

Johnson County

Bicycling & Multi-Use Trails Plan

Adopted on February 23, 2012

Submitted to:

Johnson County Board of Supervisors
913 S. Dubuque St.
Iowa City, IA 52240
www.johnson-county.com



Prepared by:

Metropolitan Planning Organization
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Special Thanks & Acknowledgements

The development of the *2012 Johnson County Bicycling & Multi-Use Trails Plan* would not have been possible without the support and input from members of the Johnson County Trails Advisory Committee, who shared their knowledge and expertise in the development of the plan. We would also like to thank the community members and representatives of local government agencies for their participation in the planning process.

Johnson County Trails Advisory Committee:

- Terry Dahms (chair), Johnson County Trail Foundation
- Amy Bouska (vice-chair), Johnson County Soil & Water Conservation District
- Risa Dotson Eicke (secretary), at-large representative
- Chris Ball, City of Tiffin
- Steve Breese, at-large representative
- Josh Busard, County Planning and Zoning Department
- Harry Graves, County Conservation Department
- Del Holland, Bicyclists of Iowa City
- Thayne Lowman, Snow Drifters of Iowa
- Chris Rohret, unincorporated area representative
- Richard Walton, at-large representative
- Rob Winstead, County Secondary Roads Department
- Mark Wyatt (Iowa Bicycle Coalition), at-large representative

Developed by:

Kristopher Ackerson, Metropolitan Planning Organization of Johnson County

What is MPOJC?

The Metropolitan Planning Organization of Johnson County (MPOJC) is the metropolitan planning organization for Johnson County, Iowa. Assistance is provided to MPOJC member agencies in three specific program areas: transportation, human services, and assistance to small communities. Besides the three program areas, MPOJC also provides a forum for discussion of county-wide planning issues. In past years this has included establishment of a regional fire protection agreement, a joint animal control facility, and discussion of the Silurian aquifer in Johnson County. In 2011, the Johnson County Council of Governments (JCCOG) changed names and is known now as the Metropolitan Planning Organization of Johnson County.

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RESOLUTION 02-23-12-03

RESOLUTION ADOPTING THE JOHNSON COUNTY BICYCLING AND MULTI-USE TRAILS PLAN AS A GUIDE FOR THE DEVELOPMENT OF A TRAIL FACILITIES IN JOHNSON COUNTY

WHEREAS, at the request of the Board of Supervisors the Metropolitan Planning Organization of Johnson County prepared a plan for the development of a multi-use trails and paved shoulders in Johnson County; and

WHEREAS, the Metropolitan Planning Organization of Johnson County placed the draft plan on the Johnson County website for public input; and

WHEREAS, the Johnson County Board of Supervisors heard public input on the draft plan in 2011 and 2012 and directed staff to revise the draft plan based on public and staff input; and

WHEREAS, the *Johnson County Bicycling and Multi-Use Trails Plan* is intended to guide development of trails and paved shoulders in Johnson County; and

WHEREAS, access to multi-use trails has been shown to improve the quality-of-life for residents;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF JOHNSON COUNTY, IOWA, THAT:

1. Johnson County hereby adopts the *Johnson County Bicycling and Multi-Use Trails Plan*.
2. The *Johnson County Bicycling and Multi-Use Trails Plan* is intended to guide development of multi-use trails and paved shoulders in Johnson County.

It was moved by Stutsman and seconded by Neuzil the Resolution be adopted, and upon roll call there were:

AYES:	NAYS:	ABSENT:
<u>✓</u>	_____	_____ Harney
<u>✓</u>	_____	_____ Neuzil
<u>✓</u>	_____	_____ Rettig
<u>✓</u>	_____	_____ Stutsman
<u>✓</u>	_____	_____ Sullivan

Passed and approved this 23rd day of February, 2012.

Rod Sullivan
Chairperson, Johnson County Board of Supervisors

ATTEST

Tom Slockett
Tom Slockett, Johnson County Auditor

Introduction

Johnson County, Iowa enjoys a positive reputation and serves as a model for development within the southeast Iowa region. Tourists often mention that they admire the strong “sense of community” they feel when passing through. This impression and feeling does not happen by accident, but rather stems from a long line of community leaders and citizens with vision to make the county a better place to live, raise a family, and visit. It is from this vision that Johnson County wishes to build upon the high-quality-of-life by further investing resources in our renowned network of multi-use trails and bicycle accommodations.

The majority of paved trails in Johnson County are constructed and maintained by the municipalities and the University of Iowa. However, the focus of this plan is unincorporated Johnson County, which provides three primary types of facilities: paved shoulders, sidewalks, and grade separated trails.

Recent accomplishments

Beginning with the first adopted trails plan in 2000 and continuing with the adoption of the *Johnson County Shared Use Trails Plan* (2006), the quantity and quality of multi-use trail facilities in Johnson County has grown significantly.

