

VII. IMPLEMENTATION PLAN



Implementation Plan

The Implementation Plan is a road map for executing all elements of the Master Plan within the 15-year timeline. The Plan includes a phasing strategy that considers COE funding cycles, partner suitability and capacity, ongoing projects, infrastructure and utility sequencing, animal species transitions, accreditation goals, operational and attendance growth, and the EVZ's commitment to caring for Lucy, the Asian elephant. The plan is intended to be updated every five years and provides a balance of structure and flexibility.



Recent and Ongoing Projects

The Edmonton Valley Zoo (EVZ) is currently implementing several transformative projects that advance Master Plan goals, continuously improve animal wellbeing, meet evolving accreditation standards, and modernize aging infrastructure. The new Wolf Habitat project is nearing completion and Phase One of the Enclosure Renewal and Enhancement Project is under construction. Phase Two of the Enclosure Renewal is underway, with design progressing on prioritized scope. Other ongoing projects described here should be closely coordinated with the Master Plan and its implementation.



EVZ IMAGE: ASIAN ELEPHANT (LUCY) HABITAT

ARCTIC WOLVES

Lead – Valley Zoo Development Society
Partner - EVZ/COE

Arctic wolves are being relocated from their existing enclosure in the carnivore area to a larger space that was formerly a Bighorn sheep habitat. This dynamic new space has varied topography, a rock water feature, new dens, off-display holding yard, building and management area. Project completion is anticipated for early 2025, and two new female wolves will join resident male, Tundra, in the new habitat. The relocation of the wolves will also free up space for the Carnivore Exhibit Modernization.

ENCLOSURE RENEWAL

Lead – COE/EVZ

The Edmonton Valley Zoo Enclosure Renewal & Enhancement project was funded via the COE 2023-2026 capital budget. It includes rehabilitation of ageing infrastructure and enhancement of exhibits for various animals to ensure the EVZ keeps pace with industry best practices.

Phase One is currently underway and includes primarily HVAC upgrades to the elephant building and exercise facility.

- Phase Two is currently in design, and has prioritized the following:
- Indoor and outdoor expansion of elephant amenities
 - Modernization of carnivore exhibits (see further details below)
 - Repairs and upgrades to aquatic life support systems

ASPEN REFORESTATION PROJECT

Lead - Valley Zoo Development Society (VZDS)
Partner - EVZ/COE

VZDS has received federal natural infrastructure grant funding to support aspen parkland restoration in key portions of the zoo for the advancement of EVZ’s conservation and nature education goals. The naturalized areas will align with and advance elements of the Master Plan, and will include native vegetation such as prairie grasses and Boreal Forest trees and shrubs. The project will also fund the restoration of the existing green roof in the Arctic Shores exhibit.

