

## BOREAL FOREST NORTHERN CONFLUENCE

WHERE THE RIVERS MEET

At the top of the Waterways to the World, visitors embark on a journey from Northern Alberta and Saskatchewan into the Northwest Territories. Home to Canada's largest National Park, this region focuses on the confluence of the Peace and Athabasca Rivers that creates one of the largest inland freshwater deltas in the world. In this place, rivers, lakes, channels, marshes and grasslands form a complex and ever-changing ecosystem. The global water story continues in this zone, branching off the Waterways central spine. Aquatic species like beaver are introduced and located integral to prominent interpretive water features that provide amenities and treat stormwater runoff along the way. Barrier-free views are achieved with moats and viewing windows into habitats.

This area is where some of Canada's most endangered species make their homes. Wood Buffalo National Park is the only nesting region for the Wood Buffalo/Aransas migratory flock of whooping cranes, one of North America's most at-risk bird species. Brought back from the brink of extinction thanks to the collaboration of many cross-border partners, the whooping crane story is a testament to the role zoos can play in species conservation partnerships.

The wolf habitat is the anchor for a carnivore-focused region, where new species like wolverine are adjacent to relocated animals including lynx and fox. The zone species are climate appropriate as they are local to Alberta, and this zone presents an opportunity for visitors to see elusive species rarely observed by humans in the wild.

This zone includes expansive habitats for hoofed species like Woodland Caribou and provides the opportunity for the zoo to contribute to significant conservation work where needed most. These species also have strong ecosystem conservation stories, such as the dynamic relationship between caribou and wolves and how conservation initiatives can support stable populations for both species.

The Boreal Forest Northern Confluence welcomes Wood Bison into a newly constructed habitat at the Zoo. This species has a strong story related to Wood Buffalo National Park as well as local connections to Elk Island National Park. Bison are significant to Indigenous communities, and having this species onsite at the EVZ supports building relationships with communities and creates opportunities to share traditional ecological knowledge.



REFERENCE IMAGE: WOOD BUFFALO NATIONAL PARK



REFERENCE IMAGE: PEACE AND ATHABASCA DELTA



REFERENCE IMAGE: BEAVER



REFERENCE IMAGE: WOLVERINE

# VISITOR JOURNEY - BOREAL FOREST NORTHERN CONFLUENCE

Mr. Baldwin and his Grade Seven students are visiting the Edmonton Valley Zoo for an Endangered Species Education Program, led by an Education Staff Member. They just finished their Interactions and Ecosystems Unit and are about to start a classwide Citizen Science project where they will help identify

#### "Whoop, whoop!"

The students are gathered in front of the whooping crane habitat, where a graceful pair of cranes bow and dance to each other. The dance appears funny at first, and more than a few students mimic the widespread wings and bobbing heads. The Education Leader shares the story of how close whooping cranes came to extinction and the decades of conservation work that has brought them back from the brink.

#### "But, this work isn't done. Whooping cranes still need our help if they are going to have a future on our planet."

Despite decades of human intervention, whooping cranes in human care and in the wild are experiencing breeding challenges. The group talks about the impact of healthy ecosystems for migratory birds all along their routes, and how sensitive cranes are to ecosystem disturbance and disruption can impact their ability to hatch and raise chicks. It is critical to learn and understand more about crane breeding so we can try to help them. The area where whooping cranes nest in Wood Buffalo National Park is hard to reach to monitor breeding pairs and their nests, and there is more work to do than there are resources and scientists to do it.

