A Vision for Walnut Creek

Greater Des Moines Water Trails and Greenways

Booklet 8 of 8

2016
# Table of Contents

**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**

**Booklet 5: Middle and North Rivers**

**Booklet 6: Raccoon River**

**Booklet 7: South Skunk River and Chichaqua Greenbelt**

**Booklet 8: Walnut Creek**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Vision</td>
<td>3</td>
</tr>
<tr>
<td>Existing Conditions</td>
<td>4</td>
</tr>
<tr>
<td>Recommendations</td>
<td>5</td>
</tr>
<tr>
<td>Key Projects</td>
<td>7</td>
</tr>
<tr>
<td>Recommendation Maps</td>
<td>8</td>
</tr>
<tr>
<td>Symbology Explained</td>
<td>10</td>
</tr>
</tbody>
</table>
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.

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 Walnut Creek, 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: 21
Floodplain in public ownership: 18%
Jurisdictions within study area: Dallas County, Urbandale, Clive, Windsor Heights, West Des Moines, Des Moines
Current number of access points: 0
Primary Water Quality Impairment: Category 4, Bacteria

While much of Walnut Creek has a trail that adjoins it and several regional parks that border it, there are no points that allow for creek access for play, fishing or paddling. It is second to the Des Moines River in its visibility from roadways especially in key locations along 73rd and 63rd Street but little is done to highlight this natural feature. While paddling this shallow creek is seasonal, it does offer a unique opportunity to recreate along backyards, near local businesses and near local roadways. Due to the number of parks that border the creek, it offers a lot of potential for family-friendly accesses for wading and playing. Before paddling is encouraged in the creek, the dams along the creek need to be mitigated.

Flooding has increased along the creek has increased in recent years and water quality challenges continue to plague this creek that is a feeder to the Des Moines drinking supply. These issues are being addressed by the Walnut Creek Watershed Management Authority and its recently adopted watershed plan. Additional projects are planned along the creek and can be found in the recently adopted Clive Greenbelt Master Plan and the Windsor Heights Comprehensive Plan. For more information about the existing conditions of Walnut Creek, please refer to the State of the Rivers report published in February of 2016.
Recommendations

Great things are envisioned for Walnut Creek with the development of a watershed plan to improve the water quality and flooding impact of the creek, as well as Clive’s master plan for the greenbelt and the Windsor Heights Comprehensive Plan. Recommendations listed here are meant to support and complement other regional planning efforts.

Access and Connections
While there are fewer opportunities for in-water activity compared to other waterways in the area, the trail that runs adjacent to this creek offers multiple uses. Navigation by small water craft is possible during a short window of high water flow, typically after rainfall events. Three boat access points have been recommended, yet attention should be paid to creating spaces for trail users to interact with the creek. These connections could include soft trails for birdwatching, safe places for families to play, rock-type steps into the water, places for respite, public art to interpret the ecology of the creek, and fishing nodes.

The area around the Clive Aquatic Center and City Hall, as well as Colby Park and Walker Johnston Park offer immediate opportunities not only for carry-down boat access, but other creek hub activities due to the existing parking, restrooms, and playgrounds. The area around 73rd Street and University Avenue offers a redevelopment opportunity with a focus on businesses that turn toward the paved and water trails while restoration and landscape improvements could turn this area into a gateway feature for Windsor Heights.

A major concern that needs to be addressed is the lack of access those living in West Des Moines have to the trail systems. Efforts should be made to develop more trail and on-street connections to the trail.


**Programming and Conservation**

Signage interpreting the water cycle is highly recommended along the trail adjacent to the creek into Water Works Park. From the headwaters in Dallas County to the treatment plant at Water Works, this highly-used trail offers a unique opportunity for many citizens to learn about the source of their drinking water and the nature of water-quality challenges. Interpretive signage integrated with public art is recommended along the creek.

Additional opportunities exist to visually showcase the creek and greenbelt. Views of the creek are available on bridges at 63rd Street/1st Street and 73rd Street. It is recommended to improve the aesthetics through restoration and capture the attention of the thousands of people who drive along these potentially scenic sections every day.

Additional restoration should be implemented according Walnut Creek Watershed Plan. Whenever possible, the 500-year floodplain should be protected and maintained as a habitat corridor.

---

**Clive Greenbelt Master Plan**

The Clive Greenbelt Master Plan will help achieve a community-based vision for the greenbelt that will help drive economic re-development, natural resources restoration, recreation, and public health in the community.

The Greenbelt Master Plan will enhance the greenbelt and create new connections to Walnut Creek and the larger water trails and greenways system. The plan outlines policies, practices, infrastructure, and more to build on the success of the greenbelt. Below is an outline of the strategic framework for the plan moving forward.

