teams to balance medical and nutritional requirements with behavioral components and activity levels for each elephant. Guidelines for routine health exams, transport, quarantine, preshipment testing, and necropsy are available from the AZA Elephant TAG/SSP Veterinary Advisor (Miller, 2018a-d).

E.3.3.1 Quarantine and hospitalization

Standard: Quarantine protocols, periods and parameters for elephants must be in place.

Measurement: AZA Elephant TAG/SSP medical protocols and institutional written protocols are on file and are utilized at the institution.

Explanation: Due to the size, strength, and social nature of elephants, it may be logistically difficult to maintain isolation from other animals during arrival and quarantine. The AZA Recommended Elephant Preshipment Guidelines (Miller, 2018c) provide a comprehensive list of tests to detect disease prior to shipment. It is important that the receiving institution work closely with the sending institution to ensure that all recommended tests are conducted and results reviewed. Following the preshipment protocol may help compensate for some of the quarantine compromises that may be required. Regardless of preshipment test results, every attempt should be made to maintain some degree of physical separation from the resident elephants after arrival. Current quarantine practices recommend a minimum quarantine period for most species found in zoos and aquaria. Quarantine protocols at each institution should be made by the veterinary team in consultation with the elephant care team. Social concerns, veterinary requirements, physical facility design, and availability of trained elephant care professionals will dictate the quarantine length and protocol. For additional information, refer to the AZA Quarantine Guidelines for Elephants (Miller, 2018b).

E.3.3.1.1 Management of social taxa

Standard: Every institution must have the ability to introduce, manage and maintain social groups of elephants.

Measurement: Daily records of social groups are reviewed. Introduction protocols/records are reviewed. Elephant social behavior is observed and deemed to be occurring at a normal frequency and diversity for the species.

Explanation: As a highly social species, elephants must be introduced or returned to a social group as soon as appropriate. Although interaction between an elephant care team and elephants can be beneficial, they are not a sufficient substitute for species-appropriate elephant-to-elephant interactions.

E.3.3.2 Preventive medicine

Standard: Each elephant must be given a thorough annual physical examination (Mikota et al. 1994).

Measurement: Written documentation of the annual exams and their results, the weights and the body condition scores are reviewed. Written protocols are in place for all preventative elephant medicine and the AZA Guidelines for Comprehensive Elephant Health Monitoring (Miller, 2018a) are available and utilized.

Explanation: Institutions should adhere to the 2017 Recommendations for the Diagnosis, Treatment and Management of Tuberculosis (Mycobacterium tuberculosis) in Elephants in Human Care (Backues & Wiedner, eds., 2017). A veterinarian or trained veterinary technician must perform fecal examinations to look for parasites and other problems on a regular basis (Samuel et al., 2001). Results must be recorded. These results must be reviewed after each measurement is taken. Regular vaccinations, as determined by the veterinary team and in concert with the AZA Guidelines for Comprehensive Elephant Health Monitoring (Miller, 2018) should be considered. Annual vaccinations may include rabies and tetanus.

E.3.3.2.1 Daily care

Standard: All elephants must be visually inspected and behaviorally assessed on a daily basis

Measurement: Daily records and reports are reviewed, with special attention devoted to determining that normal behaviors are occurring at a normal frequency, including affiliation and aggression.

Explanation: An assessment must be made and any unusual behavior (including instances of aggression), physical characteristics or activities should be immediately reported to the supervisor, and recorded. Specifically, reports should include observations such as condition of urine and feces, eating and drinking patterns, administration of medications (if any), and general condition and behavior.

E.3.3.2.2 Foot care

Standard: The elephants should be free of foot injuries or foot disease. The elephant care team must be trained to provide foot care and the elephants must be trained to accept that care. Each elephant institution must have a written protocol for foot care. If foot injuries or foot disease are present, a current treatment regimen must be in place.

Measurement: Elephant feet are inspected and in good condition, needing only periodic pad and nail trimming. Records and protocols on file and foot care/treatment protocols are reviewed. Implementation of the protocols/treatment is evident in condition of the elephant's feet.

Explanation: An institution's foot care protocol should include daily cleaning and inspection of all elephants' feet (Csuti et al., 2001). If foot injury or disease is present, evidence should be documented of the institution's review of the potential cause or causes of the foot injury or foot disease. Where causes are identified, changes made to address these causes must be documented.

Taking baseline foot radiographs or thermographs of all adult elephants and keeping them on file is suggested. In some cases, it may be appropriate to annually monitor selected elephants (i.e., those that have a history of chronic foot problems). Recent studies have shown that decreased time spent on hard substrates will enhance foot and musculoskeletal health, and thereby enhance elephant welfare (Miller et al., 2018).

E.3.3.2.3 Skin care

Standard: Elephants must be trained to accept regular skin care and the elephant care team must be trained to provide that care.

Measurement: Elephant skin is inspected and in good condition. Each elephant facility must have a written protocol for routine skin care and show evidence of its implementation. These records and protocols are reviewed.

Explanation: An elephant's skin must be thoroughly inspected on a daily basis and cared for as needed through bathing, removal of dead skin, and treatment of dry skin or other skin problems. The elephant's skin should be supple, free of dead skin buildup, not cracked or dry and free of folliculitis.

E.3.3.2.4 Daily exercise

Standard: An exercise program must be in place for the herd as a whole or for each individual elephant. Each elephant institution must have a written protocol for routine exercise and show evidence of its implementation.

Measurement: Exercise protocols are reviewed, with special attention given to both the amount and need for elephant care professional directed exercise and the normal daily non-elephant care professional directed activity patterns of the elephants.

Explanation: There is no current data to indicate what amount of activity, or what daily walking distance is most appropriate for optimal elephant welfare. The basic needs may be different for each elephant. Since the goal is healthy, socially well-adapted elephants, how it is achieved is less important than that it is achieved.

The weight and/or the body condition score, combined with the absence of disease, foot and leg problems are the indicators that the amount of exercise is sufficient for the elephant on their specific diet in their specific situation. As with humans or any other species, overall health is a combination of factors, including exercise, diet and psychological factors.

E.3.3.2.5 Husbandry

Standard: All elephants must be trained to reliably present the behaviors listed on the AZA Standard Elephant Program Behavioral Components checklist. All elephants must be trained to permit a complete body exam daily and to allow successful completion of all necessary care and husbandry procedures.

Measurement: The AZA Standard Elephant Program Behavioral Components checklist should be completed by the institution annually, and maintained for review during accreditation inspection.

Explanation: The key to keeping elephants healthy and treating them when they are sick relies on the ability to monitor, test and administer health care and treatment. Proactive training makes monitoring elephant health possible and makes diagnostic testing and therapeutic treatment in times of compromised health less stressful for the elephant and the elephant care team.

Checklist of AZA Standard Elephant Program Behavioral Components

If individual elephants vary, please note the number of elephants that fall into each category.

BEHAVIOR	NOT TRAINED	IN TRAINING	DATA COMPLETE & RELIABLE
Eye exam			
Ear exam			
Mouth exam			
Tooth exam			
Tusk/Tush exam			
Vaginal exam			
Bathe/scrub skin			
Treat skin			
Trim all feet			
Tusk/Tush trim			
Blood collection (note frequency of collections)			
Urine collection			
Rectal palpation			
Rectal fluids			
Enema			
Transrectal ultrasound			
Accepts injections			
Accepts oral medications			
Trunk wash for TB testing			
Foot x-ray			
Separation			
Leg restraint			
Allows husbandry procedures to be performed by staff			
Allows veterinary procedures to be performed by vet			
Enters chute (remains inside with doors closed)			
Allows chute walls to move			

E.3.3.2.6 Elephant Restraint Devices (ERD)

Standard: All elephant facilities should have an ERD. If a facility does not have an ERD, the elephant care team must demonstrate a method of restraint that allows necessary husbandry, veterinary, and reproductive procedures to occur in a safe and efficient manner for all elephants in their collection. Use of the ERD must not be weather dependent.

Measurement: ERD in place and functional. All elephants are acclimated to enter the ERD and remain inside confidently with doors closed, or the institution demonstrates its protocols and ability to do ERD functions without the ERD.

Explanation: ERDs must effectively restrict the movement of an elephant while simultaneously allowing elephant care team access to the elephant for veterinary procedures. ERDs must be able to comfortably contain an elephant for prolonged veterinary or husbandry procedures

E.3.3.2.7 Restraint

Standard: All elephants must be trained to allow restraint using ERDs, rope, chain, or other materials of sufficient strength. Elephants must not be subjected to unnecessary prolonged restraint. Any planned restraint over two hours must be approved by the institution's administration, elephant management team, and veterinarian. The institution's safety committee and/or the institutional animal welfare committee should be included in the decision-making process. All new construction and major renovations must be designed in a manner that minimizes the regular need for tethering.

Measurement: Protocols for tethering are reviewed.

Explanation: Tethering is an acceptable method of temporary restraint for elephants. Prolonged tethering may be necessary for transport and for veterinary treatment. Elephants can be easily trained to accept tethering. For additional information, refer to the AZA Transport Guidelines for Elephants (Miller, 2018d).

E.3.3.2.8 Immobilization

Standard: Veterinary protocols must be established for potential immobilization of an elephant, either for standing or full sedation.

Measurement: Veterinary immobilization protocols are reviewed.

Explanation: The Elephant TAG/SSP Veterinary Advisor can be consulted for the most current and effective sedation and immobilization techniques.

E.3.3.2.9 Management of neonates and geriatric animals

Standard: Neonatal exam and hand-rearing protocols must be part of the written birth protocol, even though a neonatal exam and hand-rearing may not be necessary. Management and treatment plans for each geriatric elephant should be developed by the elephant care team and veterinarian and revised regularly as the elephant ages.

Measurement: Birth protocol is reviewed, including plans for neonatal exam and hand-rearing. Geriatric management and treatment plan is reviewed. Annual reports of births and mortalities are reviewed.

Explanation: There are hand-rearing protocols available from successful breeding institutions. Specific treatment for geriatric elephants will be developed with coordination of the veterinary and management teams.

E.3.3.2.10 Management during pregnancy

Standard: Pregnant elephants must have a written diet and exercise program to prevent excessive weight gain during pregnancy.

Measurement: Birth protocol is reviewed, including plan for exercise and diet management during pregnancy.

Explanation: An elephant that is overweight at time of parturition significantly increases the risk of dystocia and other parturition complications. Elephants in good body condition should gain no more than 5% of their body weight during pregnancy. Nulliparous females over age 24 years have had limited success delivering calves and have experienced dystocias and retained fetuses. Institutions should take all factors into account and research the potential challenges and options available when considering breeding elephants in this reproductive class.

E.3.4 Reproduction

E.3.4.1 Reproductive assessments and monitoring

Standard: Each male and female elephant of potential reproductive age must have an initial reproductive assessment and follow-up assessments on a regular basis by transrectal ultrasound (Hermes et al., 2000; Hildebrandt et al., 2000a; Hildebrandt et al., 2000b), and all female elephants of potential reproductive age must have their progesterone cycle monitored to verify current reproductive status and assess overall reproductive health (Brown, 1998; Brown 2000; Brown et al., 2016).

Measurement: There should be evidence that samples for reproductive assessment for females are taken and analyzed at least annually. Semen samples collected from bulls regularly (annually where practical) should exist to document current viability. AZA Elephant SSP Breeding and Transfer recommendations are followed.

Explanation: Exceptions for reproductive assessment include elephants with known reproductive problems, actively breeding elephants, or those with documented medical/behavioral conditions that preclude them from breeding.

E.3.4.2 Birth protocols

Standard: Breeding facilities must have a birth protocol in place, which provides for care of the mother during pregnancy and parturition and safety of the calf immediately after birth.

Measurement: Birth protocol is reviewed.

Explanation: In order to avoid incidents of calf injury or unsuccessful births due to lack of a plan or lack of preparedness, a detailed birth protocol must be written for all pregnant elephants. For first time mothers, this protocol must include the ability to restrain the mother and retrieve the calf at parturition if necessary. The protocol must include methods of care of the mother in case of birth complications requiring veterinary intervention. There are several excellent birth protocols available from successful breeding institutions.

E.3.4.3 Hand-rearing and reintroduction protocols

Standard: Written hand-rearing and reintroduction management plans should be included as a part of the birth protocol.

Measurement: Birth protocol is reviewed, including plans for hand-rearing and reintroduction management.

Explanation: Protocols must be in place and supplies on hand well in advance (at least 30 days) of earliest expected parturition date in case hand-rearing is necessary. Every attempt should be made to reunite an elephant calf with its mother as soon as safely possible following birth.

E.4. Behavior management

Standard: All institutions must have an elephant training program in place which allows elephant care professionals and veterinarians to accomplish all necessary elephant care and management procedures. A training program must lead to reliable accomplishment of Checklist of AZA Standard Elephant Program Behavioral Components (See E.3.3.2.5 Husbandry).

Measurement: Review training and health records and observe elephant/staff interactions to determine if elephant training program is successful and that elephant care needs are being successfully met.

Explanation: Elephant training terminology and descriptions of specific trained behaviors are outlined in the Checklist of AZA Standard Elephant Program Behavioral Components (See 3.3.2.5 Husbandry). This checklist includes behaviors that every elephant and elephant care professional must know so that basic husbandry and veterinary practices can be accomplished.

E.4.1 Daily behavioral assessment

Standard: A daily behavioral assessment will be conducted for each elephant and all unusual behavior or any instances of aggression should be documented.

Measurement: Daily records and incident reports are reviewed, with special attention given to the presence of normal behaviors occurring at a normal frequency, including affiliation and aggression.

Explanation: A daily assessment should be made and any unusual behavior (including instances of aggression) should be immediately reported to the supervisor, and recorded in a daily log, and/or on an AZA Elephant Incident Report Form, if appropriate. A standardized AZA Elephant Behavior List has been developed to provide elephant care professionals with a consistent, systematic set of labels for describing behavior in the daily records or report, in elephant profiles, during conversations with coworkers, during regular elephant team meetings, and when making elephant management decisions about individual elephants in their care. All AZA institutions are encouraged to use this terminology to improve accuracy and consistency in behavioral observations within institutions and across institutions. Assessing elephant behavior, identifying the precursors to aggression and the proper use of the AZA Elephant Behavior List is included in the course curriculum of PEM I and II.

E.4.2 Successful methodologies for managing elephants

E.4.2.1 Elephant management in AZA facilities

Standard: All elephant care professionals at AZA facilities with elephants must not share the same unrestricted space with elephants, except for certain, limited exceptions.

Measurement: Elephant care is provided without sharing space, except for certain, limited exceptions as defined by AZA.

Explanation: Restricted contact is defined as managing elephants with a primary containment barrier between human and elephant and/or with tethers in place. Tethers may be used and if used must be placed on at least two (2) legs of the elephant (one front and one back). Tethers must be placed on the elephant from outside of the primary containment barrier prior to entry into the shared space. Routine husbandry should not be performed exclusively while elephants are on tethers.

In order to maximize safety while working in restricted contact, elephant care professionals must always monitor the position of themselves and their elephants(s) in relation to the barrier/tethers, the reach of the elephant(s) especially the reach of the trunk, and the behavior of the elephant(s). The head and/or torso of a person must never cross the plane of the primary containment barrier unless the elephant is on tethers.

When there are crises or medical emergencies or for birth management, written shared space protocols used with dangerous animals apply. Examples include critically ill elephants, elephant down, hand rearing and/or training of elephant calves (up to 24 months of age) and in rare cases geriatric cows that require special care as prescribed by the veterinarian. The following are not considered to be crises or medical emergencies and therefore are not exceptions: trunk washes, foot care, blood draw, research, exercise, bathing, donor/guest interaction, routine husbandry, calf training (after 24 months of age), transportation, and routine care and facilities maintenance (e.g. feeding and cleaning of the barn and/or habitat).

E.4.2.1.1 Elephant Guide

Standard: The elephant guide specifically known as a “bull-hook” or “ankus” (herein referred to as “elephant guide”) must not be used in the care and management of elephants, or in routine training.

Measurement: Daily elephant care and management and routine training are provided by elephant care professionals without the use of an elephant guide.

Explanation: Modern elephant programs are constantly evolving and improving as research advances the scientific knowledge of elephant management and care. The “bull-hook” or “ankus” is considered to be an antiquated tool no longer used for training in professional elephant care programs. Elephant care professionals have a wide range of other tools and training methods, including targets, clickers, and whistles. Elephant care professionals should be instructed and knowledgeable in the proper use of the tools used by their institutions. The PEM I and II course curricula include information about all of the training tools used in AZA-accredited institutions, and will introduce new training tools as they are developed.

In general, the elephant guide consists of a handle with a tapered curved metal guide tip attached on one end. Handle length may be 200 cm (79”) or shorter and the diameter may vary between 1.25-3 cm (0.5-1.2”). Fiberglass, wood, lexon, delrin, and nylon are preferred materials for the handle. The length of the guide tip is between 1.9-3.8 cm (0.75-1.5”). The width of the guide tip is 0.95 cm (0.375”) or wider. Stainless steel and titanium are preferred materials for the guide tip. This information is for illustrative purposes only and is not meant to provide explicit parameters for what qualifies as an elephant guide.

E.4.2.2 Training methods

Standard: All institutions must have an elephant training program in place which allows elephant care professionals and veterinarians the ability to accomplish all necessary elephant care and management procedures. Each institution will adopt and implement an institutional training methodology that promotes the safest environment for elephant care professionals and ensures high quality care and management of the elephants for routine husbandry, medical management, physical well-being, and overall elephant welfare. All institutions must train their elephant care professionals to manage and care for elephants with barriers and/or tethers in place that provide occupational safety. A training program must be consistent with the PEM I course curriculum and must lead to reliable accomplishment of Checklist of AZA Standard Elephant Program Behavioral Components (See E.3.3.2.5 Husbandry).

Measurement: Institutions must be able to demonstrate that all AZA Standards for Elephant Management & Care are met and all behaviors on the Checklist of AZA Standard Elephant Program Behavioral Components (See E.3.3.2.5 Husbandry) can be accomplished. Institutions must demonstrate that elephant care professionals are trained to manage and care for elephants with barriers and/or tethers in place.

Explanation: Appropriate elephant training may employ a wide range of training aids or tools, such as targets, acceptable guides, clickers, whistles, and elephant care professionals should be instructed and knowledgeable in the proper use of the tools used by their institutions. The PEM I and II course curricula include information about all of the training tools used in AZA. (Also see E.4.2.1.1, Elephant Guide, above).

E.4.2.3 Elephant management policy

Standard: All institutions must have a written Elephant Management Policy. This policy must be consistent with AZA Standards for Elephant Management and Care.

An institution's Elephant Management Policy must include a description of the following key components.

a) Elephant program's missions and goals.

b) Elephant care and management policies, including guidelines and protocols for care and welfare, training, and transport.

c) Plan to separate elephants from each other, safely manage elephants that are aggressive towards other elephants, safely move elephants from one location to another, and safely manage elephants that are aggressive toward humans.

d) Clear protocols for frequency and duration when elephant care professionals and elephants may share the same unrestricted space.

e) Personnel management policies, including guidelines for elephant care professional safety.

f) Individual elephant profiles and incident reports for all cases in which elephants show aggression toward humans, regardless if any injury actually resulted.

g) Emergency response protocols. Institutions must be able to demonstrate readiness to respond to an emergency, such as a human injury, an elephant escape, or to natural disasters.

h) Written protocol for routine foot care and evidence of its implementation

i) Written enrichment plan and evidence of its implementation

j) Written exercise plan and evidence of its implementation

Measurement: An updated institutional Elephant Management Policy exists and all records and annual reports pertaining to elephant care and or management are reviewed.

Explanation: This policy should be developed with input from many parties, including elephant care professionals, managers, curators, veterinarians, safety experts and directors. It should follow a thoughtful process taking into account the animals, personnel, and facility.

E.4.3 Introductions

Standard: Institutions must have the ability to manage elephant introductions and separations. Protocols must be in place for safe and effective introductions and control of potential social issues.

Measurement: There must be appropriate facilities and protocols in place for all phases of elephant

introductions. Institution must be able to demonstrate their ability to introduce and separate elephants.

Explanation: All institutions must have the expertise and the appropriate facilities to be able to manage both elephant introductions and separations, including introductions/separations of a new female to a herd and, if the institution is a breeding facility, females to males for breeding, newborn calf to its mother, and calf and mother to the herd. When doing full introductions, it is important to proceed gradually and maintain the ability to intervene in any aggressive escalation. Institutions should be able to provide sufficient open or barrier enhanced space for one elephant to avoid another and multiple gates to facilitate safe separation of the elephants. Some elephants are able to very rapidly move through the introductory stages and may become frustrated or increasingly aggressive if the introduction moves too slowly. Hence, continual behavioral assessment of the introduction is important.

E.4.4 Enrichment programs

Standard: All institutions must have a written environmental enrichment plan for their elephants and show evidence of implementation.

Measurement: Enrichment plan and records of daily enrichment activities are reviewed. Enrichment programs are behavior based and a cogent and effective method for recording, evaluating, and assessing the behavioral impact of enrichment is in place.

Explanation: An effective enrichment program, including environmental, social, and cognitive enrichment, should promote species-appropriate behaviors (Greco et al., 2016a). A useful resource on enrichment programs for elephants can be found at www.animalenrichment.org.

E.5. Management Structure, Safety and Program Assessment

E.5.1 Management structure, technical skills and competencies

Standard: Each institution must demonstrate a management structure which provides (1) elephant care professional training; (2) program development and maintenance; and (3) communication with others about the elephant program. The elephant program's manager(s) and elephant care professionals must demonstrate knowledge about all emergency protocols and continually improve elephant management techniques as the industry standards evolve. Overall responsibility for the program must be clearly defined.

All elephant care professionals, managers, and directors must complete PEM I within three (3) calendar years from the date they begin working in that capacity. Veterinarians are encouraged but not required to take PEM I. All elephant managers must complete PEM II within three (3) calendar years from the date they begin working in that capacity.

Measurement: Institutional elephant management responsibility is clearly defined and understood by elephant manager(s) and elephant care professionals.

Explanation: Most institutions typically assign one person to be the Elephant Manager, however, some institutions have more than one person sharing the duties described above.

E.5.1.1 Elephant care professional safety proficiency

Standard: Each institution must implement standardized methods and protocols to evaluate and maintain records of each elephant care professional's safety-proficiency, in a manner that integrates his/her experience level with the specific behavior profiles of the elephants in his/her care.

Measurement: Standardized elephant care professional training program materials are reviewed. Written evaluations of each elephant care professional's safety-proficiency exist

and are up to date.

Explanation: An elephant care professional training and safety proficiency program should include regular check-ins with the elephant manager(s) and should assess the progress of all elephant care professionals in safely handling the elephants at his or her institution.

E.5.2 Animal and elephant care professional safety

Standard: A minimum of two qualified elephant care professionals must be present within visual and auditory contact during any contact with elephants and any time an elephant care professional is within trunk's reach of an elephant.

Measurement: Review incidents of elephant care professional injury during interaction with elephants. Expectation of two-person minimum is clearly defined and understood by elephant care professionals.

Explanation: A qualified elephant care professional is a person the institution acknowledges as a trained, responsible individual, capable of and specifically experienced in the training and care of elephants. The two qualified elephant keepers should be in close enough proximity to one another to allow the second person to intervene if required. Each institution must use their standardized methods and protocols to evaluate the performance of each elephant care professional and deem when his/her experience level is sufficient to care for the institution's elephants.

E.5.2.1 Elephant aggression

Standard: Any elephant that displays aggression towards an elephant care provider(s) must be immediately documented.

Measurement: Daily reports, elephant profiles, and incident reports should be reviewed.

Explanation: AZA is committed to maximizing the safety of elephant care professionals while continuing to advance the care and welfare of the elephants. Individual elephants occasionally display aggression towards elephant care professionals which may warrant incident reports.

E.5.3 Visitor safety

Standard: Elephant areas must be designed to ensure that unsupervised physical contact is not possible between the visitors and the elephants. Any physical contact between visitors and the elephants must be directly supervised and under the control of qualified elephant care professionals.

Measurement: No incidents of visitor injury or inappropriate contact with elephants.

Explanation: All elephant/human interaction must be supervised by qualified elephant care professionals.

E.5.4 Program assessment

Standard: Using the AZA Elephant Program Annual Report Form, each institution must perform an annual review of its overall elephant management program.

Measurement: Annual reports are submitted by 15 January each year and, if feedback is provided by the AZA Accreditation Commission, the institution is addressing the feedback appropriately.

Explanation: Elephant management continues to evolve as new information, knowledge and technologies become available. An annual review of the entire program will assist in identifying areas of unwanted change, assessing programs strengths and needs, and developing action plans to meet the goals of the program. The AZA Accreditation Commission and/or an AZA team member will follow up where institutional reports indicate challenges in meeting the elephant safety standards.

E.6. Conservation, Education, and Research

E.6.1 Conservation and research activities

Standard: All institutions should contribute to in situ and ex situ conservation and research efforts.

Measurement: Records of participation in situ and ex situ conservation and research efforts should be reviewed.

Explanation: Institutions should contribute to elephant conservation through public education, scientific research, and the support of field conservation. Elephants are an important flagship species and the cornerstone of many members' African and Asian areas. Every institution should contribute in some way to in situ conservation of elephants and their habitats (Hutchins and Smith, 2000). AZA members are strongly encouraged to provide financial, personnel, logistical, and other support for priority research and conservation initiatives, such as AZA SAFE and International Elephant Foundation. Every institution should contribute in some way to elephant research activities (Hutchins and Smith, 2000). Involvement in one or more of the following disciplines is strongly recommended: behavior, cognition, reproduction, communication, enrichment, health (disease/pathology, nutrition), and education.

E.6.2 Education programs

Standard: Every institution should institute a program to educate zoo visitors about elephant and elephant conservation issues (Hutchins and Smith, 2000).

Measurement: Records of elephant education program should be reviewed.

Explanation: Assistance is available from the Elephant TAG/SSP Education Advisor. Every institution should have up-to-date educational graphics and information about elephants on display to the public.

E.7. Cooperative management

Standard: All acquisition, disposition, transfer, or breeding of elephants in AZA institutions is subject to approval of the AZA Elephant TAG/SSP. All breeding, management and transfer recommendations of the AZA Elephant TAG/SSP should be followed.

Measurement: Records of participation and cooperation with the Elephant TAG/SSP should be reviewed.

Explanation: The goals and mission of the AZA Elephant TAG/SSP will only be met if each AZA institution with elephants honors its commitment as either a holding or breeding facility (Smith and Hutchins, 2000; Wiese, 2000; Weise and Hutchins, 1994; Weise and Olson, 2000; Faust & Marti, 2011a; Faust & Marti 2011b). Each institution must make every effort to abide by the TAG's Regional Collection Plan (Fischer, 2017) and SSP breeding and transfer recommendations (Fischer et al., 2017; Hagan et al., 2017). The success of cooperative breeding programs depends on all institutions supporting these recommendations.

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AZA STANDARDS FOR CETACEAN CARE & WELFARE

Approved July 2017

Introduction

These standards are in addition to AZA general *Accreditation Standards and Related Policies,* all of which remain applicable. Institutions that include cetaceans in their care (whales, dolphins, porpoises) must follow these AZA Standards for Cetacean Care & Welfare. For reference, general standards that relate to individual cetacean standards are included in brackets at the end of the cetacean standard. There may be other general standards that apply in addition to those that are bracketed. All general standards can be found on pages 10 – 42 of this booklet.

C.1. Responsible Population Management

General Considerations:

In addition to this section, the institution must meet, at minimum, all requirements contained in AZA's Policy on Responsible Population Management (RPM Policy) [pages 95 – 104]. Documentation records for the acquisition of all cetaceans must be provided as evidence that no animals were originally obtained from a drive fishery.

C.1.1. Acquisition

C.1.1.1. The institution must provide for each animal's proper care and welfare in accordance with AZA standards.

C.1.1.2. Any cetacean may only be added to an AZA-accredited institution's care by means of current best practices. Institutions should not acquire animals collected from any drive fishery post 2004. However, AZA-accredited institutions must consider providing housing and care to cetaceans in critical need regardless of collection origin. [See also General Standard 1.3.2]

C.1.1.3. The institution's responsible population management plan must prohibit the collection of cetaceans from the wild except on a case by case basis where it is essential to maintain healthy and diverse managed cetacean populations, or for rescues, or as part of a threatened or endangered species conservation program. [See also General Standard 1.3.2]

Explanation: AZA-accredited institutions must comply with applicable laws, and should also consider introducing and caring for non-releasable cetaceans from rescue programs.

C.1.1.4. Institutions acquiring cetaceans from the wild must prove that the population in the wild remains sustainable. [See also General Standards 1.3.2, 1.7.1]

Explanation: AZA supports environmentally sustainable and beneficial acquisition from the wild when conservation is a positive outcome.

C.1.1.5. The institution must maintain detailed and complete acquisition and chain of custody records through disposition, consistent with the AZA Policy on Responsible Population Management ("RPM Policy"). [See also General Standards 1.3.2, 1.4.5, 1.4.7]

C.1.2. Transfer

C.1.2.1. Cetaceans must only be transferred or loaned pursuant to compliance with the AZA Policy on Responsible Population Management ("RPM Policy"). [See also General Standard 1.3.2]

C.1.2.2. In making the decision to transfer any cetacean to a non-AZA accredited facility, the institution must comply strictly with the specific procedures and requirements of the AZA RPM Policy, including documentation that the receiving non-AZA institution can provide proper care and has a record of good animal welfare. [See also General Standard 1.3.2]

C.1.2.3. Unless a cetacean is rescued, rehabilitated, and then released back into its natural habitat under the direction of the national or local authority, cetaceans cannot be released to the wild. This does not apply to cetaceans that are part of a permitted and scientifically-based reintroduction program with the ultimate goal of sustaining a threatened or endangered population. [See also General Standard 1.3.2]

Explanation: All relevant local, state/provincial, and federal laws and/orregulations for release into the wild must be followed. In cases where an AZA standard is more stringent than existing law, the AZA standard must be met.

C.2. Conservation, Research, and Education

General Considerations:

Conservation efforts are a priority for AZA-accredited zoos and aquariums. AZA institutions that house cetaceans have a unique opportunity to educate and connect guests with these animals and their ecosystems. Cetacean holding members also have the professional skills and resources to facilitate both *in situ* and *ex situ* conservation research and initiatives that support marine mammals in their ecosystems. Participation in these types of activities should be demonstrated and should be in proportion to the size and scope of the institution. [See also General Standards 3.1.1, 3.2.1, 3.3.4]

C.2.1. Conservation and Research

C.2.1.1. AZA-accredited institutions should participate in or support *in situ* and *ex situ* conservation and research efforts for cetaceans. [See also General Standards 3.2.1, 3.3.4]

Explanation: AZA institutions are strongly encouraged to provide financial, personnel, logistical, and other support for priority research and conservation initiatives.

C.2.2. Education

C.2.2.1. The institution must have education programs about cetaceans to improve public understanding and appreciation for these animals and their ecosystems. [See also General Standards 4.2.1, 4.3.1]

C.2.2.2. Education programs about cetaceans must be based on current scientific knowledge. [See also General Standard 4.3.1]

C.2.2.3. Education programs about cetaceans must be under the direction of a paid staff person who is knowledgeable about cetaceans and has a working rapport with the facility's zoological experts in cetacean care and welfare. [See also General Standard 4.2.2]

C.3. Care for Cetaceans

General Considerations:

Care, welfare and sustainable population management are among the most critical and complex tasks performed by AZA-accredited zoos and aquariums. Administration and management of husbandry programs must be guided by modern professional principles establishing plans and procedures to execute those functions. Cetaceans have both general care requirements similar to all other mammals and some that are specific to their species. All AZA-accredited institutions must uphold a commitment to provide for the health and wellbeing of the animals, and must invest in the resources necessary to properly care for the species they foster.

C.3.1. Food/Nutrition

C.3.1.1. Cetaceans must be provided with appropriate nutrition. A consistent review of food intake vs. body weight (body condition/score) is recommended. [See also General Standard 2.6.2]

C.3.2. Veterinary Program

C.3.2.1. A veterinarian with experience in cetacean medicine must be on call at all times. Physical examinations must be performed regularly, as prescribed by the veterinarian (at least annually) on each cetacean residing at the institution, and regular visual examinations (at least quarterly) must be performed by the veterinarian. Medical imaging equipment in the form of ultrasound and radiography should be readily available. [See also General Standards 2.0.2, 2.1.2, 2.3.2]

Explanation: As with all other preventative care programs, at minimum, exams must include food intake vs. body weight and general body condition, blood sampling for hematology and chemistry, and all other lab tests deemed appropriate by the attending veterinarian in collaboration with curatorial staff.

C.3.2.2. Physiological values and serum banks should be established for each cetacean residing at the institution. [See also General Standard 1.4.8]

C.3.2.3. Health, medical and husbandry records are covered under the general AZA accreditation standards, section 1.4 [see page 13].

