

2023-2028



Ingham County

Potter Park Zoo

Master Plan

Table of Contents

Page 3	Page 18-31
Executive Summary	Organization and Concept
Page 4-9	Page 32-35
Content and Existing Conditions	Priority Projects
Page 10-15	Page 36-39
Mission, Core Values, Goals and Strategies	Conservation
Page 16-17	Page 40-47
Assessment	Guest Services
	Page 48-49
	Animal Population

Potter Park Zoo Master Plan

Executive Summary

This revised master plan, created by Potter Park Zoo, examines the zoo’s existing conditions, organization and animal residents while incorporating projects that will be a priority in coming years. The emphasis is on maintaining commitment to our mission, inspiring conservation of animals and the natural world. Offering our guests the best possible on site experience is a theme throughout the plan. We want to reach all community members – those who visit the zoo and those who experience our education programming off grounds throughout our region.

As a team, we are dedicated to our goals of exceptional animal welfare, outstanding conservation efforts, financial sustainability and valuing diversity. We successfully completed accreditation from the Association of Zoos and Aquariums (AZA) for the sixth time. We are dedicated to exceeding the standards of excellence required by AZA and continuing as an accredited organization.



We are proud to be part of this community and will continue to provide a fun, educational and positive experience for each visitor.

Cynthia D. Wagner, Zoo Director
Amy L. Morris-Hall, Zoological Society
Executive Director

Content and Existing Conditions

This section presents an inventory and analysis of Potter Park Zoo in Lansing, Michigan, describing physical assets, constraints and opportunities, and preparing a foundation upon which programming and master planning are built. The following analysis examines the zoo's ecological and urban context, existing organization, visitor experience, and physical conditions of its exhibits, buildings, public spaces and amenities. This analysis contains recommendations for how the identified needs should be met.

Ecological Context

Surrounded by the Great Lakes, Michigan's diverse ecology encompasses several distinct regions. Moving from north to south they are:

1. Northern Lakes and Forests
2. North Central Hardwood Forests
3. Huron and Erie Lake Plains and Southern Michigan Drift Plains

The land varies between sandy dunes, flat drift plains, moraine hills, lake basins, and limestone bluffs. An ecological gem in the heartland of America, the diverse plant communities include dune grasslands, prairies, oak savannas, deciduous, evergreen and mosaic forests, wetlands and bogs. The rich landscape is home to cougar, bobcat, black bear, wolf, white-tailed deer, badger, porcupine, beaver, and otter. Its lakes, rivers and wetlands house muskellunge, pike, sturgeon, longnose gar and countless other fish, as well as snapping turtles, massasauga rattlesnakes and many other reptiles and amphibians.



The natural area created by the Red Cedar River provides is a valuable amenity and an opportunity for expansion of the zoo’s conservation message and educational mission into native Michigan habitat.

The zoo is covered by a dense, mature deciduous tree canopy consisting primarily of white oak, which filtered shade during summer months. The tree canopy has declined over the years and a tree planting and management strategy is in place. This will ensure lost tree replacement and dead wood removal. Many trees have already been removed because they were a potential hazard.

The site’s understory planting is mostly open with low trees and shrubs massed at exhibits. Minimal understory provides long open views within the zoo. This attribute is pleasing in large exhibits and open lawn areas, but becomes distracting where holding buildings, backs of exhibits and off exhibit areas become visible.

Climate

Lansing, Michigan experiences a typical Midwest climate characterized by hot summers and cold winters. Summer high temperatures average around 80 degrees Fahrenheit and winter low temperatures average around 30 degrees Fahrenheit. Precipitation averages 30 to 38 inches per year falling as rain during temperate seasons and snow in winter. In summer, the area may receive sudden and intense thunderstorms with heavy rain and lightning.

Based on climate, animal species most appropriate to the zoo will be from temperate and montane regions. Carefully selected species from tropical and arid regions may be housed but will require protection from the elements.

To maintain year-round visitation, special consideration must be given to seasonal guest comfort with shade and conditioned areas available during summer, protection from rain, and opportunities for warming in winter.

Regional Context

Potter Park Zoo must distinguish itself with a unique mission, educational purpose and visitor experience

Located within the city of Lansing, Potter Park Zoo serves a municipal population of approximately 117,500. Ingham, Eaton, Clinton and Shiawassee counties increase the total population served to around 547,000. Lansing draws state capitol visitors and the zoo is recognized as a primary tourist destination. East Lansing, home to Michigan State University, brings an annually changing population of students and families to the area. The university includes courses of study in zoology, animal science, fisheries and wildlife, veterinary medicine, horticulture, landscape architecture, and numerous other programs providing the

zoo with opportunities for project partnering, educational programming, research, and information sharing.

Other zoos near the region include the 125-acre Detroit Zoo 79 miles to the east, the 31-acre John Ball Zoo 70 miles to the west, the 137-acre Binder Park Zoo 56 miles to the southwest and the 10-acre Saginaw Zoo 74 miles to the northeast. While these three zoos and Potter Park Zoo share similarities in many visitor experience aspects and zoological collections, each must define itself by a unique mission, education purpose, and visitor experience.

Surroundings

The land surrounding Potter Park Zoo to the north and west is residential. To the north, neighborhoods are separated from the zoo by railroad tracks, and to the west by the admission free portion of Potter Park which provides parking, picnic areas, play equipment, restrooms, an open-air shelter, rolling topography and a mature tree canopy primarily consisting of white oak. To the east the Red Cedar River wetlands are separated from the zoo by Aurelius Road. Two valuable assets, the Lansing River Trail and the Red Cedar River border the south.

- The Lansing River Trail provides zoo access from surrounding city regions, plus access from the zoo into the Red Cedar River habitat.
- The Red Cedar River provides an opportunity for Potter Park Zoo to teach and promote Greater Lansing’s riverine ecology.

