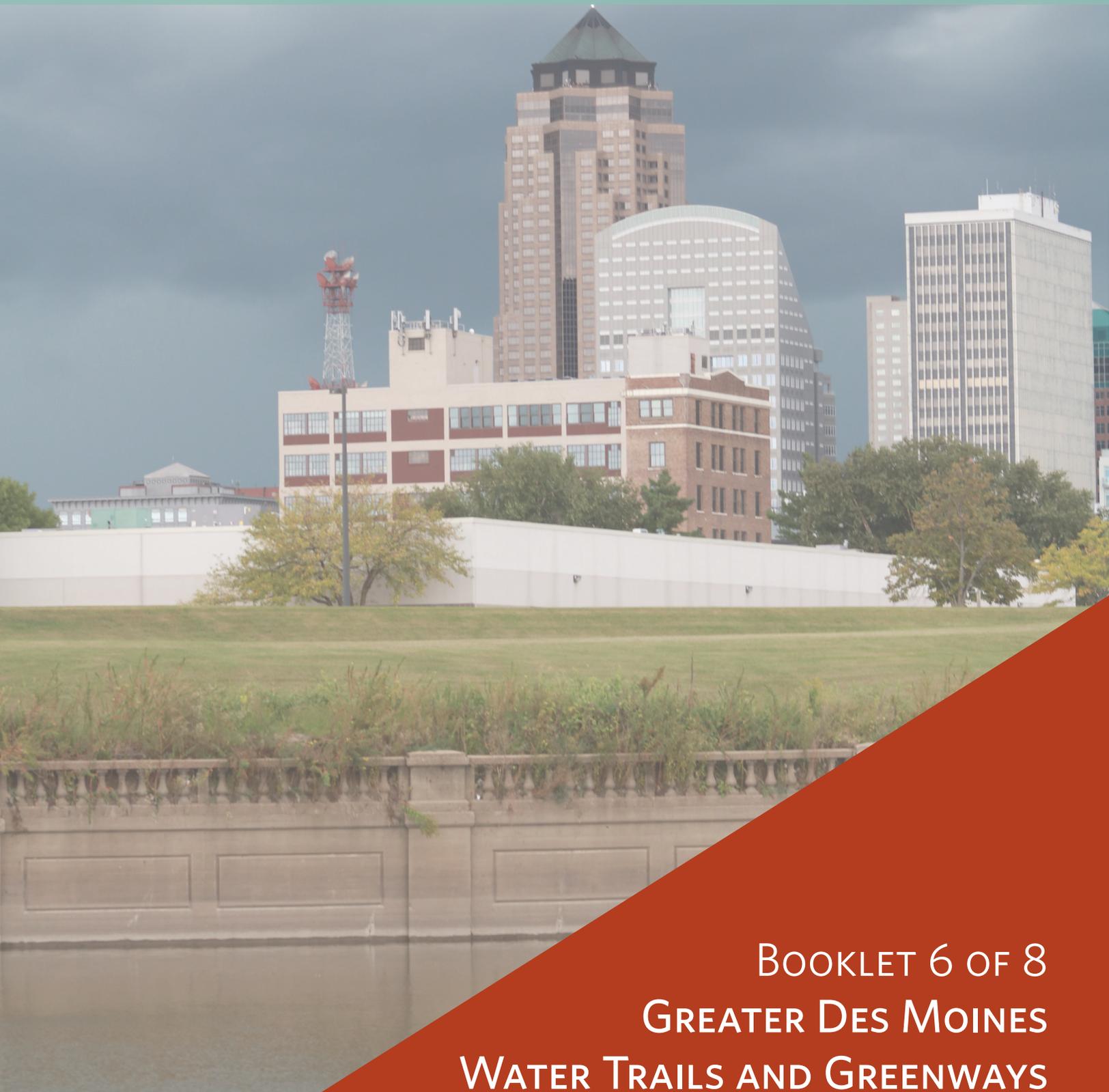




A VISION FOR RACCOON RIVER



BOOKLET 6 OF 8
GREATER DES MOINES
WATER TRAILS AND GREENWAYS
2016

Photo: DMAMPO
Raccoon River

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Booklet 1: Water Trails and Greenways Plan

Booklet 1 provides an overview of the broader *Water Trails and Greenways Plan* including vision, goals, strategies, policies, and implementation considerations. Please read through Booklet 1 to understand the larger framework that will directly impact each individual river and creek.