C.3.2.4. AZA-accredited institutions must disinfect and maintain cetacean handling equipment and all related areas. [See also General Standards 10.1.0, 10.1.1, 10.2.0]

C.3.2.5. The institution must comply with the applicable sections on quarantine of the most recent edition of the *Guidelines for Zoo and Aquarium Veterinary Medical Programs and Veterinary Hospitals*, published by the American Association of Zoo Veterinarians (AAZV) http://www.aazv.org/displaycommon.cfm?an=1&subarticlenbr=839. [See also General Standard 2.0.1]

C.4. Cetacean and Guest Interactive Programs

General Considerations:

The AZA recognizes the value and positive impact of interactive and ambassador animal programs. Cetacean interactive programs provide a unique opportunity for guests to engage and connect with whales and dolphins, and to appreciate the behaviors and characteristics of these animals. Program development and management must be conducted in a way that prioritizes animal and guest safety, as well as maximizes opportunities for guest education and experience. The following standards apply to an in-water interactive program where one or more guests are entering the water with the animals.

C.4.1. Interactive programs must be managed in areas that include open spaces where the animals can swim away from program participants if they choose. [See also General Standards 1.5.2.2, 1.5.4]

C.4.2. The amount of time each cetacean participates in interactive program activities must be determined by the managing curator or paid supervisory staff member based on a number of factors, including the behavioral observation of the animal. Cetaceans undergoing medical treatment may only participate in interactive programs with the approval of the attending veterinarian. [See also General Standard 1.5.4]

C.4.3. Proper training of cetaceans that participate in guest interactive programs must take place at all AZA-accredited institutions and be under the supervision of qualified paid staff with appropriate training and experience. Paid staff must manage the interaction between animals and guests, and must be prepared to stop the interaction should the situation warrant. [See also General Standards 1.5.4, 1.5.12, 1.6.4]

C.4.4. The ratio of guests to animals should be determined by the type of interactive program being offered, and must be approved by the managing curator or paid supervisory staff. [See also General Standard 1.5.4]

C.4.5. The ratio of paid staff to cetaceans during interactive programs should be 1:1. [See also General Standards 1.5.4, 1.5.13, 11.4.1, 11.5.3]

Explanation: The behavior of each individual animal and guest may vary at any given time, requiring supervisory staff to focus on many different factors simultaneously.

C.4.6. In addition to a 1:1 ratio of paid staff to cetaceans (see 4.5. above) there should be at least one additional paid staff member assigned to provide safety oversight of all interactions during each session. The number of safety observers should be based on the number of guests and animals participating. Safety observers, dedicated solely to the task, must have an unobstructed view of the interactions at all times. [See also General Standards 1.5.4, 1.5.13, 11.4.1, 11.5.3]

Explanation: The safety observer(s) must provide oversight throughout the interaction to assure that encounters are conducted in a safe manner for all involved.

C.4.7. Interactive programming must include an educational component. Visitors should also receive instructions about appropriate behavior, and broader warnings that feeding, approaching, or swimming with cetaceans in the wild can harm both the cetaceans and humans, and is illegal in waters of some countries including the United States. [See also General Standards 1.5.3]

C.5. Reproduction and Perinatal Care

General Considerations:

The success of cooperative breeding programs is a fundamental AZA priority. Genetic diversity and demographic stability are vital to the population sustainability of species under human care. In many instances, they are also vital to the survival of a species worldwide. To focus on these twin goals, AZA has long required members to participate fully and cooperatively in the scientifically managed breeding of hundreds of species. These basic principles apply to cetacean-holding institutions.

A small number of jurisdictions prohibit breeding of certain cetaceans. AZA opposes government breeding bans on AZA-accredited institutions. Government bans are contrary to modern science, hinder vital reproductive, behavioral, and other scientific research that can be essential to the survival of a species, and are inconsistent with the long range welfare of the animals in human care and in the wild. Members in these jurisdictions cannot legally comply with the standards in this section 5 but must comply with all other AZA standards.

C.5.1. The institution must follow a written breeding plan to optimize the population sustainability of the species in collaboration with other cetacean-holding institutions. [See also General Standard 3.3.2]

C.5.2. Institutions engaged in cetacean reproduction should have paid staff with expertise in cetacean breeding.

C.5.3. Institutions engaged in cetacean reproduction must have facilities appropriately sized and designed to facilitate nursing, calf rearing, and separation from other animals if necessary. [See also General Standards 1.5.2, 10.3.3]

Explanation: Habitats housing females with calves must have sufficient straight-line glide paths for nursing, based on the professional judgment of the managing curator or paid supervisory staff and the attending veterinarian.

C.5.4. The institution must follow a detailed birth protocol and contingency plan which provides for the care of the mother during pregnancy and parturition and safety and care for the calf.

C.6. Behavioral Management and Training

General Considerations:

AZA considers behavioral management and applied animal training through the use of positive reinforcement to be critical and integral to maximizing the health and wellbeing of cetaceans.

C.6.1. The institution must engage all cetaceans in a behavior management program that enhances their care and welfare. [See also General Standard 1.6.4]

Explanation: Proper management programs should be individually as well as group based. Animal training techniques must be accomplished through positive reinforcement and operant conditioning that are designed to improve the animal's psychological and physical well-being.

C.7. Environment

General Considerations:

The management of water and environmental quality in cetacean habitats should meet the basic physiological needs of the species. Consideration should be given to contemporary and emerging scientific understanding of best practices in cetacean husbandry.

While zoos and aquariums may be required to meet minimum space government standards such as those of the U.S. Animal and Plant Health Inspection Service (APHIS), AZA seeks to strengthen cetacean animal welfare by focusing on output based welfare standards. AZA strongly supports scientifically based research that aims to optimize animal health and welfare.

There is considerable variation in the design of water treatment systems, and the establishment of optimum water parameters should be based on the physiological needs of the animals and the effectiveness of the water processing techniques involved.

Water systems of cetacean habitats can be open (flow-through), closed or semi-closed.

In open systems, water enters from a natural source or municipal line, passes through the habitat and exits as waste water into a natural source or municipal sewage system. Open systems typically do not require mechanical filtration, but filters or screens may be added to improve water clarity and reduce intake of fouling organisms or organic material.

Semi-closed systems rely on a lower replacement of habitat water which necessitates both filtration and water treatment to maintain a healthy environment for the animals.

Closed systems require the most intensive water treatment since virtually all of the water is reused or recirculated. Processes may include disinfection, temperature control, removal of solids, and color reduction.

C.7.1. Space

C.7.1.1. Habitats must provide consideration of the 3-dimensional space use, and provide sufficient space and environmental complexity to stimulate and promote natural behavioral activities and social interactions, resulting in healthy and socially-adapted cetaceans. [See also General Standards 1.5.1, 1.5.2, 10.3.3]

Explanation: Habitats must provide sufficient space so that the animal can make normal postural and social adjustments with adequate freedom of movement to be able to demonstrate species appropriate behaviors that promote positive welfare.

Space is one of the most difficult measures to standardize. There are no definitive scientific data which clearly define the amount of space needed for a cetacean to be healthy. Species-specific needs should dictate the size and architecture of the habitat required to enhance the animal's physical, psychological, and behavioral well-being. In-house experience and the experiences of other institutions, field biologists, or other experts should be considered in determining the best designs to meet these needs.

It is the quality of both the space and overall programmatic approach to good cetacean management that determines adequacy of the facility, not simply the square footage/volume of the habitat. Thus, if the cetaceans are healthy and socially adapted, then what is being provided meets the standard. It is inaccurate to say that because a facility has a certain amount of space it has good cetacean management.

C.7.1.2. Cetacean habitats must be designed to maintain cetaceans in appropriate social groups based on current scientific knowledge. [See also General Standards 1.5.2.1, 1.5.2.2]

Explanation: Each cetacean requires an environment that allows for social contacts and positive interactions with other cetaceans. The institution must be able to mitigate situations involving incompatible animals. This may be accomplished through a number of methodologies including training, transferring animals from one habitat into another, allowing animals to separate themselves from each other, or by other means.

C.7.2. Environmental Quality

C.7.2.1. Environmental conditions for animals must be designed, constructed, and managed to promote positive health and welfare; animals must be protected from environmental conditions which could be detrimental to their health and welfare. [See also General Standards 1.5.7, 1.5.9, 1.5.14, 1.5.15, 1.5.16]

Explanation: Environmental conditions to be considered include, but are not limited to, sunlight/UV exposure, temperature, air quality, water quality, and sound. Natural or anthropogenic environmental factors must be mitigated or eliminated when there is the possibility and/or evidence of potential negative impacts on the animals.

C.7.2.2. Water temperatures must be maintained within appropriate thermal tolerances for the species. [See also General Standard 1.5.2]

C.7.2.3. Indoor facilities should provide sufficient air exchanges with filtration technology appropriate to the location's outside air quality to effectively minimize exposure to particulates, chemical compounds, contaminants or pathogens that could be detrimental to the health and welfare of the animal. Institutions must implement an airborne environmental monitoring plan and mitigate concerns as deemed necessary by appropriate experts/professionals/scientific standards. [See also General Standards 1.5.2, 10.3.2]

C.7.2.4. The institution must minimize exposure of cetaceans to noises that have the potential to cause auditory discomfort or distress due to high amplitude or other characteristics. Both in-air and underwater noise must be considered in facility design for cetaceans, including the type and location of mechanical equipment, choice of habitat materials, and the sound profile of in-water equipment and activities. Noise exposure should be monitored with a system that is sensitive to the full frequency range of the species' hearing range and with systematic behavioral observations that would detect startle or avoidance behavior. [See also General Standard 1.5.2]

C.7.3. Water Quality

C.7.3.1. Cetacean habitats must be designed and constructed to minimize the unsanitary accumulation of materials that may be detrimental to the health and well-being of the animals. This should include management to reduce and eliminate debris, and the growth of opportunistic or fouling organisms that could present a physical hazard to the animals (such as mussels, barnacles, etc.). [See also General Standards 1.5.1, 1.5.2, 1.5.9]

C.7.3.2. Baseline water quality parameters for cetacean habitats with acceptable range variances appropriate to the facility and species must be established by qualified senior curatorial and veterinary staff. These parameters must meet all regulatory requirements and be sufficient to maintain the health of the animals. Routine surveillance should monitor baseline parameters and track variances and trends in deviation from baseline parameters. In addition, known and predictable habitat extremes which may be beyond established variances should be monitored (such as seasonal high and low water temperature in outdoor habitats). [See also General Standard 1.5.9]

C.7.3.3. Source water for cetacean habitats should be adjusted as needed to meet the physiological needs specific to the species, and to optimize animal health and welfare. [See also General Standards 1.5.2, 1.5.9]

C.7.3.4. Water filtration, disinfection, turnover of replacement water, and water chemistry management must be monitored and sufficient to meet the needs of the species, and must comply with acceptable parameters and ranges established by qualified senior curatorial and veterinary staff. [See also General Standard 1.5.9]

C.8. Transportation

General Considerations:

The transport of cetaceans is executed through a detailed planning process managed by curatorial staff experienced in cetacean transport and approved by a qualified veterinarian. Careful attention is placed on assuring cetacean transports are executed safely and efficiently, and consider the animals' unique physiologies and their environmental requirements. In addition to adhering to AZA's general standard on transport (see general standard 1.5.11, page 18), AZA-accredited institutions must also follow the cetacean-specific standards listed below. These standards apply to movement of cetaceans requiring more than two hours for transport from the time of removal from the habitat to the destination habitat.

AZA strongly supports the continued evolution of science to ensure continual improvement of animal welfare.

C.8.1. A pre-transport examination must be conducted by a qualified veterinarian to determine if the cetacean is fit for transport. [See also General Standards 1.5.11, 2.4.2]

C.8.2. A thorough written transport plan is required prior to transport and should include, at a minimum, mode of transport, roster of transport personnel and designated responsibilities, time line, equipment list, contingency plan, and emergency contact information. [See also General Standards 1.5.11, 11.2.4]

C.8.3. Cetaceans should be monitored continuously during transport. One attending qualified paid or unpaid staff member per cetacean should be used on transports of four or less animals, with a minimum of two attending paid staff per transport, one of which includes a veterinarian. If more than four cetaceans are transported, additional qualified paid and/or unpaid staff should be added (the number to be determined by the managing curator or paid supervisory staff and the attending veterinarian). [See also General Standard 1.5.11]

C.8.4. Cetaceans should be properly secured, in open-top containers with the appropriate amount of water for proper welfare. In the event of emergency and/or rescue situations alternate methods may be considered as approved by the attending veterinarian. [See also General Standards 1.5.11, 10.3.3]

C.8.5. Water parameters, air temperature, and cabin pressure should be dictated by the approving veterinarian and managed appropriately by the transport supervisor. [See also General Standard 1.5.11]

END

Related Policies

AMBASSADOR ANIMAL POLICY

Revised and approved by the AZA Board of Directors – July 2022
Modified from "Program Animal" to "Ambassador Animal" to avoid confusion with "Animal Programs"; approved by the CEC; no change to meaning of these terms – January 2015
Updated and approved by the Board – July 2008 & June 2011
Originally approved by the AZA Board of Directors – 2003

The Association of Zoos & Aquariums (AZA) recognizes many benefits of ambassador animal presentations, including elements of public education that inspire our visitors and community members to take action to better care for animals and conserve the natural world. An explanation of the value and impact of ambassador animal presentations can be found in the AZA Conservation Education Committee's "Ambassador Animal Position Statement."

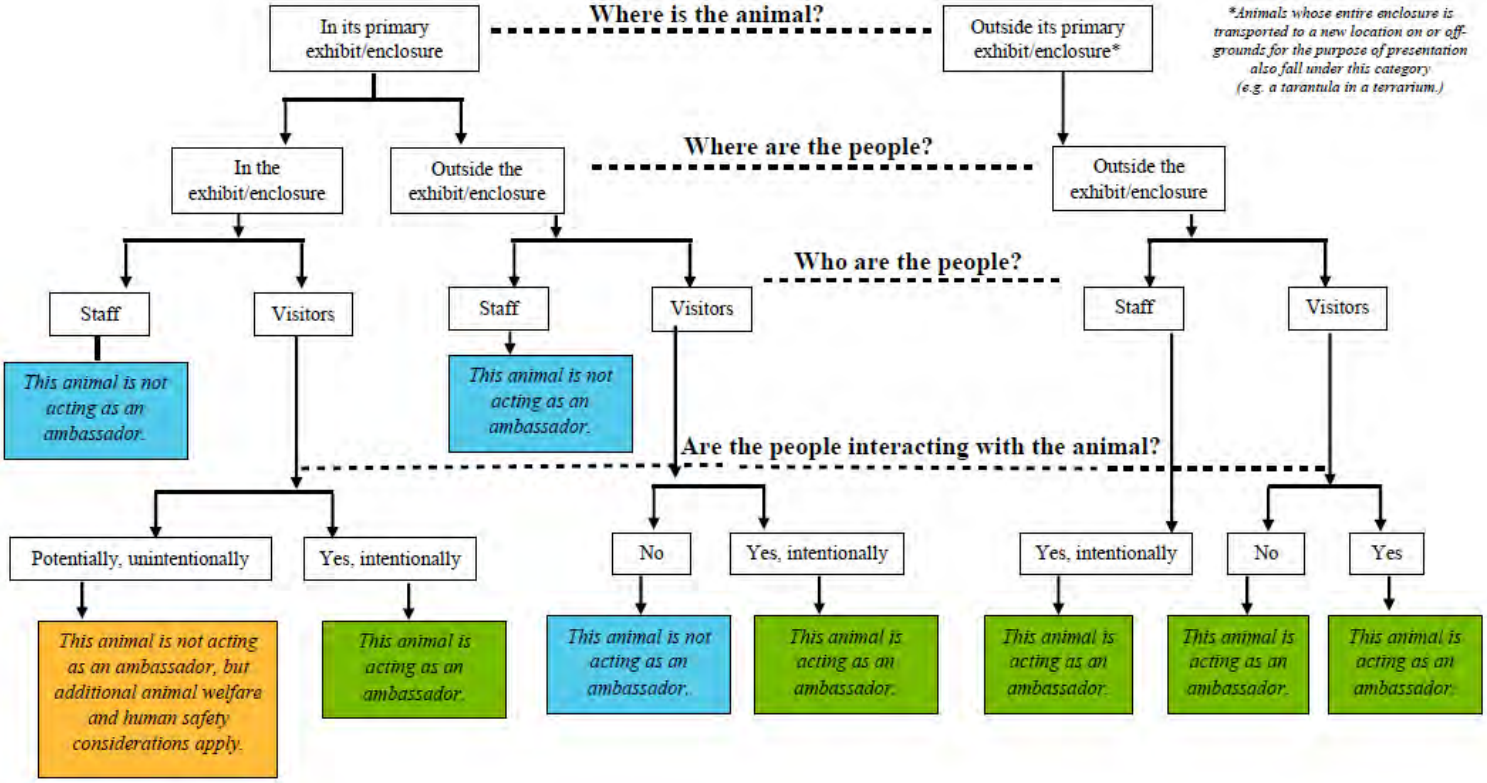
Ambassador animal presentations also bring a host of responsibilities, including the safety and welfare of the animals involved, the safety of the staff and public, and accountability for the take-home, educational messages received by the audience. Therefore, AZA requires all accredited facilities that house animals that act as ambassadors to develop a Facility Ambassador Animal Policy that clearly identifies and justifies those species and individuals acting as ambassador animals, and details their long-term management plan and educational program objectives. For the purpose of this policy, the AZA accreditation standards, and a facility's ambassador animal policy, the definition of when an animal is acting as an ambassador animal is as follows:
While some animals may be designated specifically as "Ambassador Animals" within a facility's collection, accreditation standards and policies for ambassador animals apply to any animal in the collection when it is acting as an ambassador animal. An animal is acting as an ambassador when:

> *it is being presented to visitors AND the animal leaves its primary enclosure*
> ***OR***
> *it is being presented to visitors (inside or outside of its enclosure) AND visitors are intended to have direct contact (i.e. feeding, touching, swim with, etc.)*

This definition is designed to assist staff, accreditation inspectors, and the Accreditation Commission in determining when animals are designated as ambassador animals and the periods during which the ambassador animal related Accreditation Standards are applicable. In addition, the ambassador animal definition establishes a framework for understanding the various dimensions of an animal's involvement and visitor interaction during ambassador animal activities. The flow chart at the end of this document further clarifies circumstances under which an animal would be considered to be acting as an ambassador.

Additional information on what should be included in a Facility Ambassador Animal Policy can be found in "AZA's Recommendations for Developing a Facility Ambassador Policy."

Guide to Assessing When an Animal is Acting as an Ambassador



DEFINITION

While some animals may be designated specifically as "Ambassador Animals" within an institution's collection, accreditation standards and policies for ambassador animals apply to any animal in the collection when it is acting as an ambassador animal. An animal is acting as an ambassador when:

- it is being presented to visitors AND the animal leaves its primary enclosure

  OR

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AMBASSADOR ANIMAL POSITION STATEMENT

Last revision 1/28/03 // Currently Under Revision 6-2022
Re-authorized by the Board June 2011
Updated 1/28/15 to change "program animal" to "ambassador animal"

THE CONSERVATION EDUCATION COMMITTEE (CEC) OF THE ASSOCIATION OF ZOOS AND AQUARIUMS SUPPORTS THE APPROPRIATE USE OF AMBASSADOR ANIMALS AS AN IMPORTANT AND POWERFUL EDUCATIONAL TOOL THAT PROVIDES A VARIETY OF BENEFITS TO ZOO AND AQUARIUM EDUCATORS SEEKING TO CONVEY COGNITIVE AND AFFECTIVE (EMOTIONAL) MESSAGES ABOUT CONSERVATION, WILDLIFE AND ANIMAL WELFARE.

SEE ALSO:

Ambassador Animal Policy

Recommendations for Developing a Facility Ambassador Animal Policy

Utilizing these animals allows educators to strongly engage audiences. As discussed below, the use of ambassador animals has been demonstrated to result in lengthened learning periods, increased knowledge acquisition and retention, enhanced environmental attitudes, and the creation of positive perceptions concerning zoo and aquarium animals.

Audience Engagement

Zoos and aquariums are ideal venues for developing emotional ties to wildlife and fostering an appreciation for the natural world. However, developing and delivering effective educational messages in the free-choice learning environments of zoos and aquariums is a difficult task.

Zoo and aquarium educators are constantly challenged to develop methods for engaging and teaching visitors who often view a trip to the zoo as a social or recreational experience (Morgan and Hodgkinson, 1999). The use of ambassador animals can provide the compelling experience necessary to attract and maintain personal connections with visitors of all motivations, thus preparing them for learning and reflection on their own relationships with nature.

Ambassador animals are powerful catalysts for learning for a variety of reasons. They are generally active, easily viewed, and usually presented in close proximity to the public. These factors have proven to contribute to increasing the length of time that people spend watching animals in zoo exhibits (Bitgood, Patterson and Benefield, 1986, 1988; Wolf and Tymitz, 1981).

In addition, the provocative nature of a handled animal likely plays an important role in captivating a visitor. In two studies (Povey, 2002; Povey and Rios, 2001), visitors viewed animals three and four times longer while they were being presented in demonstrations outside of their enclosure with an educator than while they were on exhibit. Clearly, the use of ambassador animals in shows or informal presentations can be effective in lengthening the potential time period for learning and overall impact.

Ambassador animals also provide the opportunity to personalize the learning experience, tailoring the teaching session to what interests the visitors. Traditional graphics offer little opportunity for this level of personalization of information delivery and are frequently not read by visitors (Churchman, 1985; Johnston, 1998). For example, Povey (2001) found that only 25% of visitors to an animal exhibit read the accompanying graphic; whereas, 45% of visitors watching the same animal handled in an educational presentation asked at least one question and some asked as many as seven questions.

Having an animal accompany the educator allowed the visitors to make specific inquiries about topics in which they were interested.

Knowledge Acquisition

Improving our visitors' knowledge and understanding regarding wildlife and wildlife conservation is a fundamental goal for many zoo educators using ambassador animals. A growing body of evidence supports the validity of using ambassador animals to enhance delivery of these cognitive messages as well.

- MacMillen (1994) found that the use of live animals in a zoomobile outreach program significantly enhanced cognitive learning in a vertebrate classification unit for sixth grade students.
- Sherwood and his colleagues (1989) compared the use of live horseshoe crabs and sea stars to the use of dried specimens in an aquarium education program and demonstrated that students made the greatest cognitive gains when exposed to programs utilizing the live animals.
- Povey and Rios (2002) noted that in response to an open-ended survey question ("Before I saw this animal, I never realized that … "), visitors watching a presentation utilizing an ambassador animal provided 69% cognitive responses (i.e., something they learned) versus 9% made by visitors viewing the same animal in its exhibit (who primarily responded with observations).
- Povey (2002) recorded a marked difference in learning between visitors observing animals on exhibit versus being handled during informal presentations. Visitors to demonstrations utilizing a raven and radiated tortoises were able to answer questions correctly at a rate as much as eleven times higher than visitors to the exhibits.

Enhanced Environmental Attitudes

Ambassador animals have been clearly demonstrated to increase affective learning and attitudinal change.

- Studies by Yerke and Burns (1991) and Davison and her colleagues (1993) evaluated the effect live animal shows had on visitor attitudes. Both found their shows successfully influenced attitudes about conservation and stewardship.
- Yerke and Burns (1993) also evaluated a live bird outreach program presented to Oregon fifth-graders and recorded a significant increase in students' environmental attitudes after the presentations.
- Sherwood and his colleagues (1989) found that students who handled live invertebrates in an education program demonstrated both short and long-term attitudinal changes as compared to those who only had exposure to dried specimens.
- Povey and Rios (2002) examined the role ambassador animals play in helping visitors develop positive feelings about the care and well-being of zoo animals.
- As observed by Wolf and Tymitz (1981), zoo visitors are deeply concerned with the welfare of zoo animals and desire evidence that they receive personalized care.

Conclusion

Creating positive impressions of aquarium and zoo animals, and wildlife in general, is crucial to the fundamental mission of zoological institutions. Although additional research will help us delve further into this area, the existing research supports the conclusion that ambassador animals are an important tool for conveying both cognitive and affective messages regarding animals and the need to conserve wildlife and wild places.

Acknowledgements

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RECOMMENDATIONS FOR DEVELOPING A FACILITY AMBASSADOR ANIMAL POLICY

Revised and approved by the AZA Board of Directors – July 2022
Modified from "Program Animal" to "Ambassador Animal" to avoid confusion with "Animal Programs"; approved by the CEC; no change to meaning of these terms – January 2015
Updated and approved by the Board – July 2008 & June 2011
Originally approved by the AZA Board of Directors – 2003

RATIONALE

Membership in AZA requires that a facility meet the AZA Accreditation Standards collectively developed by our professional colleagues. Standards guide all aspects of a facility's operations; however, the accreditation commission has asserted that ensuring member facilities demonstrate the highest standards of animal care is a top priority. Another fundamental AZA criterion for membership is that education be affirmed as core to a facility's mission. All accredited public facilities are expected to develop a written education plan and to regularly evaluate program effectiveness.

The inclusion of animals in educational presentations, when done correctly, is a powerful tool. AZA's Conservation Education Committee's Ambassador Animal Position Statement describes the research underpinning the appropriate use of ambassador animals as an important and powerful educational opportunity to convey cognitive, behavioral, and effective messages about conservation and wildlife.

Ongoing research, such as efforts coordinated through AZA's Ambassador Animal Scientific Advisory Group (AASAG) and research conducted by individual AZA facilities, helps zoo educators to continually assess the impact of ambassador animals on visitor experience and learning, as well as how participation in programs impacts the animals. Consistent evaluation of programs should assess how interpretive messaging, animal handling/presentation, and animal behaviors impact visitor perceptions of animal welfare and take-home messages (e.g. an animal's suitability as a pet, conservation status, etc.)

When utilizing ambassador animals our responsibility is to meet both our high standards of animal care and our educational goals. Additionally, as animal care professionals we must address both the species' husbandry needs and the welfare of the individual animal. AZA, through its Animal Welfare Committee, has given the responsibility to develop taxon- and species-specific animal care standards and guidelines to the Taxon Advisory Groups (TAG) and Species Survival Plan® Programs (SSPs). Experts within each TAG or SSP, along with their education and ambassador animal advisors, are charged with assessing all aspects of the taxon's and/or species' biological and social needs and developing Animal Care Manuals (ACMs) or Ambassador Animal Guidelines (AAGs) that include specifications for when animals are acting as ambassadors in education programs.

However, even the most exacting standards cannot address the specific circumstances of individual animals and programs at each AZA facility. Therefore, each facility is required to develop and follow an ambassador animal policy that articulates program benefits, and provides clear guidance for use when animals are acting as ambassadors, including clear plans for on-going evaluation of visitor impacts and animal welfare. The following recommendations are offered to assist each facility in formulating its own Facility Ambassador Animal Policy, which incorporates the AZA Ambassador Animal Policy and addresses the following matters:

THE POLICY DEVELOPMENT PROCESS

Within each facility, key stakeholders should be included in the development of that facility's policy, including, but not limited to representatives from:

- Education Department
- Animal Husbandry Department
- Veterinary and Animal Health Department
- Conservation & Science Department

- Behavioral Husbandry Department/Committee
- Animal Welfare Department/Committee
- Ambassador Animal staff (if in a separate department)
- Volunteer Management Department
- Departments that regularly request ambassador animal programming (e.g. special events, development, marketing, zoo or aquarium society, administration)
- Staff from all levels of the organization (e.g., curators, keepers, education managers, interpreters, volunteer coordinators).

The following components are recommended for inclusion in this policy:

I. Philosophy

Facility ambassador animal programs must include a philosophical statement that outlines the facility's position on how animals are presented to the public and highlights the commitment to animal wellbeing, public education, and conservation. AZA's position is that the presentation of animals in up close and personal settings, including animal contact, can be extremely positive and powerful, as long as:

1. The programs and locations in which ambassador animals are used are specifically defined.

2. Animal and human welfare and safety remain top priorities.

3. Animals are presented in a way that showcases and respects their individual and species traits and characteristics, and represents their natural behaviors and abilities. Consideration should be given to how animals will be presented (e.g. on leashes, held in the hand, training walls, etc.) and appropriate handler behavior and actions should be specified in the facility's ambassador animal policy. Animals should be presented in a way that conveys appropriate conservation/education messages and ensures the comfort of the animal and safety of the animal and guests.

4. A meaningful education and/or actionable conservation message is an integral component. Examples include threats and/or conservation successes to the species or habitats in the wild, important adaptations or characteristics unique to the species, human/wildlife interactions, conservation actions visitors could take on behalf of the species, animal care and welfare considerations, and training and enrichment programs.

5. Suitable species and individual animals are used.

II. Programs & Locations

The Facility Ambassador Animal Policy should include a comprehensive list of all types of programs, exhibits, and events, both on and off site, where animals may act as ambassadors. Some facilities may have different rules or guidance for different locations or types of programs; others may apply the same rules to all circumstances. Examples include:

I. On-site programming

A. General visitor experiences (no registration required):

1. On-grounds programming with animals being presented outside their exhibit or primary enclosure (presentations, lectures, parties, special events, and media)

2. Children's zoos and contact yards*

3. Behind the scenes open houses/tours that involve participants interacting with animals

4. Shows/presentations

5. Touch pools/tanks *

could be structured if ticketed or controlled entry

B. Structured Programming (registration involved) and controlled settings that include, but are not limited to, the following:

1. School group programs
2. Summer Camps
3. Overnights
4. Birthday Parties/Private events
5. Animal rides
6. Public animal feeding programs

II. Offsite and Outreach

1. Media (TV, Radio, Podcast; may be live or pre-recorded)
2. Fundraising events
3. Field programs involving the public interacting with animals in nature
4. School visits
5. Library visits
6. Nursing Home or hospital visits (therapy)
7. Senior Centers
8. Civic Group events
9. Community Centers
10. Festivals or outdoor community events

While policies may differ from setting to setting, each setting should be addressed separately. In all settings, the most important consideration should be the maintenance of positive animal welfare and health. Evidence of these considerations includes methods to assess stress and distress during the presentation and transport, and limitations and restrictions on who/when/how physical interactions with the animals will take place.

III. Compliance with Regulations

It is expected that the Facility Ambassador Animal Policy addresses compliance with appropriate local, national, and international regulations, as well as AZA Accreditation Standards.

IV. Collection Planning

All AZA accredited facilities must follow a Facility Institutional Collection Plan (ICP). Ambassador animals are part of a facility's overall collection and must be included in the collection planning process. The AZA Guide to Accreditation contains specific requirements for the institutional collection plan. For more information about collection planning in general, please see the Accreditation Resource Center in the Members Only section of www.aza.org.

The following recommendations apply to animals acting as ambassadors:

1. Listing of approved animals to act as ambassadors (to be periodically amended as the collection changes). Justification of each species should be based upon criteria such as:
   - Temperament and suitability for program use
   - Husbandry requirements

- Husbandry expertise
- Veterinary issues and concerns
- Ease and means of acquisition/disposition according to the AZA Code of Professional Ethics
- Educational value and intended conservation message
- Conservation Status
- Compliance with TAG and SSP guidelines and policies
- Support of TAG and SSP needs for additional space, messaging goals, and breeding recommendations

2. Evaluation of individual animal behavior, demeanor, and welfare throughout the animal's lifetime to assess appropriateness to serve in an ambassador animal role and to ensure that participation in programs continues to educate and inspire visitors.
3. General guidelines as to how each species (and, where necessary, for each individual) will be presented to the public, and in what settings.
4. The collection planning section should reference the facility's population management policies.

V. Conservation And Education Messages

As noted in the AZA Accreditation Standards, if animal presentations are part of a facility's programs, an educational and conservation message must be an integral component. This is a critical component of presentations that utilize ambassador animals.

The Ambassador Animal Policy should address the specific messages related to the use of ambassador animals, as well as the need to be cautious about hidden or conflicting messages that may be conveyed by the way the animal is handled or behaviors presented (e.g., "petting" an animal while stating verbally that it makes a poor pet).

It is highly recommended to encourage the use of biofacts in addition to the presentation of live animals. Whenever possible, ambassador animal programs should include evaluation of the effectiveness of education messaging.

VI. Human Health and Safety

The safety of our staff and the public is one of the greatest concerns in working with ambassador animals. Although extremely valuable as educational and affective experiences, contact with animals poses certain risks to the handler and the public. Therefore, the human health and safety section of the policy should address:

1. Minimization of the possibility of disease transfer from animals to humans, and vice-versa (e.g., handwashing stations, no touch policies, use of hand sanitizer, additional guidelines for presentation of animals at events with food).

2. Safety issues related to handlers' personal attire and behavior (e.g., discourage or prohibit use of long earrings, perfume and cologne, not eating or drinking around animals, smoking, etc.)

3. Procedures and protocols to ensure protection of the public and animal handlers from injury.

AZA's Animal Contact Policy provides guidelines in this area. These guidelines were incorporated into accreditation standards in 1998.