History

Established in 1920, Potter Park Zoo occupies approximately 20 acres (excluding parking) within the 85-acre Potter Park. The zoo started with a herd of elk but not houses over 300 species including animals from regions of North and South America, Africa, Asia and Australia.

The zoo has evolved through continuous development with a large number of its buildings and more permanent exhibits dating back to the Works Progress Administration (WPA) projects during the late 1930’s. In more recent history, the zoo has constructed a new entry complex, administration building, education facilities, and concessions. Many additions and improvements to animal exhibits have also been completed in recent years.

Exhibits

Potter Park Zoo has a valuable and educational animal population. However, the exhibits in which they are housed vary by date constructed, quality of physical condition, and quality of visitor experience. Most older exhibits rely on walled, fenced, or caged enclosures with limited natural landscape. These exhibits limit the visitor’s and the animal’s experience.

Exhibit landscapes need to be extended to include the visitor’s physical viewing area to create a sense of habitat immersion. Some exhibits can be viewed from their entire perimeter. The animal’s comfort and the viewer’s experience will be improved if views are limited to only specific locations.

Additional interpretative and educational messages should be further developed and communicated in conjunction with each exhibit using interactive technology.

Several exhibits include low walls, fencing, and vegetation that obstruct viewing for children and guests in mobility devices. Alternative viewing will be developed while considering guest safety.

Visitor Experience

Potter Park Zoo offers a park-like experience to visitors. Guests see animals set in an open, tree covered park atmosphere. To communicate mission and educational messages, the master plan must define a calculated experience focused on continued development activities.

Potter Park Zoo’s mission is clear and concise. It needs to be conveyed to zoo visitors throughout the duration of their visit. A visit to Potter Park Zoo should inspire wildlife conservation, ecological sustainability, and sense of citizenship.



Circulation

Most guests arrive by private vehicle or school bus. The existing parking lot provides around 500 spaces for visitors and staff. On peak visitation days, lawn areas in Potter Park are used for parking overflow.

Within the zoo, service vehicles travel the north and south perimeter on back-of-house service roads, and occasionally on internal pedestrian paths which are wide enough to accommodate vehicles. Emergency vehicle access is provided on the perimeter service road and internal paths. Where possible, service drives should be separate from public paths.

Utilities

While this assessment does not include a full utility evaluation, a few general observations can be made:

- Several areas employ combined stormwater and sanitary sewers. A storm water management strategy should separate the stormwater from the sanitary sewer pipes.
- Most irrigation water is drawn from the Red Cedar River with a few areas around the Discovery Center relying on municipal water. Irrigation design should use natural storm water or recycled grey water.
- A study of the red Cedar River flood patterns should be conducted to anticipate physical impacts.
- Stormwater management should strive to reduce a dependence on piped systems and employ natural cleansing, surface storage and restoration of natural hydrology.
- The Red Cedar Rivers’ hydrology and sustainable stormwater management should be demonstrated and interpreted.

Site Organization

A map provided to Potter Park Zoo visitors illustrates animal exhibit locations and identifies species. Graphics throughout the zoo educate zoo guests about the continent of origin and conservation status of each animal.

Visitation

Potter Park Zoo has grown to attract around 180,000 visitors annually. This includes visitors through the gates as well as numerous school and group visits. Approximately 58,500 students are educated by the zoo annually. Membership in 2022 was approximately 2,815 families totaling 6,167 people (not including children in the household). The zoo is open 364 days per year, with peak attendance during summer months. The zoo has been able to accommodate high levels of visitation with current facilities, paths and staffing.

Management and Operations

Historically the zoo was owned and managed by the city of Lansing. However, in 2007, zoo operations and management were transferred to Ingham County. Zoo operations are overseen by the Potter Park Zoo Director who reports to the Ingham County Controller. In collaboration, membership, education programming, public relations and marketing, public and private events and fundraising are managed by the Potter Park Zoological Society under an agreement with the county.

Mission, Core Values, Goals and Strategies

Our Mission:
Inspiring conservation of animals and the natural world.

Core Values

We will advocate, respect and care for co-workers, guests, the facility and animals by demonstrating these values:

Inclusion

- Take time to celebrate successes of self and others.
- Engage in thoughtful and meaningful ways with zoo visitors, volunteers and staff.
- Leverage our differences while encouraging inclusion in all interactions.

Teamwork

- Direct, open and honest communication shall be practiced.
- Engage in quality conversations – listen to understand.
- Collaboratively develop the best solution and demonstrate the mindset that none of us are as smart as all of us.
- Focus on common goals and help others to do what needs to get done.
- Be accountable – take ownership of actions and do what you say you are going to do.

Creativity

- Work with purpose, passion, and energy.
- Challenge the way we have always done it.
- Think outside of the box – look for new and innovative ways to accomplish goals.
- Pursue improvement – strive to further knowledge, perspective and skillss and learn from others.

Goal #1

Excellent Animal Welfare



All departments will provide the highest level of welfare to each animal at the zoo.

Strategies

- Train all staff in practices contributing to animal wellbeing.
- Utilize the animal welfare assessment process to evaluate each animal’s current welfare state.
- Ensure animal well-being of current and future species is the first consideration in all institutional collection planning.
- Plan all zoo activities with animal welfare as the top priority.

Goal #2

Impactful Conservation



Continually demonstrate an institutional culture of conservation to staff, board members, volunteers, zoo members and the community.

Strategies

- Demonstrate leadership in conservation through prioritized species selection and conservation partnerships.
- Integrate a culture of conservation into all functions of the zoo.
- Employ best practices for reducing environmental impact in all zoo operations.
- Include conservation messages in all zoo communications.

Goal #3

Financial Sustainability



We will sustainably grow our financial resources to ensure Potter Park Zoo achieves its mission.

Strategies

- Maintain a capital improvement budget which allows for maintenance and improvement of zoo facilities.
- Sustain fund balance at a level that will prepare the zoo for unforeseen circumstances.
- Increase funding for Potter Park Zoo and the Potter Park Zoological Society through expanded opportunities such as grants, sponsorships, unrestricted donations, memberships and events.