Booklet 2: Beaver Creek

Booklet 3: Des Moines River

Booklet 4: Fourmile and Mud Creeks

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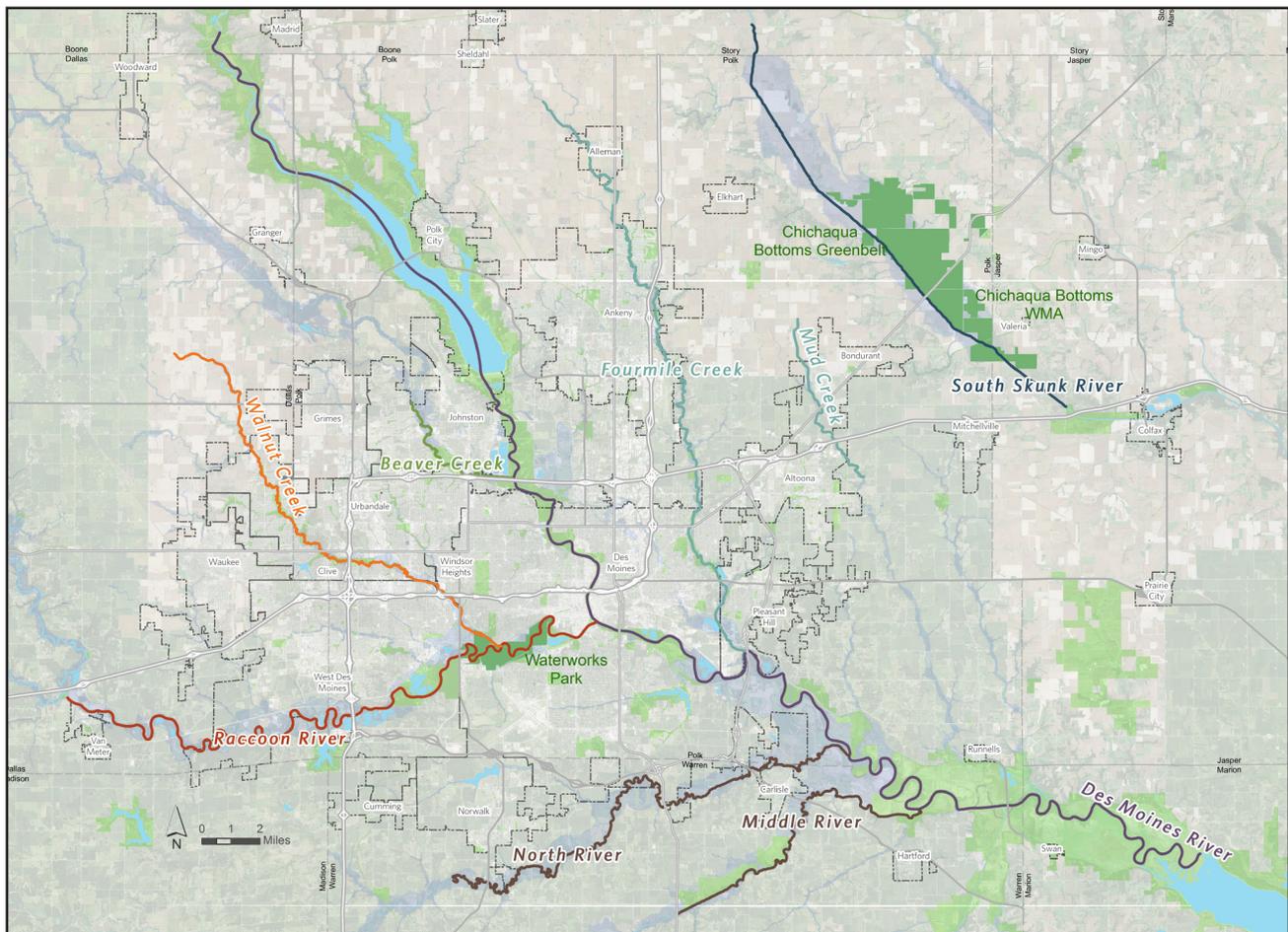
Booklet 8: Walnut Creek

One Vision, Many Communities

The Greater Des Moines Water Trails and Greenways Plan establishes a regional vision for our rivers, creeks, and greenways. Through extensive community engagement, and with the help of a strong steering committee, a clear regional vision emerged.

Regional Vision

The water trails and greenways of Greater Des Moines will be a natural haven, healthy ecosystem, signature recreational destination, economic driver, and community focal point that welcome people of all ages, abilities, interests, incomes, and cultures to connect with their rivers, creeks, and greenways.



Greater Des Moines Water Trails and Greenways planning area

This Booklet

The Greater Des Moines Water Trails and Greenways Plan looks at more than 150 miles of waterways. This booklet provides an overview of Raccoon River, including recommendations to improve its environmental, recreational, and economic potential for the entire community. There are companion booklets for each waterway, as well as an overall Plan booklet covering common strategies and practices.

Existing Conditions

Miles in study area: 31

Floodplain in public ownership: 24%

Jurisdictions within study area: Dallas County, West Des Moines, Des Moines

Current number of access points: 5

Primary Water Quality Impairments: Category 4, Bacteria and Nitrates

The Raccoon River is the tale of two rivers: rural and urban river. The western section is primarily bordered by agricultural uses and the western section is primarily urban but bordered by a series of connected parkland. Despite many miles of parkland and trails adjacent to the Raccoon River, few places allow for access to the river.

The longest stretch of uninterrupted river in this water trails plan exists along the Raccoon River. The study area for this plan includes 31 miles of the Raccoon River but many miles upstream are navigable. The Raccoon River offers the greatest opportunity for multi-day paddling outings supporting local tourism. A few boat accesses exist but are in need of improvements to be easier to maintain and create more paddle and angler friendly design elements. The existing entries are meant for motor boat access and are also a quite a distance between them. The shortest paddle outing is at minimum 3-4 hours depending on water levels. This river currently has two liveries providing boat and tube rentals and anglers accessing the water via boats and bridges. A key natural feature is Commerce Ledges that offers natural rapids and is enjoyed by paddlers practicing their skills.

Two large active quarries exist in the western edge of West Des Moines. West Des Moines has developed some initial park and recreation plan (Hallett-Marietta Reclamation Plan) for when this quarry is no longer active. This will add a significant greenspace to the growing as network of trails and greenways as planned in the West Des Moines Trails and Greenways Plan. Additionally, an extensive planning effort was recently completed for [Water Works Park](#). This plan calls for a number of water-recreation amenities including the “circuit” and dam mitigation. Implementation of these plans will be key for future water trail improvements along the Raccoon River. For more information about the existing conditions of Raccoon River, please refer to the [State of the Rivers](#) report published in February of 2016.



