

Conceptual Design for Urban Ecological Restoration, Community engagement, and Education at Ken Euers Nature Area

Suprima Joshi, MS Environmental Science and Policy, UW-GB;

Julia Noordyk, Water Quality & Coastal Communities Specialist, UW Sea Grant; Daniela Beall, Sustainability Coordinator, UW-GB

Introduction

Ken Euers Nature Area, located on the western coast of Green Bay and at the core of the city, is surrounded by marshes and the bay's open waters. The two diked impoundments at Ken Euers offer a unique opportunity for the public to experience the bay's coastal wetland habitats. These diked wetlands provide refugia to many species during low water periods (Giese et al. (2018)). As such it stands as a vital sanctuary, not just for a diverse array of migratory birds, anurans, and other great lakes wetland species, but also for the local community. Recent restoration in and along lower Green Bay has enhanced bird sightings and increased the value of Ken Euers as an accessible recreational spot for birdwatchers, anglers, kids, and nature enthusiasts. Recognizing this, we proposed a conceptual design to convert this valuable coastal edge at Ken Euers Nature Area from a concrete parking lot to an immersive green space enhancing the wetlands intrinsic, instrumental and relational values.

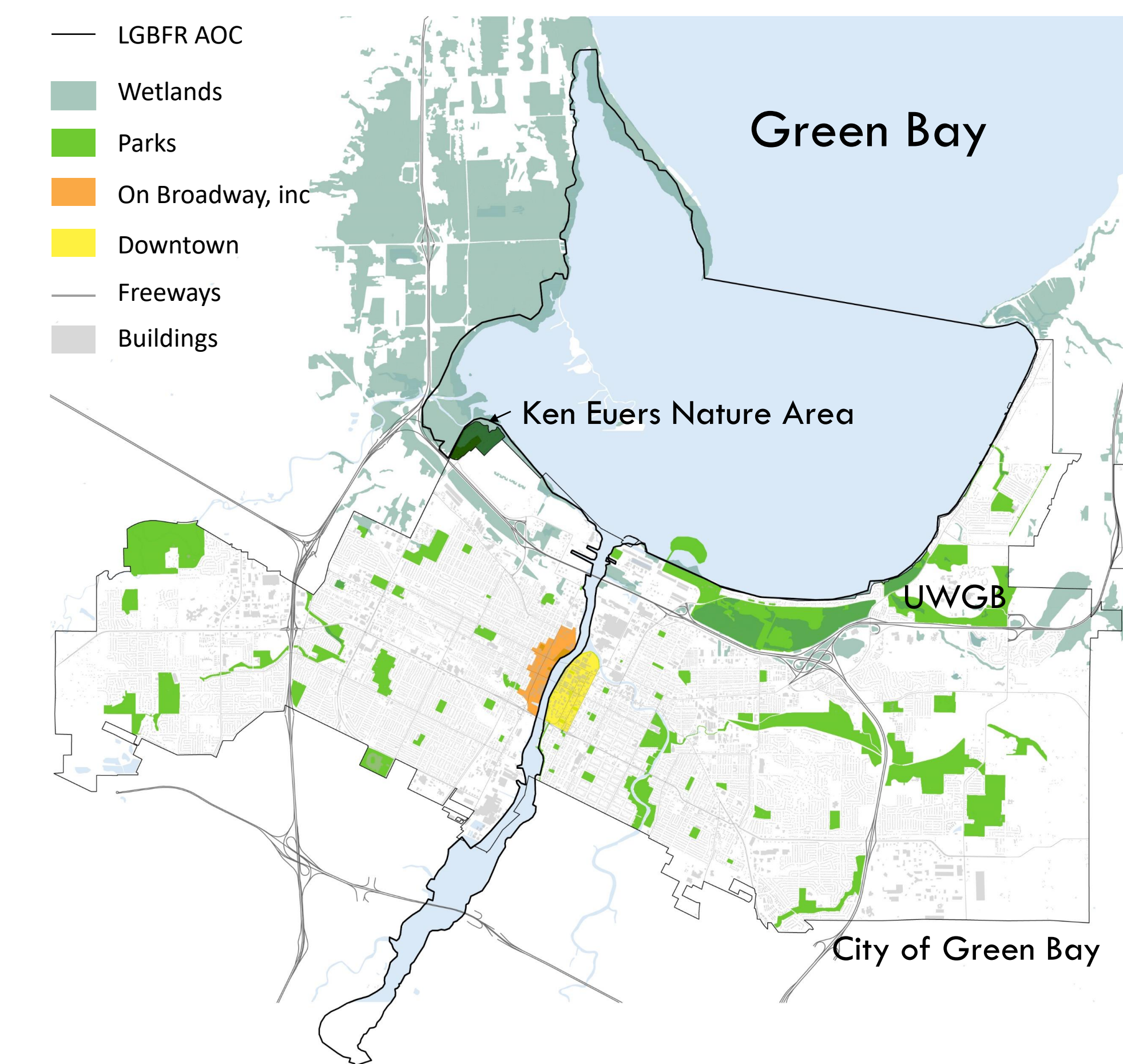


Fig 1: Ken Euers Nature Area Location map

Materials and methods

Site study materials were obtained from Dr. Amy Carrozzino-Lyon, UW-GB and Kaurie Mihm, City of Green Bay. The GIS files were obtained from WIDNR, Brown County, Nationalmaps, UW-Madison, etc. The conceptual plans was drafted in AutoCAD, and the 3D was made in SketchUp. The final renders were generated in Lumion, and postprocessing was done in Adobe Illustrator and Photoshop.

Results

In the multifunctional design, we incorporated prairie areas with native pollinator plants and trees. It also includes green infrastructure, such as permeable paving and wet meadow buffers, to provide stormwater treatment solutions. Public amenities that we included were a bird observatory, an outdoor classroom, fishing access, canoe launches, learning boards, and benches.