Goal #4

Valuing Diversity



Valuing diversity at Potter Park Zoo by creating an inclusive, equitable and accessible environment for our employees, volunteers and community.

Strategies

- Establish a workplace that supports employees, volunteers and guests of all backgrounds and encourages their individuality.
- Implement practices and guidelines that are fair and impartial to employees, volunteers and guests.
- Provide facilities and services that allow all individuals to experience the zoo.
- Provide ongoing opportunities for all to feel welcomed and included while at the zoo.



Assessment

The following is an inventory and analysis summary with recommendations to guide the Potter Park Zoo Master Plan programming and concept design.

Organizational Concept

- The organizational concept should illustrate Potter Park Zoo’s conservation priorities.
- Potter Park Zoo should highlight Michigan ecology, wildlife and natural habitats as well as those in similar world regions.
- The exhibits and experiences within Potter Park Zoo should be organized to illustrate specific habitats, grouping animals from similar regions when possible.

Exhibits

- Existing exhibits are currently identified as African, Asian, North and South American, or Australian.
- Landscapes should extend beyond exhibits to enclose the viewer, creating a sense of immersion in the animal’s natural environment.
- Each animal should be offered a variety of environments including sun, shade, protection from rain and off-view areas to provide for the highest level of welfare.
- Older exhibits should be demolished or renovated to be in keeping of modern zoological practices.
- Fenced exhibits should focus on views, safety, and eliminate cross viewing.

Buildings

- Most holding buildings are adequate but will need to be adapted or expanded for existing and new species.
- The veterinary clinic is undersized and in need of replacement.
- Concession buildings need to attract visitors with improved theming and modernization.



Organization and Concept – Great Lakes of the World

Potter Park Zoo has the opportunity to adopt as its purpose communication regarding the rich Great Lakes environmental habitats to zoo guests. Michigan has a diverse ecology and a unique location at the center of the Great Lakes region. A visit to the zoo will immerse visitors in these regions. The zoo’s diverse animal collection and conservation efforts will also be presented to guests in a unified and understandable message around this concept.

The master plan organization makes use of the zoo’s existing topography and tree canopy to determine forest locations and open savanna or lawn locations. It also helps organize the various environments and animal species to make use of existing buildings, exhibits, and infrastructure.

The animals in this plan were selected based on:

- Alignment with the Potter Park Zoo mission
- Ability to provide the highest level of animal welfare.
- Suitability of the Michigan climate
- Similarity to the ecology of Michigan and the Great Lakes
- Conservation priority

Michigan Great Lakes



The Great Lakes environment will change with the seasons. Exhibiting many native flora which will include vibrant spring blooms, a lush summer tree canopy, spectacular fall colors, and snow dusted evergreen forests in winter, inviting visitors to witness the ever changing display. Acclimated to Michigan’s climate, animal inhabitants will be comfortable and exhibit natural behavior year-round.

Visitor Experience – Michigan Great Lakes

Traveling through the Michigan Great Lakes, visitors will see varied landscapes and North American animals. Throughout, guests will experience the beauty brought on by the changing Midwest seasons and develop an understanding and appreciation for Michigan’s unique wildlife and habitats.

Northern Lakes & Forests



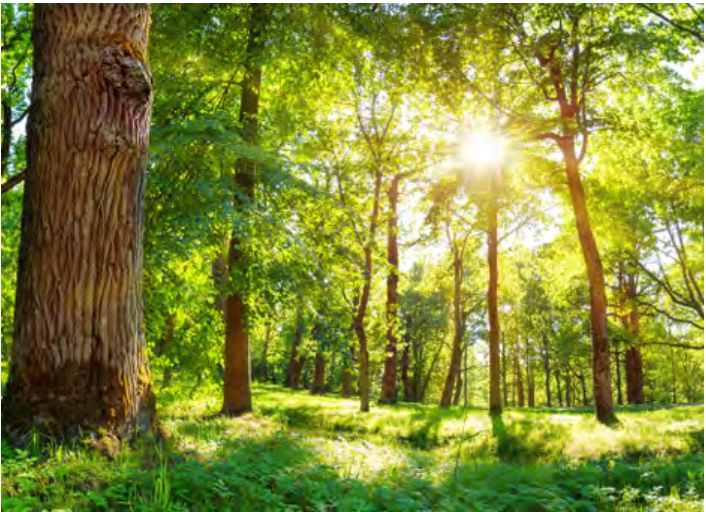
Modeled after the forested shores of Lake Superior, Porcupine Mountain Wilderness State Park and Isle Royale National Park, this environment is characterized by evergreen and mosaic forests with steep topography and rocky outcroppings.

Land Immersion

This dense and dark forest will be similar to those encountered in Michigan’s Upper Peninsula with a mixture of evergreen and deciduous trees.

- Evergreen trees - white pine, eastern white cedar, eastern hemlock, balsam fir, black spruce, jack pine
- Deciduous trees - tamarack larch, sugar maple, red oak, basswood, bigtooth aspen, quaking aspen, yellow birch, paper birch
- Understory shrubs - pagoda dogwood, blueberry, creeping juniper, mountain holly, swamp rose
- Wetland plants - longhair sedge, bladder sedge, wool grass, soft-stemmed bulrush