Eagle on the Raccoon River



Bridge over the Raccoon River

Recommendations

Economic Development Opportunities

Economic development hubs are noted in several locations along the Raccoon River including Van Meter, Booneville, and the confluence with the Des Moines River. These areas offer opportunities to support small business development that capitalizes on the paved and water trail systems. Much like pubs, restaurants, and other local businesses that have popped up along the paved trail system, the water trails can also support businesses for dining, lodging, water craft rental, bait shops, and more.

Van Meter would benefit from developing a park and recreational complex along the river that would include a boat launch and fishing access. This park should connect to Van Meter's downtown through a pedestrian path. A boat launch location is much needed at Van Meter for emergency boat access to the river.

With some enhancements of the boat access at Booneville, this site could support additional activity connecting to the old town of Booneville. The hub could be enhanced with amenities such as dining, bed and breakfast lodging, and other tourism destinations. The planned development to the east of Booneville offers opportunities for additional amenities and accesses along the river.

The downtown Des Moines hub calls for additional small businesses near the confluence of the Raccoon and Des Moines Rivers. These businesses, as well as access points, docks and other amenities, would support the large number of people expected to be floating to downtown.



River-oriented businesses



Tubing circuits

Access from Parks

There is significant dedicated parkland along the Raccoon River including Walnut Woods State Park, Browns Woods, Raccoon River Park, Water Works Park, and Gray's Lake Park. All of them lack for much interaction with the river that runs through them. Recommendations call for enhanced connections via amenities such as portage routes to existing trails, soft trails for birding, boat access, fishing amenities, pedestrian bridge, and camping. The amenities at these parks also offer great spaces for river-based programming and events such as races, how-to classes, and interpretive signage.



Carry-down access



Access for all ages and abilities



Camping sites



Trail connections

Pedal to Paddle

Pedal to paddle is the opportunity to combine bicycling and paddling. If a person can leave their vehicle at the river take-out point, he or she can bike up to the put-in point and leave their bike there. This means a person can enjoy paddling without needing multiple cars to make it happen.

Greater Des Moines has more than 600 miles of bike trails. Combining this extensive network with the more than 150 miles of water trails in the metro would allow for extensive pedal to paddle opportunities. There are numerous routes where this type of experience could take place, but the frequency of such trips would be enhanced with more liveries and excursion vendors along these trails for rental or storage of equipment. Multimodal options like this could benefit a variety of sectors in the region, and even open up new ones.

Conservation and Greenspace

It is recommended to protect and restore the quarries along the Raccoon River as future greenspaces. Significant opportunities exist to add recreational amenities. Additionally, creek and shoreline restoration is recommended. Whenever possible, the 100-year floodplain should be protected and maintained as a habitat corridor. The Raccoon River Watershed Association developed the [Raccoon River Watershed Water Quality Master Plan](#), which is a tool to guide watershed residents and stakeholders as they seek to cooperatively improve water quality in Iowa's Raccoon River Watershed. The *Water Trails and Greenways Plan* encourages the implementation of strategies outlined in the *Water Quality Master Plan*.

Conservation Improves Recreation

Watershed improvements will lead to more stable shorelines, improved water quality, enhanced habitat and decreased flooding. Therefore a more stable watershed improves the recreational value of the waterway and decreases maintenance through less tree fall, less sedimentation of access points, and a greater sense of safety by users.

See recommendations mentioned in the *Water Trails and Greenways Plan: Booklet 1* for watershed improvements and shoreline restoration.