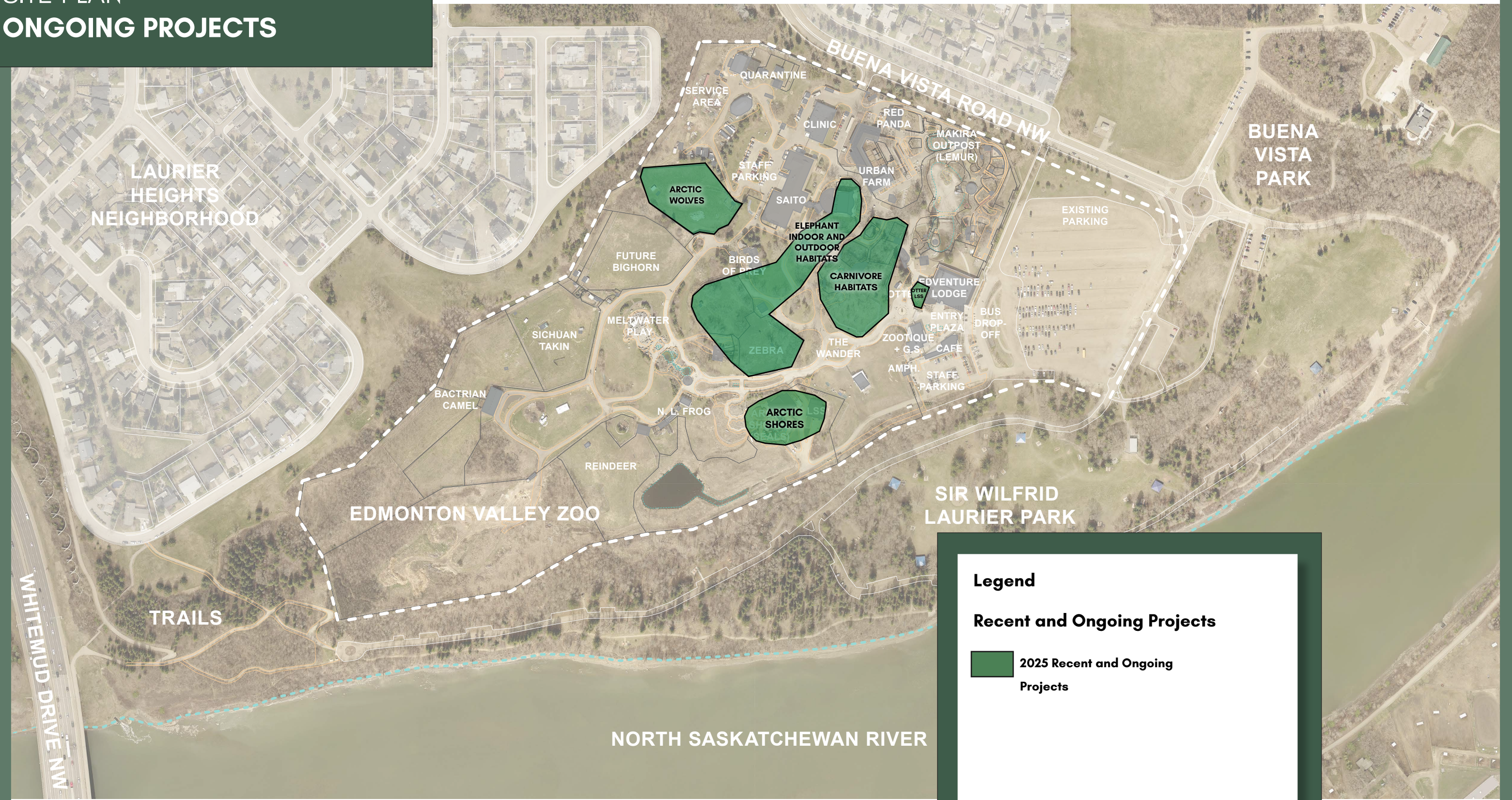
CARNIVORE AREA MODERNIZATION

Collaborative Partnership: VZDS/COE/EVZ

VZDS and COE are initiating a pilot for a new approach to funding and project delivery for the modernization of the existing carnivore space. This approach intends to deliver a more cost effective capital renewal project through a creative collaboration between the COE, EVZ and VZDS leveraging the strengths of each partner.



SITE PLAN
ONGOING PROJECTS



Legend

Recent and Ongoing Projects

- 2025 Recent and Ongoing Projects

Master Plan Implementation Strategy

The 15-year Master Plan begins in 2025 and is intended to be fully implemented by 2040.

The project sequencing and phasing is based on many factors, including EVZ priorities, external funding opportunities and considerations, AZA accreditation goals, and opportunistic development. Projects that have been designated to begin early in the Master Plan timeline support early goals, supplement ongoing projects, capture opportunities, and meet other EVZ priorities.

Both ongoing and future projects will contribute to meeting the early AZA Accreditation goals.

MAJOR DEVELOPMENTS

The strategy identifies three major projects for the COE to lead, aligned with the 4-year budget cycles. These projects are phased over the 15-year timeline to maximize funding potential, create continuous excitement and drive attendance growth. These projects are described below under **Major Projects**.

TRANSFORM THE ZOO

The EVZ decided to move forward with welcoming polar bears to the zoo as supported by the Polar Bear Feasibility Study and this is identified in the Master Plan Coastal Arctic zone. The VZDS currently has prospective donor funding and board support to move this project forward. With this funding, and given that the Coastal Arctic project will take longer than some of the other major projects to design and construct, this project has been identified as one of the first to begin in the Master Plan phasing plan. This project is described as a **Significant Transformative Project**.

SEIZING OPPORTUNITIES

Other opportunistic, schedule-flexible projects can be implemented throughout the phasing when opportunities arise and are described below under **Agile Initiatives**.

Implementing the Conservation Outpost, which adds warming and guest amenities the outer zoo in the first phase would be beneficial to increase seasonal attendance before the full outer zoo phases are developed.

FLEXIBILITY IS KEY

Although the initial large projects have been established, flexibility is important for the remainder of the Master Plan implementation. The Master Plan, along with the strategic and implementation plans, should be updated every 5 years in accordance with accreditation recommendations and best practices. As a living document, the Master Plan updates should reflect changes such as animal obtainability, lifecycle and succession planning, etc.

EVZ’s commitment to care for Asian elephant, Lucy, extends throughout her lifetime. Future projects that impact this space are constrained in their implementation timing, since that transition timeline is unknown. This is further described in the Lucy-Transition section.



PHASING CONSIDERATIONS

The Master Plan phasing is driven by several key factors. While some phasing choices are based on the EVZ priorities, these key pieces heavily impact the early project phasing and funding.

FUNDING

The Master Plan must reflect the COE 4-year budget cycles, especially for projects being led by the COE/EVZ. Project initiation can take some time in this process. The COE 4-year Municipal Election cycles should also be considered in the timing of projects to allow EVZ the ability to share the concepts of the Master Plan with local politicians and the community to foster support in advance of funding requests.