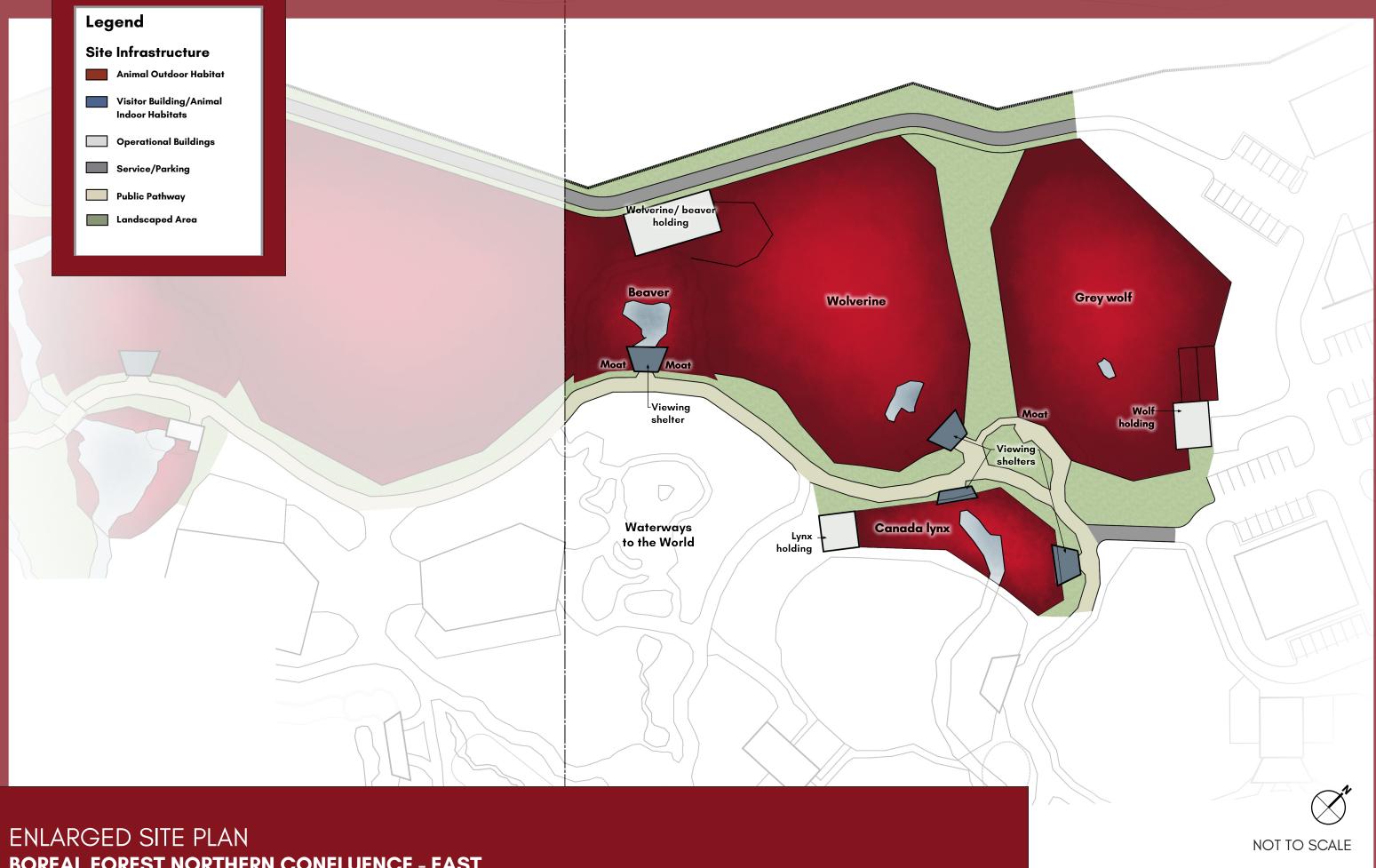
#### "This is where you come in."

Satellites have taken more than 100,000 photos of the nesting regions, and volunteers are needed to review the images and look for nests, so the field research teams know where to look. The Education Team shows the students how to spot a nest on the photo, and they work through some examples together. When they back to school, they will work as a class to volunteer for the project.