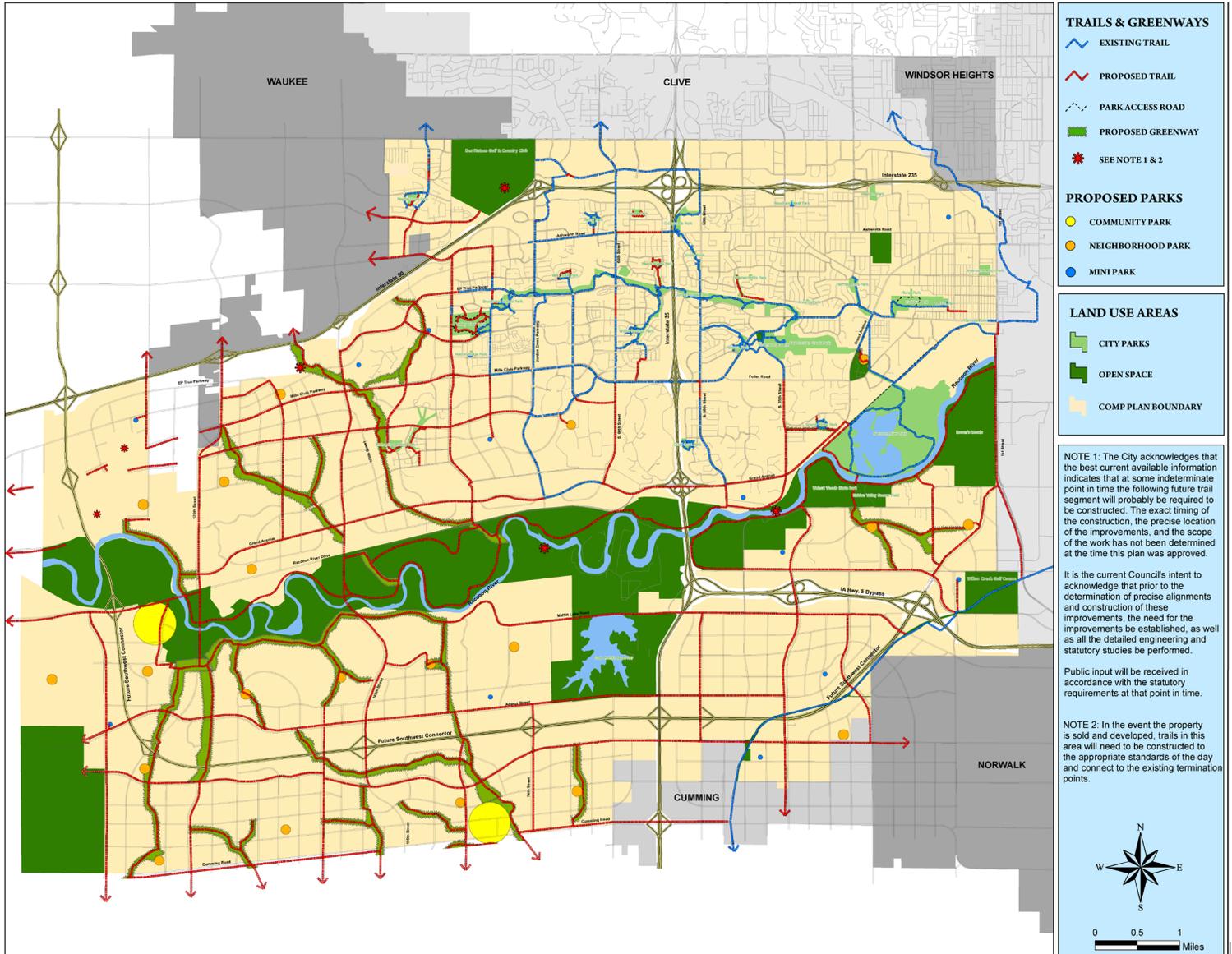


West Des Moines Master Parks and Trails Plan

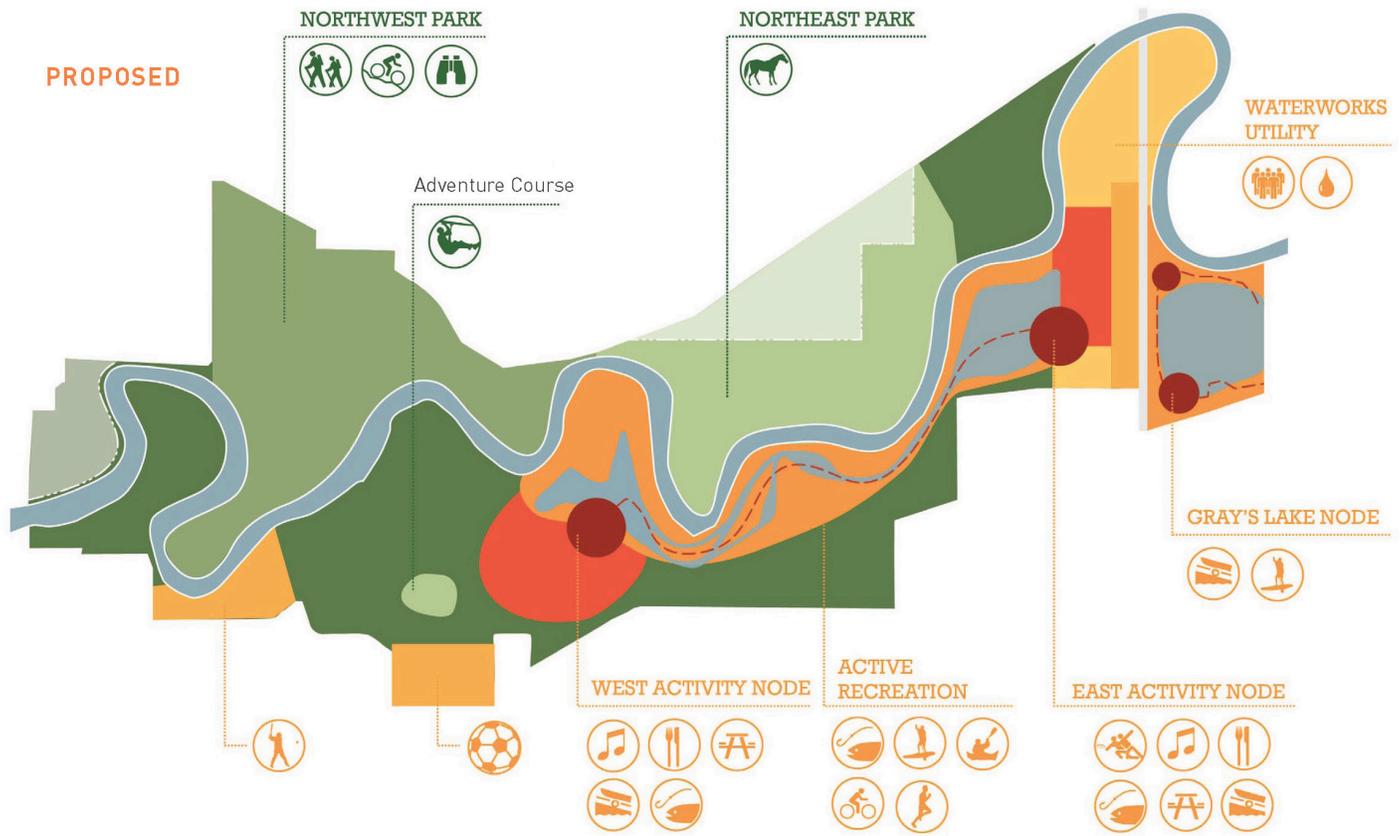
The 2010 West Des Moines Master Parks and Trails Plan highlighted the need for floodplain conservation along the Raccoon River. Combining these efforts with wetland and habitat restoration, as well as recreational opportunities like trails and birding areas, provides key corridors for the greenway system.