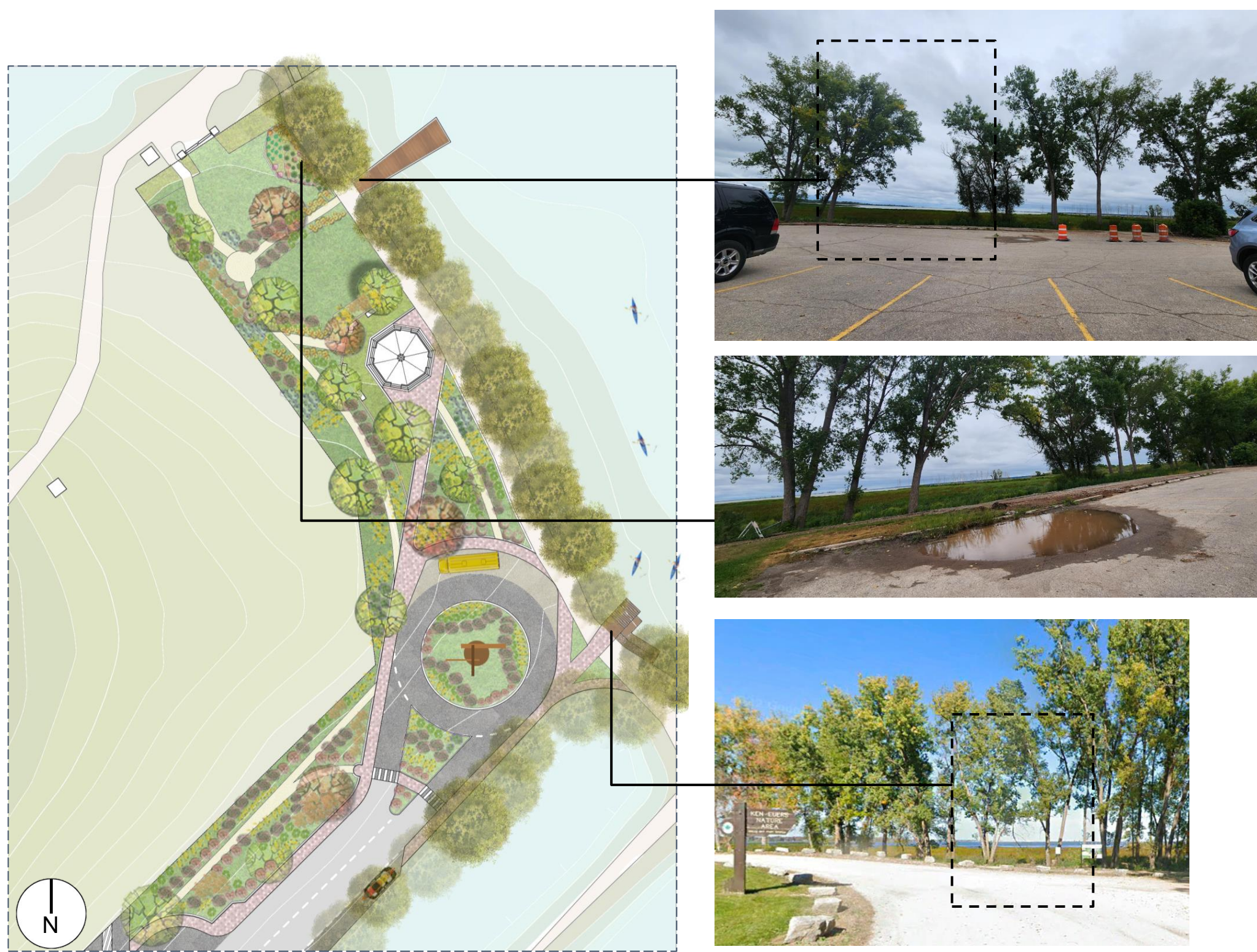


Fig 2: Existing conditions at the site.

Abbr	Common Name	Scientific Name	Ht	Soil	Space	Bloom Time																	
						J	F	M	A	M	J	J	A	S	O	N	D						
PBS	Prairie Blazing Star	Liatrix pycnostachya	2-5'		1'																		
DD	Dogtooth Daisy	Helenium autumnale	3-5'	Mo	2-3'																		
S	Black-eyed Susan	Rudbeckia hirta	1-3'	D, Mo	1'																		
B	Bergamot	Monarda fistulosa	2-3'	D, Mo	2'																		
WG	Wild Geranium	Geranium maculatum	1-2'	Mo	1'																		
WBP	Wild Blue Phlox	Phlox divaricata	1-2'	Mo	1'																		
SW	Swamp Milkweed	Asclepias incarnata	3-5'	Mo, W	1-2'																		
GBL	Great Blue Lobelia	Lobelia siphilitica	1-4'	Mo, W	1'																		
SP2	Smooth Penstemon	Penstemon digitalis	2-3'	M, Mo	1'																		
PPC	Purple Prairie Clover	Dalea purpurea	1-2'	D	1'																		
BW	Butterflyweed	Asclepias tuberosa	2-3'	D, M	1-2'																		
SM	Showy Milkweed	Asclepias speciosa	2-4'	Mo	2-3'																		
HSA	Heart Shaped Aster	Aster cordifolius	2-3'	Mo	1'																		