COE Funding Cycles

- 2023-2026
- 2027-2030
- 2031-2034
- 2035-2038
- 2039-2042

The VZDS can be more agile when leading a project and can often start projects relatively quickly provided staffing and board capacity allows.

ZOOLOGICAL ACCREDITATION

The EVZ intends to obtain AZA Accreditation and renew CAZA Accreditation simultaneously in September 2027. Meeting this early Master Plan goal is a necessary schedule driver and an important consideration of the Master Plan. Early priorities include expanding and upgrading Asian elephant space, modernizing the carnivore space, expanding quarantine space, and providing outdoor space for all primates that will remain at the zoo.



ASIAN ELEPHANT (LUCY) TRANSITION PLAN

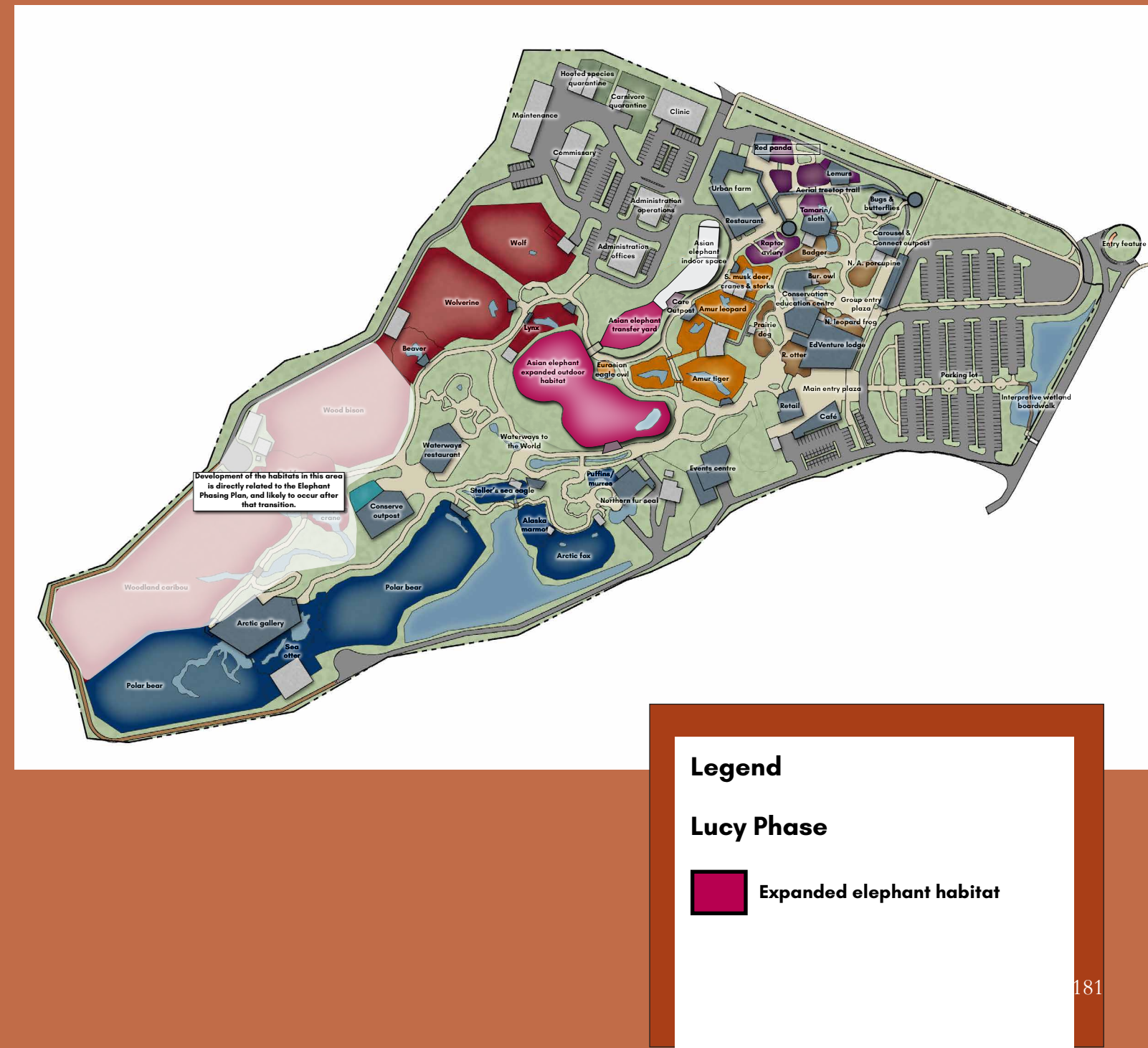
EVZ has committed to caring for Lucy for the remainder of her time at the zoo. The Enclosure Renewal project is upgrading the existing interior space to improve the ventilation, humidity, and heating, add an ultraviolet shower and enhance the communications and monitoring capabilities of the habitat. The Enclosure Renewal project is also prioritizing other upgrades for Lucy, including expanding her indoor and outdoor space, exploring the addition of a water amenity, and including provisions to utilize restricted contact management. This space expansion project is in the initial stages of planning, and the final scope may be adjusted to fit within the funding available.