Expanding on the successful paved trail system also allows for more access to the river by walking and bicycling. Connecting neighborhoods and other parks to the river gives communities the opportunity to integrate the greenway into their daily lives.

In 2015, West Des Moines updated the city's [Bicycle Master Plan](#) which further develops the trail system along the river.



Water Works Park Master Plan



Launched in 2013, the Water Works Master Plan will play a key role in supporting the Raccoon River. The plan recommends policies, programming, and infrastructure to further enhance this 1,500-acre urban park's functions of operation, recreation, education, and conservation.

These four functions are front and center in the plan. For operations, floodplain management and water quality will be critical for the long-term future of the Raccoon River. As a recreational hub, the proposed enhancements in the figure above highlight the many ways this park will be a regional activity hub. As an education opportunity, Water Works Park will connect visitors to the river and illustrate the wide-ranging impacts the Raccoon River has on our region. Finally, the park is a key conservation hub and link for the greater greenway system.

Some key recommendations from the plan include:

- expanding the paved trail system and connecting north into Des Moines,
- improving the river access for fishing and paddling,
- adding new off-water activities,
- and creating a river circuit for on-water activities.

Key Projects

West Segment

Project	Location	Jurisdiction	Key Amenities	Considerations
Quarry Restoration	North of Van Meter	Van Meter	<ul style="list-style-type: none"> ATV/snowmobile/off-road bicycling access 	<ul style="list-style-type: none"> Restored quarries can be difficult to maintain for fishing. Find opportunities for untapped recreation potential
Economic Hub	Van Meter	Van Meter	<ul style="list-style-type: none"> Boat launch and fishing access Pedestrian path to downtown Van Meter Improve park facilities Trail connections 	<ul style="list-style-type: none"> Design for use by emergency responders Consider potential conflicts between boaters, paddlers, and anglers. Site design can mitigate conflicts Stabilize banks before trail improvements
Economic Hub	Booneville	Booneville/ West Des Moines	<ul style="list-style-type: none"> Bed and breakfast lodging Tourist destinations Wayfinding to businesses Parking, lighting, trash cans Camp sites Bicycle/watercraft lockers 	<ul style="list-style-type: none"> Access maintenance and upgrades Coordinate with planned paved trail system to allow for pedal to paddle opportunities Work with Dallas County Conservation on river access grant opportunity
Quarry Restoration	West Des Moines	West Des Moines	<ul style="list-style-type: none"> Parking, restrooms Trail connections Bicycle/watercraft lockers SCUBA park Off-road bicycling areas 	<ul style="list-style-type: none"> Pedal to paddle options Direct carry-down portage connection from the river to the quarry