VII. Animal Health and Wellbeing

Along with human and animal safety, animal health and animal wellbeing are of the highest priorities to AZA-accredited facilities. As a result, the Facility Ambassador Animal Policy should make a strong statement on the importance of animal welfare. The policy should address:

1. General housing, husbandry, and animal health concerns (e.g. that the housing and husbandry for animals when acting as ambassadors meets or exceeds general AZA standards and that the physical, social, and

psychological needs of the individual animal, such as adequate rest periods, provision of enrichment, visual cover, contact with conspecifics as appropriate, etc., are met).

2. Wherever possible provide a choice for animal program participation and train handlers to recognize signs of comfort, stress, and distress of animals in presentations (e.g., methods in place to allow animals to retreat to refuge areas for touch tanks or contact yards, voluntary crating, evaluation of willingness/readiness to participate by handler, animals trained to signal a choice to end presentations, etc.).

3. The empowerment of handlers to make decisions related to animal health and welfare, such as withdrawing animals from a situation if safety, health, or welfare is in danger of being compromised.

4. Requirements for supervision of contact areas and touch tanks by trained staff and volunteers.

5. Frequent evaluation of human/animal interactions to assess safety, health, welfare, etc.

6. Ensuring that the level of health care for the animals is consistent with that of other animals in the collection.

7. Include a lifelong plan for each animal to ensure that animal care and welfare are maintained to meet AZA standards if/when an animal is no longer part of the facility's ambassador animal collection.

8. Lengthy "down" times in ambassador animal use occur and staff should ensure that animals accustomed to regular human interactions can still maintain such contact and receive the same level of care.

9. Ensuring that housing and enrichment programs provide sufficient choice and complexity and that these are equal to those for animals living on exhibit.

10. Policies in place that adapt to evolving public and animal health situations, with specific species and taxa considerations (e.g. COVID-19, Highly Pathogenic Avian Influenza, zoonoses, etc.).

VIII. Taxon Specific Protocols

Facilities are encouraged to provide taxonomically specific protocols, either at the genus or species level, or the individual level. Some taxon-specific guidelines may affect the use of ambassador animals. To develop these, facilities should refer to the Animal Care Manual on the AZA website.

Taxon and species-specific protocols should address:

1. How to remove the individual animal from and return it to its permanent enclosure, including suggestions for operant conditioning training.

2. How to crate and transport animals.

3. Signs of stress, stress factors, distress, and discomfort behaviors.

4. Situation-specific handling protocols (e.g., whether or not animal is allowed to be touched by the public, and how to handle in such situations).

5. Guidelines for disinfecting surfaces, transport carriers, enclosures, etc. using environmentally safe chemicals and cleaners where possible.

6. Animal facts and conservation information.

7. Limitations and restrictions regarding ambient temperatures and weather conditions.

8. Time limitations (including animal rotation and rest periods as appropriate, duration of time each animal can participate, and restrictions on travel times and distances).

9. The numbers of trained personnel required to ensure the health and welfare of the animals, handlers, and public.

10. The level of training and experience required for handling this species.

11. Taxon/species-specific guidelines on animal health.

12. The use of hand lotions or other chemicals by program participants that might touch the animals.

IX. Logistics: Managing the Program

The Facility Ambassador Animal Policy should address a number of logistical issues related to ambassador animals, including:

1. Where and how the ambassador animal collection will be housed, including any quarantine and separation for animals used off-site, when applicable.

2. Procedures for requesting animals, including the approval process and decision making process, and determination of whether or not an individual animal is appropriate in an ambassador role.

3. Accurate documentation and availability of records, including procedures for documenting animal usage, animal behavior, and any other concerns that arise.

X. Staff Training

Thorough training for all animal handling staff (keepers, educators, and volunteers) is imperative to ensure proper handling and assessment of animal behavior, comfort, and welfare, including knowledge of the conditions under which an animal should be removed from a program.

Facilities may have separate training protocols and procedures for staff who work with ambassador animals. Specific training protocols can be included in the Facility Ambassador Animal Policy or reference can be made to a separate training protocol.

It is recommended that the staff training section of the policy address:

1. Personnel authorized to handle and present animals.

2. Handling protocol during quarantine.

3. The process for training, qualifying and assessing handlers, including the training of those authorized to train other handlers.

4. The frequency of required training sessions and consistent handling for handlers to remain qualified to handle animals.

5. Animal training protocols and personnel authorized to train animals.

6. The process for addressing substandard performance and noncompliance with established procedures.

7. Medical testing and vaccinations required for handlers (e.g., TB testing, tetanus shots, rabies vaccinations, routine fecal cultures, physical exams, etc.).

8. Training content (e.g., taxonomically specific protocols, natural history, relevant conservation education messages, presentation techniques, interpretive techniques, etc.).

9. Protocols to reduce disease transmission (e.g., zoonotic disease transmission, proper hygiene and hand washing requirements, as noted in AZA's Animal Contact Policy).

10. Procedures for reporting injuries to the animals, handling personnel, or public.

11. Visitor management (e.g., ensuring visitors interact appropriately with animals, do not eat or drink around the animal, etc.).

12. Any additional training requirements or limitations on staff that may take animals off-site and on overnight travel.

XI. Review of Facility Policies

All policies should be reviewed regularly with particular focus on maintaining compliance with AZA standards and example practices. Accountability and ramifications of policy violations should be addressed as well (e.g.,

retraining, revocation of handling privileges, etc.). Facility policies should address the frequency of which the Facility Ambassador Animal Policy will be reviewed and revised, and how accountability will be maintained.

XII. TAG AND SSP RECOMMENDATIONS

Following development of taxon-specific recommendations from each TAG and SSP related to ambassador animal use, the facility's policy should include a statement regarding compliance with these recommendations. If the facility chooses not to follow these specific recommendations, a brief statement providing rationale is recommended.

APES IN MEDIA AND COMMERCIAL PERFORMANCES

Apes, including chimpanzees, gorillas, bonobos, orangutans, and gibbons, are intelligent, sensitive, long-lived and highly social animals. As humans' closest living relatives, they are fascinating, and ape infants are magnetically appealing. These attributes have made apes popular as performers in commercial entertainment and advertising programs. But this popularity and attractiveness masks the often cruel and dangerous practices commonly required to make apes compliant in such appearances.

This White Paper presents a brief summary of the justification for:

- Eliminating the use of apes as performers in commercial entertainment.
- Establishing standards to ensure that public presentations and interpretive programs portray apes respectfully and accurately represent the biology and conservation status of apes.

Rationale

1. An ape infant normally remains with its mother for several years in a group environment, learning social skills essential for development of normal adult behaviors. But apes destined to be performers or photographic props are typically removed from their mother shortly after birth and, thus, are denied opportunities for normal social and psychological development. This has several commercial advantages to an owner. Infants removed in this manner will be appealing and remain submissive for handling by humans for several years. Mothers whose infants are removed will resume sexual cycling and produce another profitable infant quickly.

But apes raised by humans in the absence of other members of their species will not normally acquire the skills to be socially and sexually competent as juveniles and adults. They may never readjust to life in a normal social group, and thus they are usually relegated to social and sexual isolation, which often leads to abnormal behaviors such as self-mutilation. For these reasons, it typically is not feasible to involve these individuals in conservation-based breeding programs.

2. Although endearing as infants, apes generally become physically powerful and unpredictable as they near adulthood. Their continued use as performers or props is potentially very dangerous to their handlers and audiences. Thus, handlers of ape performers often must use food deprivation, physical abuse, continuous tranquilization, or even electric shock to maintain control. Additionally, the animals may be modified to reduce their ability to cause harm, for example by removing their teeth. It should be noted that the apparent "smile" of a performing chimpanzee is actually a well-documented expression of fear. Such physical and psychological effects are difficult to alleviate even if the ape is rescued and placed in a caring environment. More often however, when ape performers become too difficult to handle, they lose their commercial value and are sold to roadside menageries with inexpert handlers and often inhumane conditions.

3. Dressing apes in human clothing, or training them to engage in unnatural (usually human) behaviors, while entertaining to some, inaccurately portrays their biology and conservation status. Since conservation efforts rely on informed public opinion, these practices serve to undermine communications vital to achieving conservation. The use of apes in advertisements and other commercial performances can lead people to conclude falsely that apes make good pets.

4. Because apes and humans are genetically so similar, both are susceptible to many of the same communicable diseases. Close and unprotected contact between performing apes, their handlers, and audiences can threaten all with viral, bacterial, and parasite infection.

In summary, the use of apes in media and commercial performances should be eliminated.

POLICY FOR FULL PARTICIPATION IN THE SPECIES SURVIVAL PLAN® PROGRAM

Adopted by the AZA Board of Directors
March 26, 2009

Cooperative animal management and conservation are among the primary goals of the Association of Zoos & Aquariums (AZA). These goals are best exemplified by the Association's shared commitment to its cornerstone animal management and conservation program: the Species Survival Plan® (SSP). The AZA Board of Directors recognizes that: 1. Cooperative animal management is vital to the long-term survival of professionally managed zoological parks and aquariums and their valuable and often irreplaceable live animal collections; and 2. All AZA-accredited institutions and Certified Related Facilities should be fully committed to the animal management, conservation, and public education goals as well as the collaborative spirit of the SSP partnership. Therefore, in 2000, the Board adopted the first policy of Full Participation in the SSP program by all AZA member institutions.

An SSP Master Plan articulates long- and short-term goals for a population. It plans the "family tree" of each managed population to minimize the rate of loss of genetic diversity and maintain the long-term demographic stability of the population. Breeding and other population management recommendations are made for each animal with consideration of logistical feasibility, animal welfare, and other factors that can improve SSP outcomes. In addition to breeding recommendations, Master Plans also include a recommendation not to breed certain animals for sound husbandry reasons and the betterment of the population. The Board recognizes that, in the collaborative process of managing the SSPs, the responsibility of each SSP Management Group is to make sound Master Plan recommendations, and also recognizes that, at times, these may conflict with a member institution's plans.

The Board emphasizes the responsibility of all institutions to cooperate in SSP Master Planning. If differences occur between an SSP's recommendations and a participating institution, the SSP Coordinator and the IR have a joint responsibility to work collaboratively to resolve it. When an SSP recommendation is fundamental to the collaborative management of the *ex situ* population, then the SSP recommendation should take precedence. In this process, all institutions' clearly stated and reasonable needs will be considered. If an SSP recommendation is not fundamental to the collaborative management of the *ex situ* population, then the SSP Management Group may elect to change it before the Master Plan is finalized. Thus, when an SSP Master Plan is approved its animal management recommendations will accurately reflect the vital needs of both the SSP and the participating institutions.

The Policy for Full Participation in the SSP Program ensures that AZA Accredited Institutions and Certified Related Facilities have input into the SSP Master Planning process and that they fully comprehend, agree to, and follow the final SSP recommendations. The Board now further defines Full Participation in the SSP program, and the processes used to achieve Full Participation, as follows:

- The Institutional Liaison (IL) at AZA Accredited Institutions or Certified Related Facilities will ensure that an Institutional Representative (IR) is appointed for each SSP species the institution/facility owns or holds, or for which the institution selects to support as defined by the SSP Management Group.
- Each IR must serve as the primary point of contact for all matters relating to their assigned SSP and will ensure that their institution responds to SSP needs for information during Master Planning.
- Periodically and regularly, the SSP Coordinator will ask each participating institution's IR how their institution will participate in the SSP: breeding, non-breeding (where an institution cannot breed due to space, or other factors), or support.
- Prior to the Master Plan development, at the request of the SSP Coordinator, each IR will provide all relevant data regarding individual SSP animals to the corresponding SSP Coordinator and Studbook Keeper in a timely manner. Further, IRs must ensure that all proposed acquisitions, transfers, or reintroductions of the SSP species are included in the SSP Master Plan or, if the Master Plan is already published, are approved in advance by the SSP Coordinator or, preferably the SSP Management Group.

SSP Coordinators and IRs must work collaboratively to develop an SSP Master Plan that strives to meet the needs of the SSP program and the needs of participating institutions.

- A draft of the SSP Master Plan, which must include a written record of all animal management recommendations, will be published on the AZA web site for a 30-day comment period and the SSP Coordinator will notify all IRs as soon as the Plan is available for comment. IRs at all participating institutions must inform the SSP Coordinator during the comment period that they will adhere to the Master Plan recommendations, or why they cannot, which will initiate the resolution discussions described below. If all participants agree with the recommendations, the final Master Plan will be published and implemented.
- Each IR must ensure that their institution's Director and IL are aware of the Master Plan and its recommendations and must initiate a collaborative discussion with the SSP Coordinator to resolve differences regarding Master Plan recommendations during the comment period. All involved should maintain accurate records of all related communications and discussions.
- If a resolution with no change to the SSP recommendations is found, then the final Master Plan will be published and implemented.
- If a resolution that causes changes in the SSP recommendations is reached, the edited Master Plan will be re-posted for a final 30-day comment period. IRs at institutions affected by the edited recommendation(s) must respond to the SSP Coordinator during the final comment period regarding their agreement to adhere to the recommendations; institutions not affected by the changes will not need to respond again. At this stage, the finalized Master Plan will be published and all institutions agreeing to adhere to the Master Plan's recommendations will commence implementing the Plan.
- If no resolution is found through direct discussion between the SSP Coordinator and the IR(s), they must work cooperatively with the IL, institutional Director, and corresponding TAG Chair to find one. If necessary, the discussion can extend for an additional 30 days, during which time the institution disputing a recommendation must not engage in any breeding or acquisitions and/or dispositions of species that run counter to the SSP recommendations.

If differences are not resolved by the steps outlined above, then the SSP Coordinator and/or any other involved parties must request that AZA's Animal Population Management Committee (APMC) mediate the situation as defined in the AZA Animal Management Reconciliation Policy and, again, the institution disputing the recommendation must not engage in any population management practices that run counter to the SSP recommendations until the mediation and, if necessary, the reconciliation process is complete. Emergencies or other extraordinary circumstances will be considered for the health and welfare of the animals. Institutions not affected by the disagreement will continue carrying out their recommendations. (See: https://www.aza.org/board-approved-policies-and-position-statements).

SPECIES SURVIVAL PLAN® – ANIMAL MANAGEMENT RECONCILIATION POLICY

Adopted by the AZA Board of Directors
March 26, 2009

The success of cooperative breeding programs depends on all institutions supporting Species Survival Plan® (SSP) recommendations. Therefore, the Board emphasizes the crucial nature of the cooperative process in the development of SSP Master Plans to ensure that animal management recommendations accurately reflect the vital needs of both the SSPs and participating Accredited Institutions and Certified Related Facilities.

If differences regarding SSP recommendations occur between the SSP Management Group and a member Institution, AZA's Full Participation Policy clearly articulates the process that both parties must utilize to resolve them prior to engaging in the Animal Management Reconciliation process. However, if such differences cannot be resolved, then the parties involved must request that AZA's Animal Population Management Committee (APMC) mediate the situation.

- APMC will (1) determine if all efforts to resolve differences have been exhausted and, (2) determine if the recommendations in question are fundamental to the cooperative management of the *ex situ* population. If both situations are true, then APMC will notify all parties and appoint a Mediation Task Force which includes the APMC Chair/designee, one member of APMC selected by each party to represent them, the SSP Coordinator, the institution's Director and two other institutional representatives, and AZA's VP of Animal Conservation.
- The Mediation Task Force will conduct a confidential review of the situation in less than 30 days. Within 2 weeks of the completed review, the APMC Chair/designee will draft a mediation report describing a consensus decision, which will be reviewed by the participating parties. Comments on the draft report must be returned within a week of distribution. The APMC Chair/designee will consider all comments and produce a final mediation report. Assuming a resolution is reached, the report will be submitted to all participants involved in the process and the matter will be closed.
- If the mediation process yields no resolution, APMC must notify all parties and initiate the reconciliation process, during which the institution in question must not engage in any population management practices that run counter to the SSP until a resolution is found. The Reconciliation Committee, over which the APMC Chair/designee presides, will include the institution's Director or designee, the APMC Board Liaison, and AZA's Sr. VP of Conservation, VP of Animal Conservation, and Executive Director. The Reconciliation Committee will consider the Mediation Task Force report and determine if additional information is required.
- In its call for greater accountability, the AZA Board holds that action by the Accreditation Commission and/or the Ethics Board can be taken against a member institution that: (1) demonstrates a pattern of a failure to participate and/or (2) demonstrates an action contrary to an SSP program recommendation which threatens the short- or long-term management of the *ex situ* population. Therefore, the Reconciliation Committee will specifically consider if either of these instances is found to be valid.
- If it is determined that the member institution's action is not detrimental to the cooperative management of the *ex situ* population, then the Master Plan will be changed accordingly and the results of these findings will be incorporated into a reconciliation final report submitted to the AZA Conservation Office.
- If it is determined that the member institution's action is detrimental to the cooperative management of the *ex situ* population, and/or is part of a pattern of a failure to participate, then the Master Plan will stand as is and the Reconciliation Committee will notify the institution that they must comply with it. If the institution refuses this directive, the Reconciliation Committee will note this in the reconciliation final report filed with AZA's Conservation Office and provide the report to the Accreditation Commission and the Ethics Board for consideration.

AZA POLICY ON RESPONSIBLE POPULATION MANAGEMENT

Approved by the AZA Board of Directors
January 12, 2016
Currently Under Revision 6-2022

PREAMBLE

The stringent requirements for AZA accreditation, and high ethical standards of professional conduct, are unmatched by similar organizations and far surpass the United States Department of Agriculture's Animal and Plant Health Inspection Service's requirements for licensed animal exhibitors. Every AZA member must abide by a Code of Professional Ethics (https://www.aza.org/code-of-ethics) [NOTE: also found on pages 105 – 109 of this booklet]. In order to continue these high standards, AZA-accredited institutions and certified related facilities should make it a priority, when possible, to acquire animals from and transfer them to other AZA member institutions, or members of other regional zoo associations that have professionally recognized accreditation programs.

AZA-accredited institutions and certified related facilities cannot fulfill their important missions of conservation, education, and science without live animals. Responsible management and the long-term sustainability of living animal populations necessitates that some individuals be acquired and transferred, reintroduced or even humanely euthanized at certain times. The acquisition and transfer of animals should be prioritized by the long-term sustainability needs of the species and AZA-managed populations among AZA-accredited and certified related facilities, and between AZA member institutions and non-AZA entities with animal care and welfare standards aligned with AZA. AZA member institutions that acquire animals from the wild, directly or through commercial vendors, should perform due diligence to ensure that such activities do not have a negative impact on species in the wild. Animals should only be acquired from non-AZA entities that are known to operate legally and conduct their business in a manner that reflects and/or supports the spirit and intent of the AZA Code of Professional Ethics as well as this Policy.

Introduction

This AZA Policy on Responsible Population Management provides guidance to AZA members to:

1. Assure that animals from AZA member institutions and certified related facilities are not transferred to individuals or organizations that lack the appropriate expertise or facilities to care for them [*see taxa specific appendices (in development)*],
2. Assure that the health and conservation of wild populations and ecosystems are carefully considered as appropriate,
3. Maintain a proper standard of conduct for AZA members during acquisition and transfer/reintroduction activities, including adherence to all applicable laws and regulations,
4. Assure that the health and welfare of individual animals is a priority during acquisition and transfer/reintroduction activities, and
5. Support the goals of AZA's cooperatively managed populations and associated Animal Programs [Species Survival Plans® (SSPs), Studbooks, and Taxon Advisory Groups (TAGs)].

This AZA Policy on Responsible Population Management will serve as the default policy for AZA member institutions. Institutions should develop their own AZA Policy on Responsible Population Management in order to address specific local concerns. Any institutional policy must incorporate and not conflict with the AZA acquisition and transfer/transition standards.

II. Laws, Authority, Record-Keeping, Identification and Documentation

The following must be considered with regard to the acquisition or transfer/management of all living animals and specimens (their living and non-living parts, materials, and/or products):

1. Any acquisitions, transfers, euthanasia and reintroductions must meet the requirements of all applicable local, state, federal and international laws and regulations. Humane euthanasia must be performed in accordance with the established euthanasia policy of the institution and follow the recommendations of current AVMA Guidelines for the Euthanasia of Animals (2013 Edition https://www.avma.org/KB/Policies/Documents/euthanasia.pdf *[NOTE: this link opens an "error" window. Click "yes", and "yes" again when the window opens a second time; next close the AVMA small window that opens; finally click "OK" on the final window asking for a "trustworthy" source, and the document will open]* or the AAZV's Guidelines on the Euthanasia of Non-Domestic Animals. Ownership and any applicable chain-of-custody must be documented. If such information does not exist, an explanation must be provided regarding such animals and specimens. Any acquisition of free-ranging animals must be done in accordance with all local, state, federal, and international laws and regulations and must not be detrimental to the long-term viability of the species in the wild.

2. The Director/Chief Executive Officer of the institution must have final authority for all acquisitions, transfers, and euthanasia.

3. Acquisitions or transfers/euthanasia/reintroductions must be documented through institutional record keeping systems. The ability to identify which animal is being transferred is very important and the method of identifying each individual animal should be documented. Any existing documentation must accompany all transfers. Institutional animal records data, records guidelines have been developed for certain species to standardize the process (https://www.aza.org/idmag-documents-and-guidelines).

4. For some colonial, group-living, or prolific species, it may be impossible or highly impractical to identify individual animals when these individuals are maintained in a group. These species can be maintained, acquisitioned, transferred, and managed as a group or colony, or as part of a group or colony.

5. If the intended use of specimens from animals either living or non-living is to create live animal(s), their acquisition and transfer should follow the same guidelines. If germplasm is acquired or transferred with the intention of creating live animal(s), ownership of the offspring must be clearly defined in transaction documents (e.g., breeding loan agreements).

   Institutions acquiring, transferring or otherwise managing specimens should consider current and possible future uses as new technologies become available. All specimens from which nuclear DNA could be recovered should be carefully considered for preservation as these basic DNA extraction technologies already exist.

6. AZA member institutions must maintain transaction documents (e.g., confirmation forms, breeding agreements) which provide the terms and conditions of animal acquisitions, transfers and loans, including documentation for animal parts, products and materials. These documents should require the potential recipient or provider to adhere to the AZA Policy on Responsible Population Management, and the AZA Code of Professional Ethics, and must require compliance with the applicable laws and regulations of local, state, federal, and international authorities.

7. In the case of animals (living or non-living) and their parts, materials, or products (living or non-living) held on loan, the owner's written permission should be obtained prior to any transfer and documented in the institutional records.

8. AZA SSP and TAG necropsy and sampling protocols should be accommodated.

9. Some governments maintain ownership of the species naturally found within their borders. It is therefore incumbent on institutions to determine whether animals they are acquiring or transferring are owned by a government entity, foreign or domestic, and act accordingly by reviewing the government ownership policies available on the AZA website. In the case of government owned animals, proposals for and/or notifications of transfers must be sent to the species manager for the government owned species.

III. Acquisition Requirements

A. General Acquisitions

1. Acquisitions must be consistent with the mission of the institution, as reflected in its Institutional Collection Plan, by addressing its exhibition/education, conservation, and/or scientific goals regarding the individual or species.
2. Animals (wild, feral, and domestic) may be held temporarily for reasons such as assisting governmental agencies or other institutions, rescue and/or rehabilitation, research, propagation or headstarting for reintroduction, or special exhibits.
3. Any receiving institution must have the necessary expertise and resources to support and provide for the professional care and management of the species, so that the physical, psychological, and social needs of individual animals and species are met.
4. If the acquisition involves a species managed by an AZA Animal Program, the institution should communicate with the Animal Program Leader and, in the case of Green SSP Programs, must adhere to the AZA Full Participation Policy (http://www.aza.org/assets/2332/board_approved_full_participation_26_mar_097.pdf).
5. AZA member institutions should consult AZA Animal Population Management (APM) Committee approved TAG Regional Collection Plans (RCPs), Animal Program Leaders, and AZA Animal Care Manuals (ACMs) when making acquisition decisions.
6. AZA member institutions that work with commercial vendors that acquire animals from the wild, must perform due diligence to assure the vendors' collection of animals is legal and using ethical practices. Commercial vendors should have conservation and animal welfare goals similar to those of AZA institutions.
7. AZA member institutions may acquire animals through public donations and other non-AZA entities when it is in the best interest of the animal and/or species.

B. Acquisitions from the Wild

Maintaining wild animal populations for exhibition, education and wildlife conservation purposes is a core function of AZA-member institutions. AZA zoos and aquariums have saving species and conservation of wildlife and wildlands as a basic part of their public mission. As such, the AZA recognizes that there are circumstances where acquisitions from the wild are needed in order to maintain healthy, diverse animal populations. Healthy, sustainable populations support the objectives of managed species programs and the core mission of AZA members. In some cases, acquiring individuals from the wild may be a viable option in addition to, or instead of, relying on breeding programs with animals already in human care.

Acquiring animals from the wild can result in socioeconomic benefit and environmental protection and therefore the AZA supports environmentally sustainable/beneficial acquisition from the wild when conservation is a positive outcome.

1. Before acquiring animals from the wild, institutions are encouraged to examine alternative sources including other AZA institutions and other regional zoological associations or other non-AZA entities.

2. When acquiring animals from the wild, both the long-term health and welfare impacts on the wild population as well as on individual animals must be considered. In crisis situations, when the survival of a population is at risk, rescue decisions will be made on a case-by-case basis by the appropriate agency and institution.

3. AZA zoos and aquariums may assist wildlife agencies by providing homes for animals born in nature if they are incapable of surviving on their own (e.g., in case of orphaned or injured animals) or by euthanizing the animals because they pose a risk to humans or for humane reasons.

4. Institutions should only accept animals from the wild after a risk assessment determines the zoo/aquarium can mitigate any potential adverse impacts on the health, care and maintenance of the existing animals already being housed at the zoo or aquarium, and the new animals being acquired.

IV. Transfer, Euthanasia and Reintroduction Requirements

A. Living Animals

Successful conservation and animal management relies on the cooperation of many entities, both AZA and non-AZA. While preference is given to placing animals with AZA-accredited institutions or certified related facilities, it is important to foster a cooperative culture among those who share AZA's mission of saving species and excellence in animal care.

1. AZA members should assure that all animals in their care are transferred, humanely euthanized and/or reintroduced in a manner that meets the standards of AZA, and that animals are not transferred to those not qualified to care for them properly. Refer to IV.12, below, for further requirements regarding euthanasia.

2. If the transfer of animals or their specimens (parts, materials, and products) involves a species managed by an AZA Animal Program, the institution should communicate with that Animal Program Leader and, in the case of Green SSP Programs must adhere to the AZA Full Participation Policy (http://www.aza.org/assets/2332/board_approved_full_participation_26_mar_097.pdf).

3. AZA member institutions should consult APM Committee-approved TAG Regional Collection Plans, Animal Program Leaders, and Animal Care Manuals when making transfer decisions.

4. Animals acquired solely as a food source for animals in the institution's care are not typically accessioned. There may be occasions, however, when it is appropriate to use accessioned animals that exceed population carrying capacity as feeder animals to support other animals. In some cases, accessioned animals may have their status changed to "feeder animal" status by the institution as part of their program for long-term sustained population management of the species.

5. In transfers to non-AZA entities, AZA members must perform due diligence and should have documented validation, including one or more letters of reference, for example from an appropriate AZA Professional Fellow or other trusted source with expertise in animal care and welfare, who is familiar with the proposed recipient and their current practices, and that the recipient has the expertise and resources required to properly care for and maintain the animals. Any recipient must have the necessary expertise and resources to support and provide for the professional care and management of the species, so that the physical, psychological, and social needs of individual animals and species are met within the parameters of modern zoological philosophy and practice. Supporting documentation must be kept at the AZA member institution (see #IV.9 below).

6. Domestic animals should be transferred in accordance with locally acceptable humane farming practices, including auctions, and must be subject to all relevant laws and regulations.

7. AZA members must not send any non-domestic animal to auction or to any organization or individual that may display or sell the animal at an animal auction. *See certain taxa-specific appendices to this Policy (in development) for information regarding exceptions*.

8. Animals must not be sent to organizations or individuals that allow the hunting of these individual animals; that is, no individual animal transferred from an AZA institution may be hunted. For purposes of maintaining genetically healthy, sustainable zoo and aquarium populations, AZA-accredited institutions and certified related facilities may send animals to non-AZA organizations or individuals (refer to #IV.5 above). These non-AZA entities (for instance, ranching operations) should follow appropriate ranch management practices and other conservation minded practices to support population sustainability.

9. Every loaning institution must annually monitor and document the conditions of any loaned specimen(s) and the ability of the recipient(s) to provide proper care (refer to #IV.5 above). If the conditions and care of animals are in violation of the loan agreement, the loaning institution must recall the animal or assure prompt correction of the situation. Furthermore, an institution's loaning policy must not be in conflict with this AZA Policy on Responsible Population Management.

10. If living animals are sent to a non-AZA entity for research purposes, it must be a registered research facility by the U.S. Department of Agriculture and accredited by the Association for the Assessment & Accreditation of Laboratory Animal Care, International (AAALAC), if eligible. For international transactions, the receiving facility must be registered by that country's equivalent body having enforcement over animal welfare. In cases where research is conducted, but governmental oversight is not required, institutions should do due diligence to assure the welfare of the animals during the research.

11. Reintroductions and release of animals into the wild must meet all applicable local, state, and international laws and regulations. Any reintroduction requires adherence to best health and veterinary practices to ensure that non-native pathogens are not released into the environment exposing naive wild animals to danger. Reintroductions may be a part of a recovery program and must be compatible with the IUCN Reintroduction Specialist Group's Reintroduction Guidelines (http://www.iucnsscrsg.org/index.php?option=com_content&view=article&id=197&Itemid=59).

12. Humane euthanasia may be employed for medical reasons to address quality of life issues for animals or to prevent the transmission of disease. AZA also recognizes that humane euthanasia may be employed for managing the demographics, genetics, and diversity of animal populations. Humane euthanasia must be performed in accordance with the established euthanasia policy of the institution and follow the recommendations of current AVMA Guidelines for the Euthanasia of Animals (2013 Edition https://www.avma.org/KB/Policies/Documents/euthanasia.pdf) or the AAZV's Guidelines on the Euthanasia of Non-Domestic Animals.

B. Non-Living Animals and Specimens

AZA members should optimize the use and recovery of animal remains. All transfers must meet the requirements of all applicable laws and regulations.

1. Optimal recovery of animal remains may include performing a complete necropsy including, if possible, histologic evaluation of tissues which should take priority over specimens' use in education/exhibits. AZA SSP and TAG necropsy and sampling protocols should be accommodated. This information should be available to SSP Programs for population management.

2. The educational use of non-living animals, parts, materials, and products should be maximized, and their use in Animal Program sponsored projects and other scientific projects that provide data for species management and/or conservation must be considered.

3. Non-living animals, if handled properly to protect the health of the recipient animals, may be utilized as feeder animals to support other animals as deemed appropriate by the institution.

4. AZA members should consult with AZA Animal Program Leaders prior to transferring or disposing of remains/samples to determine if existing projects or protocols are in place to optimize use.
5. AZA member institutions should develop agreements for the transfer or donation of non-living animals, parts, materials, products, and specimens and associated documentation, to non-AZA entities such as universities and museums. These agreements should be made with entities that have appropriate long-term curation/collections capacity and research protocols, or needs for educational programs and/or exhibits.

Appendix I: Definitions

Acquisition: Acquisition of animals can occur through breeding (births, hatchings, cloning, and division of marine invertebrates = "fragging"), trade, donation, lease, loan, transfer (inter- and intra-institution), purchase, collection, confiscation, appearing on zoo property, or rescue and/or rehabilitation for release.

Annual monitoring and Due diligence: Due diligence for the health of animals on loan is important. Examples of annual monitoring and documentation include and are not limited to inventory records, health records, photos of the recipient's facilities, and direct inspections by AZA professionals with knowledge of animal care. The level of due diligence will depend on professional relationships.

AZA member institution: In this Policy "AZA member institutions" refers to AZA-accredited institutions and certified related facilities (zoological parks and aquariums). "AZA members" may refer to either institutions or individuals.

Data sharing: When specimens are transferred, the transferring and receiving institutions should agree on data that must be transferred with the specimen(s). Examples of associated documentation include provenance of the animal, original permits, tags and other metadata, life history data for the animal, how and when specimens were collected and conserved, etc.

Dispose: "Dispose/Disposing of" in this document is limited to complete and permanent removal of an individual via incineration, burying or other means of permanent destruction

Documentation: Examples of documentation include ZIMS records, "Breeding Loan" agreements, chain-of-custody logs, letters of reference, transfer agreements, and transaction documents. This is documentation that maximizes data sharing.

Domestic animal: Examples of domestic animals may include certain camelids, cattle, cats, dogs, ferrets, goats, pigs, reindeer, rodents, sheep, budgerigars, chickens, doves, ducks, geese, pheasants, turkeys, and goldfish or koi.