SP	Smooth Penstemon	Penstemon digitalis	2-3'	D, Mo, W	1'																		
WFI	White False Indigo	Baptisia alba	3-5'	D, Mo	3'																		
JP	Jack in the Pulpit	Arisaema triphyllum	1-2'	Mo, W	6" - 1'																		
GA	Golden Alexander	Zizia aurea	1-3'	Mo	1'																		
FB	Foxglove Beardtongue	Penstemon digitalis	2-3'	D, Mo, W	1'																		
FS	Fox Sedge	Carex vulpinoidea	1-3'	Mo, W	18"																		
CSA	Crooked Stem Aster	Aster prenanthoides	1-3'	M, Mo	1'																		
CBG	Closed Bottle Gentian	Gentiana andrewsii	2'	Mo, W	1'																		
BS	Bottlebrush Sedge	Carex hystericina	2-4'	Mo, W	2'																		

Fig 3: Native pollinator selections for the prairie



Fig 3: View of the Observation Deck



Fig 4: Conceptual plan at Ken Euers Nature Area

1. Wet meadow area
2. Observation deck
3. Pollinator garden
4. Outdoors classroom spill out
5. Gravel pathways
6. Outdoor classroom
7. Permeable paving
8. Drop-off for bus
9. Round about large enough for bus with 28' inner and 42' outer radius
10. Canoe launch
11. Center art piece
12. Car drop-off for cars with canoe