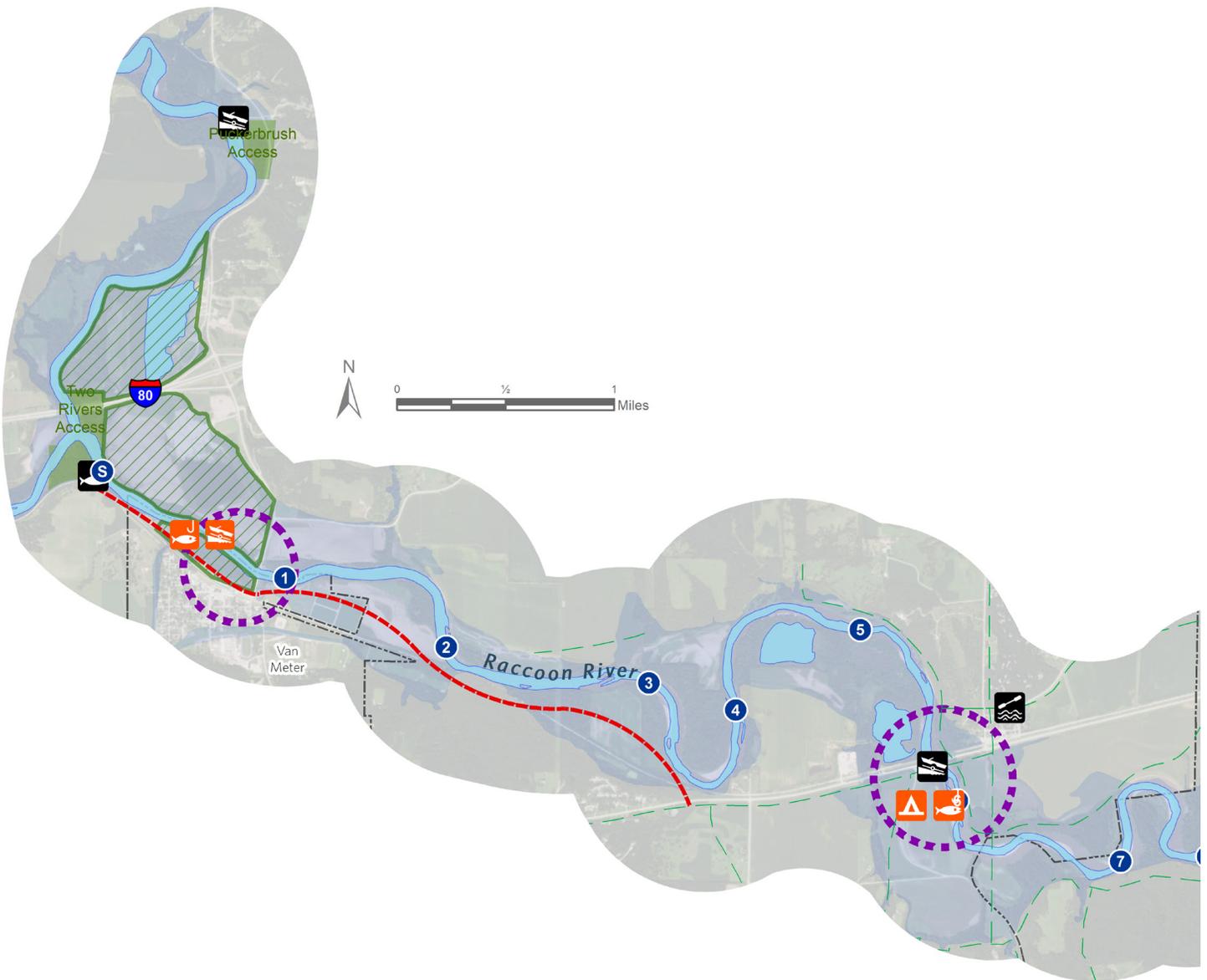
Kayak and Canoe Storage

East Segment

Project	Location	Jurisdiction	Key Amenities	Considerations
Wading Access	Commerce Ledges	West Des Moines	<ul style="list-style-type: none"> Interpretive signage for birding Parking Portage 	<ul style="list-style-type: none"> Consider uses. Paddlers may be doing circuits through Commerce Ledges. Birders will be looking for quiet, natural environment
Camping and Wading	Walnut Woods	State/DNR	<ul style="list-style-type: none"> Streambank stabilization Fish habitats Trash receptacles Watercraft lockers Camping connections 	<ul style="list-style-type: none"> Connect Walnut Woods to the river through signage, amenities, and trail use Soft trail connection from river to campground Find connections across the river to Raccoon River Park
Wading Access	Brown's Woods	Polk County Conservation	<ul style="list-style-type: none"> Wading area Paths to the park 	<ul style="list-style-type: none"> Preserve the natural character of the area
Portage	Raccoon River Park	West Des Moines	<ul style="list-style-type: none"> Wayfinding and interpretive signage Benches Soft trails 	<ul style="list-style-type: none"> Look for opportunities to build programming from flat water experience on the lake to the river experience
Access and Activities	Water Works Park	Water Works	<ul style="list-style-type: none"> BCycle hub Public art and focal points Restrooms Fish cleaning station 	<ul style="list-style-type: none"> Align with Water Works Park Master Plan Find balance between use and conservation
Dam Mitigation	Water Works Park to Confluence	Water Works	<ul style="list-style-type: none"> Portages and signage until mitigated for safe passage 	<ul style="list-style-type: none"> Consider utility intakes and other infrastructure needs
Economic Hub	Confluence	Des Moines	<ul style="list-style-type: none"> Enhanced access point Small businesses Signage to restaurants, businesses, and amenities BCycle hub 	<ul style="list-style-type: none"> Plan for emergency services needs Pedal to paddle opportunity Decisions on Scott Ave. Dam will impact decisions here Design for flood impacts Options for boat parking

**Additional initiatives can be found in the Water Trails and Greenways Plan: Booklet 1*

Raccoon River – West



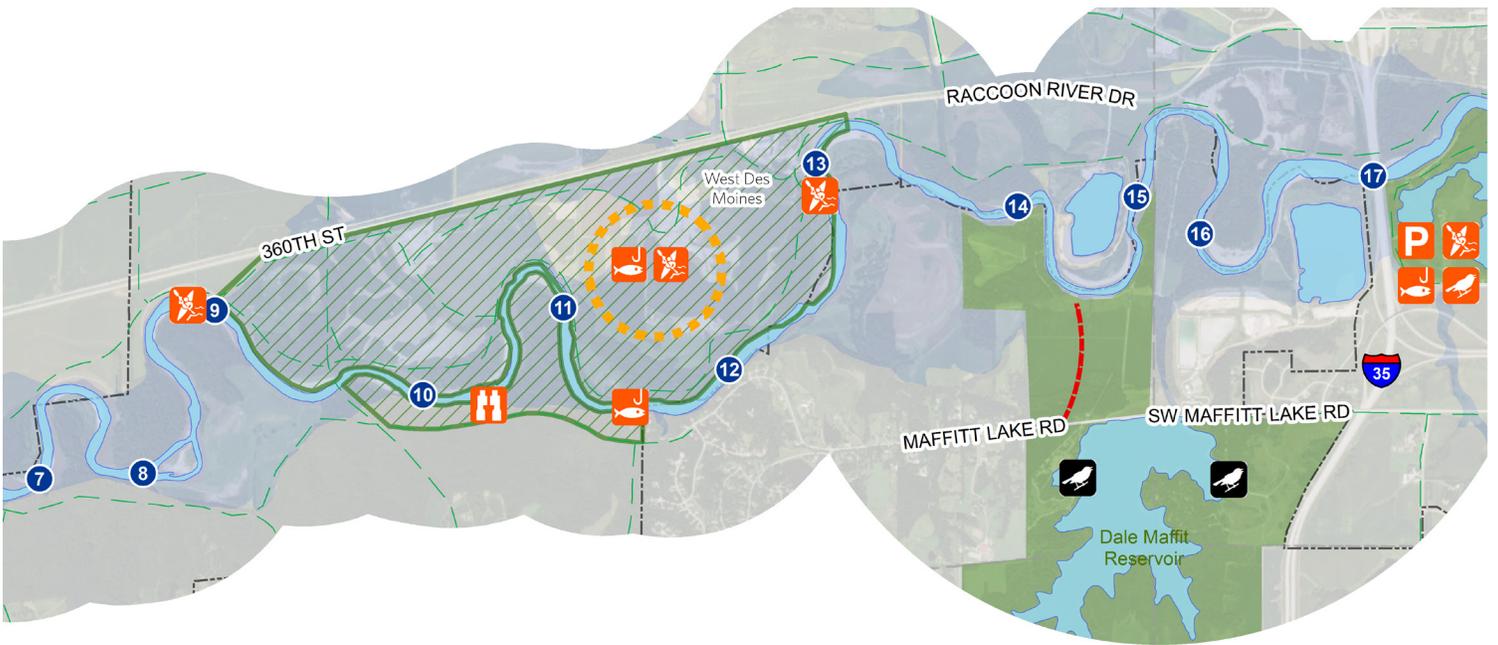
Potential Water Trail Designation: Recreational-Gateway