**Strategic Framework: Key Directions**

1. **Flood Management and Water Quality Improvements:** Promote partnerships, discourage flood plain development, increase infiltration and slow water flow, particularly from upstream, incoming development; water quality and quantity are inextricably linked.

2. **Habitat/Riparian Corridor Improvements:** Closely akin to water quality and quantity management is the overall maintenance of the riparian corridor for wildlife and plant health, beauty and overall functionality. Clive’s “Distinct by Nature” brand resonates when the Greenbelt’s riparian corridor is at its healthiest.

3. **Trail and Connections:** Maintain, expand and improve the current trail system while giving residents and other users a greater sense of safety.

4. **Public Health ... Mental and Social Wellbeing:** Through recreation, arts/science, education and equity - Integrate the Greenbelt’s exceptional features through a blend of facilities and programs that leverage the Greenbelt’s close-at-hand educational institutions, riparian habitats, water access, popular trail and growing attention as an arts destination. Partner with county public health to provide education and programs. Ensure access for all.

5. **Physical Well-Being:** Through programs that prompt physical activity and healthy eating

6. **The business and economic environment:** Economic Health – The vitality of the Clive Greenbelt will be nearly impossible for residents, community leaders and partners to maintain if it’s not directly linked to healthy businesses and economic vitality along its reach.
## Key Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Jurisdiction</th>
<th>Key Amenities</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dam Mitigation</td>
<td>Walnut Creek</td>
<td>Clive, Windsor</td>
<td>TBD</td>
<td>• Dam mitigation projects must be conducted prior to access improvements where grade control structures exist in-stream</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity Hub</td>
<td>Clive City Hall/</td>
<td>Clive</td>
<td>• Carry-down access • Wading area • Wayfinding, interpretive</td>
<td>• Connect to the paved trails and the city • Pursue multi-activity programming and family-friendly design</td>
</tr>
<tr>
<td></td>
<td>Aquatic Center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Connections</td>
<td>86th Street</td>
<td>Clive</td>
<td>• Wading area • Trash receptacles • Extend park to business area • Lighting and signage</td>
<td>• All-ages design for kids, families, etc. • Varied experiences • Connect to businesses • Carry-down access near Cool Basil parking lot for visibility</td>
</tr>
<tr>
<td>Economic Hub</td>
<td>University and NW 75th Street</td>
<td>Clive</td>
<td>• Wayfinding and interpretive signage • Benches</td>
<td>• Emphasize connections to trail and creek • Consider orientation, such as back patios at restaurants overlooking creek</td>
</tr>
<tr>
<td>Activity Hub</td>
<td>Colby Park</td>
<td>Windsor Heights</td>
<td>• Trail hub • Natural playspaces • Wading area • Carry-down access</td>
<td>• Connect both to the trails and to Windsor Heights • Align with trail hub planning and programming • Find connections to trails south to West Des Moines and Des Moines</td>
</tr>
<tr>
<td>Activity Hub</td>
<td>Aurora Avenue</td>
<td>Urbandale</td>
<td>• Fishing space and amenities • Place for respite</td>
<td>• Create visual connections to the trail</td>
</tr>
<tr>
<td>Activity Hub</td>
<td>Walker Johnston Park</td>
<td>Urbandale</td>
<td>• Fishing spaces and amenities • Trash receptacles • Wading area</td>
<td>• Combine with park activities • Future programming opportunities</td>
</tr>
</tbody>
</table>

*Additional initiatives can be found in the Water Trails and Greenways Plan: Booklet 1*
Potential Water Trail Designation: Recreation
Potential Experience Level: Intermediate

Given the extreme seasonality to adequate depth of water, a few current dam-like grade control structures and requiring some boat control, this section of Beaver Creek has the potential to be developed as a Recreation Level water trail that will be attractive to users with experience. In order to obtain this designation, a minimum of two carry-down accesses should be constructed, grade control structures should be mitigated, and increased maintenance including cleaning of access points and removal of creek-wide logjams.

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

- Education programming
- Interpretive signage for history or birding
- Maintenance and conservation
Imagine a Saturday afternoon spent biking through nature along Walnut Creek. You and your family ride from your home in Clive along the trail and adjacent to the creek, passing by interpretive art and signage that tell the story of Walnut Creek’s path from its headwaters to its confluence with the Raccoon River. Your kids learn about the important role Walnut Creek plays in the quality of our drinking water. Feeling a little thirsty, you make a stop at Colby Park, where your kids kick off their shoes and wade into Walnut Creek to cool off. After a short break, you are back on your bikes and passing by the wooded areas of Ashworth and Water Works Park.