Ethics of Acquisition/Transfer/Euthanasia: Attempts by members to circumvent AZA Animal Programs in the acquisition of animals can be detrimental to the Association and its Animal Programs. Such action may also be detrimental to the species involved and may be a violation of the Association's Code of Professional Ethics. Attempts by members to circumvent AZA Animal Programs in the transfer, euthanasia or reintroduction of animals may be detrimental to the Association and its Animal Programs (unless the animal or animals are deemed extra in the Animal Program population by the Animal Program Coordinator). Such action may be detrimental to the species involved and may be a violation of the Association's Code of Professional Ethics.

"Extra" or Surplus: AZA's scientifically-managed Animal Programs, including SSPs, have successfully bred and reintroduced critically endangered species for the benefit of humankind. To accomplish these critical conservation goals, populations must be managed within "carrying capacity" limits. At times, the number of individual animals in a population exceeds carrying capacity, and while meaning no disrespect for these individual animals, we refer to these individual animals as "extra" within the managed population.

Euthanasia: Humane death. This act removes an animal from the managed population. Specimens can be maintained in museums or cryopreserved collections. Humane euthanasia must be performed in accordance with the established euthanasia policy of the institution and follow the recommendations of current AVMA Guidelines for the Euthanasia of Animals (2013 Edition https://www.avma.org/KB/Policies/Documents/euthanasia.pdf) or the AAZV's Guidelines on the Euthanasia of Non-Domestic Animals.

Feral: Feral animals are animals that have escaped from domestication or have been abandoned to the wild and have become wild, and the offspring of such animals. Feral animals may be acquired for temporary or permanent reasons.

Group: Examples of colonial, group-living, or prolific species include and are not limited to certain terrestrial and aquatic invertebrates, fish, sharks/rays, amphibians, reptiles, birds, rodents, bats, big herds, and other mammals,

Lacey Act: The Lacey Act prohibits the importation, exportation, transportation, sale, receipt, acquisition or purchase of wildlife taken or possessed in violation of any law, treaty or regulation of the United States or any Indian tribal law of wildlife law. In cases when there is no documentation accompanying an acquisition, the animal(s) may not be transferred across state lines. If the animal was illegally acquired at any time then any movement across state or international borders would be a violation of the Lacey Act.

Museum: It is best practice for modern zoos and aquariums to establish relationships with nearby museums or other biorepositories, so that they can maximize the value of animals when they die (e.g., knowing who to call when they have an animal in necropsy, or specimens for cryopreservation). Natural history museums that are members of the Natural Science Collections Alliance (NSCA) and frozen biorepositories that are members of the International Society of Biological and Environmental Repositories (ISBER) are potential collaborators that could help zoos find appropriate repositories for biological specimens.

Non-AZA entity: Non–AZA entities includes facilities not accredited or certified by the AZA, facilities in other zoological regions, academic institutions, museums, research facilities, private individuals, etc.

Reintroduction: Examples of transfers outside of a living zoological population include movements of animals from zoo/aquarium populations to the wild through reintroductions or other legal means.

Specimen: Examples of specimens include animal parts, materials and products including bodily fluids, cell lines, clones, digestive content, DNA, feces, marine invertebrate (coral) fragments ("frags"), germplasm, and tissues.

Transaction documents: Transaction documents must be signed by the authorized representatives of both parties, and copies must be retained by both parties*. In the case of loans, the owner's permission for appropriate activities should be documented in the institutional records. This document(s) should be completed prior to any transfer. In the case of rescue, confiscation, and evacuation due to natural disasters, it is understood that documents may not be available until after acceptance or shipping. In this case documentation (e.g., a log) must be kept to reconcile the inventory and chain of custody after the event occurs. (*In the case of government owned animals, notification of transfers must be sent to species manager for the government owned species).

Transfer: Transfer occurs when an animal leaves the institution for any reason. Reasons for transfer or euthanasia may include cooperative population management (genetic, demographic or behavioral management), animal welfare or behavior management reasons (including sexual maturation and individual management needs). Types of transfer include withdrawal through donation, trade, lease, loan, inter- and intra-institution transfers, sale, escape, theft. Reintroduction to the wild, humane euthanasia or natural death are other possible individual animal changes in a population.

Appendix 2: Recipient Profile Example

Example questions for transfers to non-AZA entities (from AZA-member Recipient Profile documents):

Has your organization, or any of its officers, been indicted, convicted, or fined by a State or Federal agency for any statute or regulation involving the care or welfare of animals housed at your facility? (If yes, please explain on a separate sheet).

Recipients agree that the specimen(s) or their offspring will not be utilized, sold or traded for any purpose contrary to the Association of Zoos and Aquariums (AZA) Code of Ethics (enclosed)

References, other than (LOCAL ZOO/AQUARIUM) employees, 2 minimum (please provide additional references on separate sheet):		
Reference Name		Phone
Facility		Fax
Address		E-mail
City	State	Zip
Country		AZA Member?

Reference Name		Phone
Facility		Fax
Address		E-mail
City	State	Zip
Country		AZA Member?

Veterinary Information		
Veterinarian		Phone
Clinic/Practice		Fax
Address		E-mail
City	State	Zip
Country		

How are animals identified at your facility? If animals are not identified at your facility, please provide an explanation about why they are not here:

Where do you acquire and send animals? (Select all that apply)			
AZA Institutions	Non-AZA Institutions	Exotic Animal Auctions	Pet Stores
Hunting Ranches	Dealers	Private Breeders	Non-hunting Game Ranches
Entertainment Industry	Hobbyists	Research Labs	Wild
Other			

What specific criteria are used to evaluate if a facility is appropriate to receive animals from you?

Please provide all of the documents listed below:

Required:

1. Please provide a brief statement of intent for the specimens requested.
2. Resumes of primary caretakers and those who will be responsible for the husbandry and management of animals.
3. Description (including photographs) of facilities and exhibits where animals will be housed.
4. Copy of your current animal inventory.

Only if Applicable:

5. Copies of your last two USDA inspection reports (if applicable).
6. Copies of current federal and state permits.
7. Copy of your institutional acquisition/disposition policy.

(in-house use only) In-Person Inspection of this facility (Staff member/Date, attach notes):

(Local institution: provide Legal language certifying that the information contained herein is true and correct)

(Validity of this: This document and all materials associated will be valid for a period of 2 years from date of signature.)

Example agreement for Receiving institution (agrees to following condition upon signing):

Recipient agrees that the animal(s) and its (their) offspring will not be utilized, sold or traded for the purpose of commerce or sport hunting, or for use in any stressful or terminal research or sent to any animal auction. Recipient further agrees that in the event the recipient intends to dispose of an animal donated by (INSTITUTION), recipient will first notify (INSTITUTION) of the identity of the proposed transferee and the terms and conditions of such disposition and will provide (INSTITUTION) the opportunity to acquire the animal(s) without charge. If (INSTITUTION) elects not to reclaim the animal within ten (10) business days following such notification, then, in such event, (INSTITUTION) waives any right it may have to the animal and recipient may dispose of the animal as proposed.

Institutional note: The text above is similar to the language most dog breeders use in their contracts when they sell a puppy. If people can provide that protection to the puppies they place, zoos/aquariums can provide it for animals that we place too! Some entities have been reluctant to sign it, and in that case we revert to a loan and our institution retains ownership of the animal. Either way, we are advised of the animal's eventual placement and location.

CODE OF PROFESSIONAL ETHICS

PREAMBLE

The continued existence of zoological parks and aquariums depends upon recognition that our profession is based on the respect for the dignity of the animals in our care, the people we serve, and most importantly, for each other. Members of the American Association of Zoological Parks and Aquariums (known as American Zoo and Aquarium Association or "AZA") have an important role in the preservation of our heritage. To fulfill this role, we must understand the relationships we share with the public, the animals under our care, and with each other. A consequent obligation of membership is to maintain high standards of ethical conduct. Members must have the courage and foresight to live up to their responsibilities within principles of professionalism.

A code of ethics provides standards by which we can judge our professional conduct. We must find in our consciences the point against which to test our actions. It is our desire to maintain the respect and confidence of fellow members and the public that ought to provide us with incentive for the highest degree of ethical conduct. The possible loss of that respect and confidence numbers among the severest sanctions possible.

So long as our profession is guided by these principles, ours will continue to be a respected profession.

Code of Professional Ethics

The following Code of Professional Ethics of the American Zoo and Aquarium Association (AZA) shall form the basis for all disciplinary actions of the Association.

Deviation by a member from the AZA Code of Professional Ethics or from any of the rules officially adopted by the Board of Directors supplemental thereto, or any action by a member that is detrimental to the best interest of the zoo and aquarium profession and the AZA, shall be considered unethical conduct. The member shall be subject to investigation by the AZA Ethics Board and, if warranted, to disciplinary action by the Ethics Board and/or the AZA Board of Directors. The Code is intended as an inspirational guide for members and as a basis for disciplinary action.

This Code cannot apply to nonmembers, except as they have agreed to follow the Code in a signed agreement to participate in an AZA program. This Code defines the type of ethical conduct the public has a right to expect, not only of staff members of an institution but also of their nonprofessional employees and associates in all matters pertaining to professional zoological park and aquarium employment. The director and/or governing authority of a member institution should ultimately be responsible for the conduct of their employees and others affiliated with the member institution.

The Obligations of Professional Ethics set forth are aspirational in character and represent the objectives towards which every member should strive.

The Code's Mandatory Standards, unlike the Obligations of Professional Ethics, are mandatory in character and, if violated, may result in disciplinary action. The Mandatory Standards, to be uniformly applied to all members, establish a level of conduct below which no member may fall without being subject to disciplinary action. The Code makes no attempt to prescribe either disciplinary procedures or penalties for violation of Mandatory Standards. The severity of judgment against a member found to be in violation of a Mandatory Standard shall be determined by the character of the offense and the attendant circumstances. The Ethics Board, in applying the Mandatory Standards, may find interpretive guidance in the basic principles embodied in the standards and objectives reflected in the Obligations of Professional Ethics.

The Board of Directors and Ethics Board shall be responsible for interpreting the Code of Professional Ethics, subject to all provisions of the Charter and Bylaws. The Ethics Board shall investigate allegations, render decisions, and prescribe subsequent actions and/or penalties. An appeal may be made to the AZA Executive Committee within thirty (30) days of the date of mailing the Ethics Board decision to the complainant and defendant. Appeals may be granted if the Executive Committee concludes that the complainant or defendant appealing the Ethics Board decision has demonstrated that (1) there are new facts, not known at the time of the Ethics Board investigation, which the Executive Committee believes may have changed the outcome; or (2) the Ethics Board did not follow relevant AZA procedures; or (3) the penalty recommended by the Ethics Board was excessive under the circumstances. An appeal shall be granted upon a majority vote of the AZA Executive Committee. If the request for an appeal is granted, the Board of Directors shall hear the appeal at its next regularly scheduled meeting. The appellate decision of the Board of Directors shall be final and cannot be appealed.

I. Obligations of Professional Ethics

In order to promote high standards of conduct in our profession, the AZA has formulated the following basic principles for the guidance of its members:

AS A MEMBER OF THE AZA, I PLEDGE TO:

A. Realize that I have moral responsibilities not only to my professional associates, my fellow employees, and the public, but also to the animals under my care.

B. Display the highest integrity, the best judgment or ethics possible, and use my professional skills to the best interests of all.

C. Deal fairly with members in the dissemination of professional information and advice.

D. Use only legal and ethical means when seeking to influence governmental legislation or regulations.

E. Promote the interests of wildlife conservation, biodiversity, and animal welfare to the public and to colleagues.

F. Maintain high standards of personal, professional, and business conduct and behavior.

G. Promote the interests of AZA and do my full share of work in support of the concepts and ideals of AZA.

H. Cooperate with qualified zoos/aquariums and other qualified persons/organizations in breeding programs of endangered and other species.

I. Aid the professional development of those who enter the zoological park and aquarium profession by assisting them to understand the functions, duties, and responsibilities of the profession.

J. Seek opportunities to be of constructive service in civic affairs and, to the best of my ability, advance the understanding of all nature to the community in which I live.

K. Encourage publication of significant achievements in breeding husbandry, medical technology, architecture, etc., in the appropriate publications generally familiar to members.

L. Endeavor at all times to improve zoos and aquariums.

II. Mandatory Standards

1. Maintaining Integrity and Competence of the Zoological Park and Aquarium Profession

a. A member shall make no materially false statement or deliberately fail to disclose a material fact in connection with an application for membership or accreditation in AZA.

b. A member shall not endorse the application for membership in AZA of a person known by that member to be unqualified in respect to character, education, length of service, or some other relevant factor.

2. Misconduct

a. A member shall not violate a Mandatory Standard.

b. A member shall not solicit the aid of another individual to circumvent, or assist another to violate, a Mandatory Standard.

c. A member shall not knowingly engage in activities contrary to local, state, federal, or international laws as such laws relate to our profession; and a member will, to the best of his or her ability, cooperate with governmental agencies regulating animal welfare and animal transactions.

d. A member shall not engage in conduct that adversely affects, or is prejudicial to, the concepts and ideals of the AZA.

e. A member shall make every effort to assure that all animals in his/her collection and under his/her care are disposed of in a manner which meets the current disposition standards of the Association and do not find their way into the hands of those not qualified to care for them properly.

3. Disclosure of Information

a. A member shall not knowingly misinform others regarding animal records or specimen disposition, professional information, and advice.

b. A member shall not alter animal records or alter the facts concerning age, condition, or other material information about any animal in order to affect the sale, trade, loan, or other transaction with respect to such animal.

c. A member shall immediately bring to the attention of the Ethics Board of the AZA any information concerning a clear violation of a Mandatory Standard.

d. A member shall issue no statement to the public which he/she knows (or should know) to be false or misleading.

General Advisories

The policies outlined below have been previously adopted by the AZA Board of Directors and are considered to expand the interpretation of the AZA Code of Professional Ethics that was developed to guide ethical conduct of all members. Amendments can be proposed by the AZA Board of Directors, the Ethics Board, and/or AZA members. Any proposed changes shall be reviewed by the Ethics Board and, as appropriate, by legal counsel. Proposed changes shall be submitted to the AZA Board of Directors for action.

Animal Auctions (1981)

AZA members offering wildlife for sale at auctions attended by the general public are in violation of the AZA Code of Professional Ethics, specifically Mandatory Standards, 2-e, which states, “As a member of AZA, I pledge to...make every effort to assure that all animals...do not find their way into the hands of those not qualified to care for them properly.”

Use of Animal Exchange (1984)

Individuals may utilize Animal Exchange to purchase specimens if the following criteria are followed: the individual should, during the initial contact, identify his or her intentions and make the seller aware if the specimen(s) will go to the purchaser's private collection and not the zoo in question (adopted by the Ethics Board at the direction of the AZA Board).

Notification of Ethics Code Violations (1986-revised 1993)

Copies of all final actions (the denial of an appeal to the Executive Committee or notification to the complainant and defendant of the appellate decision) regarding violations of the Code of Professional Ethics shall be sent to the Director, Chief Executive Officer, or Governing Authority of the institution of the defendant(s) involved. Such final actions shall be published in Communiqué, including a brief and factual statement of the action, including the name(s) of the defendant(s) involved in the violation and a listing of the sections of the Code which were violated to provide guidance for AZA members.

Procurement of SSP Animals (1986-modified 1990-revised 1993)

Attempts by members to circumvent AZA conservation programs in the procurement and/or disposition of specimens of SSP animals are detrimental to the Association and its conservation programs. Such action may be detrimental to the species involved and could be construed as a violation of the Association's Code of Professional Ethics. All Association members should work through SSP species coordinators and appropriate propagation groups in efforts to procure or dispose of specimens of SSP species.

Ethics Board

The Ethics Board, elected by the membership, has separate duties from the AZA Board of Directors. The Ethics Board shall consist of nine (9) members. The Ethics Board proposed guidelines on the function of the Ethics Board for consideration during the San Diego Annual Conference in 1977. The AZA Board of Directors unanimously adopted these guidelines and revised them in 1993:

All Ethics Board matters shall be handled in accordance with the objectives and standards of the Association's Code of Professional Ethics.

Matters called to the attention of the Ethics Board must be in writing and addressed to the Chairman or any member of the Ethics Board. The ethics charge must be signed by the complainant and must contain a full statement of the matter to be reviewed by the Ethics Board.

An individual filing an ethics complaint shall be advised that full disclosure of the complaint shall be made available to all parties concerned. At this time, the complainant has the right to withdraw the complaint; and thus, the matter will be closed.

The Ethics Board, the complainant, and the defendant shall at all times during the investigation maintain strict confidentiality regarding the case.

The initial responsibility of the Ethics Board is to determine the validity of the charge(s). If the charge(s) appears to be valid, the Ethics Board shall initiate a full investigation. Once a full investigation is initiated, the Ethics Board must determine if an Ethics Code violation has occurred and what action and/or penalty is necessary. In making its determination, the Ethics Board shall consult, where necessary or appropriate, with AZA legal counsel. The Ethics Board has the responsibility and authority to issue a judgment and determine disciplinary actions. The AZA Board of Directors serves as an appellate board.

The AZA Board of Directors may also direct the Ethics Board to perform additional duties as needed. The following procedures are hereby established:

The Chairman of the Ethics Board will distribute copies of all duly received ethics complaints to members of the Ethics, Board, the AZA President & CEO, Executive Director, Executive Vice President, and the AZA Board Liaison to the Ethics Board. All correspondence pertaining to the case shall be marked “Confidential.” The Chairman shall request each Ethics Board member to render an opinion as to the validity of the complaint and make a recommendation on how to proceed and action to be taken.

The Chairman shall review all recommendations, suggest an Ethics Board action and, if necessary, arrange an appearance before the Ethics Board and/or a site visitation.

The Ethics Board may dismiss any charge for which there is insufficient evidence to pursue the investigation or for which there is no apparent violation of the Ethics Code. The complainant, defendant, and the Board of Directors shall be notified by the Ethics Board of the decision, for which there is no appeal.

The Ethics Board may determine that there is no clear violation or proof of a violation but that there is concern about the conduct of a member. The Ethics Board may issue a letter of concern.

If the Ethics Board determines that a violation of the Code has occurred, the following options shall be considered: (A) Letter of Reprimand from the Ethics Board. (B) Letter of Reprimand from the Ethics Board and the AZA Board of Directors. (C) Censorship and suspension of certain membership privileges (up to 2 years), to be determined on a case-by-case basis. (D) Expulsion from AZA membership for a minimum of two years. The Ethics Board may function as an investigative body as it determines whether or not a violation has occurred. The Ethics Board shall make its determination based upon the greater weight of the evidence presented to it. Ethics matters often do not involve legal matters but are founded on moral values and industry standards and practices. Where necessary or appropriate, the Ethics Board shall consult with AZA legal counsel.

The Ethics Board shall deliberate, during a meeting or conference call, on the final determination and action to be taken. Actions by the Ethics Board shall require a two-thirds (2/3) vote of its members. When a two-thirds (2/3) majority vote of guilty is not received the issue shall be dropped.

The Chairman of the Ethics Board shall submit a report to the President & CEO, Executive Director, Executive Vice President, AZA Board Liaison Representative, and legal counsel, if necessary, with the Ethics Board’s findings and course of disciplinary action to be taken prior to advising the complainant and defendant.

The Chairman of the Ethics Board shall advise the complainant and the defendant of the findings and action taken by the Ethics Board.

An appeal may be made to the AZA Executive Committee within thirty (30) days of the date of mailing the Ethics Board decision to the complainant and defendant. Appeals may be granted if the Executive Committee concludes that the complainant or defendant appealing the Ethics Board decision has demonstrated that (1) there are new facts, not known at the time of the Ethics Board investigation, which the Executive Committee believes may have changed the outcome; or (2) the

Ethics Board did not follow relevant AZA procedures; or (3) the penalty recommended by the Ethics Board was excessive under the circumstances. Appeals shall be granted upon a majority vote of the AZA Executive Committee. The AZA Board of Directors shall hear the appeal at its next regularly scheduled meeting. The appellate decision of the Board of Directors shall be final and cannot be appealed.

At least one member of the Ethics Board shall be present during the appeal.

The Ethics Board shall notify the complainant and the defendant of the final action of the AZA Board of Directors once the appellate decision has been rendered.

General Administrative Policies of the Accreditation Commission

Accidents or Incidents Involving Potential Injury or Welfare. Should an accident or incident occur at an accredited institution or certified related facility involving serious staff injuries, serious public injuries, serious animal injuries/mortalities/incidents/escapes, or significant barrier breaches, Accreditation staff should be notified and a written report must be submitted to the Accreditation Commission within thirty (30) days explaining what happened and noting what corrective actions are being taken by the institution as a result. The Commission will determine if a special inspection or other action is necessary and will notify the institution in writing once a decision has been made. All information submitted to the Commission will be kept strictly confidential.

Considerations for submitting such reports include:

> ***Staff Injuries*** – site and/or animal-related injury to staff resulting in death, dismemberment, permanent disability or significant trauma requiring admittance to an emergency care facility.
>
> ***Public Injuries*** – site and/or animal-related injury to people other than staff, resulting in death, dismemberment, permanent disability or significant trauma requiring admittance to an emergency care facility.
>
> ***Unusual Animal Injury/Mortality Events*** – unusual circumstances resulting in death/grievous trauma to a single animal or group of animals; incidents of mass mortality of a species; or multiple deaths across species related to a similar cause (i.e., multiple deaths due to a single pathogen or etiology, environmental factor, or other disease factor).
>
> ***Animal Transport Incidents*** – escape of any species during transport; unforeseen death of individuals or groups of individuals during transport between facilities.
>
> ***Animal Escapes*** – escape of a dangerous animal or mass escapes of any species. A dangerous animal is defined as an animal that could potentially cause serious injury to a human.
>
> ***Barrier Breaches*** – incidents in which a visitor, other unauthorized individual, or feral animal crosses animal containment, putting themselves, others or the animal in jeopardy of serious injury death.

Accidents Resulting in Human Fatality: An on-site inspection shall be automatic after any accident *involving an animal* that results in a human fatality. The inspection shall focus on the incident and shall be scheduled to take place as soon after the incident as can be reasonably scheduled. Site related human fatalities not involving an animal shall be immediately assessed by AZA relative to the AZA Accreditation Standards. The Commission shall determine if a special inspection is necessary in those cases and will notify the institution in writing once a decision has been made. Institutions are responsible for submitting a written report to the Accreditation Commission as noted under *"Accidents Involving Injury or Welfare,"* above.

Accreditation Cycle: The cycle of accreditation shall be five years, after which an institution must undergo the full accreditation process again. *Exceptions:* • In cases where an applicant processes and is granted accreditation on a cycle in conflict with the geographic rule, its *initial* accreditation cycle will be shortened to four and a half years to place it on the proper seasonal cycle for future inspections (see *Geographic Location*, page 113). • If an extension is granted, the year of extension shall be deducted from the institution's subsequent five-year accreditation cycle if the institution receives accreditation at the end of the year of extension (see *Extensions of Accreditation*, page 113). • If an institution is granted provisional accreditation, the provisional year shall be deducted from the institution's subsequent five-year accreditation cycle if the institution receives accreditation at the end of the provisional year (see *Grant Provisional Accreditation*, page 33 of the *2023 Guide to the Accreditation of Zoological Parks and Aquariums*).

Achieving Accreditation: Accreditation can only be achieved by a judgment from the AZA Accreditation Commission that the applicant institution meets or exceeds all AZA standards, and supports and employs AZA practices and philosophies. This decision is preceded by a lengthy application and full evaluation process, involving information from a number of sources, including a thorough on-site inspection.

Addition of an Elephant Inspector. For institutions with elephants, an inspector who specializes in elephants will be added to the regular team and will focus on the institution's elephant program.

Addition of a Specialist Inspector. It is occasionally necessary for a specialist inspector to be added to an inspection team. The Commission will determine, on a case by case basis, when this is justified and will notify the institution. Examples would be zoological parks with aquarium facilities of a sufficient size and nature to require an inspection team member specializing in aquatics. The same would be true of aquariums with exhibits containing land-based animals, etc.

Attendance At The Hearing (Who Should Be There). The institution's CEO/Director must attend the hearing to answer questions, authorize action, and to make any statements desired. The CEO/Director may bring to the hearing any individual(s) he or she would like to have present. This may include members of the institution's staff, governing authority, support organization, or local government officials. If the CEO/Director cannot attend, a written notification must be provided to AZA as soon as possible. The notification must include an explanation, and give full authority to an individual selected by the CEO/Director to represent the institution in place of the CEO/Director.

CEO/Director Requirement For Applicants Not Currently AZA-Accredited. Any institution not currently accredited may not apply for accreditation if it is without a *permanent*, full-time CEO/Director. Materials may not be submitted under the leadership of an *Interim* or *Acting* Director.

CEO/Director Vacancy. When a vacancy occurs in the position of CEO/Director the AZA-accredited institution must notify the Accreditation Commission in writing, and a follow-up letter must be submitted to the Commission every six months thereafter reporting the status of the search until such time as the position is filled. The status update must include details as to what has occurred, how the institution is being managed in the interim, and an estimate as to when it is expected the position may be filled. An AZA-accredited institution that is without the services of a permanent, full-time, compensated CEO/Director for longer than one year may be subject to loss of accreditation and membership. An AZA-accredited institution that is temporarily without a permanent fulltime CEO/Director must process for accreditation on its regular 5-year cycle. Extensions may not be granted. Institutions that are not accredited by AZA may not apply without a permanent fulltime CEO/Director in place.

CEO/Director Vacancy Occurring Immediately After Receiving AZA Accreditation. If a CEO/Director vacates his or her position at the institution within ninety days of receiving accreditation, the Commission may, in its discretion, require written biannual progress reports, or may require that the institution reprocess again at the earliest opportunity to do so once a new CEO/Director is in place.

Change of Governance. A change in governance refers to a change of the governing authority, such as from a governmental agency to society or vice versa. If a change in governance occurs, a letter or affidavit from the CEO or chairperson of the new governing authority is required pledging to uphold and abide by accreditation standards, including the AZA Charter & Bylaws, Code of Ethics, Policy on Responsible Population Management, and other related policies. The letter must be sent to the Commission within 30 days of the governance change.

Change of Location. In the event of a relocation of an accredited institution, the institution must reprocess for accreditation as soon as the new location is officially open. An application must be received by the submission deadline that falls immediately prior to, or following, the opening.

Change of Ownership. A change in ownership refers to the sale or formal transfer of ownership of an institution. In the event of a change in ownership of an accredited institution, the institution must reprocess for accreditation within 12 months, regardless of when its accreditation is scheduled to expire. A letter or affidavit from the CEO or chairperson of the purchasing or receiving organization is also required pledging to uphold and abide by accreditation standards, including the AZA Charter & Bylaws, Code of Ethics, Policy on Responsible Population

Management, and other related policies. The letter must also indicate the new owner's intent to submit materials applying for accreditation within the required time period. The letter must be sent to the Commission within 30 days of final sale or transfer.

Change of Scope. Accredited institutions must notify the Commission in writing in the event that a change in the scope of its facility occurs (for example, the opening of a new exhibit of significant proportions, or an exhibit that changes the overall scope of the institution, such as an aquarium in a zoo, or land-based animals in an aquarium, etc.). The Commission may assign a team, or individual, to conduct an inspection. Cost of such inspection shall be borne by the accredited institution concerned. (See *Interim or Special Inspection* page 114, and *Follow-up Inspections*, page 113.)

Complaints. If a documented, written complaint is received from a member of the general public, the institution's staff, or a professional colleague regarding an AZA-accredited institution, the Commission will take steps to determine the situation and, based upon its findings, will make recommendations to the institution, or take appropriate action. In some cases the Commission may assign a team to conduct an inspection. (See *Interim or Special Inspection* page 114, and *Follow-up Inspections*, page 113.)

Determining Compliance. The AZA Accreditation Commission, based on the collective professional training and experience of its 16 member panel, is the body officially tasked with determining whether a standard is being met or not. The Commission's decision is absolute. In cases of denial of accreditation, an appeal of that denial may be made to the AZA Executive Committee [see page 34 of the *2023 Guide to the Accreditation of Zoological Parks & Aquariums*].

Elephant Management and Care – Requesting A Temporary Variance Under the AZA Standards. Institutions requesting a temporary variance under the AZA Standards For Elephant Management & Care should submit that request to the Accreditation Commission at the time it becomes apparent that a temporary variance may be needed. The request should be in the form of a letter detailing the temporary variance being requested, and should include all necessary documentation. The Commission will consider the requested temporary variance and will thereafter notify the institution of its decision. Temporary variances must be re-applied for prior to the expiration date contained in the variance, or documentation must be provided that the reason for the temporary variance has been addressed. NOTE: institutions not currently AZA-accredited must be in full compliance with AZA standards at the time application is made.

Elephant Management and Care – Special Welfare Variance. In cases where an elephant's physical and/or psychological welfare is believed to be at risk by implementation of a standard, an institution may request a special welfare variance under the AZA Standards For Elephant Management & Care. To qualify for a special welfare variance, the elephant(s) in question must be considered geriatric, and the institution must provide evidence that the elephant's physical and/or psychological welfare will be at risk without the variance, or that moving the elephant could result in serious injury or death. Evidence must be in the form of documentation from the institution's veterinary and animal management professional staff. The request for a special welfare variance must be in the form of a letter detailing the variance being requested, and containing all necessary documentation. The AZA Accreditation Commission will consider the request and will thereafter notify the institution of its decision. If granted, the variance will be for three (3) years and must be re-applied for prior to the expiration date contained in the variance. If granted, institutions must submit an annual report documenting the status and health of the elephant(s), including veterinary records, assessments, behavioral profiles, and the written recommendations of the institution's veterinary and animal management professional staff. NOTE: for the purpose of this variance, welfare is defined as physical health and function, and psychological well-being.

Elephant Management and Care – Substantial Compliance Extension [to an existing variance]. In cases where a deadline is set in a standard, and an institution has an existing variance until that deadline but has not yet achieved full compliance by the deadline, a Substantial Compliance Extension of the existing variance may be considered by the Accreditation Commission. Approval may be granted only if the institution can demonstrate clear and steady progress toward compliance with the standard, is actively engaged and working towards full compliance, and has identified a realistic completion date. Regular updates will be required until compliance is

achieved, and the Commission may require an inspection of the elephant program, at its discretion, as a condition of maintaining accreditation.

Enforcement of Standards. Institutions holding accreditation from AZA must maintain all AZA standards, and support AZA practices and philosophies during the period that accreditation is held. If AZA has evidence that this is not taking place, it will work with the institution to see that standards are met, or will take whatever action is appropriate to ensure the integrity of its process, including removal of AZA-accreditation when deemed necessary. (See *Interim or Special Inspection* page 114, *Follow-up Inspections*, page 113, and *Rescinding Accreditation*, page 115.)

Extensions of Accreditation. Under extenuating or special circumstances extensions of accreditation may be granted to extend current accreditation by one year. An institution desiring an extension must submit a request in writing to the Accreditation Commission, including a full explanation as to why the extension is being requested, as soon as possible to avoid a potential lapse in accreditation and AZA membership. Before considering the request, the Commission may require a site visit to assess the institution's ability to maintain accreditation standards during the period of extension. If a site visit is deemed necessary, it must take place prior to any decision being made by the Commission. The Commission will thereafter make a determination, and the institution will be notified. A second extension will be considered only in extreme cases, and will require a site visit. If an extension is granted, the year of extension shall be deducted from the institution's subsequent five-year accreditation cycle should the institution receive accreditation at the end of the year of extension. [NOTE: *Missing a deadline will not be considered an acceptable reason for extension of accreditation. Extenuating or special circumstances shall not include a vacancy in the position of CEO/Director.]*

Follow-up Inspections. A follow-up inspection shall be conducted for all provisionally accredited and tabled applicants at the end of the tabled/provisional period, as a condition of proceeding forward in the process. While on site, the inspection team may, at their discretion, inspect all or portions of the institution. Cost of such inspection shall be borne by the institution as a requirement of maintaining and/or achieving accreditation. *(See Mid-Cycle Inspections,* page 114*).*

Geographic Location and Accreditation Cycle. To optimize weather conditions for inspectors and to create a more even distribution of the case load for the Commission, institutions located in geographic areas that typically experience a mild winter season will be placed on a five-year accreditation cycle that affords a fall-winter inspection (i.e., will have their accreditation expire in March). Institutions located in geographic areas that typically experience a harsh winter season will be placed on a five-year accreditation cycle that affords a spring-summer inspection (i.e., will have their accreditation expire in September). In cases where an applicant processes and is granted accreditation on a cycle in conflict with the geographic rule, its *initial* accreditation cycle will be shortened to four and a half years to place it on the proper seasonal cycle for future inspections. **NOTE**: Because aquariums, by their nature, are primarily indoor facilities, they will be placed on a five-year accreditation cycle that affords a fall-winter inspection (i.e., will have their accreditation expire in March).