In 2011, the Johnson County Board of Supervisors (BOS) asked the Metropolitan Planning Organization (MPO) of Johnson County to update the trails plan adopted in 2006. Based on discussions with county staff and the Johnson County Trails Advisory Committee (TAC), the contents of this plan emphasize linking destinations with trails, extending the existing urban trail network into unincorporated areas, and investing in trails where they will receive the most use.

A few accomplishments since 2006, in no particular order, include:

- Created the Johnson County Trails Advisory Committee to provide recommendations to the Board of Supervisors.
- Approved the County Conservation Bond Fund with sixty-one percent of Johnson County voters approving to invest \$20 million over the next twenty years for conservation, recreation, and trails.
- Budgeted an average of \$175,000 annually for trail development from 2006 to 2011.
- Constructed extension of Iowa River Corridor Trail from West Overlook Road to North Liberty using over \$484,000 in Metropolitan Planning Organization of Johnson County grant funds.
- Received Iowa DNR Resource Enhancement and Protection (REAP) grant funds totaling \$512,642 to construct 1.28 miles of the Clear Creek Trail from Ireland Avenue to Half Moon Avenue.

- Awarded regional Transportation Enhancement funds totaling \$960,000 to construct the Iowa River Corridor Trail along Mehaffey Bridge Road from North Liberty to the Iowa River.
- Re-constructed 23.6 miles of roadway with paved shoulders as bicycle accommodations.
- Installed forty-four bike route signs to destinations including the Coralville Reservoir, Sugar Bottom Recreation Area, City of Hills, Scott Church Park, and Sutliff Bridge.
- Installed covered bicycle parking at the Johnson County Health & Human Services Building.
- Funded construction of a new bridge over the Coralville Reservoir at Mehaffey Bridge Road that includes a bicycle and pedestrian facility at an additional cost of approximately \$1 million.
- Received official water trail designation from the Iowa Department of Natural Resources for the *Iowa River Water Trail* from Sturgis Ferry Park in Iowa City to the Mississippi River in Louisa County.

It is within this context of local and regional trail development that this multi-use trails plan was conceived.

Project tasks

The planning process involved completion of four primary tasks:

1. *Prioritize planned multi-use trails* – MPO staff attended County Trails Advisory Committee (TAC) meetings in April, May, and June to record discussion of project priorities.
2. *Update background narrative* – MPO staff reviewed recent developments to create three new sections of the plan: Background and Water Trails and Snowmobile Trails.
3. *Update maps* – MPO staff updated the maps found in the existing (2006) plan.
4. *Ensure public input process* – MPO staff made the draft plan available online at www.mpoj.org and solicit input through the MPO Public Input Organizations mailing list. Johnson County staff will also advertise the public comment period in January/February 2012.

Project schedule

- *April 2011* – Trails Advisory Committee (TAC) prioritized trail projects
- *May 2011* – TAC prioritized paved shoulder and Grade B Road projects
- *Summer 2011* – MPO staff prepared maps and plan narrative
- *August 2011* – TAC reviewed draft maps and confirmed priorities
- *December 2011* – TAC reviewed draft plan
- *January 2012* – Draft plan reviewed by Supervisors at Key Issues Meeting
- *January to February 2012* – Public comment period

- *February 2012* – TAC recommended adoption of plan to Board of Supervisors (BOS)
- *March 2012* – BOS adopts this plan

Steering Committee

The planning process for the Johnson County Bicycling & Multi-use Trails Plan was guided by the Trails Advisory Committee, which was formed in 2006 by the Board of Supervisors to offer recommendations on trail funding, maintenance, signage policies, and other trail-related issues. The following representatives comprise the TAC:

- Terry Dahms (chair), Johnson County Trail Foundation
- Amy Bouska (vice-chair), Johnson County Soil & Water Conservation District
- Risa Dotson Eike (secretary), at-large representative
- Chris Ball, City of Tiffin
- Steve Breese, at-large representative
- Josh Busard, County Planning and Zoning Department
- Harry Graves, County Conservation Department
- Del Holland, Bicyclists of Iowa City
- Thayne Lowman, Snow Drifters of Iowa
- Chris Rohret, unincorporated area representative
- Richard Walton, at-large representative
- Rob Winsted, County Secondary Roads Department
- Mark Wyatt (Iowa Bicycle Coalition), at-large representative
- Hilary Copeland, East Central Iowa Council of Governments (non-voting)
- Kristopher Ackerson, Metropolitan Planning Organization of Iowa (non-voting)

This 13-member committee meets approximately quarterly to make recommendations on trail-related projects. The makeup of the committee helps ensure communication between County departments, planning agencies, trails and bicycling groups, and other local government representatives. Similar to roads, trail projects can cross multiple departmental and organizational boundaries.