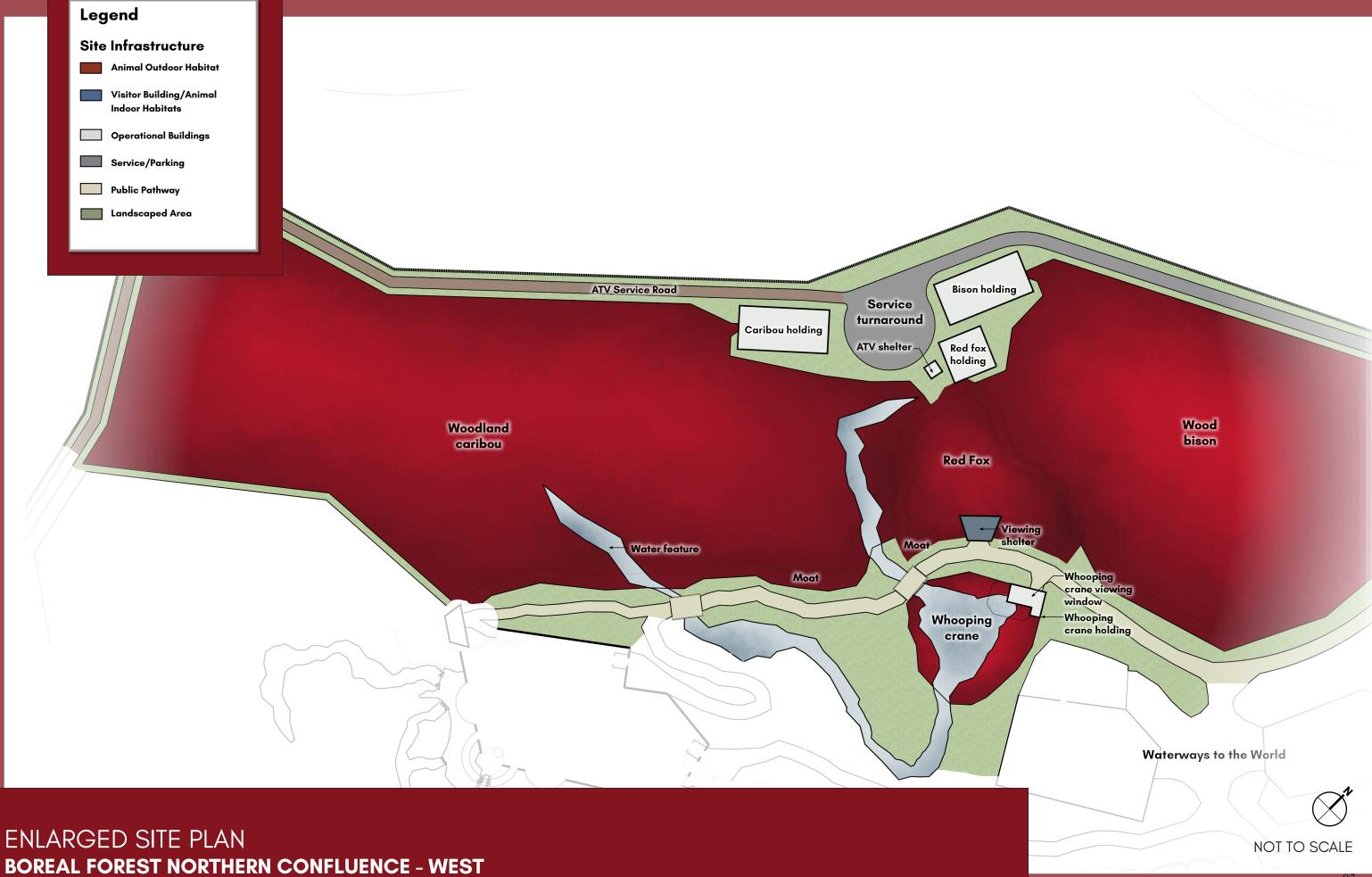
"Your class can be part of ensuring these incredible birds have a future."