PHASING IMPACTS

While Lucy resides at the EVZ, there are portions of the Amur River Taiga zone that cannot be developed, including the introduction of the Amur brown bear and the relocation of Sichuan takin to this area. The Boreal Forest Northern Confluence West phase cannot be developed until Sichuan takin are moved to their new habitat (or to a temporary location such as an offsite facility or another zoological institution). While many aspects of this transition will happen at an unknown time in the future, construction of the Care Outpost could be implemented with the elephant habitat improvements to share Lucy's important story and educate visitors about the zoo's commitment to excellence in animal care and wellbeing throughout all life phases.

SITE PLAN

ELEPHANT PHASING PLAN



ANIMAL LOGISTICAL CONSIDERATIONS

There are some animal species that may be challenging to obtain, but a decision was made to move forward with them as they have special significance for the Master Plan or the EVZ. It is intended that there is flexibility of species selection to accommodate these circumstances.

These include:

- **Polar bear:** a detailed feasibility study was completed and it was determined that EVZ was in a good position to be able to obtain bears based on a variety of circumstances outline in that report. In the event that polar bear availability and obtainability at the time of habitat construction changes, the habitat could be used for another species of bear, such as grizzly bear;
- **Amur brown bear:** this species would go best with the Amur River Taiga concept, but may be difficult to obtain as there are not many available. For this reason, they would also be a relatively unique animal to display. However, if they are not obtainable, another brown bear that is temperature-appropriate could be chosen instead;
- **Alaska marmot:** is a species EVZ is very interested in for conservation and a great fit for the concept, but obtainability could be challenging;
- **Woodland caribou:** is a species EVZ is very interested in for conservation and concept fit, but could be difficult to obtain. Peary caribou is a potential alternative if post-secondary partnership and research opens up an opportunity for what would otherwise be a challenging species to obtain. In the event of Peary being acquired, this habitat would become part of the Coastal Arctic zone instead of the Boreal Forest Northern Confluence. If neither species can be acquired, EVZ can utilize this space for their existing reindeer;
- **North American wolverine:** would be ideal for the concept, but European wolverine is an acceptable alternative if North American unobtainable.



UTILITY INFRASTRUCTURE UPGRADES
AND SEQUENCING

A critical factor in determining the appropriate phasing plan for the Edmonton Valley Zoo Master Plan is considering the renewal, upgrade, and construction of new underground infrastructure required to service existing and future facilities and enclosures. The utility and stormwater management scope of work includes the following items:

1. Construction of a new stormwater management facility in the parking lot;
2. Construction of low impact development soil cell facility in the parking lot;
3. Enlargement of the existing stormwater management facility;
4. Renewal of all existing storm and sanitary sewer infrastructure;
5. Construction of new storm and sanitary sewer to service;
6. Upgrade of a portion of existing watermains;
7. Construction of new watermains to create watermain loops.

STORMWATER MANAGEMENT -
PARKING LOT

The construction of the new stormwater management facility in the parking lot as well as the low impact development facility are critical at an early stage. As development and the expansion occurs within the zoo, stormwater management facilities at the downstream end of the system should be built to accommodate the anticipated stormwater runoff quantity and improve quality before discharge into the North Saskatchewan River. Additionally, all existing sanitary and storm sewers running through the parking lot will require renewal to accommodate the drainage flows anticipated for the full development of the Zoo. The total construction costs of the parking lot must include:

1. The stormwater management facility;
2. The LID facility, which includes any vegetation planted inside the LID;
3. The renewal of sanitary and storm infrastructure;
4. Lighting and power upgrades required throughout the parking lot and;
5. Pavement, pavement markings, concrete curbs, sidewalks, and any other surface or landscape improvements.

Coordination among funding sources needs to be understood to ensure that no gaps in scope are left because these items are likely to be constructed concurrently.

STORMWATER MANAGEMENT -
MAIN SITE

As with the construction of the new stormwater management facility in the parking lot, the enlargement of the existing stormwater management facility should be recommended at an early stage. As it stands, the facility is deficient in providing the required stormwater storage and should be upgraded to accommodate an increase in stormwater runoff as the Zoo constructs additional facilities and enclosures. Renewal of some of the immediate upstream storm sewer may be proposed simultaneously to provide new sewers to connect to with additional expansions and developments.