Potential Experience Level: Intermediate-Beginner

The Raccoon River offers a typical Iowa water trail experience including day-trip opportunities and family and group experiences. Paddling the Raccoon River requires some boat control and is intended for users with some experience to negotiate winding and at times wider channel stretches as well as sandbars, rocks, riffles and snags. The Raccoon River has the potential to be designated as a Recreational Level water trail if additional access points are installed to create shorter segments. Some sections, including Water Works to downtown, may be designated as Gateway due to high level of use, extremely short segments, proximity to urbanites, highly developed access points with universal design, and high level of maintenance both at access points and in-stream.

*See appendix regarding more detailed considerations and implications of these designations.

Color Codes	Potential Hubs	Other Icons
Existing	Economic Hub	Mile Marker
Potential	Activity Hub	Raccoon River
		County Boundary
Amenities	Camping	Conservation and Park Land (Public)
Carry-down Access	Livery	100-year Floodplain
Boat Access	Parking	Bicycle/Pedestrian Facilities
Fishing Access	Scenic View	Trail Needed
Birding	Conservation Area	Existing
		Future



Raccoon River – East

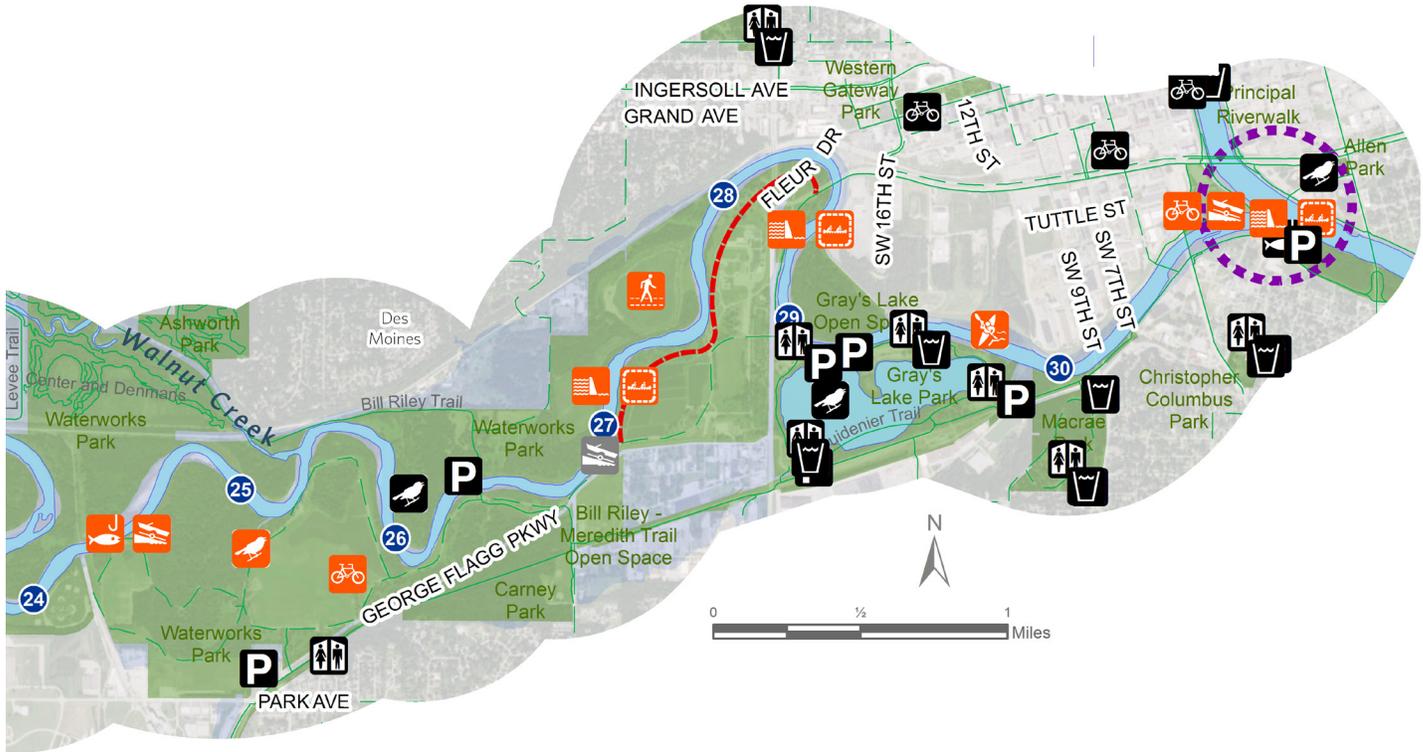
Raccoon River Recreation Area

A significant amount of contiguous parkland exists along the Raccoon River. There is great benefit in beginning to connect the individual parks - Walnut Woods, Browns Woods, Raccoon River Park, Water Works Park, and Gray's Lake Park - and treat them as an integrated Raccoon River Recreation Area. While owned and managed by different governments, they are enjoyed by citizens throughout the region regardless of their residency. Beginning to view these parks as a connected park system would lead to improved planning of amenities, efficiencies in management and maintenance, and improved marketing of the various experiences offered within this segment of the water trails and greenways system.