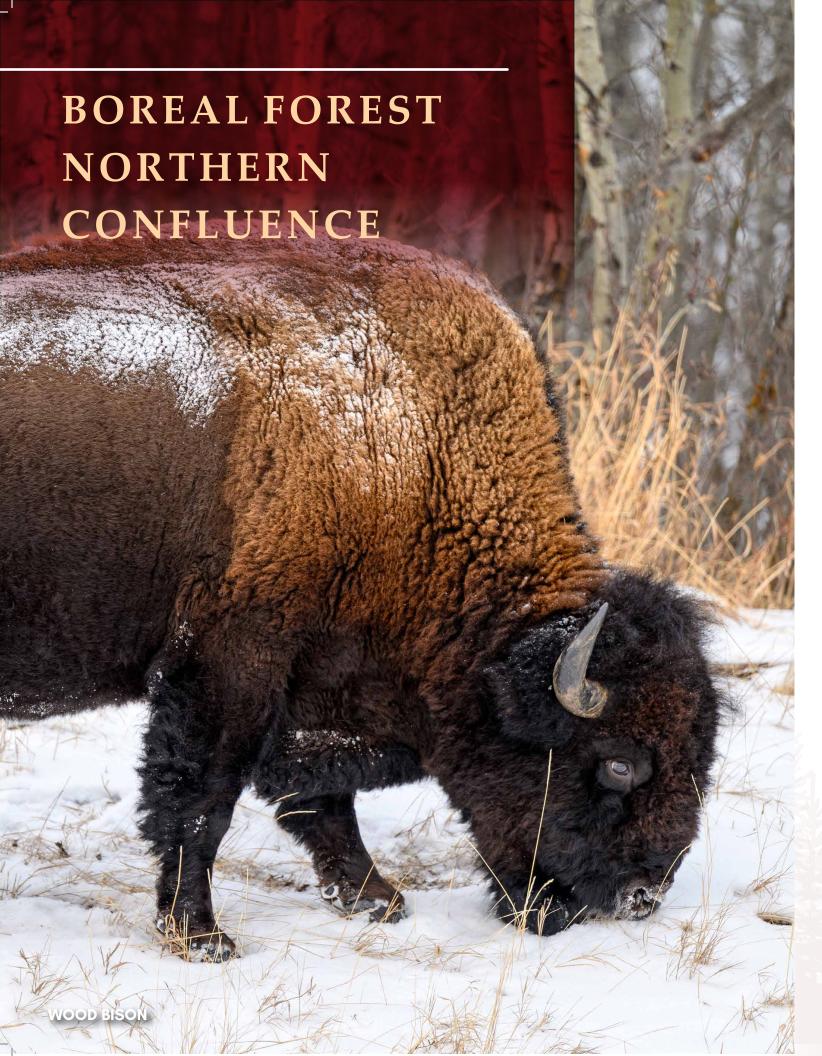






**BOREAL FOREST NORTHERN CONFLUENCE - EAST** 





#### **FUNCTIONAL PROGRAM**

The complete functional program including: sizes, components, levels of service requirements, critical asset identification and risk is included in Appendix B.

The functional program largely reflects new or modified infrastructure. Existing infrastructure to be maintained is discussed on page 127, with modifications and removals to current infrastructure further described in Appendix C.

#### PROGRAM AT-A-GLANCE

- Grey wolf habitat (initially arctic wolf as a subspecies of grey wolf)
- Wolverine habitat
- Red fox habitat
- Canada lynx habitat
- Whooping crane habitat
- Woodland caribou habitat
- Beaver habitat
- Wood bison habitat
- Viewing shelters
- Stormwater water feature
- Parallel play
- General components public areas (pathways, landscaping & fencing); signage (interpretive & wayfinding); trees; utilities; zone lighting

### **POTENTIAL SPECIES**

Grey wolf / Canis lupus (initially Arctic wolf as a sushspecies of grey wolf)

Canada lynx / Lynx canadensis Red fox / Vulpes vulpes

North American wolverine\* / Gulo gulo luscus (may have to switch to European for obtainability)

North American beaver\* / Castor candensis

Whooping crane\* / Grus americana

Wood bison\* / Bison bison athabascae

Woodland caribou\* / Rangifer tarandus caribou

\* Indicates new species