Central Hardwood Forests



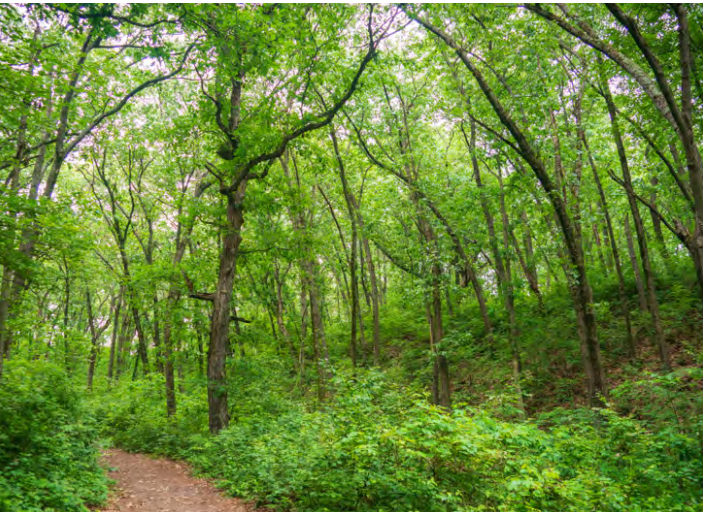
Capitalizing on existing mature oak trees of the zoo, this environment will illustrate a dense mosaic and deciduous oak/hickory and beech/maple forest and wetlands typical of north central Michigan.

Landscape Immersion

This open forest will be similar to those encountered in north-central Michigan and will readily make use of the zoo’s existing tree canopy.

- Deciduous trees - sugar maple, red oak, basswood, American filbert, chokecherry, serviceberry
- Evergreen trees (in sparse locations) - white pine, eastern white cedar, eastern hemlock
- Understory shrubs - redosier dogwood, American cranberry bush viburnum, snowberry, ninebark, sumac, leadplant

Lake and Southern Drift Plains Red Cedar Ecology Center

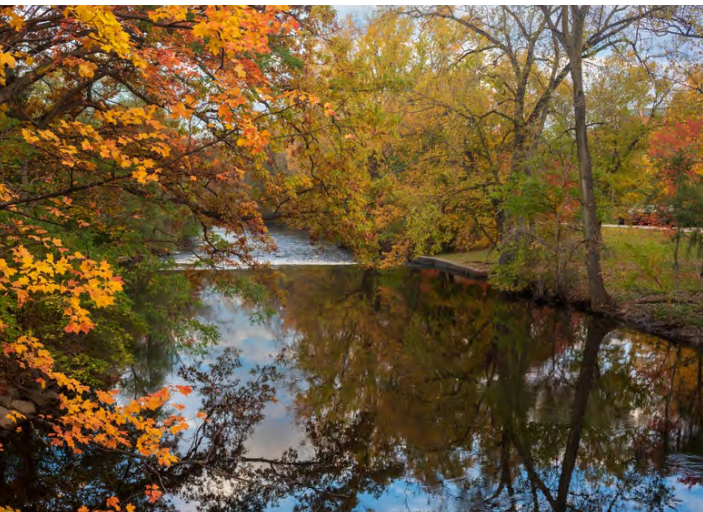


Illustrating Michigan’s eastern plains along Lake Erie and Huron, the Lake Plains environment is characterized by beech forests and elm-ash swamps dissolving into oak savannas and sandy dunes. The Southern Drift Plains environment is characterized by glacially sculpted, rolling plains dotted with numerous lakes, rivers and wetlands, this environment will illustrate southern grasslands and savanna environments. This community encompasses Lansing, providing an opportunity to explain local educational and conservation messages.

Landscape Immersion

These plains will consist of oak savannas and grassland prairie that would have covered the southern portion of the state prior to agricultural development.

- Grasses - big bluestern, indian grass, switchgrass, purple lovegrass
- Forbs - brown-eyed susan, blazing star, purple coneflower
- Deciduous trees - white oak, bur oak, black cherry, hawthorn
- Evergreen trees - white pine, jack pine
- Shrubs - New Jersey tea, dogwood, pasture rose



The Red Cedar River Ecology Center will highlight Michigan’s Great Lakes. in this new building, the Great Lakes region’s biological diversity, ecological and social importance will be demonstrated. Guests will view interpretive exhibits, attend classes, witness fish, reptiles, amphibians, and invertebrates that inhabit the region and learn what they can do as stewards and protectors of this ecosystem.

Exhibits will illustrate the aquatic and terrestrial species of the Great Lakes and its tributaries, including a warm water stream, a cold water stream, and pond.

Land Immersion

- Deciduous trees - red maple, swamp white oak, basswood, eastern cottonwood, downy serviceberry
- Deciduous shrubs - gray dogwood, red-osier dogwood, buttonbush, black chokeberry, ninebark
- Sedges, rushes, and grasses - soft stemmed bulrush, graceful sedge, tussock sedge, wool-grass, bottlebrush grass

Michigan Great Lakes
Animal Species



Current Species

- American kestrel
- American toad
- Bald eagle
- Blanding’s turtle
- Common raven
- Eastern box turtle
- Elk
- Massasauga rattlesnake
- Musk turtle
- North American river otter
- Northern pine snake
- Painted turtle
- Rat snake
- Red-tailed hawk
- Spotted turtle
- Wood turtle

Proposed Species

- Barn owl and Burrowing owl
- Bobcat or Canadian Lynx
- Puma/Cougar
- North American Porcupine
- Wolverine



Lake Baikal

Siberia, Russia and Central Asian Grasslands – Mongolia and Central China



Lake Baikal is the oldest and deepest lake on earth. Its surrounding boreal and montane forests are home to Amur tiger and snow leopards. These evergreen and mosaic forests share similarities to Michigan’s Upper Peninsula.

South of Lake Baikal, the Central Asian Grasslands occupy portions of Mongolia and central China. Open grasslands are home to grazing animals such as bactrian camel, takin and muntjac. To the south, this region is bordered by dense forest inhabited by the red panda. Though portions of the region are isolated from human populations, this grassland habitat is under threat from agricultural development.