Implementation of New Standards: The Accreditation Standards and Related Policies document is thoroughly reviewed and updated annually. New editions are released in the Fall for the following year. New standards and revisions go into effect beginning January 1st. (Example: The 2023 standards will be released in Fall 2022 and will go into effect on January 1, 2023**.) All facilities are expected to begin implementing new standards as soon as they are released.** It is not practical to expect facilities to be fully up to speed as soon as new standards go into effect, but they should begin to develop a plan for implementation as quickly as possible.

Institution's Membership In AZA. An institution's membership and participation in AZA must be maintained as a condition of accreditation.

Institutions Under Construction. Institutions currently being constructed may apply for accreditation prior to the opening date; however, the onsite inspection will not take place until the institution is officially open to the general public and a permanent, fulltime CEO/Director has been on board for at least six months. (See *Deadlines* and *Early Submittals* page 21 of the *2023 Guide to the Accreditation of Zoological Parks and Aquariums*).

Institutions Within Institutions. In order to be accredited, a zoological park or aquarium which is a part of a larger institution (such as a university, museum, or botanical garden) must be distinct enough to be separately identified and must adequately fulfill the definition of a zoological park or aquarium as earlier defined. When accreditation is granted in such cases, it will apply only to the zoological park or aquarium concerned and not to the nonzoological activities of the larger organization in fields in which AZA has no expertise.

Interim or Special Inspections. The Accreditation Commission or AZA Board of Directors may, at its discretion, assign a team to conduct an interim or special inspection of any AZA-accredited institution at any time during the five-year accreditation period. While on site, the team may, at their discretion, inspect all or portions of the institution. Cost of such inspection shall be borne by the institution as a requirement of maintaining and/or achieving accreditation. *(See Mid-Cycle Inspections,* page 114*).*

"Last Minute" Inspector Replacements. Although it is highly unusual, a "last minute" change in inspectors may become necessary in a sudden emergency. In this case, there may not be sufficient time for AZA to follow its standard procedure and provide the institution with a list of potential replacements. Every effort will be made to alert the institution in advance, but in extreme circumstances, AZA will assign a replacement inspector and notify the institution thereafter.

Mid-Cycle Inspections. The Accreditation Commission may, at its discretion, require a mid-cycle inspection as a condition of maintaining accreditation. When such an inspection is required, the visiting team will focus on key areas identified when accreditation was issued, and will also review the institution as a whole. Cost of such inspection shall be borne by the institution as a condition of maintaining accreditation. An application and application fees are not required.

Mid-cycle inspections may apply to the following:

- Institutions that are granted provisional accreditation and receive full accreditation one year later; or institutions whose initial (new) applications are tabled and receive accreditation at the end of the tabling period.
- Institutions that meet minimum standards when accreditation is granted but that the Commission believes may be challenged in successfully maintaining AZA standards throughout the full five-year cycle of accreditation.
- Institutions with a large number of identified concerns; institutions with significant safety and/or animal welfare concerns; institutions that are not well prepared for the inspection.

Multiple Facilities Under One Authority. If two or more institutions are under the same ownership and governing authority, administration, or control, are located adjacent to each other, and public admittance for all institutions is covered by a single entrance fee, they will be considered as a single institution. In such cases, the institution(s) should first submit a request in writing for the consideration of the Commission. All facilities are subject to inspection. Should the Commission determine that the institutions do not meet the above criteria, processing as separate facilities will be necessary.

Museums Within Animal Facilities. If a museum exists within an animal facility, adjacent to an animal facility, or if an animal facility exists within a museum, only the animal facility is inspected and considered as falling under AZA's standards of accreditation.

Offsite Facilities. The inspection will include an institution's offsite facilities. An offsite facility is one that is owned and operated by the institution, functions in support of the institution, but exists at a separate location away from the institution itself. Institutions must list all offsite facilities in the space provided on the application for accreditation. Examples of offsite facilities include, but are not limited to: food storage areas, maintenance and equipment facilities, quarantine spaces, and animal holding areas or exhibits. The Primary Reviewer, in consultation with the inspection team chair, will determine which of these areas must be inspected.

Provisional Accreditation. The Commission may implement provisional accreditation at any time if it concludes that accreditation standards are not being consistently met and/or maintained. In such case, if practicable, the

institution shall receive immediate notice of the Commission's decision and be afforded an opportunity to be heard. Such opportunity should be at least in writing, if not in person or by conference call. The Accreditation Commission, at its next regularly scheduled conference call, will provide an opportunity to speak with the institution, and thereafter may take any additional action the Commission deems appropriate.

Rescinding Accreditation. The Commission may rescind accreditation at any time if it concludes that accreditation standards are not being consistently met and/or maintained. In such case the institution shall receive immediate notice of the Commission's decision. The Commission may also choose to conduct an on-site inspection, after which the facility will be afforded an opportunity for a hearing. The hearing will be scheduled for an upcoming monthly Zoom meeting of the Commission. The Commission may take any additional action it deems appropriate upon consideration of the issues. Rescinding or denial of accreditation is appealable under the bylaws to the Executive Committee of the Board of Directors.

Seasonal Closings. Institutions that are closed for winter months must be on a summer inspection schedule. No regular accreditation inspections will be done when institutions are closed for the winter.

Special Welfare Variance. In cases where it is believed that an animal's physical and/or psychological welfare would be at risk by the implementation of a standard, an institution may request a special welfare variance. To qualify for a special welfare variance, the animal(s) in question must be considered geriatric or handicapped, and the institution must provide evidence that the animal's welfare will be at risk if the standard as written is imposed, or that moving the animal isn't possible and/or could result in serious injury or death. The request for a special welfare variance must be in the form of a letter detailing the variance being requested, and containing all necessary documentation from the institution's veterinary and animal management professional staff, and any other experts involved. The AZA Accreditation Commission will consider the request and will thereafter notify the institution of its decision. If granted, the variance will be for three (3) yearsand must be re-applied for prior to the expiration date contained in the variance. NOTE: for the purpose of this variance, welfare is defined as physical health and function, and psychological well-being. For elephants, see "Elephant Management and Care – Special Welfare Variance" (page 112).

Tabling Accreditation. The Commission may table accreditation at any time during the five year cycle if it concludes that accreditation standards are not being consistently met and/or maintained. In such case the institution shall receive immediate notice of the Commission's decision. The Commission may also choose to conduct an on-site inspection, after which the facility will be afforded an opportunity for a hearing. The hearing will be scheduled for an upcoming monthly Zoom meeting of the Commission. The Commission may take any additional action it deems appropriate upon consideration of the issues.

Temporary Closings. Institutions temporarily closed to the public will retain their accreditation and their AZA membership. Should an institution's cycle of accreditation review fall within the period of temporary closure, an extension must be requested in writing prior to the institution's regular deadline for submission of accreditation materials. During the period of closure, a written Progress Report must be submitted every six months until such time as the institution has re-opened. Upon re-opening, the institution must submit materials for full accreditation review by the first deadline that falls after re-opening. In the case of institutions closed for less than six (6) months, a waiver may be requested in writing.

Rev. 11/2022

Global Federation of Animal Sanctuaries

Standards For
Canid Sanctuaries

Version:

December 2019

Table of Contents

INTRODUCTION

GFAS PRINCIPLES

The Global Federation of Animal Sanctuaries (GFAS) will designate an organization as "verified" or "accredited" based upon its substantial compliance with the standards listed below. GFAS recognizes that some organizations under consideration will operate valid rescue and rehabilitation programs with a goal of releasing wildlife to the wild pursuant to IUCN and/or other international or national standards. For those animals, lifetime sanctuary care may not be part of the organization's mission. While the care for these animals may be provided on an interim basis only, the organization is still expected to meet the standards below with regard to all animals in its care and for purposes of these standards it will be identified as a "sanctuary."

Consistent with GFAS' philosophy and the standards below, it is expected that a sanctuary does not adopt policy positions that are in opposition to the welfare of the species of animals in the care of the sanctuary (for example, while it is not required that a primate sanctuary affirmatively promote a policy against laboratory research using primates, it should not promote a policy in favor of such research).

Note: Several standards make reference to a sanctuary's "Director." GFAS recognizes that a sanctuary may use a different title, and the term "Director" is intended to reference the sanctuary's Sanctuary Director, who may be called an Executive Director or Chief Executive Officer, etc.

GFAS also recognizes that sanctuaries may rely on volunteers for certain functions, including some aspects of animal care (such as food preparation). Standards referencing "staff" may take into account appropriately qualified and trained volunteers as well as employees.

Appendix I of this document provides further guidance/suggestions on facility design and canid care. These are not requirements but rather provide sanctuaries with access to knowledge gained from experience at other sanctuaries/canid care facilities.

ANIMALS COVERED BY THESE STANDARDS

Family / Genus/Species/Common Names

Family: Canidae

Genus/Species/Common Names

Genus	***Species***	**Common names**	**Size**
Alopex	*lagopus*	Arctic fox, polar fox	Small
Atelocynus	*microtus*	short-eared dog, short-eared fox, zorro	Small
Canis	*adustus*	side-striped jackal	Large
Canis	*aureus*	golden jackal, Asiatic jackal, common jackal	Large
Canis	*lupus*	gray wolf, Arctic wolf, common wolf, timber wolf, tundra wolf, Mexican wolf	Large
Canis	*lupus ssp dingo*	dingo, warrigal	Large
Canis	*latrans*	coyote, American jackal, prairie wolf	Large
Canis	*mesomelis*	black-backed jackal, silver-backed jackal	Large

Genus	***Species***	**Common names**	**Size**
Canis	*rufus*	red wolf	Large
Canis	*simensis*	Ethiopian wolf, Simien fox, Simien jackal	Large
Cerdocyon	*thous*	crab-eating fox common fox, common zorro, forest fox, savannah fox	Small
Chrysocyon	*brachyurus*	maned wolf	Large
Cuon	*alpinus*	dhole, Asiatic wild dog, Indian wild dog	Large
Lycaon	*pictus*	African wild dog, Cape hunting dog, painted hunting dog, wild dog	Large
Nyctereutes	*pryconoides*	Raccoon dog	Small
Otocyon	*megalotis*	Bat-eared fox	Small
Pseudalopex	*culpaeus*	Culpeo, Andean fox	Small
Pseudalopex	*fluvipes*	Darwin's fox	Small
Pseudalopex	*griseus*	South American grey fox, Argentine gray fox, Grey zorro	Small
Pseudalopex	*gymnocercus*	Pampas fox, Azara's fox, Azara's zorro	Small
Pseudalopex	*sechurae*	Sechura fox, Peruvian desert fox, Sechura desert fox	Small
Psuedalopex	*vetulus*	Hoary fox, Hoary zorro, Small-toothed dog	Small
Speothos	*venaticus*	Bush dog, Savannah dog, Vinegar dog	Small
Urocyon	*cinereoargenteus*	Grey fox, Gray fox, Tree fox	Small
Urocyon	*littoralis*	Channel Island fox, California Island fox,Island grey fox,	Small
Vulpes	*bengalensis*	Bengal fox, Indian fox	Small
Vulpes	*cana*	Blanford's fox, Afghan fox, Corsac dog, Steppe fox,	Small
Vuples	*chama*	Cape fox, Silver fox, Silver jackal	Small
Vulpes	*corsac*	Corsac fox, Corsac	Small
Vulpes	*ferrilata*	Tibetan fox, Sand fox, Tibetan Sand fox	Small
Vulpes	*macrotis*	Kit fox, Desert fox	Small
Vulpes	*pallida*	Pale fox, African sand fox, Pallid fox	Small
Vulpes	*rueppellii*	Ruppel's fox, Rueppell's fox, Rueppells, sand fox, Sand fox	Small
Vulpes	*velox*	Swift fox	Small
Vulpes	*vulpes*	Red fox, Cross fox, Silver fox	Small
Vulpes	*zerda*	Fennec fox, Fennec	Small
		All canid and wolf/dog hybrids	

Version Updates:

New and Updated content released on February 2015

- G-1 Nonprofit/ Non-Commercial Status, P-3 Disposition Ethics and Responsibility, P-4 Disposition of Live Canids, P-5 Euthanasia

New and Changed content released on July 2015

- V-7 Breeding/Contraception – section a.

CANID STANDARDS

GFAS notes that there may be other acceptable ways of meeting the intent of each standard, aside from those detailed below, and that in some instances there may be legal, cultural or other significant barriers to meeting GFAS requirements. The standards are considered mandatory, but GFAS will consider specific exceptions to some of the listed requirements (e.g., exact enclosure size, manner of record keeping, legal requirements that impact a sanctuary's acquisition policy, etc.). GFAS encourages sanctuaries to offer feedback on the standards and to explain any reasons why it believes it cannot meet a particular standard, or why the standard is not applicable and/or appropriate to its situation. Sanctuaries are also welcome to indicate a timeline for meeting a standard if the standard is not yet met at the time of application for accreditation or for verification.

The exceeding of the standards is encouraged. In addition to meeting these standards, an organization is expected to comply with all applicable international, national, state/province, and local laws and regulations.

CANID HOUSING

H-1. Types of Space and Size

Unless otherwise directed by a veterinarian, canids are provided sufficient opportunity and space to move about freely and rapidly, and to exercise choice in location so as to reduce stress and maintain good physical condition.

General

a. The habitat and living conditions are species appropriate and replicate, in as much as possible, the canids' wild habitat with a balance between hygiene and the species' physiological and psychological needs. This includes adequate space, both vertical and horizontal, and appropriate space, in terms of diversity and complexity.

b. The physical space provides varied opportunities for the canids to interact with the environment and key elements are changed often, resulting in a dynamic living space.

c. Housing requirements all include a double entry system so that there are two doors between the canids and freedom at all times. The two doors are never open at the same time.

d. Canids are provided access to as many areas of the enclosures as possible, except during staff maintenance activities, unless security concerns dictate otherwise. All enclosures interconnect without creating 'dead ends' to allow for freedom of movement of subordinate individuals.

e. Outdoor enclosures are either covered, with minimum height to allow for natural behaviors, or open roofed, with cantilever angle, hotwire or sufficient height to prevent escape (see Housing Dimensions for appropriate measurements).

f. The habitat provides appropriate visual, olfactory, and acoustic barriers.

g. The habitat provides security from predators and unauthorized human access.

Open Space Settings

h. Open space settings have enough acreage per animal to accommodate natural individual and group activities.

i. Where open space settings are the primary enclosure, two other areas may also be provided:

- Indoor day/night rooms or other means of providing night housing and secure shelter during inclement and extreme weather. This space also provides alternate housing for sick or injured individuals while in close proximity to the social group.
- Shift yards for use while the primary enclosure is serviced and/or for animal management needs including introduction of new individuals to a group, or temporary separation for health or social reasons. Shift yards should be accessible from indoor housing with a minimum of one door to the main enclosure.

Controlled access settings

j. While not as extensive as an open space setting, in controlled access areas ideally three enclosures are also provided: outdoor enclosures as the primary living space; indoor day/night rooms; and a shift yard or lock out.

Indoor Housing

k. Indoor housing provides year-round protection from the elements. For sanctuaries located in northern climates (where freezing temperatures occur regularly during any part of the year and temperate or tropical species are housed), indoor space is insulated and is large enough to allow for all forms of species-specific behavior (running, playing, etc.).

Dimensions

l. Many factors influence the minimum space required for a pack, trio or pair of canids, including, but not limited to: group size, group composition, and enclosure complexity. The following guidelines are minimum recommendations. Facilities should provide as much space as is possible and/or practical. Sanctuaries meeting only the minimum requirements for enclosure space employ additional environmental enrichment, focusing on physical and mental exercise rather than food, to compensate for reduced space and complexity.

- Outdoor enclosures for canids-Enclosure shape may be variable to take in natural features in the landscape such as rock formations, hills and trees, and there should be a minimum vertical dimension of 12 ft. (3.66 m). Space includes a minimum of two (2) animal transfer doors leading to the indoor enclosure. Enclosures are a minimum of:
- 10,000 sq. ft. (929 sq. m) for large canids housed as a pack.
- 5,000 sq. ft. (465 sq. m) for large canids housed as pairs or trios.
- 1,000 sq. ft. (93 sq. m) for small canids housed as pairs or trios.
- Indoor enclosures/shift yards for canids- A minimum of two rooms or one indoor room and one shift yard per pair of compatible canids. Room dimension is dependent on intended purpose and/or duration of confinement.
- Rooms for are a minimum of 40 sq. ft. (3.72 sq. m) for large canids and 24 sq. ft. (2.2 sq. m) for small canids, with a minimum vertical dimension of 8 ft. (2.4 m).
- Shift yards are a minimum of 90 sq. ft (8.4 sq. m) with a minimum vertical dimension of 12 ft. (3.7 m)

m. Rooms and shift yards interconnect without creating ‘dead ends’ to allow for freedom of movement for subordinate individuals and include a minimum of one transfer door to the main outdoor enclosure.

- Canids are familiarized with rooms and shift yards through routine feeding in or transfer through, or by being allowed continuous access.
- Where possible, separated animals have visual and tactile access to group members to facilitate reintroduction.

H-2. Containment

Canids are safely contained.

General

a. Other than when being transported or for medical reasons, canids are kept at all times in secure enclosures or other appropriate areas.

b. Enclosures are designed to allow for canids' normal defense reactions and appropriate 'flight' or escape distances.

c. All enclosures are designed, constructed and maintained to securely contain canids and to present no likelihood of harm to them.

d. Distance or barriers between canids and between enclosures and personnel is sufficient to minimize stress to the canids, as well as reduce the risk of disease transmission.

e. Enclosures are designed to allow for proper, safe cleaning and drainage.

f. A regular program of sanctuary maintenance is in place.

g. Materials are appropriate for their particular application and are maintained in good repair.

Outdoor Enclosures

h. Perimeter containment of outdoor areas is constructed so as to prevent digging under the barrier by native wildlife, domestic species and the enclosure residents.

i. Fences and enclosures are inspected daily for signs of digging. Where fencing meets hard surfaces such as rock or concrete, the fencing is securely anchored in place.

j. Design takes into account canids' ability to climb and jump, particularly in the design of corner areas.

k. Corners have angles of >90º to reduce risk of subordinate animals being trapped.

Fencing

l. Barbed or razor wire are not used to contain canids.

m. The supporting posts for fences are firmly fixed into the ground.

n. Fence material is sufficiently secured to supporting posts in such a way that the weight of the canids could not detach it from the support nor dislodge the supporting posts.

o. Gates and doors are at least as strong, and as effective, in containing the canids as the rest of the enclosure barriers. In particular gates and doors are designed and maintained so as to prevent animals from lifting them from their hinges or unfastening the securing device.

- All containment barriers have a mechanism to prevent canids from gaining access to dig under gates.
    - Wire mesh buried under the substrate extending 2-3 ft. (0.6- 0.9 m) or a concrete apron extending 1-2 ft. (0.3-0.6 m) into the enclosure are recommended.
    - A concrete apron may also be extended 1-2 ft. (0.3-0.6 m) on either side of the gate.

p. Gaps at gates, posts and other places do not exceed 1 in. (25.4 mm) and are designed to prevent noses, paws and tails from becoming trapped and from reaching into adjacent enclosures.

q. Dimensions

- A maximum dimension of 1 in. x 1 in. (25.4 mm x 25.4 mm) for fennecs, 2 in. x 2 in. (50.8 mm X 50.8 mm) for all other canids, is recommended for chain link fence or wire mesh.
    - Where pens share common fence lines (to be avoided as much as possible) maximum dimension is1 in. x 1 in. (25.4 mm x 25.4 mm).
    - Vinyl coated fencing is not used to reduce risk of canids chewing and ingesting the coating.
- Fencing of 9-gauge or higher chain link or wire mesh suspended on minimum 2 in. (51 mm) posts set in concrete is recommended for canids.
- Minimum vertical dimension of 8 ft. (2.44 m).
    - Additional 3 ft. (0.91 m) fencing cantilevered toward the enclosure at 35-40º if the enclosure is not covered with roof or fencing.
    - Corners of open-topped enclosures have angles of >90º.

Solid Barriers.

r. Solid barriers such as concrete block, poured concrete and artificial rock can be used as the sole method of containment or in conjunction with other types of barrier.

s. Walls are secured in appropriate footings to ensure wall stability, and are of sufficient strength to anchor caging and furniture.

t. Care is taken, especially with artificial rock, to ensure that contours in the rock do not provide escape routes from the enclosure.

u. Height of the wall is the same as that for fences when measured above the nearest secure footfall.

v. Design of areas using solid walls allows for sufficient air flow throughout an enclosure.

Moats

w. Water moats, if used, take into account the strong swimming capability of most canids.
    - Where water depth is 2 ft. (0.6m) or greater, there is no more than a 30º angle between the water and the adjacent substrate.
    - Hot wires are not used at the perimeter barrier as secondary containment.
    - There is a management plan for regions where water moats may freeze.
    - The moat does not serve as the primary source of drinking water. Acceptable water quality parameters are established and moat water is monitored on a regular basis.
    - Rescue equipment is readily available at the moat area in the event a human falls in the water.

x. Moats are surrounded by fences, walls, hedges or shrubbery, to prevent others from approaching too close to the edge.

y. Moats are a minimum of 18 ft. (5.5 m) wide for large canids, 10 ft. (3 m) for small canids, and have a smooth, non-climbable surface for at least the top 9 ft. (4.7 m) on the exterior side. Moats are designed to allow canids to escape back into their enclosure.

z. Dry moats are accessible by skid steer or similar small tractor to repair erosion or grade issues to meet other service or repair needs in the enclosure.

aa. Animal caregivers have safe and easy access to dry moats.

Indoor Enclosures and Shift Yards

bb. For mesh/chain link size and vertical dimensions see outdoor enclosure section.

cc. Solid walls may be used, as described above, in conjunction with other types of barrier.

dd. Shift yards are topped with mesh or roofing due to their small size, which increases the possibility of escapes.

ee. A maximum mesh size of 1 in. x 1 in. (25.4 mm X 25.4 mm) is recommended in areas where canids share a common fence.

ff. Walls are of sufficient strength to anchor caging and furniture.

H-3. Ground and Plantings

Ground cover indoors and out is healthy for canids. Plantings are appropriate and safe.

Vegetation

a. Any vegetation capable of harming canids is kept out of reach.

b. Trees within or near animal enclosures are regularly inspected, trimmed or felled as necessary to avoid canids being harmed by falling branches, toxicity, or trauma.

- Dens that threaten to compromise tree stability within an enclosure are filled in.

c. Trees and climbing plants are pruned to prevent their aiding canid escape.

d. Access to very tall trees which are useful for shade limited by electric wires, barriers etc. to prevent canids chewing bark, breaking branches or for climbing species to use them for escape.

e. Any natural materials (e.g., plants and their products, such as seeds or fruit) are assessed for toxicity to the species held before use.

Outdoor enclosures

f. All outdoor enclosures have a natural substrate consistent with the site.

- The substrate can be amended with organic materials, including but not limited to soils, sand, leaf litter, bark mulch, grasses, straw and hay.
- The substrate drains well.

g. Climbing canid species are provided with appropriate three-dimensional environments to accommodate an array of locomotory and foraging behaviors, as well as appropriate sleeping and resting areas, including nesting and bedding materials.

h. Canid species who naturally dig and root are provided with suitable substrates, nesting and bedding materials, as species appropriate.

- Digging risks (e.g. soil collapse, flooding and caregiver access to animals) are taken into account in facility design.

i. Where natural topography of an enclosure is not varied, it is created through the addition of natural and placed elements.

Indoor enclosures

j. All indoor enclosures have a non-slip concrete floor and, provided adequate septic service is present, are sloped to a drain.

k. For new construction, the indoor area is designed to accommodate a deep litter substrate.

- Deep litter enclosures are designed to allow appropriate litter depth and drainage for proper functioning.
- Litter is properly spot-cleaned and maintained.

l. Existing construction ensures that all floors are sealed.

m. Bedding materials are provided in sufficient amount/depth to prevent contact with the concrete.

- Bedding material suitable for use includes, but is not limited to, bark mulch, leaf litter, wood wool, straw hay, shredded paper and wood shavings.

n. All canids are observed regularly for signs of illness that may be related to ingestion of foreign objects, including wood shavings, bark mulch or other materials that may pose a hazard.

Shift yards

o. All outdoor shift yards have a minimum of 50% of the surface area in natural substrate. The remaining 50% may be concrete as appropriate for drainage, sanitation and structural needs.

p. The substrate can be amended with organic materials including, but not limited to, soils, sand, leaf litter, bark mulch, grasses, straw and hay. The substrate drains well.

q. Bedding materials are provided in sufficient amount/depth to prevent direct contact with any concrete surfaces.

r. Shift yards for digging species are secured with buried fencing or a poured concrete pad or apron.

H-4. Transfer Doors

Canid enclosure transfer doors are appropriately designed to ensure both animal and human health and safety.

General

a. Animal transfer doors are a key element of facility design.

b. Doors are designed to allow transport crates to safely attach to them.

- Transport crates should be able to be moved in and out of the enclosure through the transfer doors.

c. Transfer doors are designed to remain functional under all circumstances and are maintained in good working order and free from any encumbrances that may prevent opening and closing.

d. Doors are designed to allow caregiver view of enclosures while operating the doors.

e. Minimum dimensions of transfer doors are such that canids can maintain normal posture when passing through the opening.

f. Transfer doors are located at ground level.

g. Doors are designed such that people are out of view when canids are being shifted. If not, no eye contact is made with the canids going through the doors.

h. Doors and door hardware are properly maintained to ensure proper functioning.

Security

i. Transfer doors and their frames are constructed of materials similar in strength to those used in the primary enclosure.

j. Doors are lockable in both the open and closed positions.

k. For pneumatic or hydraulic doors, pneumatic or hydraulic pressure is sufficient for keeping doors in the open position. A mechanical lock is, however, in place to lock the door in the closed position.

l. Particular attention is given to preventing hay/shavings from affecting door mechanisms.

Animal Safety

m. Doors operated via remote control are visible from the control area.

n. Guillotine doors are not recommended due to risk of animal injury. If used, a backup system should be in place to prevent door from free falling due to mechanical failure or operator error.

o. Hydraulic systems use peanut or other food-grade oils to prevent risks to the canids in the event of leakage.

p. Hydraulic and pneumatic door systems include backup systems to allow for door usage in the event of equipment failure.

User Safety

q. If door handles or locking mechanisms are in close proximity to the enclosure, a solid barrier is present to protect the user.

r. Double door systems are used to prevent escape from canid holding areas.

H-5. Shelter

Canids have access to man-made shelter that provides each individual with protection from extreme weather (including, but not limited to, prevailing wind, snow, sleet, rain, sun, and temperature extremes).

a. Canids have space to seek refuge from sun, wind, inclement weather and enclosure mates.

b. Shelter does not create or result in 'dead ends' in which individuals can be trapped by other group members.

c. Shade and shelter are provided in multiple locations within enclosures to ensure that all canids have access to shade throughout the day.

d. Shade and shelter can be created through natural and artificial means including hollow logs, rock overhangs, underground dens, den boxes, shade trees and shade fabric.

- The minimum number of den boxes per enclosure is two (2), however, additional den boxes are provided for large packs.
- Length, depth and location of den, and soil type are considered when determining whether to fill in a natural den or allow its continued used by the canids

e. Shelter areas provide dry space during wet weather, as well as protection from wind.

f. Shelter design does not result in dead ends in which subordinate individuals can be trapped by dominant animals.

H-6. Enclosure Furniture

Canids are provided with an appropriately complex and rich habitat to explore, to ensure the animals' physical, nutritional and stimulation needs are met.

General

a. Enclosures are equipped in accordance with the needs of the canids with bedding material, water features, den/hide boxes, appropriate substrate, vegetation and other enrichment materials designed to aid and encourage normal behavior patterns and minimize any abnormal behavior.

b. Appropriate complexity is provided through the use of various natural and artificial materials in the enclosure, using a combination of items including, but not limited to, those listed above.

c. The date that items are placed in an enclosure is noted, and items are removed when they become soiled, damaged or novelty has diminished.

d. Climbing canid species are provided access to the vertical space available within the enclosures.

e. Digging/burrowing canid species have access to areas for digging and/or den boxes.

Outdoor Enclosures

- Visual barriers can be used to avoid confrontation or aggression, and include climbing structures, fallen logs, culvert pipes, walls, shade structures, topography and large enrichment items.
- Areas for digging/burrowing are provided where possible and species appropriate. Burrows/dens dug are monitored for potential collapse and/or flooding.
- Climbing structures accommodate natural locomotion patterns for any climbing species housed. When multiple species are housed together, climbing structures created specifically for each species' unique needs are provided. Metal pipe is not used to construct climbers as it becomes dangerously hot in summer sun and can damage skin during cold weather. Climbing structures should be accessible by staff for routine sanitation, repairs and updates and should include:
- horizontal and vertical elements
- locations and/or mechanisms to provide enrichment above ground level;
- resting platforms
- soft substrate such as soil, bedding material, mulch or leaf litter is installed below climbers to minimize risk of injuries from falls, especially to youngsters and older individuals.
- Water sources may be provided for species who enjoy water access. Permanent pool structures, where present, have an adequate filtration system to maintain institutional water quality parameters or are designed to allow easy draining, cleaning and refilling at suitable intervals to ensure water remains potable.
- In excessive heat, fountains and misters may also be used to cool the air.
- Other Materials
- Ropes, if provided, are secured at both ends with sufficient tension to prevent an animal from becoming entangled. Frayed portions of rope are removed immediately.
- Logs are placed and secured in a manner that prevents rolling or falling onto animals.

Indoor Enclosures/Shift Yards

- To the greatest extent possible, all visual barriers, digging/burrowing areas and climbing structures meet outdoor enclosure criteria.

f. Indoor furniture is constructed of materials that can be sanitized or easily replaced when they become overly soiled. Furniture is accessible to staff for routine cleaning and repair.

g. Benches and other structures allow for climbing and for sleeping above ground level as species appropriate.

h. Den boxes are provided, as species appropriate.

H-7. Sanitation

Proper sanitation is practiced to reduce pathogen transmission.

General

a. Local, county, state laws regarding proper waste removal are observed.

b. Canids are transferred from enclosures prior to cleaning, disinfection and/or sanitizing.

c. As fomites (shoes, clothing, etc. which carry infectious materials) may be a source of zoonotic disease, all who may come in contact with such materials are made aware of these risks and trained accordingly. (See also Standard V-8, “Zoonotic Disease Program”).

d. Uneaten perishable food is removed within a timeframe appropriate for the type of foodstuff and size of enclosure, prior to molding or contamination.

Removal of Animal Waste

e. Animal waste is removed from the habitat as often as necessary to prevent contamination of the canids contained therein, to minimize disease hazards and to reduce odors. This also enables caregivers to collect fecal samples in a timely manner.

f. Soiled bedding material and substrate are removed and replaced with fresh materials daily, or as needed to prevent buildup. If odorous, bedding is changed regardless of how long in place.

g. Damaged and soiled enrichment items are removed daily, or as soon as the cands allow access to the area.

h. Efforts are made to prevent native wildlife getting access to waste.

Tools

i. Each enclosure has dedicated tools to prevent cross contamination between enclosures. When resources restrict the ability to have dedicated tools, tools are disinfected between enclosures to prevent the spread of parasites and disease.

j. Tools are labeled when use is restricted to specific areas.

k. Sanitation tools or equipment, including wheelbarrows, are not used for transport or storage of foodstuffs or bedding.

Cleaning and Disinfection

l. Feeding areas, automatic water devices, water and food containers are cleaned and disinfected daily.

m. Care is taken to minimize overspray of waste, directly or via aerosolizing, into adjacent cages during cleaning.

n. Animals are not present in enclosures being cleaned using power hoses. Care is taken to prevent accidental spraying of animals in adjacent enclosures when power hoses are used for cleaning.

o. Concrete floored enclosures are dried with a squeegee, and as needed fans, to ensure floors are dry before bedding material is replaced.

p. All hard surfaces including walls, floors, ceiling, benches, climbing structures, cage mesh and caregiver work areas are sanitized regularly to the extent possible. Note that in large outside enclosures with plenty of exposure to sunshine and rain, there may not be a need for scrubbing and cleaning but areas must be monitored for potential sanitation problems.

q. Cleaning and Disinfection Standard Operating Procedures are developed and followed to address:

- safe disinfectant use to prevent hazards to the canids, caregivers and the environment;
- cleaning and disinfecting protocols for food preparation and veterinary care areas using more powerful disinfectants on hard surfaces;
- daily, weekly, monthly and quarterly cleaning schedules for all hard surfaces including walls, floors, ceiling, benches, cage mesh and staff work areas designed to minimize the risk of disease transmission;
- disinfectants and other cleaning products stored separately from foodstuffs.

r. A Material Safety Data Sheet (MSDS) or equivalent is readily available for all cleaning products in use and all containers are properly labeled as to contents.

H-8. Temperature, Humidity, Ventilation, Lighting

Temperature, humidity, ventilation, and lighting are appropriately addressed.

Temperature

a. The temperature is within an acceptable range for the species housed.