SANITARY

The renewal of all existing storm sanitary infrastructure is required because previous Master Plans and utility assessments indicated sewers were in poor conditions as of 2013 and they will have deteriorated further in the 12 years since. Storm and sanitary sewer renewals and upgrades should be recommended starting at the downstream pipes. New storm and sanitary sewers in the Administration area service new facilities and in the Waterways to the World Northern Confluence, and Coastal Arctic zones. It is likely that the replacement of underground infrastructure should be paired with the new enclosures above them, as restoration will be required after deep utility install. Therefore, the ordering of piping replacement from downstream to upstream may impact order of enclosure construction.

WATERMAIN

Watermain upgrades are required in the Administration area, Amur River Taiga zone, and along the boundary between Boreal Forest Northern Confluence and Waterways to the World zones. These watermain upgrades may be conducted concurrently with the various zones and enclosures as they are built and will address deficiencies in fire protection within the zoo. Upgrades to existing watermains has minimal to no effect on the staging requirements. The construction of new watermains is required in the Waterways to the World zone, The Aerie zone, and the Nature, Learn, and Play zone. Again, watermain upgrades and the construction of new watermains may be done concurrently with various zones or enclosures.

UTILITY INFRASTRUCTURE UPGRADES AND SEQUENCING

Based on the summary of the utilities and stormwater management requirements, the various zones can be classified based on the importance of phasing as:

Zone Class	Zone	Description of Classification
1	• Parking Lot • Coastal Arctic	These zones should be considered as the first stage of construction. Phasing should accommodate these areas first due to limitations in utility capacity, utility condition, and stormwater storage requirements.
2	• Nature Learn & Play • Waterways to the World • Amur River Taiga • The Aerie • Entry Plaza	These zones can be considered as second stage expansions. At this stage phasing of these zones has no required order among them. Individual enclosures phasing should consider the utility alignments to avoid upgrading sewers that are upstream of aging infrastructure. The construction of these zones should be feasible once Class A zones are completed.
3	• Administration • Boreal Forest Northern Confluence	These zones can be considered as third stage expansions because the required Class A zones to be constructed as well as one or more zones in Class B to be constructed.



GREAT GREY OWL

SUGGESTED ORDER OF HABITAT CONSTRUCTION

Within each zone, the utility and servicing requirements inform a recommended order of habitat construction based on sequential utility work.

ZONE CLASS 1: COASTAL ARCTIC

- Alaska marmot
- Arctic fox
- Puffin
- Sea eagle
- Polar bear
- Sea otter

ZONE CLASS 2: NATURE LEARN & PLAY

- Prairie dog
- Conservation education centre
- Northern leopard frog
- Burrowing owl
- Connect outpost and carousel
- Porcupine
- Badger

WATERWAYS TO THE WORLD

- Waterways multi-use dining/program venue
- Plaza and picnic area
- Conservation outpost

ZONE CLASS 3: BOREAL FOREST NORTHERN CONFLUENCE

- Lynx
- Wolverine
- Whooping crane
- Beaver
- Wood bison
- Caribou

THE AERIE

- Butterflies & bugs pavilion
- Sloth/tamarin
- Raptor aviary

AMUR RIVER TAIGA

- Care outpost
- Amur bear
- Amur leopard
- Amur tiger
- Eurasian eagle owl
- Siberian musk deer

Significant Transformative Project

COASTAL ARCTIC

The EVZ and the VZDS have decided to move forward with bringing Polar bears to the Edmonton Valley Zoo as supported by the Polar Bear Feasibility Study component of the Master Plan. **Coastal Arctic** will expand and rebrand the existing Arctic Shores space to focus on coastal arctic areas and significantly expand on conservation and research opportunities for EVZ. In addition to polar bears, sea otters, Steller’s sea eagles, Alaska marmots, Arctic foxes and puffins/murres will be introduced to the outer zoo along with the existing Northern fur seals. The experience also includes a dynamic, indoor experience, the Arctic Gallery, where visitors can explore the underwater worlds of northern oceanic ecosystems. The full vision of Coastal Arctic evolves the EVZ into a one-of-a-kind northern destination.

While the polar bear feasibility study reviewed the requirements to obtain and care for polar bears, it reflects a more basic experience that meets polar bear wellbeing needs. The Master Plan concept for Coastal Arctic is transformational. The project will take approximately ten years to fully implement and is anticipated to create a large attendance spike for the zoo when it opens (further explored in the Business Case).

The VZDS will leverage donor and board support to begin a capital campaign to support this project and move it forward.