Landscape: Montane and boreal mosaic coniferous forest



Lake Baikal Animal Species



Current Species

- Amur tiger
- Binturong
- Blue tree monitor
- Eurasian eagle owl
- Northern tree shrew
- Pallas’ cat
- Peafowl
- Red panda
- Snow leopard
- Tufted deer

Proposed Species

- Black-breasted leaf turtle
- Crested wood partridge
- Demoiselle crane
- Fishing cat
- Francois’ langur
- Takin



Lake Tanganyika

Tanzania, Democratic Republic of Congo,
Burundi, and Zambia, Africa



Lake Tanganyika lies in a deep fault within the Rift Valley of eastern Africa and is the second deepest freshwater lake in the world. The lake is estimated to be 9-12 million years old and has 250 species of cichlid fish. This area has a high degree of floral richness, wetlands, and numerous animal species.

While rich in wildlife, Lake Tanganyika has been adversely impacted by human activity including overfishing and deforestation as adjacent land is converted for agriculture and a growing population of people living around the lake.

Landscape: Freshwater lake, Central Zambezian Miambo Woodlands, and Albertine Rif montane forests



Lake Tanganyika Animal Species



Current Species

- African lion
- African spurred tortoise
- Banded mongoose
- Cape porcupine
- Eastern black rhino
- Eastern bongo
- Emperor scorpion
- Henkel’s leaf tailed gecko
- Lesser Madagascar hedgehog tenrec
- Madagascar giant day gecko
- Madagascar giant hognose
- Ring-tailed lemur
- Southern ground hornbill
- Trumpeter hornbill

Proposed Species

- Duiker
- Okapi
- Red river hog
- Spider tortoise
- Warthog



Rio Condor, Andean Lakes and the wetlands of the Pantanal

Chile, Argentina and Brazil, South America



Bordering Chile and Argentina, glacially-fed lakes are cradled by the Andean mountain range. in this region, high altitude plans and animals make their home between the tree line and permanent snow line.

Also in South America is the Pantanal, the world’s largeswt tropical wetlands covering from 54,000 and 74,000 square miles. This ecosystem is home to thousands of species.

Landscape: Freshwater, coastal, high elevation montane grasslands, wetlands



Rio Condor, Andean Lakes and the Pantanal Animal Species



Current Species

- Argentine black and white tegu
- Black-headed spider monkey
- Brazilian rainbow boa
- Chilean rose hair tarantula
- Cotton-top tamarin
- Emerald tree boa
- Giant anteater
- Golden lion tamarin
- Green aracari
- King vulture
- Magellanic penguin
- Patagonian cavy
- Poison dart frog
- Prehensile-tailed porcupine
- Red tailed boa
- Red-eyed tree frog
- Seba’s fruit bat

Proposed Species

- Baird’s tapir
- Boat billed heron
- Chacoan peccary
- Chilean pudu
- Coatamundi
- Ocelot
- Rhea
- Spectacled owls



Lake Eyre and the wetlands of Australia

Australia



Lake Eyre, officially known as Kati Thanda-Lake Eyre, is a mind-blowingly vast, dry expanse of shimmering salt in the South Australian outback, in a basin so large that it crosses the borders of three states. On cloudless days, the seemingly featureless landscape can seem to merge with the horizon, making it difficult to distinguish between land and sky. Visitors who come here often remark on the incredible sense of isolation and space, as well as the landscape’s remarkably beautiful appearance. Most of the time the lake is dry. It has only filled to capacity four times in the last 150 years, but about every eight years it receives a significant amount of water. On these occasions the lake bursts to life, forming an oasis for thousands of migratory waterbirds and producing seas of wildflowers. Wet or dry, it is a truly special place.

Landscape: Primarily dry, but becomes an oasis every eight years



Australia Animal Species



Current Species

- Bearded dragon
- Blue-tongued skink
- Crimson rosella
- Emu
- Prehensile-tailed skink
- Red kangaroo
- Western gray kangaroo

Proposed Species

- Kookaburra
- Tasmanian devil
- Tawny frogmouth





Priority Projects

Animal Health Care and Quarantine Facility – 2023-2024

The 2017 Association of Zoos and Aquariums (AZA) inspection team reported the current animal health care facility and quarantine areas are not adequate for a collection of Potter Park Zoo’s size.

The new Animal Health Care and Quarantine Facility will demonstrate Potter Park Zoo’s exemplary efforts in the field of animal care to the public and to their zoological and veterinary peers.

The facility will comply with AZA and American Association of Zoo Veterinarians (AAZV) standards and provide the following:

- Sterile surgery and scrub area
- Storage

- Treatment
- Pharmacy
- Laboratory
- Radiology
- Medical records storage
- Necropsy with refrigerated area
- Animal holding
- Animal quarantine

Veterinary staff offices will be grouped with a room large enough to accommodate lectures. The facility will provide isolation of sick animals with staff in close proximity to treat all animals effectively. The new building will be located near exhibits for rapid transport and will allow for ease of access for loading functions

Commissary – 2025-2026

Animal food is currently stored and prepared in various holding buildings by multiple staff. A centralized commissary would improve efficiency for the animal care team.

To this end, the former animal health care facility will be repurposed as a commissary, allowing easy access for husbandry staff and keeper

staff making deliveries. With a viewing window for the public, this location will also provide an opportunity to demonstrate animal nutrition, food preparation and diets for various species. The commissary program includes dry, refrigerated and frozen food storage for the entire zoo with the exception of hay storage, which will be located nearby in the Michigan Farm Barn.



Americans with Disabilities Act (ADA) evaluation – 2023

Potter Park Zoo will be investing in a complete evaluation of zoo facilities in public areas to better understand needs with regard to ADA compliance. From this evaluation, priorities will be set, and a plan will be completed to ensure the zoo is welcoming to all. All future exhibits being completed with ADA compliance as a priority consideration.

Path Replacement – 2023

The zoo’s public paths are in poor condition in many areas. For safety and aesthetic reasons, the paths need to be redesigned and replaced. Long straight-aways will be limited to add visual appeal and provide a sense of discovery while traveling through the zoo.



Moat Elimination – 2024

The AZA 2017 inspection team also noted that the moat area is not in keeping with modern zoological practices and that this area, which currently houses four small species, must be eliminated.