- Weather is considered in addition to temperature.
- Allowance is made to accommodate individual animals not able to tolerate temperatures above or below the usual range of comfort for the species.
- For outdoor enclosures and shift yards, canids have access to heated or cooled areas when ambient temperature falls below 0ºF (-17oC), adjusted for wind chill, or rises above 85º F (29.4oC) Great caution is taken with elderly, infant and disabled canids.
- North American small canids, temperate zone canids, wolves, coyotes and wolf-dog hybrids can tolerate temperatures well below freezing but these species are provided adequate den space and sufficient bedding material during cold weather.
- Fennec foxes are provided with heated areas when temperatures fall below 55ºF (12.7ºC).
- Arctic foxes are monitored for signs of heat stress when temperatures reach 80ºF (26.7ºC) and provided with access to cooled areas, fans, misters, etc. as needed.
- Windbreaks are sufficient in number to accommodate all canids simultaneously with consideration for social structure and relationships in a group.
- Shade is available throughout the day in a number of areas and adequate size space to accommodate all canids simultaneously with consideration for social structure and relationships within a group.
- Care is taken to prevent direct canid contact with heat sources. Note: Infrared bulbs or ‘heat lamps’ are not recommended as heat sources due to risks associated with bulb breakage and tissue damage in the canids.
    - Heating blocks/panels, if used, are installed and used so as to ensure they pose no risk to the canids.

b. For indoor enclosures, an average ambient temperature range of 40ºF (4.4ºC) and 85ºF (29.4ºC) is recommended for North American canids. African canid temperature range for indoor enclosures is 60ºF (15.6ºC) to 75ºF (24ºC).

- Heat can be provided by forced air or hydronic heating systems.
- Cool air can be provided by refrigerant air conditioning, “swamp coolers”, fans, or misters.

- Providing canids with opportunities to choose temperature ranges within an enclosure is preferred. This can be achieved by access to areas near heat vents, skylights, or hog warmers for example.
- Even when ambient temperatures are ‘warm’, bare concrete floors, especially damp floors, are too cold for many individuals and are not considered suitable substrate or housing for canids.
- Any climate control systems include back-up power in case of equipment or power failure.

Humidity

c. Optimal indoor humidity is between 40% and 70%. Humidity should not be kept above 80% in controlled environments to prevent fungal and mold growth. High humidity can be mitigated through proper ventilation or dehumidifier systems.
    - Prolonged periods of very low humidity may negatively affect coat quality in some species.

Ventilation

d. Proper ventilation of indoor enclosures is critical,
    - In these areas, Heat Recovery Ventilators and Energy Recovery Ventilators can provide fresh outdoor air with minimal heat loss.

e. Indoor enclosures ideally have a negative air pressure, with regular exchange of non-re-circulated air.
    - A minimum of one complete air exchange per hour is recommended.
    - Where negative air pressure is not used, HEPA filters may be installed to maintain re-circulated air quality.

f. To the extent possible, separate air handling systems are maintained between animal areas to prevent disease transmission.

g. Proper window and door placement can ensure sufficient cross-ventilation in warm climates.

Lighting

h. Light, natural and artificial, is appropriate for the species housed in terms of intensity, spectrum and duration.
    - Indoor enclosures - Natural lighting is optimal and can be obtained using skylights, windows, roll-up doors and other means. Glass bricks may be considered, taking into account the fact that light intensity will be less than with clear glass.
    - Supplemental lighting is provided to ensure adequate light, both day and night, for caregivers to observe animals, clean enclosures and perform related animal care tasks.
    - When animals are confined indoors overnight, sufficient lighting is used to extend the daylight period to a natural diurnal rhythm for the species housed to allow animals time to eat and select sleeping sites.
    - Outdoor enclosures and shift yards - Supplemental lighting is available for use in outdoor areas in event of an emergency.

NUTRITION REQUIREMENTS

N-1. Water

Fresh clean water is available in sufficient quantity.

Quantity

a. Fresh clean water is available at all times to all individuals.

b. Multiple water sources are available for group-housed canids to ensure high-ranking individuals do not dominate water sources.

Quality

c. Water quality parameters are maintained at a generally acceptable level for canids in terms of turbidity, salts, etc.

d. Potable water sources are tested for contaminants annually.

e. All water sources (including water bowls) are cleaned at least daily, and more often if needed.

f. If automatic water devices are not used in hot climates, water sources are shaded or changed multiple times to avoid overly hot water.

g. If automatic water devices are not used, care is taken to ensure bowls are secured such that the canid cannot tip it over, play with it or hide it from view.

Automatic Water Devices

h. Devices are tested daily to ensure water is available.

i. Devices are easily disabled when animals must be fasted for medical purposes.

j. When monitoring of water consumption is required, an alternative means of providing water is devised.

k. In colder climates, steps are taken (such as installation of heat sources) to ensure water consumption does not decrease with lower ambient air temperatures.

N-2. Diet

A properly balanced and healthy diet is provided appropriately based on the needs of each canid, following veterinary instructions for special needs.

General

a. A veterinarian or qualified nutritionist periodically reviews all aspects of canid diet at the sanctuary.

b. Diets of individual canids (including vitamin supplementation) are of a quality, quantity and variety to match the physiological and psychological state of the individual as it changes over time, with consideration for the age, life stage, species, condition, and size of the individual.

c. Food is wholesome, palatable, free from contamination and of sufficient quantity and nutritive value to maintain all canid s in good health.

d. The sanctuary utilizes a feeding regimen that ensures each individual receives adequate nutrition regardless of status in social group.

e. Where possible and appropriate, each canid’s daily dietary needs are documented and made available to animal care staff.

f. In open space enclosures, routine observation of feeding activity ensures all

g. animals are able to access sufficient food.

h. Other than commercial diets prepared specifically for canids, only food “fit for human consumption” is fed.

i. Species specific dietary concerns:

- Grey and crab-eating foxes benefit from a diet with a higher proportion of cereals and fruits than other canids.

- Raccoon dog natural diet consists largely of aquatic species (e.g. fish, frogs, mollusks and water insects) in addition to rabbits and rodents.
- Arctic and Culpeo fox and bush dogs are more strictly carnivorous than other small canid species.
- Fennec fox are regularly offered commercially available insects such as crickets, mealworms and waxworms.
- Mane wolves are fed a lower protein diet to reduce risk of urinary stone formation. Soy-based diets are avoided due to a tendency toward soy intolerance.

Commercially Prepared Kibble/Dry Food

j. Canids are omnivorous and generally offered a meat-based diet, supplemented with kibble, fruits, vegetables and insects.
   - The kibble may serve as the core nutrition of the diet where access to balanced commercial meat products is limited.
   - Canids on a kibble-based diet are supplemented with meat products as part of their balanced diet.
   - A high quality, high protein dog kibble or similar product for wild canids is preferred.

Animal Protein

k. Commercially available meat products are preferred as the main dietary source.

l. Meat products are offered when the canids are most active and likely to consume the diet to reduce risk of spoilage.

m. Bones are offered regularly except when forming new packs/social groups or when canid groups are experiencing social tension.
   - Type of bone offered is based on veterinary recommendation for the age and size of canids housed, to reduce the risk of mouth and tooth injury.

n. Rodents, quail or rabbits may be offered but are not considered a complete diet.

o. Carefully sourced (see Carcass Feeding below) whole or partial carcasses are also appropriate when adequately balanced and supplemented under the supervision of a veterinarian or animal nutritionist.

Carcass Feeding

p. Carefully sourced whole carcasses may be offered to canids. If hunted meat is offered, be aware that lead may be present and, if possible, remove it.

q. Uneaten portions of carcasses are removed from enclosures after 24 hours.

r. Meat from animals that have died from disease, are suspected to have been diseased or sick, or have died of unknown causes is not fed.

s. Animals euthanized with chemical agents are not used for food.

Vegetables and Fruit

t. North American fox species' diets include modest amounts of berries and vegetables as seasonally appropriate.

u. Small amounts of vegetables and fruit may be included in the diet of other species.

Vitamins/Supplements

v. Prior to offering supplemental vitamins, the health and condition of the individual canid, as well as the diet, is reviewed by a nutritionist experienced in canid care and/or the attending veterinarian.

Treats/Enrichment items

w. Preferred food items from the basic diet can be reserved for enrichment.

x. The calories in foods used as enrichment are considered when planning the overall diet.

N-3. Food Presentation and Feeding Techniques

Food is handled and prepared in an appropriate manner to retain nutritional value, freshness, and freedom from spoilage, invasive species or other forms of contamination.

General

a. Feeding and drinking receptacles are placed in positions that minimize the risks of contamination from soiling by the canids themselves, wild birds, rodents and other potentially invasive species.

b. Food receptacles, where used, are appropriate for the species housed in terms of number, size and placement, and are cleaned daily.

c. Receptacles for animal food and water are designed to minimize spillage and are not be used for any other purpose.

d. Food items are placed in stainless steel buckets/bowls or other material that cannot be easily damaged by chewing, or on easily sanitized pads to minimize contamination from urine and feces. Kibble is not fed loose on the ground or floor.

e. Canids fed a balanced commercial diet are fed a minimum of once daily during the active feeding time of the species housed. Canids are not fasted as part of a regular feeding program.

Feeding Techniques

f. Food is provisioned at multiple feeding sites throughout enclosures to ensure all canids have access and to reduce or eliminate aggression that results from competition for food resources, especially preferred items.

Diet Changes, Increases or Decreases

g. Adjustments made to an already formulated and nutritionally balanced diet are made to the entire diet to ensure continued nutritional balance.

h. Considerations for diet increase include weight and condition of the canid, food consumption, activity level and other medical or behavioral considerations.

i. Diet increases or decreases are made in modest increments with animal response to the change assessed for a minimum period before additional changes are made.

j. Underweight individuals experiencing health or behavioral problems may be separated for supplemental feeding as needed to avoid undesirable weight gain in conspecifics.

N-4. Food Storage

Food is stored appropriately.

General

a. Separate and secure facilities are provided for proper and hygienic storage of food.

b. Dry goods are stored in clean, dry storage areas in sealed containers or on pallets. Products are dated and rotated to use oldest stock first, and expired food, as well as bags damaged by pests, are discarded.

c. Items frozen for use are dated and labeled, and no frozen items are thawed and refrozen. Items that are not fed frozen are thawed in a refrigerator to minimize risk of spoilage.

N-5. Food Handling

Food is handled and prepared in an appropriate manner to retain nutritional value, freshness, and freedom from spoilage, invasive species or other forms of contamination.

General

a. Food is protected against dampness, deterioration, mold, and/or contamination by insects, birds, rodents or other animals.

b. No food that is spoiled or otherwise contaminated is served.

c. Diets are prepared in a safe and hygienic manner to reduce the possibility of contamination or spoilage.

d. Separate cutting boards, utensils and food preparation surfaces are used when meats, fish and produce diets are prepared in a common kitchen area.

e. Food preparation techniques meet all local, state/province, and national regulations.

f. Food preparation surfaces are thoroughly cleaned after use.

g. Staff and volunteers wash hands thoroughly prior to handling food, and wearing gloves during food preparation is recommended.

Veterinary Care

V-1. General Medical Program and Staffing

There is a written veterinary medical program, overseen by a veterinarian, with adequate support staff at the Sanctuary, with 24/7 veterinary care available on call.

a. The sanctuary has a written veterinary medical program, including long term preventative medical protocols and disease surveillance and containment procedures, that is developed and carried out under the supervision of a licensed veterinarian – the attending veterinarian - who has training or experience in providing medical care for the canids and other species housed at the sanctuary, and who is aware of specific concerns regarding the canids at the sanctuary.

b. One or more full-time veterinarians specifically concerned with the veterinary medical program is highly recommended for sanctuaries whose budget will support the salaries of such trained personnel. Sanctuaries unable to employ a full-time veterinarian have access to a part-time

veterinarian, under a contractual or other similar arrangement, with training and appropriate experience with the canids housed at the sanctuary.

c. Veterinary care is available 7 days per week and 24 hours per day for the sanctuary on an on-call basis when a veterinarian is not physically on grounds. When the primary veterinarian is unavailable, there are other suitably experienced veterinarians on call.

d. There are support staff to carry out the following roles: (1) Husbandry (canid caregivers), (2) Technical (medical technologists, veterinary nurses, or individuals trained at the sanctuary), and (3) Clerical. The sanctuary has available properly trained and qualified professional and supporting personnel as necessary to implement these roles.

e. A staff member is trained to serve as a medical program director, dealing with emergencies until a veterinarian arrives or is reached. He or she is able to direct any restraint of the canids, be responsible for administration of post-surgical care, and be skilled in maintaining appropriate medical records.

f. Medications are stored appropriately on site, according to label directions. Medications requiring refrigeration are stored separately from food items.

V-2. On-Site and Off-Site Veterinary Facilities

Veterinary facilities are appropriately located, designed and equipped.

a. Any on-site veterinary facility at the sanctuary meets all local and state/province building regulations

b. Surfaces in the on-site veterinary facility with which canids can come in contact are non-toxic and can be readily disinfected.

c. The on-site facility is located away from areas of heavy public use to minimize the noise levels for hospitalized canids.

d. The on-site facility has separate areas for any of the following veterinary functions performed on-site: physical examinations and medical treatments, enclosures for hospitalized canids, sterile surgery, necropsy, medical quarantine, laboratory, radiology and pharmaceuticals storage which includes, when necessary, a safe for narcotics that meets the standards set by applicable regulations (e.g., the Drug Enforcement Administration [DEA] in the United States).

   - Food preparation areas, storage areas and staff locker room/housing with showers are separate from the medical facility.

e. If the sanctuary does not have an on-site veterinary facility, or only a partially outfitted veterinary facility it has a contract or similar arrangement with a nearby veterinary hospital for off-site treatment as needed. The hospital should have a sterile surgical facility with anesthetic equipment to include radiology equipment, a laboratory, and pharmaceutical storage. If necropsies are performed at the hospital, there is a separate area for necropsies and a separate storage refrigerator for storage of carcasses.

f. See also Standard V-4 “Clinical Pathology, Surgical, Treatment and Necropsy Facilities."

V-3. Preventative Medicine Program

The sanctuary has a complete preventative medicine program.

a. Appropriate preventative medicine programs are in place to manage all canids, with special attention paid to geriatric animals.

b. The preventative medicine program includes quarantine procedures, parasite surveillance and control, immunization, contraception, infectious diseases screening, dental prophylaxis, and periodic reviews of diets, husbandry techniques and invasive species control.

c. When circumstances permit, and as appropriate for the individual animal, an overall examination is performed annually, blood is collected, serum banked as a baseline control and the results are recorded. The attending veterinarian, in consultation with the sanctuary director, determines any schedule for routine physical examinations, including ocular, dental and musculoskeletal assessment, and implements any necessary treatment.

d. A veterinarian, veterinary technician, or other trained personnel performs regular fecal examinations to look for parasites, protozoa and bacteria (random enclosure sampling is adequate for group-housed canids). Results are recorded. Fecal examinations are repeated following treatment to evaluate efficacy.

e. All canids are immunized as recommended by the attending veterinarian, using currently recommended procedures and products as appropriate for the country, species and individual. Where possible, killed vaccines are utilized to minimize the potential for adverse reactions. Schedules and products are dictated by the disease status of domestic and wild animals in the area surrounding the sanctuary and relevant local and national laws.

f. When canids are immunized, the type, serial number, and source of product are recorded in the individual animal's medical record.

V-4. Clinical Pathology, Surgical, Treatment and Necropsy Facilities

Clinical pathology, surgical facilities and services, medical treatment for sanctuary canids and necropsy are all high quality, humane, professional, legal, and safe.

Clinical Pathology

a. Diagnostic laboratory services are available on- or off-site to assist with the examination of canids and the diagnosis of disease.

b. Diagnostic capabilities include cytology, microbiology, parasitology, complete blood count, blood chemistry, urinalysis, serology and other appropriate laboratory procedures.

Surgical

c. The sanctuary has access to surgical facilities (either on-site or at a nearby veterinary hospital) that are clean, free from excessive noise and unnecessary pedestrian traffic, have adequate lighting, ventilation, and temperature controls, and that can be easily cleaned and disinfected. For sanctuaries utilizing off-site aseptic surgical facilities, an on-site area that can be adapted for occasional or emergency aseptic surgical use is available.

d. Surgical facilities have access to appropriate anesthetics including injectable and inhalant anesthetics, reversal agents, etc. Where gas anesthetic equipment, including scavenger units, is used equipment is cleaned and calibrated and filters are replaced, annually at a minimum. Gas cylinders are safely stored and replaced regularly.

e. Facilities have sterilized surgical packs, surgical preparation solutions, intravenous fluids, fluid administration equipment, pulse oximetry, heart monitoring equipment (e.g. electrocardiogram,

stethoscope), and emergency drugs on-site with appropriate maintenance and/or replacement schedules for each.

f. Surgical facilities have access to gas anesthesia equipment with a gas scavenging system and oxygen, sterilized surgical packs, surgical preparation solutions, intravenous fluids, fluid administration equipment, pulse oximetry, heart monitoring equipment (e.g. electrocardiogram, stethoscope), and emergency drugs.

g. If on-site, the sanctuary ensures that surgical equipment is maintained in good working order and is on a program of routine preventive maintenance.

h. Only a licensed veterinarian performs surgery, using standard operating procedures. (Note: A veterinary technician appropriately trained by a veterinarian in states or provinces where such action is permitted by veterinary practice acts can perform surgical first aid.)

i. The veterinarian uses aseptic surgical procedures whenever applicable.

j. Veterinarians and support personnel are compassionate and knowledgeable about the humane aspects of canid treatment, including the proper use of anesthetics, analgesics, and tranquilizers.

k. Surgical incisions are observed daily, or as frequently as possible while minimizing stress to the canids, for signs of dehiscence or infection. Analgesics are administered post-operatively when appropriate.

Treatment

l. Medications are maintained and used in accordance with local, state/province, and national laws and regulations and are administered in accordance with the state veterinary practice act, or equivalent outside the US.

m. The sanctuary has a pharmacy on-site where routinely used drugs, such as emergency resuscitative medications, antibiotics, antihelmintics, fluids, anesthetics, analgesics, tranquilizers, etc. are maintained.

n. All medications are purchased, prescribed and administered under the guidance of the veterinarian.

o. When distributed to canid caregivers, medications are properly labeled and packaged, with the contents identified and instructions for the amount, frequency and duration of administration as well as the name and identification of the canid to receive the medication, the expiration date of the medication, prescribing doctor and number of refills if any.

p. All medical treatments and drug prescriptions are documented in the canid's medical record.

q. Basic physical capture and restraint equipment to facilitate medical treatment is available at the sanctuary.

Necropsy

r. Whenever possible, there is an isolated area on the grounds for performing necropsies, or appropriate storage facilities until the deceased canid can be transported to a facility for a postmortem examination as soon as possible, understanding that necropsies performed longer than 24 hours after death be of limited value due to autolysis. (Note: Any refrigerated area for holding dead canids is physically separate from live canid holding, treatment, and surgery areas and from food supply storage or preparation areas.)

s. Disposition of dead canids and their parts meet all legal restrictions.

t. Dead specimens not used are incinerated or disposed of as deemed suitable by the veterinarian in accordance with local, state/province and national regulations.

V-5. Quarantine and Isolation of Canids

Appropriate quarantine and isolation policies and accommodations are in place and utilized.

a. Upon arrival, all canids undergo quarantine for a minimum of 30-60 days or according to the protocol established by the attending veterinarian, or for a greater period if required by applicable law. The quarantine period should be longer (at least 60-90 days) for those canids that have received minimal screening prior to arrival, such as canids from the wild. Canids previously housed together may be quarantined together.

b. If the sanctuary does not have an adequate quarantine facility, steps should be taken to have canids undergo quarantine under these guidelines prior to their arrival.

c. Local, state/province, or national regulations regarding quarantine of newly arrived canids are followed.

d. All utensils and outer clothing used in quarantine are restricted to that area.

e. Protective clothing, boots and footbaths are used by all staff entering the quarantine area or areas containing quarantined animals. Quarantine clothing is not removed from the quarantine area, except in a sealed container for cleaning.

f. Caregivers wear protective gloves and masks when cleaning or handling anything with which the quarantine canids come into contact.

g. Where possible, staff working in quarantine areas does not work with other sanctuary animals. If this is not possible, work is done in the quarantine areas last.

h. Quarantine staff cares for newly admitted canids in their quarantine area before caring for sick animals, which are housed in separate isolation enclosures.

i. The quarantine area allows for daily cleaning and sanitation, either with removable catch trays or a drainage system that allows fecal matter to flush into a septic system; waste is otherwise removed and disposed of properly.

j. In enclosures housing animals carrying infectious or transmissible diseases, to the extent possible, all surfaces of the enclosure are properly sanitized.

k. Quarantine areas have adequate ventilation, heat and air conditioning, which are used to ensure optimum conditions, particularly in the case of young, elderly or sick canids who may be more sensitive to environmental changes.

l. Quarantine animal waste is handled separately from all other manure or compost at the facility. Because of the risk of disease transmission, quarantine waste is not spread on pastures or composted.

V-6. Medical Records and Controlled Substances

Complete medical records are maintained, appropriate statistics maintained, canids have permanent identification, and controlled substances are prescribed and stored legally.

Medical Records

a. An electronic database format is recommended for most record keeping, but in either case, the sanctuary has a back-up system for the records.

b. Records that, if not required by law, are required by GFAS include but are not limited to:

Individual Records

- Individual animal records showing origin, age, species, gender, microchip number, tattoo, photo, bio, etc.;
- Individual veterinary record;
- Reproductive history, if known;
- Contraception records;
- Weight, current diet and record of diet changes;
- Food consumption and preferred food items;
- Enrichment dates, items used and canid's response;
- Where applicable and appropriate, any positive reinforcement training records showing completed objectives and those in development;
- Current and historic enclosure mates, social groups and partners, including response to various phases of introduction and response to other individuals;
- Acquisition documents;

Group Records

- Welfare assessment for the canids as a whole including measures of: disease prevalence, morbidity and mortality rates, and activity levels;
- Inspection Reports, as applicable, from international, national, state/province and local agencies, as well as accrediting organizations;
- Other animal documentation, as applicable, such as complaints or police reports pertaining to specific animal, and animal escape reports.

c. Medical records are dated, legible and indicate examination findings, treatments (types of medication, dosage, duration), surgical procedures, anesthetic procedures (type of agent, dosage, effect), results of all laboratory tests (parasitological, hematologic, bacteriologic, etc.) pathology reports, plus immunization records with all relevant dates, canid identification and nutrition/diet information, and, where applicable, necropsy reports.

d. Copies of medical records accompany any canid who is transferred to another sanctuary.

e. Medical records are maintained under the direction of the veterinarian or trained canid caregiver. Where possible, duplicate record sets are stored at another site, or in a fire proof or theft proof safe on site or an online storage system.

f. Statistics are tabulated regularly on the rates and nature of illness and mortality in the sanctuary.

Controlled Substances

g. Only a licensed veterinarian prescribes controlled substances used at the sanctuary, and all such substances are secured in accordance with any applicable laws.

h. The sanctuary maintains appropriate records and logs for all controlled drugs used. All drug logs are kept up to date and comply with any national or other legal requirements (such as the Drug Enforcement Agency in the U.S.).

i. Expired drugs are marked as such and stored separately.

j. When disposing of drugs, they are discarded in accordance with applicable national, state, and local law and regulations (such as the USDA and DEA in the United States).

V-7. Breeding/Contraception

No intentional propagation of canids occurs, and sound practices are in place and implemented to prevent propagation and to properly care for infants born at the sanctuary.

a. Although GFAS recognizes the importance of appropriate "conservation breeding" programs, they fall outside the mandate of GFAS Accreditation programs unless they adhere to the following guidelines:

- Animals are not brought into captivity for the purpose of breeding. Animals that are allowed to breed should enter a wildlife facility as a result of normal acquisition protocols such as surrender or government confiscation and be considered an endangered or threatened species with available release sites within the state/province, conducted with specific conservation goals, in accordance with local, state/province, national, and international law and regulations.

- Breeding should not be forced – that is, not the result of artificial insemination or being placed in enclosures of insufficient size or otherwise not in keeping with GFAS standards.

- Breeders – that is, the parent animals – should be released into the wild with their young. If breeding animals are deemed non-releasable, there should be documented evidence from a qualified professional that the animals cannot be released because of a physical condition or other reason that would make them unable to survive in the wild. Offspring of non-releasable parents should not be released until an age of species-specific maturity for survivability.

- Non-releasable breeding animals should receive the care required of all animals under the GFAS standards and should not be maintained for the purpose of breeding if they have incurable or unmanageable pain or suffering and do not have an acceptable quality of life.

- The facility should have an identified release site for the breeding animals and offspring, with any necessary permits or memoranda of understanding in place. While GFAS may consider whether a definite plan (such as ongoing surveys of land for potential release sites and a timeline for releasing animals) is sufficient, it will not be sufficient for a facility to simply say that it hopes or plans to be able to release the animals one day. Thus, a facility may not breed any animals in captivity, even highly endangered animals in order to create a sustainable population, without a definite release plan in place.

b. The sanctuary has canid-appropriate contraceptive programs in place with the method of contraception used based on current best practice and attending veterinarian recommendations. (See Appendix 1 for further information on contraception methods for canids.).

c. If females arrive at the facility pregnant, the sanctuary provides necessary care and the female is allowed to deliver unless there are valid health reasons for terminating the pregnancy, or unless the attending veterinarian feels the pregnancy is in such an early stage that aborting the fetus is an option, if so desired by the sanctuary. After delivery, reproductive control methods are applied after allowing adequate time for weaning as appropriate for that canid, provided there is no further opportunity for breeding during this period of time.

d. Infants born at the sanctuary remain with the mother as appropriate for natural rearing, provided there is no further opportunity for breeding during this period of time. Infants are only removed from females for hand-rearing if there is a threat to the life of the infant or the mother.

V-8. Zoonotic Disease Program

The staff and sanctuary veterinarian are knowledgeable about zoonotic diseases that may affect canids at the sanctuary, and implement appropriate policies and procedures as needed to mitigate risk and deal with any exposures that occur.

a. The sanctuary's veterinarian is knowledgeable about zoonotic diseases that may affect canids at the sanctuary. All potential or emerging diseases have emergency procedures and a defined process to avoid transmission of diseases through bites, scratches, body fluids, direct contact with canids and other means. (Note: Additional precautions may be necessary for staff classified as increased risk of disease, including those who are immune-compromised.)

b. Personnel have adequate training to understand the potential risk of disease transmission, including potential sources of disease, modes of disease transmission, and clinical signs associated with disease.

c. All personnel are informed when a zoonotic disease occurs at the sanctuary.

d. When a reportable disease is identified, all appropriate local, state/province, and national regulatory officials are contacted.

e. All areas in which the staff has direct contact with canids have hand-washing facilities available in the immediate vicinity (or an equivalent; e.g., bactericidal hand-wipes)

f. Human food consumption by the staff does not occur in the immediate area of canid contact.

g. Rabies testing and vaccination protocols vary by location. Federal, state or province and local rabies prevention protocols supersede recommendations made in this document.

V-9. Euthanasia

Euthanasia is governed by an ethical written policy that includes identification of appropriate personnel and procedures.

a. The sanctuary has a written policy addressing the circumstances surrounding euthanasia decisions and procedures, including the following:

b. Euthanasia is performed in compliance with any national or local law, administered under the strict supervision of a licensed veterinarian. In extreme circumstances of animal suffering when a veterinarian is unable to reach the sanctuary in a timely manner, a method such as the use of a firearm to euthanize an animal may be required and is performed by a trained and qualified staff member when no other humane option is available.

c. Euthanasia is in the best interest of the individual animal only used as a final option, and is not used as management tool (such as a means to create space for more animals).

d. Acceptable reasons for euthanasia include:

- Incurable disease/injury that is likely to cause unmanageable pain or suffering;
- Disease/injury where treatment is likely to cause unreasonable pain or suffering;

- Disease/injury where treatment will not be effective in restoring the canid to an acceptable quality of life;
- Disease/injury where treatment is beyond the normal community standards of monetary expenditure and would cause an excessive burden on the sanctuary resources, and no other sanctuary can step in, after reasonable efforts to locate such a sanctuary;
- The process of aging has resulted in an unacceptable quality of life;
- In the event of presenting an infectious disease risk to some or all of the residents.
- For facilities engaged in the rehabilitation and reintroduction of wildlife, it is determined in accordance with an appropriate protocol or other "decision tree" analysis that an animal cannot be reintroduced to its natural habitat and there is no appropriate (consistent with these standards) long-term care option.

e. Euthanasia is performed so that it avoids distress to the canid, and unless impossible, is performed out of view of other canids.

f. The species and ecosystems are carefully considered during disposition activities.

Well-Being and Handling of Canids

W-1. Physical Well-Being

All canids are routinely monitored to ensure their physical well-being. All aspects of husbandry, including veterinary care, environmental enrichment and diet are designed to optimize the canids' physical well-being.

a. The welfare of each individual canid is the overriding consideration in all sanctuary actions.

b. Canids are able to enjoy lives that are as close as possible to that of their wild counterparts as regards stimulation and interest. This is achieved by adopting husbandry and management procedures, including appropriate housing and enclosure design, environmental enrichment programs, positive reinforcement training programs and a balanced diet to meet nutritional requirements.

c. Canids are provided with species appropriate opportunities to dig, climb, bathe, forage for food, and play by providing species-appropriate climbing structures, burrowing/digging areas, water features, a variety of plants and substrates and other enclosure enhancements and there are places to hide and rest in comfort.

d. Regular assessments are performed in an effort to quantify and measure the welfare of individual animals through monitoring of nutritional, physical and social conditions. Qualified personnel conduct daily observations of each canid to monitor for signs of physical abnormalities. Any unusual activities are recorded in a log at each inspection. Sudden changes in food consumption and other behaviors are immediately brought to the attention of supervisory staff. Note: In open space enclosures, it may not be possible to observe each animal on a daily basis. In such habitats, it is important to get an accurate count and to spend time observing all canids on a weekly basis.

e. Where possible and appropriate, records of individual canids are kept to provide both behavioral and veterinary history.

f. Where possible, each canid is weighed annually, either during a routine physical or through the use of a built-in scale, to monitor for signs of illness and to determine dosages for chemical anesthetics.

g. The use of positive reinforcement training may be appropriate for canids who enjoy interacting with people, to provide additional enrichment and reduce the need for chemical immobilization and to reduce stress during medical intervention.

W-2. Social Housing

Canids are grouped appropriately with the safety of animals and staff in mind.

General

a. Canids housed together are compatible and all canids have ample space to retreat and hide as needed while social tensions are resolved.

b. Canids are not housed near animals that interfere with their health or cause them physical or psychological discomfort.

c. Habitats are of sufficient size to allow appropriate space between individuals in social groupings and to allow for temporary isolation from conspecifics.

d. Canids are housed so that no individual endures constant harassment or suffers physical injury, and so social behaviors do not prevent any individual from maintaining proper nutrition and hydration.

e. Close attention is paid to canids in social housing, with age, species, and sex of animals housed together taken into account.

Species-appropriate Housing

f. Fox species are housed as pairs, and in some situations, as trios, depending on the tolerances of individual animals. Unrelated male-female pairs are established, as appropriate. Same sex pairs or trios, if established are monitored closely for problems.

g. Wolf and coyote groups have varied composition, depending on compatibility and species-specific social needs. Groups may include adult male, adult female, litter from past one to two seasons or adult male, adult female;

- Same sex packs, if attempted, are closely monitored for aggression.
- Females with pups may be housed within a pack without problems.

Solitary Housing

h. Is temporary and reserved for situations including but not limited to quarantine, medical assessment or care, lack of appropriate social partners, or social tension resulting in disruption to the main group/pack or physical aggression leading to injuries.

i. As possible and appropriate, canids housed alone temporarily are given visual, olfactory and auditory contact with their social group.

Mixed Species Housing

j. Mixed species situations are not recommended for canids.

W-3. Introduction of Unfamiliar Individuals

Introduction of any new canid to a social group is done according to techniques appropriate for each species, with staff safety ensured.

