



Mahaska County Water Trails Proposal

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Design Objectives

Chris Clingan, director of the Mahaska County Conservation Board, has requested the University of Iowa civil engineering senior team to improve four water trail locations to provide the community with a recreational experience that highlights the natural beauty of the county. The improvements follow the Iowa DNR Water Trail Development Guide, the SUDAS Design Manual, the Iowa DOT Design Manual, and the ADA Parking Regulations.

Location

The water trails will be located within Mahaska county along the South Skunk River and the Des Moines River. Four sites are to be developed/improved for this project; Glendale Access, Rose Hill Access, Eveland Access, and 310th street Access.

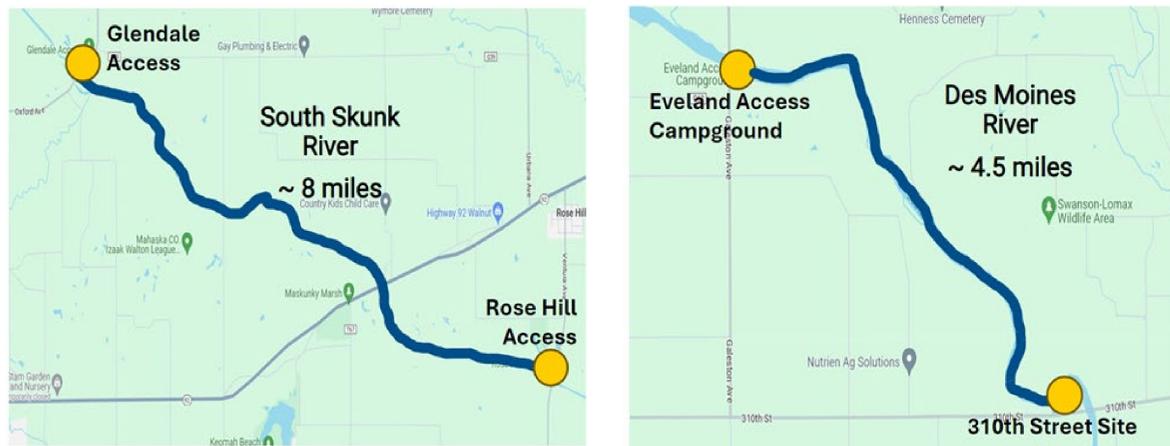


Figure 1. Locations of Glendale Access, Rose Hill Access, Eveland Access, and 310th street Access along the South Skunk River and Des Moines River.

Estimated Project Cost

The cost for each site includes demolition, construction, restoration, and landscaping. The cost of a pre-fabricated shelter and restroom were included for Rose Hill Access and 310th street access. Additionally, the design and contingency costs were included for the final estimate.

Cost Components	
Design Cost	\$ 54,000.00
Construction Costs	
Eveland Access	\$ 44,000.00
310 St Access	\$ 321,000.00
Glendale Access	\$ 182,000.00
Rose Hill Access	\$ 331,000.00
Total Project Cost	\$ 932,000.00

Figure 2. Cost of each site and overall cost

Design Solutions

Each site location contains unique amenities purposefully designed to provide convenience and comfort for visitors. These amenities include improved parking areas, non-motorized boat launches, bathrooms, shaded communal structures, garbage receptacles, and primitive campsites. Additionally, the sites will include landscaping that has been implemented to fit into the natural environment, creating an inviting and relaxing atmosphere.

LEGEND

- 6" CONCRETE
- 6" GRAVEL
- NATIVE GRASS SEEDING
- MULCH
- RESTROOM
- FIREPIT
- PARKING BOLLARD
- TRASH RECEPTACLE

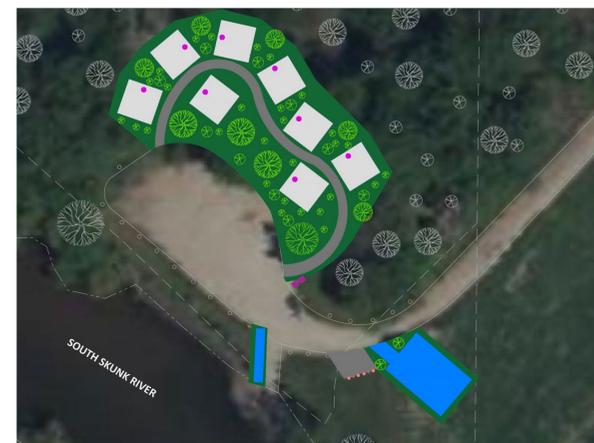


Figure 3. Glendale Access Site Design



Figure 4. Rose Hill Access Site Design



Figure 5. Eveland Access Site Design



Figure 6. 310th St. Site Design

Conclusion

We believe our design solutions are beneficial to the Mahaska community by attracting more visitors to the area. The design of these sites encompasses the desires of the clients and helps foster a welcoming natural environment. To bring this plan into fruition, we estimate an overall project cost of \$928,000.

References

Accessible Parking Spaces. (n.d.). In ADA.gov. Retrieved March 31, 2024, from <https://www.ada.gov/topics/parking/>

Mimi Wagner. (2010). Chapter 3: Design Development. *Developing Water Trails in Iowa*. Iowa Department of Natural Resources.