Penguin Exhibit – 2025

The current exhibit housing the Magellanic penguins is aging and in need of renovation. The proposed new exhibit would include underwater viewing and increased land space. The holding area also requires an update to allow for better welfare and husbandry and to offer more nesting opportunities for our penguins.

Lion Exhibit – 2025

During the winter months, the lions choose not to go outside. Staff currently manages them by providing as much inside space as possible. Inspectors noted the lion’s winter holding area is not adequate. The new exhibit will provide a heated cave and additional amenities and heated space that will allow the lions to be more active and spend time outdoors more during winter.

Farmyard Renovation – 2026

The farmyard renovation will support our long term efforts to provide educational opportunities to our guests throughout our facility. It is a priority project because of the dated condition of the farmyard.

The renovation will address the broad disconnect between the average consumer and the farmers who grow food. A better understanding and appreciation is needed from both sides to help us achieve the goal of a reliable, stable, and sustainable food supply. The design objectives of the new farmyard exhibit will address several of these issues.

Conservation, Engagement and Learning

Conservation, Engagement and Learning Department Mission

The mission of the Conservation, Engagement and Learning Department is to further Potter Park Zoo’s mission of inspiring conservation of animals and the natural world. This is accomplished through various engagement opportunities for visitors including conservation education stations throughout the zoo and many public conservation events.



Public Conservation Events

World Migratory Bird Day (WMBD)

For the WMBD event, the zoo is filled with hands-on interactive games, activities, chicks hatching in incubators and animal presentations all centered on the importance and conservation of neotropical migrant birds. Most activities are designed to encourage, inspire and assist visitors with actions they can take to help conserve migratory birds.

World Rhino Day

To celebrate World Rhino Day, we offer special tours and a behind-the-scenes look at our black rhino exhibit. Animal Care Staff guide guests into the exhibit holding area and show them the work that goes into the care and preservation of these amazing animals. Conservation Education Stations are placed along walkways to teach attendees about the plight of rhinos in the wild and the things they can do daily to more positively impact these animals.

International Red Panda Day

Potter Park Zoo celebrates International Red Panda Day annually. Activities include red panda-focused education stations, family friendly activities, red panda enrichments and training demonstrations. Animal Care Staff sell items to benefit the Red Panda Network, the conservation organization dedicated to the red panda. Conservation Education Stations are setup throughout the zoo to teach people more about red panda in the wild and what they can do at home to positively impact this species.

Bat Appreciation Day

Potter Park Zoo celebrates Bat Appreciation Day to educate our guests on the threats bats currently face around the world. Staff and volunteers share information about the important work bats do as seed dispersers and bug eaters and educate guests on what they can do to impact the survival of bats in the wild.

Party for the Planet

This is an annual event at the zoo and is aligned with nationwide AZA Party For the Planet efforts.

This event features informational stations and posters throughout the zoo, hands-on interactive activities, animal presentations and social media posts. The focus is on conservation issues, conservation successes, roles of zoos/aquariums in conservation and conservation-positive actions everyone can take to make a difference.

Arbor Day Celebration

The zoo annually hosts a regional Arbor Day event partnering with numerous national, state, county and city natural resource agencies. There are multiple interactive educational stations and presentations in the park adjacent to the zoo and additional activities on zoo grounds. The focus is on the ecological, economical and aesthetic values of forests, current issues with our forests and actions to be taken which can help forest conservation.

FALCONERS

The FALCONERS program is designed to allow children or adults of all ages with special needs and unique challenges (such as autism or developmental disabilities) and their whole family to have an enriching educational experience in a safe, welcoming and sensory friendly environment. Events are held every month and are free of charge for all participants.

Night at the Living Museum

As part of the annual MSU Science Festival, Potter Park Zoo welcomes guests to explore an evening of awesome, interactive experiences at a living museum. Education stations, interactive learning activities and presentations from staff are arranged throughout the zoo.

BioBlitz

As part of the annual MSU Science Festival, the zoo hosts a BioBlitz! Zoo staff guide guests on a walk along the River Trail to find and document as many species as possible using smartphones and the iNaturalist app. Staff focus on conservation messaging that directly relates to the species and environment identified along the river trail.

Local Conservation Efforts

As an interpreter of lake region ecology and zoology, Potter Park Zoo should be a conduit for raising public awareness of ecological and zoological diversity of all lakes and the needed conservation efforts of each surrounding ecosystem. this task will require conservation messaging as the central focus of development of exhibits and educational programming. This challenge can be addressed through staff development, on grounds conservation efforts, community conservation partnerships and through efforts led by the zoo.

Staff Development

Potter Park Zoo is committed to continually demonstrating an institutional culture of conservation by staff and integrating conservation efforts into all positions at the zoo. The process includes the following:

- Integration of conservation messaging in all onboarding processes.
- Incorporating conservation into all staff operations.
- Encouraging staff to participate in field conservation efforts.

On-Grounds Conservation

A commitment to conservation will be demonstrated by employing best practices for reducing environmental impact on zoo grounds. These will include:

- Increasing use of recycled and recyclable materials on zoo grounds.
- Utilizing sustainable cleaning products in the zoo.
- Composting food, plant and animal waste.
- Incorporating sustainability into retail operation.
- Expanding green spaces.
- Eliminating invasive plant species.
- Implementing energy saving measures.

Conservation Partnerships

Through partnership with other organizations, Potter Park Zoo is able to promote awareness of research, habitat restoration and conservation efforts of other groups to its guests, while gaining exposure to the larger audience these groups provide. The efforts can be highlighted in the intepretive signage, video, web content, classes and presentations at the zoo. The zoo can introduce visitors to the natural parks and lakeshores, wilderness areas, nature preserves and state parks that illustrate the Great Lakes and Michigan’s native animals. Further investigation and discussion will take place during implementation of the master plan to identify partners aligned with the zoo’s conservation plan.