General

a. Introduction of unfamiliar canids is carefully considered. Professionals with experience in social introductions, if not on staff, are consulted whenever possible during these considerations.

b. As a first step, canids are given visual and olfactory contact prior to physical contact.

c. Canid introductions are monitored closely for several days for tension, aggression, shifts in dominance, territoriality, etc.

d. Food and water consumption is monitored carefully to ensure that all canids are able to access food/water. Staff ensures canids are not hiding in den/nest boxes, unable to approach/access food and water.

e. Canids have access to separate shelter, ample room to move away from each other and no opportunities for an animal to be cornered.

f. As needed and possible, information listed below is gathered for the introduction planning process:

- A list of individual animals to be introduced, including all that the sanctuary ultimately hopes to integrate into a group.
- Background of each individual, including but not limited to: age and gender; social experience with other canids; rearing history (hand-reared, parent reared, time spent with mother and siblings).

g. As appropriate or needed, benchmarks or desired outcomes are identified for each step in the process. Examples include:

- physical location of animals during visual/olfactory contact period;
- behavioral goals of visual/olfactory contact period;
- benchmarks for proceeding to physical introduction;
- space and enclosures to be used for physical introduction;
- reasons location selected: neutral space, ample run around, visual barriers, doors that can be closed to protect animals in trouble etc.;
- set-up for physical introduction, enrichment etc.;
- emergency equipment that might be needed;
- time frame necessary to acclimate animals to presence of equipment;
- criteria for separating animals if physical introduction does not proceed safely;
- post introduction management and husbandry protocols.

h. The plan is developed with involvement of all staff involved with care of the species and details a series of steps that will be taken to integrate the individual animals involved. Necessary modifications to enclosures are identified and completed prior to beginning the process.

i. The plan establishes behavioral goals for introductions and is not driven by schedules, and is open to modification as introduction/integration develops and evolves.

j. Only normally scheduled caregivers and animal managers are present to directly observe. Individuals who are not routinely present in the animal area, including veterinary and management staff, observe via remote video or receive reports from staff.

k. All caregivers have a clear understanding of the plan including contingencies for problems that might occur, and are empowered to take appropriate action in the event of perceived emergency.

l. If the introduction is not successful, no attempt is made to reunite the individuals until housing or social circumstances can be changed or other factors that may have contributed to the problems, such as breeding season, have been resolved.

W-4. Behavioral/Psychological Well-Being

The behavioral/psychological well-being of each canid is evaluated and addressed, and a welfare plan and report is part of each canid's file.

General

a. There is a formal, written enrichment program that promotes species-appropriate behavioral opportunities and ensures the captive canids' psychological well-being. A complete environmental enrichment program includes the following:

- Structural enrichment - Enclosure design and furniture that add complexity to the environment and promote species-specific behavior.
- Object enrichment – Objects that encourage inspection and manipulation and promote species-specific behavior.
- Food enrichment - Varying food choices and food presentation.
- Social enrichment - Affiliative interactions between caregivers and canids may be appropriate in some instances. The decision to include social enrichment with caregivers should be made on an individual basis, considering only the social needs of the animal, such as solitary animals, particularly those hand reared by humans with no conspecific contact or neonatal and juvenile animals in situations where appropriate.

b. All canid care staff are trained to recognize abnormal behavior and clinical signs of illness. Measures of well-being that are assessed include:

- species appropriate behavior and interaction with other animals;
- the animal's ability to respond appropriately to variable environmental conditions, physiological states, developmental stages, and social situations as well as adverse stimuli.

c. Stereotypic behavior, self-injurious behavior, and inappropriate responses to various stimuli not previously documented or witnessed may be evidence of compromised well-being and are investigated. A welfare plan to address the concerns is developed.

d. Where possible and appropriate, a behavioral/psychological profile is maintained for each individual canid and updated annually and a copy is kept in the canid's permanent file.

W-5. Canid-Caregiver Relationships

Positive relationships between canids and caregivers are maintained. Canids are not fearful or aggressive in response to human presence or routine care procedures.

General

a. Canids arrive at sanctuaries with a variety of previous experience with caregivers, which caregivers take into account in their interactions with these species.

b. Facility design plays a key role in caregiver-canid safety and the ability to maintain a positive relationship.

c. A protocol for introducing canids to new caregiver staff has been developed. Where possible, new caregivers accompany a trusted caregiver until the canids become comfortable with the new individual.

d. A positive relationship between the canids and regular caregivers, animal managers and veterinary staff is one in which the canids are given the freedom to integrate with their conspecific social group with minimal human interference or to interact regularly with caregivers if they choose.

e. Where possible and appropriate, animals become familiar with the veterinary staff, allowing close observation. Individual canid preference for interaction with caregivers, animal managers and veterinary staff is taken into account.

f. The animals do not become fearful or overly aggressive in response to human presence or routine care procedures.

g. Interactions with canids do not cause overheating, excessive cooling, physical harm, or unnecessary discomfort, and minimizes physical and psychological stress or trauma as much as possible.

h. Negative interactions are avoided. However, when they occur, efforts are made to recover trust and a positive relationship if the canid enjoys regular interaction with people

i. Physical abuse, deprivation of food or water, aversive spraying with a hose, and other forms of negative reinforcement or punishment-based training are never used to train, shift or otherwise handle canids. Note: This does not preclude the use of hoses or other watering devices in caring for the canids who enjoy this form of enrichment.

Any necessary handling and restraint is done safely and appropriately, with minimal distress to canids, and staff are trained in canid-specific safe handling techniques/practices.

W-6. Handling and Restraint

General

a. In general, humans do not enter enclosures with canids. Direct physical interaction is limited to protected forms of contact, by experienced personnel, to minimize the risk of injury.

b. Handling for veterinary care is done as expeditiously and carefully as possible in a manner that does not cause trauma, overheating, excessive cooling, physical harm, or unnecessary discomfort, and minimizes physical and psychological stress as much as possible.

c. In general, manual restraint is not used on canids and is not attempted when multiple animals are present in an enclosure.

- Manual capture and restraint of adult wolves, wolf-dog hybrids or large coyotes using nets is not recommended
- African wild dogs are never manually restrained.

d. If physical restraint or drug delivery systems must be used, the lightest and least stressful methods that are appropriate are chosen, bearing in mind the safety of staff and animal.

e. A written policy for the humane chemical restraint and safe capture of animals housed at the sanctuary is in place, to include:

- Training and certification in the equipment, humane chemical restraint, immobilization process, and the use of drugs for veterinarian purposes or emergencies;
- Procedures listing at a minimum those persons authorized to administer animal drugs, situations in which they are to be utilized, location of animal drugs in a safe and secure place, and those persons with access to them, and an emergency procedure in the event of accidental human exposure.

f. All chemical restraint equipment is cleaned after each use, maintained in good working order and tested on a regular basis.

g. Canids are chemically immobilized by qualified personnel when direct handling is necessary (i.e., physical exams). Chemical immobilization is performed only by a licensed veterinarian or by trained staff under the guidance of a licensed veterinarian, or other qualified individuals authorized by the sanctuary director or veterinarian, following the laws and regulations of country where the animals are housed. Specific anesthetic protocols, including record-keeping, are followed.

h. Chemical restraint is not used when multiple animals are in an enclosure except in an emergency situation. In such cases, all possible precautions are taken to prevent threats to the handlers and the animal being sedated.

i. Multiple staff members are trained to use a dart gun and other restraint equipment, and to employ safe capture techniques. The staff, and volunteers where appropriate, are aware of who is trained and authorized to use restraint equipment.

j. As part of their training, staff members are instructed to report any medical conditions or physical limitations that may hinder their ability to employ safe capture techniques.

k. Where possible and appropriate, Positive Reinforcement Training is used to minimize the need for chemical immobilization and to reduce stress during procedures.

- With appropriate training, many procedures can be performed cooperatively and without anesthesia, such as examination of body parts, treatment of superficial injury, heart rate monitoring, injection administration, etc.
- Some canids may be conditioned to enter a squeeze cage or lockout area. Where this method of restraint is used, attachments for crates and squeeze cages are included in facility design or modifications.

W-7. Animal Transport

Canids are appropriately transported to maximize safety and minimize stress and in accordance with all local, state/province, national, international requirements and

General

a. Canids are transported only when necessary, such as when being transported to the Sanctuary, to a medical facility for care or to another accredited Sanctuary for reasons as described in acquisition standards.

b. Pre-transport health examinations ideally include a complete physical exam with attention to parasite checks, necessary vaccinations, and completion of any tests required by regulations of the receiving state/province or country.

c. Health certificates and any required transport permits accompany the canid when being transported interstate or internationally. All transport abides by local, state/province, federal and international law. A veterinarian is responsible for preparing and signing the health certificate.

d. Prior to transport, the sanctuary ensures that adequate facilities are available at the receiving end and food items that are familiar to the animal are available.

e. Where possible and appropriate, canids are acclimated to shipping crate prior to transport. Capture, restraint, and transportation methods consider the canid's temperament and behavior in order to minimize injury, and distress.

f. At a minimum, transport enclosures meet appropriate animal welfare standards (e.g., IATA, US Animal Welfare Act Transportation Standards or similar).

g. Transport crates and vehicles are in good condition and meet federal and/or international standards. Equipment suitable for lifting, crating and transportation of animals kept within the sanctuary is readily available.

h. Transport containers:

- have impervious surfaces, which are cleaned and disinfected after use.
- are designed to permit safe transfer into a secondary enclosure.
- are designed to minimize the risk of the canid being able to make contact with personnel.
- are placed within a secondary container or closed compartment on the transport vehicle.

i. Any canid taken outside the sanctuary, for an approved reason such as medical treatment or transfer to a more appropriate sanctuary, is in the personal possession of the sanctuary director, or of competent persons acting on his/her behalf and adequate provision is made for the safety and well-being of the animal and public safety.

j. All canids taken outside the sanctuary are kept securely at all times. Canids are managed outside the sanctuary in such a way that the animal is under control and not likely to suffer distress, cause injury or transmit or contract disease.

k. Complete medical records, diet and husbandry information, and identifying papers (e.g., describing tattoos, or other identification methods) accompany all transported canids.

CANIDS BEING RELEASED TO THE WILD

GFAS strongly supports the efforts of wildlife rehabilitators and sanctuary managers to return wildlife to its natural environment, provided appropriate steps are taken to ensure that the animals released are likely to survive in the wild.

Facilities releasing canids to the wild must also make every effort to reduce risk of their having a damaging impact on ecological resources, including other animal species, found naturally in the release area. Examples of risk factors include but are not limited to:

- Displacement of indigenous animals;
- Transmission of novel pathogens;

- Disruption of local human communities, including damage to livestock and dwellings and injury to local inhabitants;
- Alterations to the environment that disrupt the ecological niche of other species.

For a more detailed discussion of the potential risks, as well as time and financial commitment involved in creating a quality re-introduction project, see the International Union for the Conservation of Nature Species Survival Commission (IUCN/SSC) Reintroduction Specialist Group's "Guidelines for Re-Introductions".

R-1. General Considerations

The sanctuary has policies, agreements and plans in place to optimize the chances for successful re-introduction of canids into the natural environment.

a. The facility has a written policy regarding the handling of any potential problems involving released animals. The policy should include but is not limited to:
   - a plan to minimize the risk to human life and property, including livestock, in the area of release;
   - a plan for compensation for or mitigation of damages incurred by the released animals;
   - a deterrent plan to discourage inappropriate activities, i.e., spending time around human habitation or livestock damage.
   - a plan for management or removal of animals who fail to integrate appropriately or who become habitual 'problem animals.'

b. In as much as possible, using the latest available information on potential health concerns regarding other species found in the area of release, animals are tested and treated for pathogens that might pose a threat to other wildlife.

c. The facility has agreements in place with any and all appropriate authorities to allow the release process to proceed as smoothly as possible.
   - The facility complies with any and all local/state/national policies regarding care and release of native wildlife.

d. Ideally, permissions, any necessary documentation, site determination, etc. begin as soon as it is determined that there are animals in care that are likely to be suitable for release.
   - In particular, facilities obtain any permits or other forms of authorization needed to proceed with the release.
   - Potential release sites are identified and evaluated as early in this process as possible.

e. Cooperative agreements are in place prior to animals being released which may include, but are not limited to:
   - veterinary and scientific involvement in post-release monitoring;
   - community acceptance of the project and involvement in habitat protection and awareness raising;
   - landowner agreements enabling release, including the addressing of specific permissions and permits;
   - involvement of NGOs with similar or conflicting interests that may impact (positively or negatively) the project.

R-2. Rescue Of Canids

The sanctuary has developed guidelines for rescue work, taking into account staff and animal safety, contingencies for caring for the animal once rescued, and any local, state or national regulations or agency cooperation required.

a. Facilities accepting canids from the illegal trade have policies and procedures (ideally in writing) in place with the appropriate authorities that allow for rapid transfer of the animals to the sanctuary or rescue center. These policies and procedures are designed to reduce the risk of:

- disease transmission;
- habituation;
- Inappropriate or inhumane treatment, due to lack of knowledge, by personnel involved in seizure of wildlife from the illegal trade.

b. In as much as possible, while respecting local or national cultural/religious tenets, a euthanasia policy is in place to address situations where the animal's prognosis for survival is too low to warrant attempting treatment.

- In situations where field euthanasia is being considered, where possible and appropriate (e.g., the animal is reasonably safe from further human interference and the stress of capture would outweigh the benefit of humane euthanasia), the option of leaving the animal in situ may be considered.
- See also Standard V-9, "Euthanasia."

R-3. Evaluation Of Suitability For Release

Canids admitted into sanctuary are evaluated for their potential suitability for release.

a. The sanctuary has a protocol in place (ideally in writing) to evaluate potential release candidates and to determine which canids are given priority for potential release.

- Animals who have spent little time in captivity and/or who have had little human contact are given priority for potential release.
- Animals found to be free of diseases and/or parasites of potential concern to the health of the population, particularly in the intended release area, are given priority for potential release.

b. All canids are treated as potential release candidates, particularly those who have not been kept long term as pets. If canids admitted into sanctuary are determined to be potential release candidates, every effort is made to protect them from exposure to human disease and to keep them as wild as possible.

R-4. Quarantine And Prerelease Housing

The sanctuary has appropriate quarantine facilities and prerelease housing for canids, with consideration given to sick and injured canids.

(See also Standards H-1 to H-9, "Canid Housing," and V-5, "Quarantine and Isolation of Canids")

General

a. Non-quarantine housing for canids being considered for release provides as close to natural a setting as possible. The space allows for foraging, digging, climbing, nesting/denning and other actions naturally performed in the wild.

b. Quarantine facilities and prerelease housing for canids intended for release are situated a minimum of 66 ft. (20m), giving consideration to factors such as wind direction, from resident canid populations to protect them from exposure to pathogens present in the sanctuary population that could compromise their return to the wild. A wall surrounding the quarantine area reduces pathogen transfer risk and aids in restricting access to authorized personnel.

   - Where this is not possible, sanctuary residents are screened for potential pathogens of concern, and pathogen-free animals are housed closest to the animals intended for release to the wild.
   - Sanctuary animals being used as surrogates are screened for pathogens prior to introduction to any dependent canids.

c. Where possible and appropriate, sanctuaries follow International Wildlife Rehabilitation Council guidelines (http://www.nwrawildlife.org/content/minimum-standards) in dividing housing into three types:

   - Restricted activity/mobility – for the initial stages of rehabilitation where the illness or injury requires the animal be treated and/or prevented from activities that would slow the rehabilitation process. At a minimum, the animal is able to maintain normal upright/alert posture and to stretch the body.
   - Limited activity/mobility – for the recovery stage of rehabilitation where the animal is regaining mobility and building strength, and staff does not need access to the animal on a daily basis. The animal is able to move short distances and perform some climbing and perching activities.
   - Unlimited/Prerelease – the final stages of rehabilitation where the main concern is ensuring that the animal is fit for release. In this phase, the enclosure provides the canids with opportunities to demonstrate the skills necessary for survival in the wild.

d. Quarantine HousingSick or injured wildlife is quarantined in such a way that the rehabilitation process is begun during the quarantine phase.

e. Quarantine facilities have appropriate housing for the treatment of injured or ill canids.

f. Quarantine facilities are designed to allow for monitoring and, as needed, modification of behavior of canids intended for release.

g. Healthy canids admitted to quarantine have as large an enclosure as possible to help maintain natural locomotion and foraging behaviors.

h. Upon arrival, canids are quarantined for an adequate number of days, ideally for a minimum of 60 days. In some situations, a longer quarantine may be advisable.

i. The attending veterinarian works closely with regional, national and international experts and authorities to determine appropriate quarantine timing based on health risks to which the newly admitted canids may have been exposed.

j. Orphaned canids particularly those who have been kept as pets and potentially exposed to human pathogens, are isolated until any potential health risks are evaluated.

Initial Housing for Orphaned, Ill or Injured Canids

k. Animals admitted requiring treatment for illness or injury are housed in enclosures that allow for ease of care. These initial care enclosures can be smaller than that which is acceptable for long-term care.

- Dependent on illness or injury, either Restricted or Limited activity/mobility housing may be utilized.

l. Enclosures provide visual and acoustic barriers to minimize stress.

m. Orphaned canids are housed in nursery units, preferably with conspecifics, as species appropriate.

- Where possible, safe, and appropriate, adult canids are utilized as surrogates to care for the orphans, thus reducing human contact. Where this is not possible, human caregivers act in a manner that replicates the behaviors of adult, wild canids as much as possible.

Intermediate Housing for Orphaned Canids

n. As soon as the orphaned canids have been weaned, they are moved to intermediate housing, where human contact is decreased and interaction with conspecifics is increased. Where possible, the animals are moved to the release site and cared for in a soft release enclosure.

o. Animals are provided with adequate opportunity for climbing, nesting/denning and foraging as species appropriate.

p. In as much as possible, conspecifics are used to teach natural behaviors, as species appropriate. Where appropriate releasable conspecifics are not available, and where possible, safe, and appropriate, resident animals with strong natural skills who do not present a disease risk to the wild population, may be used to teach these behaviors.

q. Intermediate housing is isolated from resident animal areas, ideally within a natural habitat which allows the orphans to adjust to a more wild environment.

Intermediate and Prerelease Housing for Sick or Injured Canids

(Note: Adult and independent subadult animals, dependent on their admitting condition, may not require intermediate housing.)

r. Animals suffering from injuries that may affect their suitability for release are moved to intermediate housing while regaining strength. Animals are regularly evaluated to determine whether they are likely to be releasable. Once the canids are deemed fit, they are moved to prerelease housing.

s. Independent animals brought in for rehabilitation who can be released back into the environment from which they came are returned as soon as it is determined that the animal has recovered sufficiently to resume its presence in its former area.

- Consideration is given to social and territorial issues that may affect safe return to the original habitat.

t. Prerelease housing for adult and independent subadult animals is ideally situated at the intended release site, allowing the animals to acclimate to their new environment before release.

u. In both intermediate and prerelease housing, sufficient vertical as well as horizontal space is provided, as species appropriate to allow the canids to develop strength and display normal wild behaviors.

R-5. Diet, Nutrition And Foraging Skills

Canids are fed an appropriate diet that approximates that which will be found in the habitat to which they are released, and foraging behavior is encouraged.

a. As early in the rehabilitation process as possible, canids are exposed to the types of foods found naturally within the environment where they will be released and assessed for their ability to find appropriate foods and avoid inedible or poisonous foods

b. Release candidates are fed in such a way as to encourage natural foraging behaviors.

c. Rescued canids admitted in poor physical condition may require specialized diets to recover their health. Nutritional deficiencies are assessed and diets modified to address those deficiencies. Once the canids are back on a normal nutritional plane, any foods not found in their planned release area are no longer fed.

R-6. Husbandry And Health

All aspects of care, including caregiver-canid relationships, introduction to social groups and overall health evaluation, are focused on preparing the canids for return to the wild.

a. Once a canid has been evaluated as a potential release candidate, all aspects of care are focused on preparing the animal for the wild.

- Human activities and noises are minimized in areas housing canids being prepared for reintroduction.
- Apart from dependent young with no suitable conspecific surrogates, human interaction with canids being prepared for release to the wild is restricted to those activities that will enhance the canids' ability to live in the wild.

b. The animal is placed in an appropriate social group or paired with a compatible conspecific, depending on species. Where appropriate surrogate conspecifics are not available, dependent young may be reared by human caregivers using approved best practices for the species housed.

- Care is taken to balance the need to nurture these young animals with their need to develop appropriate survival skills as well as intraspecific social behaviors.
- Animals are integrated into an appropriate social group, ideally comprised of other conspecifics intended for release, as quickly as possible.

c. Introductions follow Standard W-3 "Introduction of Unfamiliar Individuals."

d. Opportunities to explore, climb and learn skills in the natural environment are provided.

e. Canids admitted into care from the wild at the stage where they are already independent, with recoverable illness or injury problems, are treated and released as quickly as possible, taking into account the potential for the animal not being accepted back into its previous social group or territory.

f. Caregiver-canid relationships for animals intended for release to the wild, while ensuring the animals' psychological well-being is met, focus on:

- avoiding any types of interaction that may compromise the canids' chances for release;

- encouraging the canids to develop appropriate relationships with conspecifics for their social needs.

g. Veterinary staff evaluate overall health including:
   - recovery from the initial cause for admission to the facility;
   - pathogen surveillance to ensure the animal does not present a risk to the wild population as a result of exposure during the rehabilitation process.
     - In as much as possible, using the latest available information from the OIE-World Organization for Animal Health ((www.oie.int) and the IUCN's Conservation Breeding Specialist Group (http://www.cbsg.org), animals are monitored for human pathogens not found in the wild population.

h. Canids being cared for in sanctuary for later release back to the wild are managed in such a way as to optimize their chances for successful return to the natural environment.

R-7. Health And Safety Of Caregivers Working With Releasable Canids

No caregiver begins work with releasable canids until routine testing has indicated he or she poses no risk to the canids' release to the wild.

(See also Standard V-8, "Zoonotic Disease Program")

a. Caregivers working with canids intended for release to the wild are routinely monitored for potential anthroponoses (diseases that have potential to be transmitted to the animals).

b. Testing, vaccinations and fecal cultures for pathogens may be utilized, as appropriate for the region, to ensure the health of both the canids and their caregivers. New caregivers should not have contact with the canids for the first two weeks of employment.

c. Provision of adequate nutrition for staff is considered as a possible contribution to the continued well-being of both staff and canids.

R-8. Assessment of Health and Skills

Canids are fully assessed for health and appropriate skills prior to release.

a. Canids who have completed the rehabilitation process and have been successfully integrated into a social group or pair, as is species appropriate, are further evaluated for release, with attention to health and the skills attained.

b. Each animal's skills (e.g. foraging, nesting/denning, appropriate interaction or avoidance behaviors in the presence of conspecfics, avoidance of dangers including poisonous foods or predators) are evaluated.

c. A complete health assessment is performed including:
   - Overall fitness as relates to being able to survive in the wild, keep up with a conspecific group, avoid predators, etc.

- Injuries and limitations that originally caused the animal to be brought into care are resolved, either completely, or to the extent that the canid has a reasonable chance for long term survival.

d. Canids have been tested, and found free of pathogens that have potential to harm the wild population in the planned release area, based on the latest current knowledge.

e. Genetic assessment has been done to ensure that the canids being released are of an appropriate subspecies/population/subpopulation for the release site.

f. Canids are exposed to post-release monitoring equipment prior to release to allow them to acclimate to its presence.

R-9. Determining Appropriate Release Sites

Release sites are evaluated for health and other threats and for appropriateness for the species.

a. The potential release site is evaluated for the presence of appropriate and adequate food sources.

b. The area is evaluated for potential health concerns.

c. The potential release site is surveyed to ascertain whether any wild canids are present, either permanently or seasonally.

d. The area is evaluated to establish carrying capacity for canids to be released. This includes taking into consideration others releases that may have already taken place and issues of territoriality. Animals are released in an appropriate habitat where carrying capacity for the species has not been reached.

e. The area is evaluated for instances of potential human-wildlife conflict.

f. IUCN guidelines are, in as much as possible, followed when determining release sites for rehabilitated canids.

g. Animals are released away from areas where there is potential for or has been a history of human-animal conflict.

R-10. The Release Process And Post Release Monitoring

Canids are supported as needed to adapt in their new environment and are monitored post release.

a. Once it is determined that the canids have the basic skills for foraging in their new environment, supplemental care is discontinued.

b. A post-release monitoring program is in place to ensure the rehabilitation program is providing the animals with the skills necessary to survive, that the habitat is adequate and that, as is species appropriate, canids have integrated into the wild.

- Use of radio and satellite telemetry is recommended whenever possible.

c. Ideally, canids are returned to the wild using a soft release process wherein they are housed in an enclosure within the release area or spend time with caregivers in the release area where supplemental food may be provided as needed and observation of their acclimatization may be observed.

d. Post release monitoring, in conjunction with outside veterinary and scientific personnel, continues for a minimum of one year.

- Level of monitoring may decrease over time as canids are determined to be acclimating to the environment.
- Longer term monitoring of the animals and their impact on the habitat is preferred.
- Practices used and results obtained, both positive and negative, are shared both within the facility and with others involved in canids reintroduction to aid in the continued improvement of the program.

Appendix 1

General

Small canids

Small canids are typically secretive, nocturnal and/or crepuscular animals who require spacious enclosures to accommodate natural activity patterns. The small canids typically hunt alone or in pairs, a significant difference from the larger canids with implication for husbandry. Caregivers must invest time to observe and understand these needs and relationships to facilitate safe and appropriate care.

The fennec fox is the smallest canid species, therefore its vulnerablility to predation must be considered when designing or modifying facilities for the species. The temperature range tolerated by fennecs is significantly narrower than that for the temperate zone species in this group.

Large canids

The social environment for large canids is as important as the physical environs. While social organization varies among the canids, they share in common complex social structures and relationships. Caregivers must invest time to observe and understand these relationships to facilitate safe and appropriate care. Insightful knowledge of the intra-group relationships is a core element of canid husbandry.

Shelter

Well-designed den boxes can make the tasks of finding, catching, relocating or monitoring canids safer for caregivers and the animals.

- Dens made by canids can be both dangerous and difficult to access.
- There is also the possibility of the canid-made den collapsing, being flooded or creating other problems.

Diet and Nutrition

A small overhang/shelter placed above food buckets helps keep kibble dry in outdoor enclosures.

Offering diets in shift yards and indoor enclosures may increase comfort levels with those areas and reliability of transfer from one area to another.

Contraception Information

(Note: The information provided here is the latest knowledge available at the time the standards were written. Attending veterinarians are encouraged consult with canid specialists for present best practice recommendations.)

While there are chemical options for contraception of canid species, castration and ovariohysterectomy present the fewest potential secondary health problems and ensure that no pregnancies occur. Ovariohysterectomy negates the risk of uterine cancer and can reduce the risk of mammary cancer when performed early in the canid's life.

Single-sex groups do not require contraception. In most situations where canids are to remain captive, however, males are castrated or vasectomized to allow for flexibility in future social groupings.

Vasectomy or castration of males will not prevent potential adverse effects to females from prolonged, cyclic exposure to endogenous steroids associated with the obligate hormonal pseudo-pregnancy that follows ovulation in canids. Endogenous steroids and steroid contraceptives cause similar side effects

Progestin contraceptives are associated with progressive uterine growth that can result in infections and, in some cases, uterine cancer in canids. If a progestin is used, treatment should only be short term, due to the increased likelihood of side effects with prolonged exposure and should start well BEFORE any signs of proestrus, since the elevated endogenous estrogen can exacerbate side effects of the progestin. Progestins should only be administered to females confirmed non-pregnant since they may suppress uterine contractions necessary for normal parturition.

MGA Implants not recommended for more than a total of 4 years (Female use only). Non-fertile ovulatory cycles do not substitute for pregnancy in reversing deleterious effects on the uterus.

Depo-Provera® injection (5 mg/kg body wt. every 2 months) (Female use only).

Megestrol acetate for seasonal breeders, but for no more than 2 consecutive seasons (Female use only).

Mibolerone, a synthetic androgen, is sometimes used in female domestic dogs; however, because it can also increase aggression, it is not recommended for exotic canids.

PZP vaccine efficacy and safety have only been demonstrated in pinnipeds and bears among the carnivores. In other carnivores, there is mounting evidence that anti-PZP antibodies do not cross-react with the sperm receptor on the ovum, or may cause depletion of ovarian oocytes. PZP is contraindicated in species in which pseudopregnancy is common.

GnRH Agonists - Gonadotropin Releasing Hormone Agonists are considered the safest reversible contraceptive. Dosages and duration of efficacy are not well established for all species; side effects are generally similar to those associated with gonadectomy, especially the potential for weight gain unless diet is controlled. Availabilty and cost of GnRH Agonists may limit their use.

Social Housing

When attempting to develop same sex packs, time of year is taken into consideration.

Littermates are often successfully housed together.

Wolf/dog hybrids

Many wolf sanctuaries care for a combination of wolves and wolf/dog hybrids. All wolf/dog hybrids are regarded as wolves in terms of compliance with all GFAS standards. For wolf/dog hybrids that were raised by humans and crave human interaction, specific attention should be paid to W-4 Behavioral/Psychological Well-Being a. “Social Enrichment.”

“Affiliative interactions between caregivers and canids may be appropriate in some instances. The decision to include social enrichment with caregivers should be made on an individual basis, considering only the social needs of the animal, such as solitary animals, particularly those hand reared by humans with no conspecific contact or neonatal and juvenile animals in situations where appropriate.”

Every effort should be made to try to socialize wolf/dog hybrids with conspecifics. A documented individualized social enrichment plan includes why the animal needs affiliative interactions with caregivers. Caregivers engaged in direct contact with wolf/dog hybrids do so with full knowledge of the risks involved, sign a waiver that acknowledges potential risks and complete an appropriate orientation program. Affiliative interactions between caregivers and wolf/dog hybrids occur out of public view to the extent possible and in cases of emergency as per standard P-8.

Captive Breeding

Additionally, GFAS has recently received a number of applications from sanctuaries that are involved in captive breeding programs for endangered species. As more and more animal species around the globe are becoming critically endangered due to loss of habitat and other factors, the role of sanctuaries in endangered species breeding programs is becoming more crucial. GFAS recognizes the importance of

this role and while accrediting conservation breeding programs as such falls outside of our mandate, we have changed our breeding/ contraception section to clarify our guidelines that allow for the for the breeding of endangered species in a sanctuary, rescue or rehabilitation facility under certain conditions (Refer to standard V-7).

Global Federation of
Animal Sanctuaries

General Animal Care Standards

Global Federation of Animal Sanctuaries

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Version Updates:

New and amended content released April, 2023

- V-4 Quarantine and Isolation Care and Facilities – addition of one bullet point to require posting of visible signage
- W-2 Social Housing and Group/Herd Management – addition of one bullet point to require a protocol for response in the case of a serious animal aggression incident

General Animal Care Standards

The purpose of these standards is to assist sanctuary directors and personnel, other animal welfare agencies and professionals, and the public regarding best practices and appropriate criteria for the effective and efficient operations of an animal sanctuary. These standards are voluntary, but provide the basis for GFAS Accreditation and Verification.

It should be understood that each standard or each part of every standard may not be applicable to all animal sanctuary and rescue center facilities. Further, these standards do not include every practice, procedure, or policy that might be desirable for or implemented by a sanctuary since the programs, conditions, facilities and objectives of all sanctuaries are not identical. GFAS does not suggest or infer that those who do not follow all of these standards or recommendations engage in unsafe practices.

GFAS recognizes that there may be many acceptable ways of meeting the intent of each standard. In order for a sanctuary to be considered compliant with the GFAS Standards, the sanctuary must be able to demonstrate compliance with the entire standard, as applicable, through the totality of the accreditation process which may include, but is not limited to, submission of required documentation, interviews, and demonstration and/or confirmation of practices during a sanctuary site visit. GFAS encourages sanctuaries to offer feedback on the standards and to explain any reasons why it meets a standard or believes any particular standard is not applicable and/or appropriate to its situation.

The exceeding of the standards is encouraged. In addition to meeting these standards, an organization is expected to comply with all applicable international, national, state/province, and local laws and regulations.

Some standards refer to written documents that a sanctuary should have. A list of required documents for GFAS Accreditation and Verification, with the corresponding standard, can be found on the GFAS website at https://www.sanctuaryfederation.org/accreditation/how-to-apply/application-documents/.

Definitions

Sanctuary. GFAS recognizes that some organizations operate valid rescue and rehabilitation programs with a goal of releasing wildlife to the wild pursuant to IUCN and/or other international or national standards. For those animals, lifetime sanctuary care may not be part of the organization's mission. While the care for these animals may be provided on an interim basis only, the organization is still expected to meet the standards below with regard to all animals in its care and for purposes of these standards it will be identified as a "sanctuary."

Director. Several standards make reference to a sanctuary's "Director." GFAS recognizes that a sanctuary may use a different title, and the term "Director" is intended to reference the sanctuary's Sanctuary Director, who may be called an Executive Director or Chief Executive Officer, etc.

Personnel. GFAS recognizes that sanctuaries may rely on volunteers for certain functions, including some aspects of animal care (such as food preparation). Standards referencing "personnel" may take into account appropriately qualified and trained volunteers as well as employees.

ANIMAL HOUSING

H-1. Housing

Animals are safely contained. Unless otherwise directed by a veterinarian, and for a specified medical reason, animals are provided sufficient opportunity to move about freely and rapidly, and to exercise choice in location so as to maintain positive welfare.