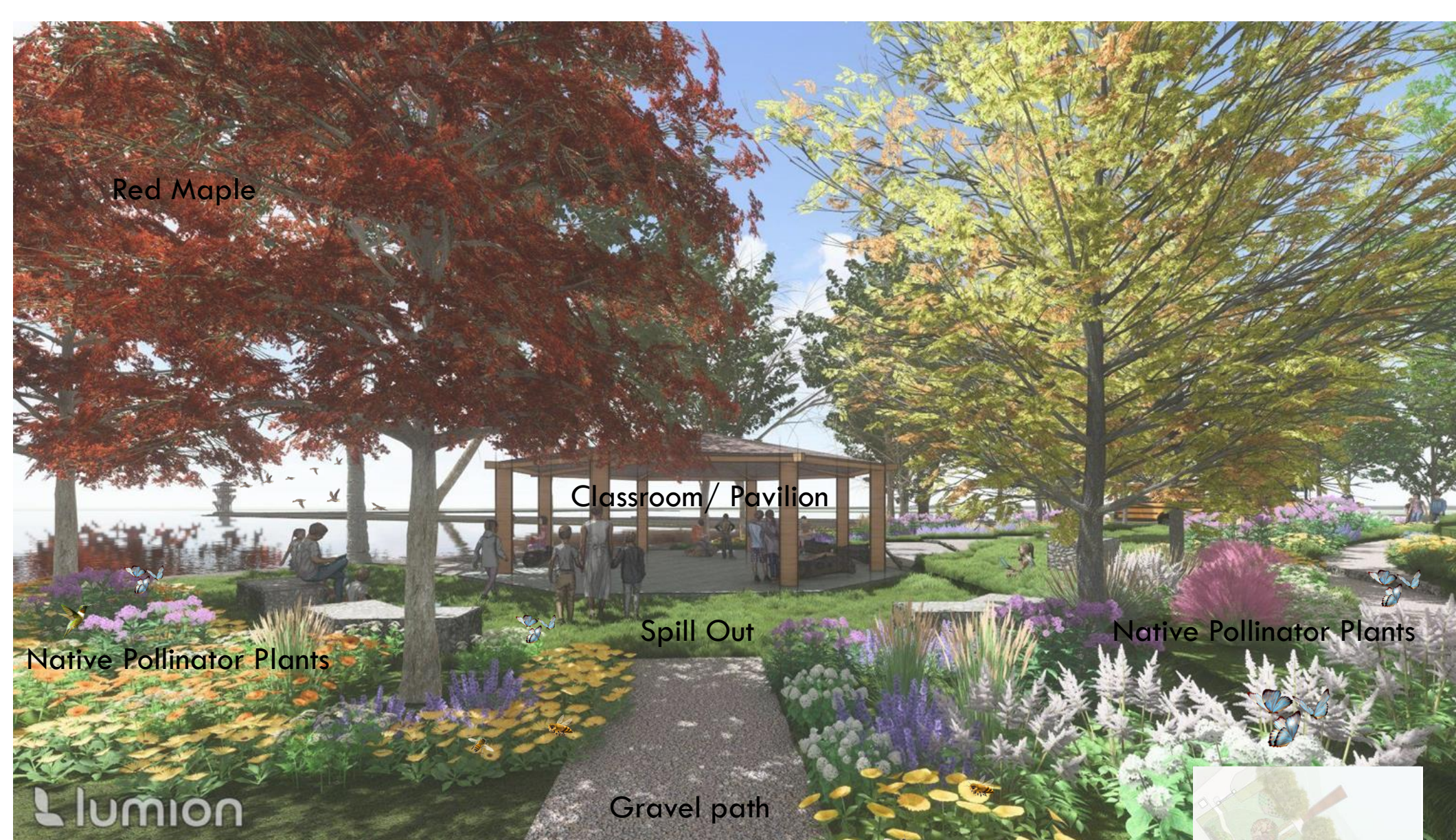


Fig 5: View of the Outdoor classroom



Fig 6: View of the Canoe Launch

Conclusion

This conceptual design aims to demonstrate the transformation of a concrete coast edge into a thriving habitat. Such revitalized space not only encourages community engagement, but also provides environmental educational opportunities for the public. By doing so, Ken Euers Nature Area will play a crucial role in urban ecological restoration and conservation.



Fig 7: Before-After vision of the site

Literature cited

Gnass Giese, E. E., Howe, R. W., Wolf, A. T., & Niemi, G. J. (2018). Breeding birds and anurans of dynamic coastal wetlands in Green Bay, Lake Michigan. *Journal of Great Lakes Research*, 44(5), 950–959.

Acknowledgments

We would like to thank Dr. Amy Carrozzino-Lyon, UW-GB and Kaurie Mihm, City of Green Bay for sharing information on Ken Euers Nature Area.

Further information

Please contact joshs03@uwgb.edu, noordykj@uwgb.edu, bealld@uwgb.edu if you have a question or comment.