Conservation Efforts Led by Potter Park Zoo

Enlisting the assistance of Ingham County, zoo staff, the zoo advisory board, zoo society staff, the society board, volunteers and zoo members, Potter Park Zoo has the ability to design and lead local conservation efforts.

Community Conservation

While surrounded by numerous opportunities, one possibility is the adoption of a portion of the Red Cedar River. Located on its banks, the zoo could become the protector, caregiver, and interpreter of the river. The zoo could organize clean up days, restoration planting and creation of waterfowl nesting sites. Plant and animal inventories and research could be conducted, and if appropriate, wildlife breeding and reintroduction could be led by the zoo team. As interpreter of the river habitat, the zoo could lead efforts to create public access trails and boardwalks with interpretive signage to teach about the native wildlife in the river environment. These efforts will raise public awareness of the zoo as a community steward and of the river as a vital resource.

Global Conservation Efforts

As the exhibits at Potter Park Zoo focus on specific Lakes of the World, the zoo’s conservation efforts abroad may also become focused on specific issues. Areas to be replicated and species to be exhibited may be selected based on research efforts led by zoo staff, society members or zoo partners such as Michigan State University. In addition, efforts led by non-profit and non-governmental organizations may be highlighted to raise public awareness. Exhibits should be developed in conjunction with research efforts of groups such as World Wildlife Fund, the Nature Conservancy, Conservation International and the United Nations Education, Scientific and Cultural Organization (UNESCO).





Guest Services, Traffic, and Infrastructure

In addition to an immersive and educational experience, the needs of guests must be met in order to create a fulfilling and safe experience.

Guest Services

Gathering Spaces

Orientation space – Near the zoo entrance, the Welcome Plaza allows people to meet, review maps and interpretive information, and plan their visit.

Special event space – An event lawn is featured and can accommodate many people for special events.

Class/touring gathering spaces – The amphitheater, which can seat approximately 30 to 50 people in view of a presenter, will be renovated.

Informal seating – Throughout the zoo, small spaces adequate for groups of six to eight people are provided. These spaces are located near exhibit viewing areas.

Food Services

- Concessions and the Grill area need to be modernized.
- Concessions menu choices will highlight conservation and sustainability.
- The menu should offer both quick “grab-and-go” items as well as full meal selections.
- Waste reduction, composting, and recycling will be demonstrated by zoo concessions.
- Concession seating includes areas of shade.
- Additional seating options should be added.
- Food service will be extended to include more kiosks and stands.

Retail



Potter Park zoo currently offers one retail gift shop located near the entrance. The location is able to allow guests to purchase souvenirs upon entry and prior to exiting the zoo.

The existing gift shop will increase the quantity and variety of merchandise it displays.

In keeping with the zoo’s conservation mission, the merchandise at the gift shop will support the environment and cultures about which the zoo is teaching.

Additional retail should be provided with seasonal carts. Carts should be located near specific exhibits and sell merchandise related to the geography, culture, and messages embodied in the exhibit.

Play Areas



Play is needed to engage children in learning the zoo’s mission of conservation education. A large playground exists in Potter Park outside of the zoo, but smaller, shorter duration play features will be developed in the zoo. these will be spaced throughout the zoo, providing opportunities for brief 10 to 20 minute play experiences that teach children about the natural environment, wildlife, and culture. All play areas will be developed in compliance with Consumer Product Safety Council and American Society for Testing and Materials guidelines.

Themes for possible further development include:

- Enhancements in the Nature Play area in the backyard garden
- Interactive activities in the renovated barnyard
- Animal sculptures illustrating cultural interpretation and connection to the environment
- Climbing structures simulating the natural environment
- Cultural elements, art works, games, and instruments that connect visitors to the geographic environment

Pedestrian and Vehicle Traffic



Pedestrian Circulation

Within the zoo, guests will travel via a system of primary and secondary paths. Primary paths will lead to main attractions such as food services, the event lawn, and animal exhibits. These paths can also accommodate service and emergency vehicles. Primary paths are 12’ to 14’ wide and should include a reinforced landscape edge to widen the path of travel if required by local emergency authorities.

Secondary paths will guide guests through the zoo’s environments providing an exploratory and immersive experience. they allow guests to view the landscape and wildlife experience. These paths will typically be 8’ to 10’ wide with wider areas at animal viewing locations.

Both primary and secondary paths need to comply with the Americans with Disabilities Act for universal accessibility.

Biking Access

Bicycles will access Potter Park via the Lansing River Trail. A new sign should direct cyclists around the west end of the parking lot to new bicycle racks located at the end of the entry walk. Existing bicycle racks near the entrance and Discovery Center will remain in place.

Infrastructure



As Potter Park Zoo continues to improve and grow, its infrastructure must be developed to support new exhibits and amenities and to promote the conservation and ecological sustainability efforts of the zoo. As new exhibits and buildings are developed, they should be evaluated for their future utility demands. The zoo’s utilities were evaluated in 1985 and many improvements were made including expansion of water and electrical service. However, a new assessment of the zoo’s utilities should be conducted to evaluate condition, capacity, and to anticipate necessary improvements.

As new utility systems are developed, natural systems that harmonize with the site’s hydrology and climate should be favored over traditional engineered solutions. For example, passive heating, cooling, and ventilation should be employed to address climate and minimize dependence on electricity and natural gas for heating and cooling. Storm water should be collected and funnelled through wetlands and swales rather than piped systems.

While a more detailed discussiion of utility infrastructure may follow as the master plan is implemented, several general requirements will guide this process.

Storm Water

To be a good steward of the Red Cedar River watershed, Potter Park Zoo must carefully cleanse and manage the storm water that enters its site making use of it for irrigation, exhibits, natural ponds and wetlands, or returning it to the river and natural aquifer.