General

- The habitat and living conditions provide a balance between hygiene and the species' physiological and psychological needs. This includes consideration of indoor and outdoor space, vertical and horizontal space, and diversity and complexity of space.
- Policies and procedures are in place such that personnel can enter enclosures without risk of having animals escape and can shift animals as appropriate out of enclosures prior to entering the enclosure. Facility design takes into account caregiver-animal safety and ease of maintaining a positive relationship.
- Animals are provided access to as many areas of the enclosures as possible at all times, except during personnel maintenance activities, unless security or welfare concerns dictate otherwise. All enclosures are constructed without creating 'dead ends' to allow for freedom of movement of subordinate individuals.
- Animals are provided with regular access to outdoor space (covered or open top) with sufficient room to engage in natural behaviors and designed to promote species-specific wellbeing. Access is ideally given daily, with consideration to weather and animals' individual needs (e.g., animals in quarantine or isolation, or being observed for medical reasons, may be kept indoors), and species-specific risks.
- In areas where solid barriers are not used, equipment, *e.g.* machinery and heaters placed outside the enclosure, is positioned far enough away from the enclosure that the animals cannot access it.
- The habitat provides appropriate visual and acoustic barriers.
- The habitat provides security from predators and unauthorized human access.
- Outdoor enclosures have enough acreage per animal to accommodate natural individual and group behaviors/ activities.
- Quarantine facilities have appropriate housing for treatment of injured or ill animals. Healthy animals admitted to quarantine have as large an enclosure as possible to help maintain natural locomotion and behaviors.
- For sanctuaries located in climates where freezing temperatures occur during any part of the year, indoor space is large enough to allow for all forms of species-specific behavior (running, climbing, etc.). Distance or barriers between animals and between enclosures and personnel is sufficient to minimize stress to the animals as well as reduce the risk of disease transmission.
- Enclosures are designed to allow for proper, safe cleaning and drainage.

- A regular program of sanctuary maintenance is in place. Any enclosure in need of repair, or any defect likely to cause harm to animals, is immediately repaired or replaced, or the animals are relocated to a secure enclosure.
- Safety signs on any electrified sections of the perimeter fences or enclosures are easily visible.

Enclosure Space and Size

- Many factors influence the minimum space required for animals, including natural species-specific behaviors, health needs, and social groupings.
- For mixed-species housing, enclosure dimensions are adjusted accordingly so that the space reflects that required for both species if housed separately.
- Animals requiring treatment for illness or injury are housed in enclosures that allow for appropriate treatment and ease of care.

Outdoor Enclosures and Fencing

- Perimeter containment of outdoor areas is constructed so as to demonstrably reduce breach by native wildlife, domestic species and the enclosure residents.
- Fences and enclosures are inspected daily for signs of breach.
- The supporting posts for fences are firmly fixed into the ground. Where fencing meets hard surfaces such as rock or concrete, the fencing is securely anchored in place.
- Fences are sufficiently high and constructed in such a way to prevent escape (e.g., use of overhang, hot wire).
- Barbed or razor wire are not used.
- Fence material is sufficiently secured to supporting posts in such a way that the weight of the animals could not detach it from the support nor dislodge the supporting posts.

H-2. Ground and Plantings

Ground cover indoors and out is healthy for animals. Plantings are appropriate and safe.

Vegetation

- All plant materials in an enclosure are evaluated for potential toxicity to the species held before use, including leaves, buds, seeds, fruit, bark and flowers.
- Any vegetation capable of harming animals is kept out of reach.

Outdoor Enclosures

- All outdoor enclosures have a natural substrate consistent with the site, and which drains well.

- Animals are provided with appropriate three-dimensional environments to accommodate an array of natural behaviors. Horizontal and vertical jump distance is considered when developing enclosure topography.
- Where natural topography of an enclosure is not varied, it is created through the addition of natural and placed elements.
- Trees:
    - Shade trees within an outdoor enclosure are protected from damage.
    - Trees, vines and shrubs that may be used as an escape route are pruned or removed, or means to prevent animals from accessing them have been implemented.
    - Trees close to fence lines are checked regularly and any removed if needed.

Indoor Enclosures

- All indoor enclosures have appropriate flooring to allow for sanitation and drainage. Bedding materials are provided in a sufficient amount/depth.

H-3. Gates and Doors

Animal enclosure gates and doors, including transfer doors, are appropriately designed to ensure both animal and human health and safety, and are properly maintained to ensure proper functioning.

- Gates and doors should be designed to allow caregivers a clear view of enclosures and animals while operating the doors.
- Doors are designed to allow for animals' normal posture while travelling through the doorway.
- Gates and doors are constructed of appropriate materials to ensure safety of animals and humans.

H-4. Shelter

Animals have access to natural or artificial shelter that provides each individual with protection from extreme weather.

- Animals have space to seek refuge from sun, wind, inclement weather and enclosure mates.
- Shelter does not create or result in 'dead ends' in which individuals can be trapped by other group members.

Preferred practice:

- ✓ Shade and shelter are provided in multiple locations within enclosures to ensure that all animals have access to shade throughout the day.

H-5. Enclosure Design

Animals are provided with an appropriately complex and rich habitat to explore, to ensure the animals' physical, nutritional and stimulation needs are met.

- Enclosures, both indoor and outdoor, are equipped in accordance with the needs of the animals with bedding material, branch work, nesting/hide boxes, appropriate substrate, vegetation and other enrichment materials designed to aid and encourage normal behavior patterns and minimize any abnormal behavior.

H-6. Sanitation

Proper sanitation is practiced to reduce pathogen transmission.

- Uneaten perishable food is removed within a timeframe appropriate for the type of foodstuff and size of enclosure, prior to molding or contamination.
- Animal waste is removed from the habitat as often as necessary to prevent contamination of the animals contained therein, to minimize disease hazards and to reduce odors. Soiled bedding material and substrate are removed and replaced with fresh materials daily, or as needed to prevent buildup.
- Animal waste is handled with precautions appropriate to bio-hazardous waste.
- Damaged and soiled enrichment items are removed daily, or as soon as the animals are allowed access to the area.
- Each enclosure has dedicated tools to prevent cross contamination between enclosures. When resources restrict the ability to have dedicated tools, tools are disinfected between enclosures to prevent the spread of parasites and disease.

Cleaning and Disinfection

- Feeding areas, automatic water devices, water and food containers are cleaned and disinfected regularly.
- Animals are not present in enclosures being cleaned using power hoses. Care is taken to prevent accidental spraying of animals in adjacent enclosures when power hoses are used for cleaning.
- All hard surfaces including walls, floors, ceilings, benches, climbing structures, cage mesh and caregiver work areas are sanitized regularly to the extent possible. Note that in large outside enclosures with plenty of exposure to sunshine and rain, there may not be a need for scrubbing and cleaning but areas are monitored for potential sanitation problems.
- Cleaning and disinfection Standard Operating Procedures are developed and followed to address:

- safe disinfectant use to prevent hazards to the animals, caregivers and the environment;
- cleaning and disinfecting protocols for food preparation and veterinary care areas using more powerful disinfectants on hard surfaces;
- cleaning schedules to minimize the risk of disease transmission;
- disinfectants and other cleaning products stored separately from foodstuffs.

- Laundry for animals is done in a washer/dryer used to wash items soiled by animals only (*e.g.*, towels, blankets, enrichment items).
- Sanitation tools or equipment, including wheelbarrows, are not used for transport or storage of foodstuffs or bedding.

Preferred practices:

✓ Animals are transferred from enclosures prior to cleaning, disinfection and/or sanitizing.

✓ Where available, a Material Safety Data Sheet (MSDS) or equivalent is readily available for all cleaning products in use and all containers are properly labeled as to contents.

H-7. Temperature, Humidity, Ventilation, Lighting

Temperature, humidity, ventilation, and lighting are appropriately addressed.

- The temperature is within an acceptable range for the species housed. Allowance is made to accommodate individual animals not able to tolerate temperatures above or below the usual range of comfort for the species. Great caution is taken with elderly, infant and disabled animals.
- Shade is available throughout the day in a number of areas, which provides an adequately sized space to accommodate all animals simultaneously with consideration for social structure and relationships within a group.
- Care is taken to prevent direct animal contact with heat sources.
- Proper ventilation of indoor enclosures is critical. Light, natural and artificial, is appropriate for the species housed.
- Supplemental lighting is provided as needed to ensure adequate light for caregivers to observe animals, clean enclosures and perform related animal care tasks.

Preferred practice:

✓ Any climate control systems include back-up power in case of equipment or power failure.

✓ Providing animals with opportunities to choose temperature ranges within an enclosure is preferred. This can be achieved by access to areas near heat vents, skylights, or hog warmers for example.

NUTRITION REQUIREMENTS

N-1. Water

Fresh clean water is available in sufficient quantity at all times to all individuals.

- Water sources and delivery systems are assessed multiple times daily to ensure that water is available to all individuals and that high-ranking individuals do not dominate water sources.
- Where possible, potable water sources are tested for contaminants as indicated by the sanctuary director or veterinarian.
- All water receptacles (including water bowls) are cleaned at least daily, and disinfected as needed.
- Where automatic water devices are used:
  - Devices are tested daily to ensure fresh clean water is available in sufficient quantities.
  - Devices are easily disabled when animals must be fasted for medical purposes.
  - When monitoring of water consumption is required, an alternative means of providing water is devised.

Preferred Practice:

✓ In colder climates, steps are taken (such as installation of heat sources) to ensure water consumption does not decrease with lower ambient air temperatures.

N-2. Diet

A properly balanced and healthy diet is provided appropriately based on the needs of each animal, following veterinary instructions for special needs.

General

- A veterinarian or qualified veterinary nutritionist periodically reviews all aspects of the animals' diets at the sanctuary and makes adjustments to individual diets with consideration of species, age, life stage, size and condition (including excess weight gain and diabetes).
- The calories in foods used as enrichment are considered when planning the overall diet.
- Diets of individual animals (including vitamin supplementation) are of a quality, quantity and variety to match the physiological and psychological state of the individual as it changes over time, with consideration for the age, life stage, species, condition, and size of the individual.

- Food is wholesome, palatable, free from contamination and of sufficient quantity and nutritive value to maintain all animals in good health.
- The sanctuary utilizes a feeding regimen that ensures each individual receives adequate nutrition regardless of status in social group, such as routine observation of feeding activity.
- Sudden changes in food consumption and other behaviors are immediately brought to the attention of supervisory staff.
- Where possible and appropriate, each animal's daily dietary needs are documented and made available to animal care staff.

Vitamins/Supplements

- Prior to offering vitamins or other supplements, the individual animal's health and condition, as well as the diet, are reviewed by the veterinarian or a nutritionist experienced in the species' care.

N-3. Food Presentation and Feeding Techniques

Food is prepared and presented in a safe and appropriate manner to meet animals' health and social needs.

General

- Food receptacles, where used, are appropriate for the species housed in terms of number, size and placement, and are cleaned daily.
- Receptacles for animal food and water are designed to minimize spillage and risk of contamination, and are not used for any other purpose.
- Single feeding regimens are carefully monitored and reviewed frequently to ensure they meet the animal's nutritional and psychological requirements.

Feeding Techniques

- The sanctuary utilizes a feeding regimen that ensures each individual receives adequate nutrition regardless of status in social group.
    - Distributing food throughout an enclosure allows natural foraging behavior and may limit food hoarding and aggression.
    - Feeding in multiple locations helps to ensure that low-ranking individuals have adequate access to food and water.

Diet Changes, Increases or Decreases

- Any diet changes are made or approved by the veterinarian or other qualified personnel, with any adjustments made to the entire diet to ensure continued nutritional balance.
- Considerations for diet increase include weight and condition of the animal, food consumption, activity level and other medical or behavioral consideration.

- Underweight individuals experiencing health or behavioral problems may be separated for supplemental feeding as needed to avoid undesirable weight gain in conspecifics.

N-4. Food Storage

Food is stored appropriately to prevent spoilage and contamination.

- Dry goods (*e.g.*, grains and biscuits) are stored in clean, dry storage areas in sealed containers or on pallets.
- Items frozen for use are dated and labeled, and no frozen items are thawed and refrozen.
- Browse, grass hay, alfalfa and other baled products are stored in a sheltered area on pallets, and oldest stock is used first.
- Food items requiring refrigeration are stored in a clean, dry refrigerator, and/or ordered at regular intervals in amounts that can be used prior to spoilage.

Preferred practice:

✓ Products are dated and rotated to use oldest stock first, and expired food as well as bags damaged by pests is discarded.

N-5. Food Handling

Food is handled and prepared in an appropriate manner to retain nutritional value, freshness, and freedom from spoilage, invasive species or other forms of contamination.

- Food is protected against dampness, deterioration, mold, and/or contamination by insects, birds, rodents or other animals.
- Diets are prepared in a safe and hygienic manner to reduce the possibility of contamination or spoilage.
- Food preparation surfaces are thoroughly cleaned after use.
- Personnel wash hands thoroughly prior to handling food, and wearing gloves during food preparation is recommended.

Preferred Practice:

✓ Separate cutting boards, utensils and food preparation surfaces are used when meats, fish and produce diets are prepared in a common kitchen area.

Global Federation of Animal Sanctuaries

Veterinary Care

V-1. Veterinary Program Personnel

The sanctuary's veterinary medical program is developed and carried out under the supervision of a licensed veterinarian and with adequate support personnel. Veterinary care is on-site or on-call at all times.

- Sanctuaries unable to maintain a full-time veterinarian have access to a part-time or on-call veterinarian with suitable training and experience for the animals housed at the sanctuary.
- The sanctuary has properly trained and qualified professional and supporting personnel as necessary to implement: (1) husbandry (caregivers) and (2) technical support (veterinary technicians, or individuals trained at the sanctuary).
- One or more personnel is trained and designated to deal with emergencies until a veterinarian arrives or is reached. He or she can, under the direction of the veterinarian, perform basic first aid, assess animals, administer prescribed medications and treatments, be responsible for administration of post-surgical care, and be skilled in maintaining appropriate medical records.
- Sanctuaries have the appropriate number of personnel, including veterinarians and veterinary technicians or assistants, to meet these standards for all animals in their care, with consideration given to the number of animals, number of enclosures and/or social groups, and individual medical conditions or needs (e.g., a large number of geriatric or elderly animals, known disabilities or conditions, etc.).

V-2. Veterinary Capabilities

The sanctuary has on-site and/or off-site capabilities for pathology, surgery, and other veterinary procedures and treatments, and any on-site facilities are appropriately maintained.

- If the sanctuary does not have an on-site veterinary facility, or only a partially outfitted facility, it has an arrangement with a nearby veterinary practice for off-site treatment as needed.
- The sanctuary's on-site and/or off-site facilities and services include the following:
    - Diagnostic capabilities include cytology, microbiology, parasitology, complete blood count, blood chemistry, urinalysis, serology and other appropriate laboratory procedures;
    - Surgical facilities that are clean, have adequate lighting and ventilation, and can be easily cleaned and disinfected.

  - Surgical facilities that have access to appropriate anesthetic and emergency equipment.

- If on-site, the sanctuary ensures that surgical equipment is maintained in good working order and is on a program of routine preventive maintenance.
- Only a licensed veterinarian performs surgery, using standard operating procedures. (Note: A veterinary technician appropriately trained by a veterinarian in locations where such action is permitted by veterinary practice acts can perform surgical first aid.)
- Veterinarians and support personnel are compassionate and knowledgeable about the humane aspects of animal treatment, including the proper use of anesthetics, analgesics, and tranquilizers.
- Basic physical capture and restraint equipment to facilitate medical treatment is available at the sanctuary. See also Standard W-6 “Handling and Restraint.”

Preferred practices:

- ✓ Where possible, an on-site facility has separate areas for examination and treatment for any of the following functions performed on-site:
  - sterile surgery
  - necropsy
  - storage of carcasses awaiting necropsy or burial/cremation (Note: Any refrigerated area for holding deceased animals is physically separate from live animal holding, treatment, and surgery areas and from food supply storage or preparation areas)
  - quarantine (see Standard V-4 “Quarantine and Isolation”)
  - laboratory
  - radiology and radiology equipment
  - animal holding areas for observation and pre- and post-surgical
- ✓ Where possible, any on-site facility is located away from areas of heavy public use to minimize noise levels for hospitalized animals.
- ✓ On-site veterinary facilities have non-absorbent and non-impact resistant surfaces, floors sloping toward drains, air handling systems, ceilings, doors, hospitalized animal enclosures, and storage areas.

V-3. Preventative Medicine Program

The sanctuary has a complete preventative medicine program, pursuant to a written protocol, appropriate for each species housed.

- The veterinary medical program includes long term preventative medical protocols and disease surveillance and containment procedures, and is developed and carried out under the supervision of a licensed veterinarian with training or experience in providing medical care for the species housed at the sanctuary, and who is aware of any specific issues with the health of the animals at the sanctuary.

- Appropriate preventative medicine programs are in place to manage all animals, and the sanctuary has a written preventative medicine protocol addressing the following:
    - regularly scheduled physical examinations/health assessments
    - behavioral assessments
    - quarantine procedures
    - parasite surveillance and control
    - immunization
    - contraception
    - infectious disease screening
    - dental prophylaxis
    - periodic reviews of diets
    - applicable species-specific husbandry needs
- Appropriate care personnel are provided with this protocol and any updates made to it, and steps are taken to ensure compliance.
- The attending veterinarian, in consultation with the sanctuary director, determines any schedule for routine physical examinations, including ocular, dental and musculoskeletal assessment, and implements any necessary treatment.
- Animals are immunized as recommended by the attending veterinarian, using currently recommended procedures and products as appropriate for the country, species and individual. When animals are immunized on-site by sanctuary personnel, the type, serial number, and source of product are recorded in the individual animal's medical record.
- Where possible, each animal is weighed annually, either during a routine physical or through the use of a built-in scale, to monitor for signs of illness and to determine dosages for chemical anesthetics.
- A veterinarian, veterinary technician, or other trained personnel record body/muscle condition for each animal consistent with any applicable scoring system.

Preferred practices:

- ✓ A veterinarian, veterinary technician, or other trained personnel performs regular fecal examinations to look for pathogens (random enclosure sampling is adequate for group-housed animals). Results are recorded. Fecal examinations are repeated following treatment to evaluate efficacy.
- ✓ When circumstances permit, and as appropriate for the individual animal, physical exams include the following: blood is collected, serum banked as a baseline control, and the results are recorded.

V-4. Quarantine and Isolation Care and Facilities

Appropriate quarantine and isolation policies and facilities are in place for the protection of animals and personnel.

General

- All animals undergo quarantine according to the protocol established by the attending veterinarian and in compliance with applicable laws and regulations. Animals previously housed together may be quarantined together.
- If the sanctuary does not have an adequate quarantine facility, steps should be taken to have animals undergo quarantine under these guidelines prior to their arrival.
- Where possible, staff working in quarantine areas does not work with other sanctuary animals. If this is not possible, work is done in the quarantine areas last.

Quarantine Areas and Equipment

- Quarantine areas should be located such that they are removed from permanent residents so as to reduce direct contact, contact by aerosolization or drainage, or potential fomite transmission.
- Quarantine areas have adequate ventilation, heat and air conditioning, which are used to ensure optimum conditions, particularly in the case of young, elderly or sick animals who may be more sensitive to environmental changes.
- All utensils, equipment, supplies, and outer clothing used in quarantine are restricted to that area. Where this is not possible, items that the sanctuary does not have duplicates of and which cannot be restricted to quarantine areas must be thoroughly cleaned and disinfected prior to being moved to or from quarantine areas, and movement between areas should be minimized.
- Protective clothing, boots and footbaths are used by all staff entering the quarantine area or areas containing quarantined animals. Quarantine clothing is not removed from the quarantine area, except in a sealed container for cleaning. Footbaths are changed regularly.
- Caregivers wear protective clothing and equipment (e.g., gloves, masks, boots) when cleaning or handling anything with which the quarantine animals come into contact.
- The quarantine area allows for daily cleaning and sanitation~~,~~ and waste is removed and disposed of properly.
- In enclosures housing animals carrying infectious or transmissible diseases, to the extent possible, all surfaces of the enclosure are properly sanitized.
- Quarantine animal waste is handled separately from all other manure or compost at the facility. Because of the risk of disease transmission, quarantine waste is not spread on pastures or composted.
- Clearly visible signs indicating areas of quarantine are displayed as needed, with particular consideration for placement at entry/access points.

Quarantine Care

- As soon as possible upon arrival, animals should be weighed and inspected for injuries or disease.
- During quarantine of incoming animals, the following procedures should be performed as applicable: examination, vaccination as appropriate, clinical and laboratory tests,

treatment for external and internal parasites as needed, evaluation of psychological well-being, verification of identification.

- Quarantine does not equate with solitary confinement, and an enrichment program should be in place for quarantined animals. Care includes social interaction with caregivers during periods of quarantine, particularly if they're not with a conspecific.

- An enrichment program is in place for quarantined animals.

Isolation Enclosures

- The sanctuary has enclosures for animals who need to be isolated for close monitoring, such as following injury or recovery from surgery.

Preferred practices:

- ✓ Quarantine staff cares for newly admitted animals in their quarantine area before caring for sick animals, which are housed in separate isolation enclosures.
- ✓ Animals that die in quarantine receive a complete postmortem examination including histopathology.

V-5. Medical Records

Complete medical records are maintained, and animals have permanent identification.

- Complete medical records for all animals are maintained under the direction of a veterinarian or trained caregiver.
- Medical records are dated, legible and indicate care and procedures including the following: examination findings, diagnoses, treatments (types of medication, dosage, duration), surgical procedures, anesthetic procedures, laboratory test results, pathology reports, immunization records, animal identification (*e.g.*, microchip number, tattoo, photo) and nutrition/diet information, and, where applicable, necropsy reports.
- Records of individual animals include both behavioral and veterinary history.
- Copies of medical records accompany any animal transferred to another sanctuary or other appropriate facility.

Preferred practices:

- ✓ Statistics are tabulated regularly on the rates and nature of illness and mortality in the sanctuary.
- ✓ Where possible, duplicate record sets are stored at another site, or in a fireproof or theft proof safe on site or an online storage system.
- ✓ Records are maintained in an electronic format.

V-6. Medication Handling and Storage

All medications are purchased, prescribed and administered under the guidance of the veterinarian, and controlled substances are prescribed and stored legally.

General

- Medications are maintained and used in accordance with local, state/province, and national laws and regulations and are administered in accordance with the applicable veterinary practice acts.
- The sanctuary has pharmaceutical storage on-site where routinely used drugs, such as emergency resuscitative medications, antibiotics, anthelmintics, fluids, anesthetics, analgesics, tranquilizers, etc. are maintained. Medications are stored according to label directions and, when necessary, in a safe for controlled substances that meets the standards set by applicable regulations (*e.g.*, the Drug Enforcement Administration in the United States). Medications and vaccinations are stored appropriately, refrigerated as needed, and with access limited to essential personnel.
- All medical treatments and drug prescriptions are documented in the animal's medical record.
- Medications are regularly checked to determine expiration dates and discarded under the guidance of the veterinarian.

Controlled Substances

- Only a licensed veterinarian prescribes controlled substances used at the sanctuary.
- Controlled substances are stored securely, with only key qualified personnel having access.
- Use of controlled substances is recorded in accordance with any applicable laws.
- Expired controlled drugs are marked as such and stored separately until they can be discarded consistent with applicable laws.

Preferred practice:

- ✓ Medicines should be stored in accordance with manufacturers' recommendations. If it is stipulated that a medicine be used within a specific time period, it should be labelled with the opening date, once broached.
- ✓ Records are maintained for medications maintained in vehicles or other locations for offsite use

V-7. Breeding Policy and Contraception

There is no intentional breeding of animals in lifetime care.

- Contraception programs are appropriate for the species and as determined by the veterinarian.
- In rehabilitative settings, a breeding-for-release program may be found appropriate upon consideration of factors including the threatened or endangered status of the species and the existence of appropriate release sites.
- If animals arrive at the facility pregnant, the sanctuary provides necessary care as determined by the veterinarian. Infants are only removed from the mother for hand-rearing if there is a threat to the life of the infant or mother.

V-8. Zoonotic Disease Program

The personnel and sanctuary veterinarian are knowledgeable about zoonotic diseases that may affect animals at the sanctuary, and implement appropriate policies and procedures as needed to mitigate risk and deal with any exposures that occur.

- The sanctuary has emergency procedures and a defined process to avoid transmission of all potential or emerging diseases through bites, scratches, body fluids, direct contact with animals and other means. (Note: Additional precautions may be necessary for personnel classified as increased risk of disease, including those who are immune-compromised, and for personnel working with animals known to be carrying zoonotic diseases.)
- Personnel have adequate training to understand the potential risk of disease transmission, including potential sources of disease, modes of disease transmission, and clinical signs associated with disease. Records of any in-person training are maintained. All personnel are informed when a zoonotic disease occurs at the sanctuary, and relevant personnel are trained in how to safely care for animals with disease.
- When a reportable disease is identified, all local, state/province, and national regulatory officials are contacted, as required.
- All areas in which personnel have direct contact with animals have hand-washing facilities available in the immediate vicinity (or an equivalent; *e.g.*, bactericidal hand-wipes).
- Human food consumption by personnel does not occur in the immediate area of animal contact.

Preferred practices:

- ✓ Attendance logs are maintained for any training sessions.
- ✓ When possible, a necropsy is performed on deceased animals known or suspected to carry zoonotic disease.

V-9. Euthanasia

Euthanasia is governed by an ethical written policy that includes identification of appropriate personnel and procedures.

- The sanctuary has a written policy addressing the circumstances surrounding euthanasia decisions and procedures, including the following:
    - Euthanasia is performed in compliance with any national or local law, administered under the strict supervision of a licensed veterinarian. The veterinarian, his/her authorized representative, or a trained staff member who is knowledgeable and skilled in performing euthanasia in a professional manner and ideally with an established relationship with the sanctuary and the animal, recommends and performs humane euthanasia. Euthanasia is in the best interest of the individual animal and is only used as a final option, and is not used as management tool (such as a means to create space for more animals).
- Acceptable reasons for euthanasia include:
    - incurable medical/behavioral health status that is likely to cause unmanageable pain or suffering;
    - medical/behavioral health status where treatment is likely to cause unreasonable pain or suffering;
    - medical/behavioral health status where available treatment will not be effective in restoring the animal to an acceptable quality of life;
    - medical/behavioral health where treatment is beyond the normal community standards of monetary expenditure and would cause an excessive burden on the sanctuary resources, and no other facility /placement provides a reasonable alternative option;
    - the process of aging has resulted in an unacceptable quality of life;
    - in the event of presenting an infectious disease risk to some or all of the residents;
    - in the event of presenting a high risk of harming themselves, other animals and/or humans.
- For facilities engaged in the rehabilitation and reintroduction of wildlife and which do not provide permanent sanctuary care, consideration of an animal's ability and/or potential to survive as a free-living animal may also form the basis for euthanasia, as this is part of the animal's quality of life. For these facilities, this determination should be in accordance with an appropriate protocol or other "decision tree" analysis that an animal cannot be reintroduced to its natural habitat and there is no appropriate (consistent with these standards) short-term or long-term care option.
- Euthanasia is performed so that it avoids distress to the animal, and unless impossible, is performed out of view of other animals.
- The species and ecosystems are carefully considered during disposition activities.

Well-Being and Handling of Animals

W-1. Physical Well-Being

Animals should be routinely monitored to ensure their physical well-being, and any unusual activity should be reported and recorded, with appropriate response.

- Qualified personnel conduct daily observations of each animal to monitor for signs of physical abnormalities.
- Consideration is given to nutritional, physical and social conditions.
- Physical abuse, deprivation of food or water, aversive spraying with a hose, and other forms of negative reinforcement or punishment-based training are never used to train, shift or otherwise care for animals. Note: This does not preclude the use of hoses or other watering devices in caring for animals who enjoy this form of enrichment.

W-2. Social Housing and Group/Herd Management

Animals are grouped so that they are compatible, with consideration to their natural social groupings and individual history, and with the safety of animals and sanctuary personnel in mind.

- Animals are housed so that:
  - those in the same enclosure are compatible;
  - they are not housed near animals that interfere with their health or cause them physical or psychological discomfort;
  - there is appropriate space between individuals within and between social groupings and to allow for temporary isolation from others;
  - no individual endures constant harassment or suffers physical injury, nor do social behaviors prevent any individual from maintaining proper nutrition and hydration.
- The sanctuary has the ability to separate and isolate animals to address behavioral concerns. If animals are isolated from a group for social reasons, all efforts are made to find another suitable social group within the facility or at another accredited institution.
- With the safety of sanctuary personnel, sanctuary visitors, and animals as priority, the sanctuary has a protocol which outlines the steps to be taken as a response in the case of a serious animal aggression incident. The protocol may include the roles of sanctuary personnel, techniques to separate animals, and management of animals post-serious aggression incident
- Except for those species that are naturally solitary in the wild, solitary housing is generally reserved for situations including, but not limited to: quarantine; medical assessment

and/or care; lack of appropriate social partners or social tension resulting in disruption to the social group or physical aggression leading to injuries. Ideally and when appropriate, individuals in solitary housing should have access to visual and auditory access to conspecifics as well as regular caregiver interaction.

W-3. Introduction of Unfamiliar Individuals

Introduction of any new animal to a social group is done safely and according to techniques appropriate for each species, under the direction of designated personnel.

- As appropriate or needed, benchmarks or desired outcomes are identified for each step in the introduction process, such as the physical location of animals and behavioral goals during visual contact and tactile contact periods.
- All caregivers have a clear understanding of the plan, including contingencies for problems that might occur, and are empowered to take appropriate action in the event of perceived emergency.

Preferred practices:

- ✓ Professionals with experience in social introductions, if not sanctuary personnel, are consulted whenever possible during these considerations.
- ✓ An introduction plan is developed that details a series of steps that will be taken to integrate the individual animals involved. Necessary modifications to enclosures are identified and completed prior to beginning the process.

W-4. Behavioral/Psychological Well-Being

The behavioral well-being of each animal is monitored and evaluated.

- The sanctuary has an enrichment program that promotes species-appropriate behavioral opportunities at all times (including periods of quarantine and isolation) and ensures the animals' psychological well-being. An appropriate program may include the following:
  - o Structural enrichment - Enclosure design and furniture that add complexity to the environment and promote species-specific behavior (*e.g.*, climbing, perching, and grazing).
  - o Object enrichment – Objects that encourage inspection and manipulation and promote species-specific behavior (*e.g.*, play, nesting, tool-use).
  - o Food enrichment - Varying food choices and food presentation, including the use of puzzles that increase food procurement time.
  - o Social enrichment – Affiliative interactions between caregivers and animals (*e.g.*, grooming) may be appropriate in some instances.

- All animal care personnel are trained to recognize species-specific behavior, abnormal behavior and clinical signs of illness, and a plan to address the concerns is developed.

Preferred practice:

- ✓ Where possible and appropriate, a behavioral/psychological profile is maintained for each individual animal and updated annually. A copy of the report is kept in the animal's permanent file.

W-5. Animal-Caregiver Relationships

Positive relationships between animals and caregivers are maintained.

- Animals arrive at sanctuaries with a variety of previous experience with caregivers, which caregivers take into account in their interactions with these species.
- Where possible, new caregivers accompany a trusted caregiver until the animal becomes comfortable with the new individual.
- Where possible and appropriate, animals become familiar with the veterinary staff, allowing close observation.

W-6. Handling and Restraint

Any necessary handling and restraint is done safely and appropriately, with minimal distress to animals, and personnel are trained in species-specific safe handling techniques/practices.

- With the exception of infants being hand-reared and animals with certain severe disabilities, humans do not enter enclosures with wildlife. Direct physical interaction with dangerous animals is limited to protected forms of contact, by experienced personnel, to minimize the risk of injury.
- Handling for veterinary care is done as expeditiously and carefully as possible in a manner that does not cause trauma, overheating, excessive cooling, physical harm, or unnecessary discomfort, and minimizes physical and psychological stress as much as possible.
- Chemical immobilization is performed only by a licensed veterinarian or by trained staff under the guidance of a licensed veterinarian, or other qualified individuals authorized by the sanctuary director or veterinarian. Specific anesthetic protocols, including record-keeping, are followed.
- Chemical sedation is not used when multiple animals are in an enclosure except in an emergency situation. In such cases, all possible precautions are taken to prevent danger to personnel and the animal being sedated.

Preferred practice:

- ✓ Where possible and appropriate, operant conditioning is used to minimize the need for chemical immobilization and to reduce stress during procedures.

W-7. Animal Transport

Animals are appropriately transported to maximize safety and minimize stress and in accordance with all applicable laws.

- Where possible, health examinations are conducted prior to an animal's arrival at the sanctuary or prior to transfer to another facility. These examinations may include a complete physical exam with attention to parasite checks, necessary vaccinations, and completion of any tests required by regulations of the receiving state/province or country.
- Health certificates and any required transport permits accompany the animal when being transported interstate or internationally.
- Capture, restraint, and transportation methods consider the animal's temperament and behavior in order to minimize injury and distress.
- Equipment suitable for lifting, crating (where applicable) and transportation of animals kept within the sanctuary is maintained in good condition and readily available. Transport containers and vehicles are cleaned after use.
- All animals taken outside the sanctuary are kept securely at all times and managed in such a way that the animal is under control and not likely to suffer distress, cause injury or transmit or contract disease.
- Animals are given access to water during transport.


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