Major Projects

PHASE 1 - NATURE LEARN & PLAY, WELCOME AND PARKING, AND EVENT CENTRE

PHASE 2 - THE AERIE AND BOREAL FOREST NORTHERN CONFLUENCE EAST

PHASE 3 - CONSERVATION OUTPOST AND THE WATERWAYS MULTI-USE DINING/PROGRAM VENUE

The Major Projects category represents three phases with significant scope that the COE/EVZ are proposed to lead. Major Projects are characterized as having approximately 5-year phases. These projects are complex, require significant resources to plan and execute, and encompass major renovations with infrastructure upgrades and major capital investments. The outcome of the Major Projects will reshape the EVZ site and experience, elevating animal wellbeing, visitor experience, education and conservation. The projects are strategically phased over the 15-year timeline to distribute operational impacts such staffing/asset needs and continuously support attendance growth to create excitement for the zoo and the community.

Agile Initiatives

LOW-HANGING FRUIT

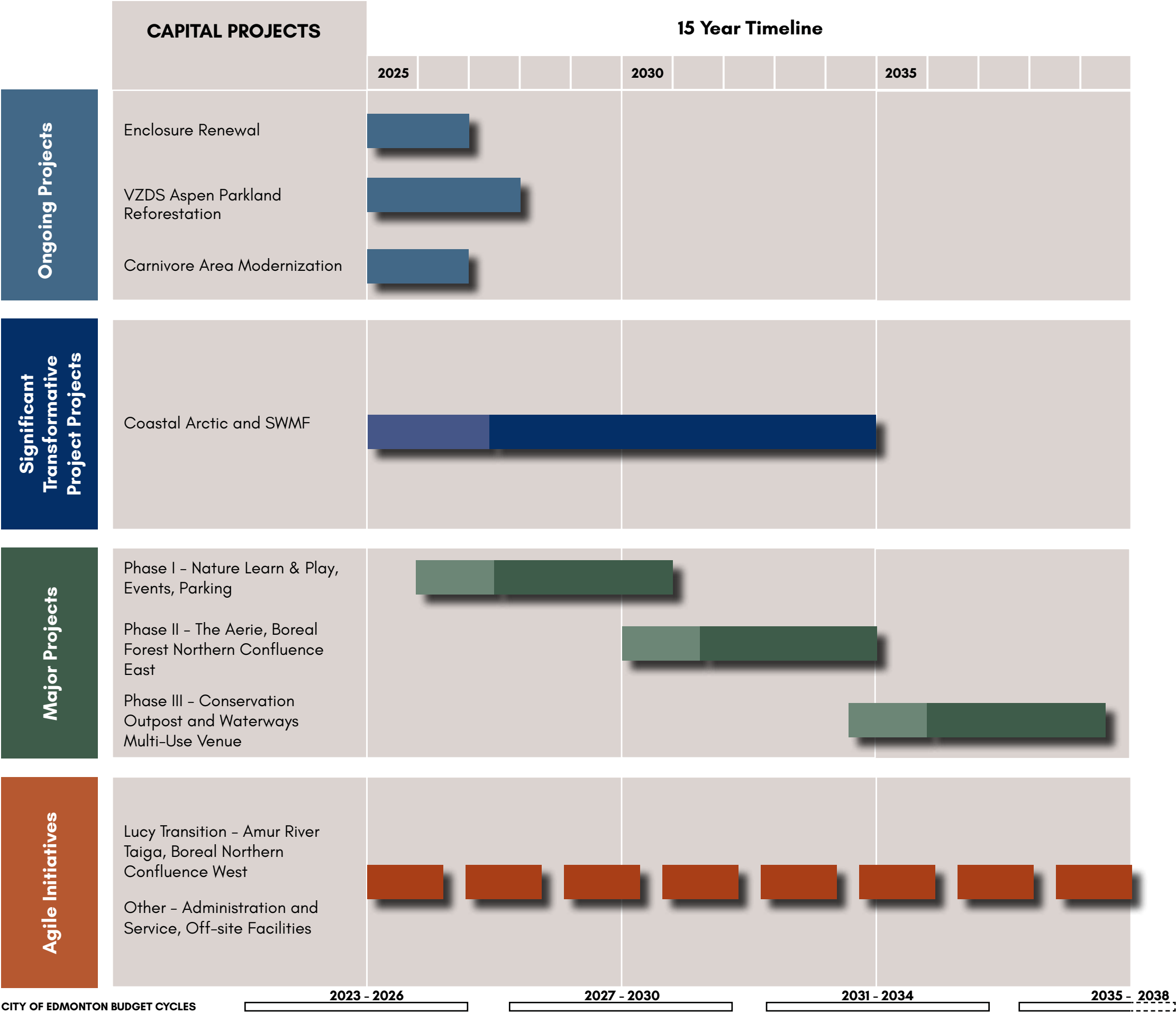
This category is comprised of minor projects that can be swiftly executed and portions or elements of a larger project that can be implemented as opportunities arise such as: the ability to acquire a difficult-to-obtain animal species, a donor coming forward with an interest to fund a particular project, grants, or partners providing funding or other support. The EVZ can seize these opportunities to utilize resources when they are available to achieve improvements with a nimble approach. Some smaller projects can be completed by EVZ staff. Examples could include:

- Administration/Service Improvements - Identified by the EVZ as a high need to optimize operations and have adequate staff space. Could be supported by partner or donor funding support for animal improvements through a new clinic and quarantine, partner funding for Low Impact Development (LID) strategies in staff parking lots;
- Off-site satellite facility for ex-situ conservation, quarantine and browse program - EVZ could acquire COE surplus land or partner land and begins this work
- Raptor Aviary - donor funding support for raptors and this project gets implemented prior to the full Aerie project;
- Wolverine habitat - species availability opportunity arises and EVZ moves forward with developing a smaller project within Boreal Forest Northern Confluence East;
- Amur leopard - species becomes available and EVZ replaces snow leopard within existing habitat with ability to rehome snow leopard.

IMPLEMENTATION FRAMEWORK

This preliminary timeline illustrates the implementation and phasing strategy. The ongoing and initial projects identified initiate the Master Plan efforts create immediate excitement, inspiring donations and support. EVZ will update the Master Plan, Strategic Plan and Implementation Plan every 5 years, and the phasing should be updated on this schedule at a minimum. In addition, as opportunities arise to complete agile initiatives and low-hanging fruit, the timeline will be adjusted.

On the diagram to the right, the bars for the Significant Transformative Project and Major Projects represent the high-level timeline over the 15-year Master Plan. The lighter portion of the bar represents the planning and design phases, while the darker bar represents construction.



Operational Impacts

ORGANIZATIONAL GROWTH

As the EVZ grows, expanding the site infrastructure to include more species with more complex needs and welcoming more visitors, the operational needs of the organization increase. The business plan and parking strategies reference a 15% growth in staffing over the Master Plan timeline. In addition to more animal care, facilities, education, and guest relations staff, new positions will be required to support the organization. Through the Master Planning process, the need to expand staffing resources and/or expand partner involvement in the areas below was identified:

- Communications, public relations, sales, and marketing
- Digital content management, audio-visual and technology
- Conservation research
- Fund development (VZDS)

In addition to staff, operational asset needs will also increase. More staff means more computers, equipment, fleet vehicles, uniforms, radios, etc. Over the duration of the Master Plan, expenditures in operational budgets should be expected to grow.



Development Strategies

The Edmonton Valley Zoo, as part of the City of Edmonton looks to leverage partnerships to further its mission and advance the Master Plan.

VALLEY ZOO DEVELOPMENT SOCIETY

The Valley Zoo Development Society (VZDS) has been a key partner for many years and has recently decided to expand its role to support additional and larger capital projects. The VZDS is growing its fund development staff complement to increasing its capacity to meet this commitment. The VZDS is currently leading or will lead or financially support several of the previously referenced capital projects.

The VZDS also plans to continue to manage the Zootique gift shop and café, run special events, and provide support for education and conservation. The VZDS may continue to explore further opportunities, such as developing the parking lot with a revenue-generation approach, if approved by the COE.

OTHER POTENTIAL PARTNERSHIPS

Utility companies may be potential partners for development of stormwater management strategies that improve water quality and invest in treat and store stormwater onsite. For example, EPCOR is working to reduce the risk of flooding in Edmonton through plans that include the use of green stormwater infrastructure, which includes Low Impact Development (LID) facilities that slow stormwater from entering the sewer system and reduces demands on the sewer infrastructure. Eligibility of projects depend on risk of flooding, inundation or the storm sewer system, or water quality.

The Parking Lot project may be a candidate for obtaining funding for Low Impact Development (LID) strategies. There may be opportunities to propose LID and other water quality enhancement strategies in other parts of the zoo, like the Administration and Service area, for review of potential funding opportunities.

The EVZ has been partnering with post-secondary institutions, government bodies, and NGOs for many years and would like to continue to expand on these relationships. The Master Plan process initiated discussions with potential partners. Of particular interest is the University of Alberta (U of A) who could be a key partner on the Coastal Arctic project. The U of A has key polar bear researchers located in Alberta and could assist EVZ by connecting with other potential partners for polar bear or other species acquisition and research opportunities. EVZ and VZDS will continue to seek other partners in the community for foodservice, sponsorship and other opportunities.

CITY COUNCIL

EVZ and VZDS will continue to engage with municipal political leaders to communicate the zoo’s priorities and interests and to seek advocates. The next election is October 2025. The timing of Master Plan communications and updates will consider this cycle.