- The existing sewer will be reviewed and modified where needed to remove storm water from the sanitary sewer system.
- New construction projects will separate storm water from sanitary waste.
- Storm water can be collected in ponds, cisterns, or rain barrels for use in irrigation, washing, or water features within the landscape.
- Where storm water is returned to the river or ground water, it will pass through constructed biofiltration swales, wetlands or settling ponds to provide filtration.

Sanitary Sewer

The existing sanitary sewer systems at the zoo vary in age. At a few locations, stormwater pipes are connected to the sanitary system. Sanitary fees are metered separately from municipal water, so reduction of stormwater and wastewater in the sanitary system will benefit the zoo with cost savings and promote environmental conservation of water.

- Storm water lines will be disconnected from the sanitary sewer.
- Grey water separation and recycling will be explored in new projects.
- On site treatment of wastewater from buildings and life support systems through constructed wetlands and onsite backwash treatment will be explored.

Domestic Water

To save cost and make efficient use of natural resources, Potter Park Zoo should conduct a full assessment of municipal water use to identify and reduce waste.

- Water capacity and demand to support increased visitation, new buildings and exhibits will be evaluated as mater plan improvements are further designed and implemented.
- Use of municipal water for wash-down or irrigation will be reduced and the use of harvested rainwater or recycled grey-water should be encouraged.
- Water will be conserved through the use of low-flow kitchen and restroom fixtures.
- Life support systems will incorporate backwash recovery and other water saving technologies.

Electricity

Similar to water and sewer, the electrical supply to the zoo will be evaluated and the future demand projected based on proposed facilities.

To help reduce electric consumption, green technologies will continue to be considered as retrofits to existing facilities and in new projects including:

- LED and compact flourescent lights
- Occupancy sensors to control lights in vacant areas
- Passive heating and cooling strategies
- High efficiency pumps and life support equipment



Information Technology

Advances in information technology are opening new doors for the zoo to connect with guests and other audiences. The zoo information technology infrastructure should keep pace with these opportunities.

- Information technology requires ongoing maintenance and management of equipment and web content necessitating dedicated employees to handle this work.
- Potter Park Zoo’s website and social media presence is critical to this connection and both need to be consistently managed.
- Zoo technology infrastructure needs to continually be updated to accommodate staff internet connection as well as adding these options for guests.

Refuse

Reducing trash and practicing recycling saves on expenses while helping the environment and teaching responsible resource use in keeping with the zoo’s conservation objectives. The zoo’s material use and recycling program will be continually reviewed in conjunction with the county’s waste management. Strategies that have been and can continue to be explored include:

- Composting food waste at concessions and with events.
- Making concessions and events material packaging recyclable or compostable.
- Establishing on-site composting for landscape and animal waste.

Utility Service

Comparison of future zoo plans with the existing utility infrastructure must happen. This would include utility services, water lines, and sanitary service.



Animal Population

The thematic organization for Potter Park Zoo incorporates the existing animal population while providing guidance for selecting new species and brings cohesion to the animals.

Animal Welfare

Animal welfare is the foremost concern to Potter Park Zoo staff, and exhibits will be designed, and species selected with this in mind. To be housed at the zoo, animals must be adapted to the climate and environment at the zoo, or exceptional indoor accommodations must be available during winter months.

Habitats created shall provide animals with the option to exercise control over their environment, provide a habitat-immersive and appropriate experience for the animal, provide a variety of experiences and alleviate noise and other nuisance.

Current Animal Residents

The Institutional Collection Plan provides a rationale for the existing animals and guides future development. This is a living document and must provide not only stability within the zoo populations, but also allow for adaptability to unexpected circumstances. Each year the Animal Management Committee (AMC) will evaluate the existing document for relevance and modify it as necessary. The AMC consists of the zoo director, the zoo society director, animal care supervisor, animal programs manager, the zoo veterinarian, and the conservation engagement lead.

Priority Animal Species in Existing Population

Potter Park Zoo participates in many animal conservation programs (Species Survival Plans or SSPs) and has identified several key animals that must remain for conservation purposes. These are listed in the Institutional Collection Plan and include eastern black rhino, Amur tiger, snow leopard, and red panda. SSP animals are a priority but may be phased out if inconsistent with zoo priorities.

If a species is phased out due to an aging population or other reason, the existing animals will be cared for at the highest standard while remaining at the zoo.

Species Selection Criteria

Potter Park Zoo’s Animal Management Committee (AMC) has assembled criteria to evaluate existing species at the zoo and provide guidance for future determinations. The AMC acts on behalf of the animal population while supporting the zoo’s mission. The criteria used for consideration of a new species are as follows:

Welfare & Sustainability

- Free of ethical/welfare issues regarding acquisition
- Species natural history /lifestyle can be accommodated
- Exhibit space is appropriate year-round
- Exhibit size and complexity are species appropriate
- Relevant to PPZ master plan
- Species is tolerant of Michigan climate

Display

- Appropriate exhibit is available
- Required exhibit modifications are reasonable
- Species has visitor appeal
- Species is likely to be visible most of the time
- Multi-species options exist

Conservation, Engagement & Learning

- Is part of an SSP or SAFE program
- In situ and ex situ conservation opportunities
- Status in the wild is vulnerable, threatened, endangered or critically endangered per IUCN, USFWS or MDNR
- Species meets the needs of education programming
- Species enhances our ability to convey meaningful information to guests

Expertise

- Animal care staff have (or can acquire) the expertise to provide high quality care
- Animal care staff show interest in the species
- Animal care staff have time to properly manage the species
- Veterinary staff are knowledgeable regarding the health concerns of the species

Availability

- Routinely available or can be reliably sourced



**This document was prepared under the auspices of
the following:**

**The Ingham County Potter Park Zoo Advisory Board &
The Potter Park Zoological Society Board**

**With contributions by:
Dr. Richard Snider
Renate Snider**

POTTER PARK



**1301 S. Pennsylvania Ave.
Lansing, Michigan 48912
www.potterparkzoo.org**