Paddle Circuit at Water Works Park

As part of the *Water Works Park Master Plan* (page 9), a paddle circuit is being considered which would connect the operational ponds into a continuous, safe waterway. The circuit cut narrow channels between the ponds and allows paddlers the ability to loop back around to their starting point while providing experiences suited for multiple skill levels. The circuit would also add ecological benefits and improve the water quality and fishing conditions.



Color Codes	Potential Hubs	Other Icons
Existing	Economic Hub	Mile Marker
Potential	Activity Hub	Raccoon River
Modifications	Camping	County Boundary
Amenities	Restrooms	Conservation and Park Land (Public)
Carry-down Access	Portage	100-year Floodplain
Boat Access	Livery	Bicycle/Pedestrian Facilities
Fishing Access	Parking	Trail Needed
Wading Access	Dam Mitigation	Existing
Birding	Conservation Area	Future
Soft Trails		

Gray's Landing

When development occurs in Gray's Landing, river and trail access should be considered. With greater development, there may be a need for a pedestrian bridge over the river to Gray's Lake Park.

Symbology Explained

Carry-down Access



Carry-down accesses are for non-motorized paddling such as kayaking, tubing, or canoeing. Site design involves many factors, and should first look at the Iowa DNR's *Developing Water Trails in Iowa* guidelines. Lesser accesses are denoted by the portage symbol, and may not require the same level of infrastructure or amenities.

- Lighting and trash cans
- Parking
- Seasonal restrooms
- Launch types
- Watercraft and bicycle lockers
- Interpretive and wayfinding signage



Wading Access



Wading spaces are where we can get our feet wet. They can be designed for mucking among natural vegetation and sandbars or as play spaces with steps and stones. No matter the design, wading areas allow us the opportunity to physically connect to the water and nature.

- All ages access
- Restrooms/showers
- Benches and resting points in view of access



Fishing



Fishing is a popular activity all along the creeks and rivers. Creating access points can provide safe and comfortable areas that support anglers. Rock outcroppings, docks, and other designs offer different experiences. Universal design is critical since fishing is often a multi-generational activity.

- Restrooms
- Lights and trash cans
- Spaces for relaxing
- All-ages/abilities design
- Parking and bicycle parking



Respite



Areas to relax, take in the view, and enjoy the river allow people to find a moment of respite in the metro. These areas can be natural greenspaces or more urban like the Principal Riverwalk depending on the context of the area and desire of the community.

- Benches with a view
- Picnic areas and tables
- Paths and trails along water



Economic Hub



Water trails can play a role in developing economic hubs. These hubs typically represent the convergence of multiple assets, such as a river, trails, residential, and economic clustering, and other factors. These are destinations that draw in visitors for multiple reasons. The scale changes for smaller or rural communities, but the economic impacts remain. These hubs are opportunities for supportive development along the rivers.

- Event spaces
- Parking
- Restrooms
- Launch types
- Bicycle parking
- Public art
- Restaurants and shops
- Liveries/outfitters
- Shuttle service



Activity Hub



Activity hubs leverage existing attractions into destinations where multiple activities converge. These hubs take advantage of nearby parks and trails to create spaces for longer visits and multiple activities. Often multi-generational and family-friendly spaces, these hubs should be planned with a diverse audience in mind and combine several different reasons to visit.

- Play spaces
- Educational opportunities
- Areas to eat, relax and play
- Programming
- Restrooms and trash cans
- Lights
- Bicycle parking
- Wayfinding



Conservation Area



A key component to fully enjoying the rivers and creeks is ensuring their natural quality and sustainability over time. Creating connected spaces for habitats, restoring wetlands and reducing flooding, and educating the next generation of river stewards are central pieces to the long-term health of the waterways.

- Educational programming
- Interpretive signage
- Habitat connectivity
- Wetlands restoration
- Floodplain management



Soft Trails



Unpaved walking, hiking, and birding trails give people access to nature and offer a much different experience than paved trails. They also do not disrupt wildlife connections and can provide the opportunity for education programming.

- Educational programming
- Interpretive signage for history or birding
- Maintenance and conservation





Raccoon River

A DAY IN 2025

AFTER A LONG DAY AT WORK YOU ARE EXCITED TO GET OUTSIDE. YOU CATCH THE BUS NEAR YOUR OFFICE AND TAKE IT TO WATER WORKS PARK. THERE ARE FOOD TRUCKS LINED UP AND YOU GRAB SOME LIGHT DINNER AND SIT IN PEACE ALONG THE WATER. AFTER FINISHING UP, YOU HEAD TO A B-CYCLE STATION AND GET ON A BIKE. RIDING WEST YOU FOLLOW THE TRAIL ALONG THE RACCOON RIVER. IN NO TIME YOU HAVE REACHED RACCOON RIVER PARK WHERE YOU CAN TURN IN YOUR BIKE AND RENT A KAYAK. YOU PADDLE BACK TO WATER WORKS. A SEAMLESS TRANSITIONS FROM BUS TO BIKE TO RIVER ALLOW YOU TO HAVE AN OUTDOOR ADVENTURE CLOSE TO DOWNTOWN.