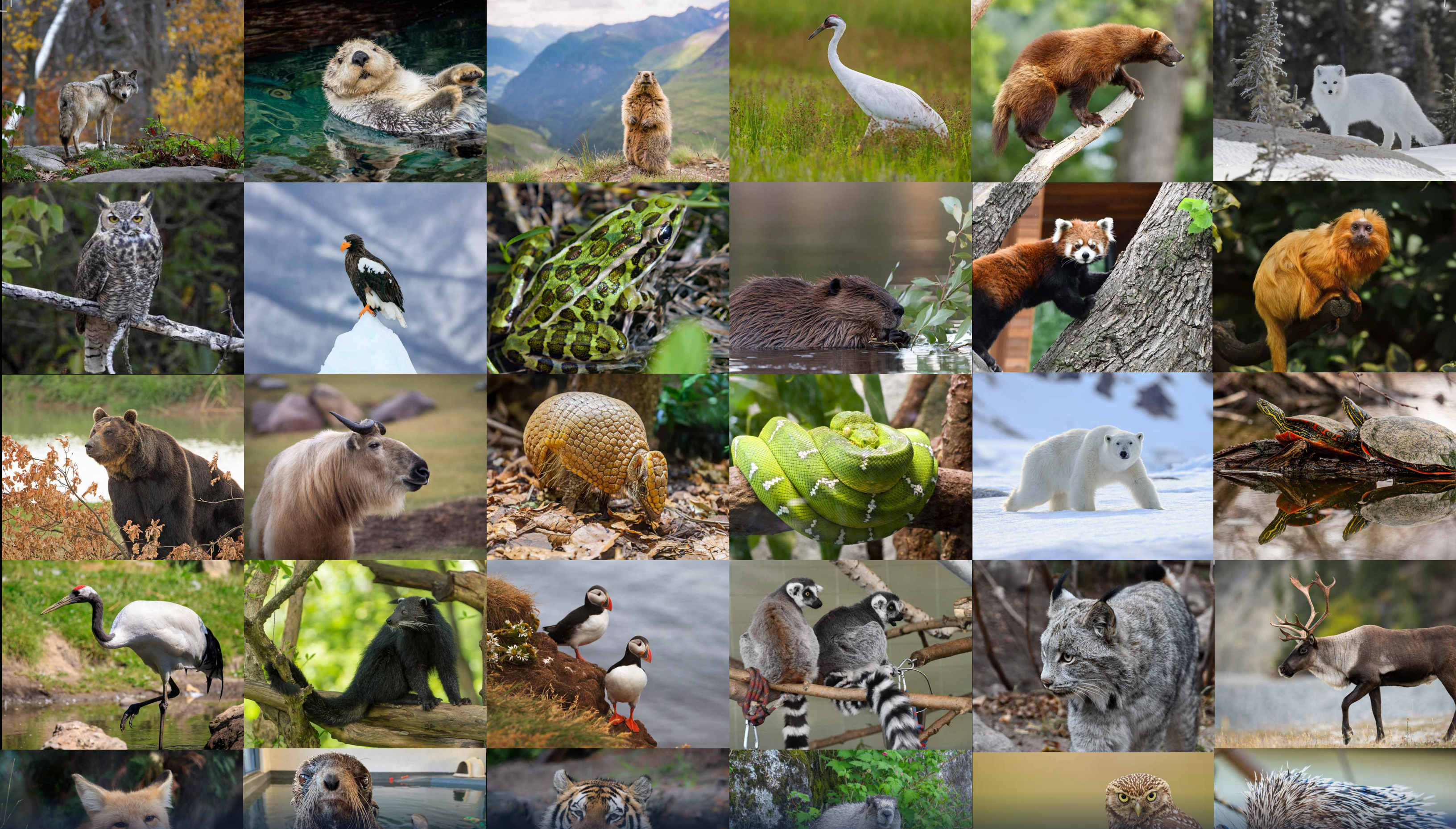
Master Plan Risks

ANTICIPATING THE UNKNOWN

A 15-year zoo Master Plan faces several high-level risks that could impact cost, schedule, and feasibility. Local and global political, legislative and economic factors—such as regulations, funding priorities, tariffs, inflation, labour and supply chain disruptions—could drive up costs and delay critical materials. Specialty zoological items, like acrylic glazing or shotcrete, often have limited suppliers, requiring procurement from niche contractors or distant manufacturers, increasing expenses and lead times. Long lead procurement challenges could stall projects, as specialized materials and equipment may take months or years to secure. Evolving animal welfare needs or accreditation standards that necessitate design changes may increase costs or require renovations to existing infrastructure.

Additionally, site unknowns pose risks, including unforeseen conditions, such as geotechnical investigations and undocumented or incorrectly documented utilities. These uncertainties can lead to unexpected costs, redesign efforts, and schedule delays, requiring proactive risk management and contingency planning to keep the Master Plan on track. Risks can be mitigated by starting design in anticipation of funding cycles to inform more accurate costing and scheduling, even though preliminary costs will be incurred.





EDMONTON VALLEY 2025 ZOO MASTER PLAN

"In the end we will conserve only what we love; we will love only what we understand; and we will understand only what we are taught." - Baba Dioum