Trail Planning Principles

The following principles can be used as a reference when evaluating potential trail projects and were used during the prioritization of projects found in this section:

- **Invest in bicycling and other recreational infrastructure where they will receive the highest use.** If the county makes investments in multi-use trails, they should be linked to existing trails, population centers, and popular destinations.

- **Promote trails and green space as important community amenities to help spur economic development.** From home owners choosing to live along a multi-use trail to bicycle tourists making their way from small town to small town, trails are important community facilities that attract people and dollars.
- **Consider opportunities for pedestrian/bicycle infrastructure whenever road corridors (re)constructed.** Regardless of the location, opportunities for trail facilities should be evaluated during any infrastructure design process. If a road corridor is a snowmobile route, snowmobile use should also be considered in the design process.
- **Develop a destination-based trail network in Johnson County.** Bicyclists in the urbanized area have advocated for a bicycling network that connects to employment, shopping, and recreational destinations including the Coralville Reservoir, Kent Park, Lake MacBride State Park, and the small municipalities and unincorporated villages.
- **Build regional trails connections.** While the majority of trail users are county residents, longer regional trails will attract residents from surrounding counties. Regional trail corridors include the American Discovery Trail, the Hoover Nature Trail, and the Ioway Trail. Developing these regional trails within Johnson County should be viewed as a long-term goal and can be developed incrementally.
- **Design trail facilities using best management practices.** Trail design depends significantly on the design speed, types of anticipated users, and unique site conditions. To ensure a safe and high quality trail experience, trails should be designed using accepted standards, including those outlined in the *Manual for Uniform Traffic Control Devices* (MUTCD), *Managing Mountain Biking* by the International Mountain Biking Association (IMBA), and the *Urban Bikenway Design Guide* by the National Association of City Transportation Officials.

Based on these principles, the following plan outlines existing and future trail corridors that were identified during the planning process by TAC members and the public.

Becoming a Bicycle Friendly Community

A Bicycle Friendly Community (BFC) welcomes cyclists by providing safe accommodation for cycling and encouraging people to bike for transportation and recreation. Bicycle-friendly towns, like those with good schools and enjoyable downtowns, are communities that offer improved quality of life for families, which can lead to higher property values, business growth and increased tourism.

The BFC application provides a comprehensive picture of a community by asking questions across five categories often referred to as the Five Es. These are

Engineering, Education, Encouragement, Enforcement, and Evaluation & Planning. A community must demonstrate achievements in each of the five categories in order to be considered for an award. Communities with more significant achievements in these areas receive superior awards. For grant application purposes, the designation will demonstrate the County's commitment to bicycling.

As Johnson County endeavors to become more bicycle friendly, the application process is a learning process. The questions are intended to educate just as much as they are to evaluate. By reviewing the questions on the application, the County may find solutions to concerns in our community. Many communities have successfully used the application as a roadmap on how to improve its commitment to bicycling. The Metropolitan Planning Organization of Johnson County offers technical assistance as well as staff dedicated to answering questions and assisting with the application process.

Types of Trails

The ideal multi-use trail is a paved facility (or crushed limestone as a preliminary phase) separated from the road corridor. Trails are frequently located in areas otherwise undevelopable, such as abandoned railroad corridors, utility corridors, and along creeks and rivers. Four types of facilities are expected to comprise the majority of bicycle facilities in Johnson County: multi-use trails, on-road bike routes, paved shoulders on roadways, and wide sidewalks within road right-of-way. Additionally, this plan includes information about trails serving mountain bikes, canoes and kayaks, equestrian riders, and snowmobiles.

Multi-use Trails

The Iowa Code defines trails as a recreational use and forbids condemning agricultural land for trail development, which makes it difficult to acquire land for trails. However, trail easements are routinely negotiated from property owners; for example, this method provided much of the trail right-of-way for the Clear Creek Trail between Ireland Avenue and Half Moon Avenue. Trail access already publicly owned or controlled by the Johnson County Trail Foundation can also be utilized for trail development.

This plan seeks to obtain public input and focus resources so that when the county is ready to invest in trail facilities a targeted group of agreed upon high-priority corridors is available for reference. The following four top-priority corridors are not listed in order of priority.

A. Clear Creek Trail

Kent Park and the Amana Colonies are both major destinations for many residents and visitors. The loop park road within Kent Park is a popular location for cycling. Meanwhile, the community of Oxford is situated approximately eight miles from both Kent Park and the Amana Colonies, which would make Oxford a



likely rest stop for Clear Creek Trail users. When completed, this trail will bring to fruition the long planned “Ioway Trail” between Iowa City and the Amana Colonies.

In September, 2010, the Johnson County Conservation Board (JCCB) was awarded a Resource and Enhancement Protection (REAP) Grant of \$512,642 by Iowa DNR, which represents 40% of construction cost of the trail segment from Ireland Avenue to Half Moon Avenue along Clear Creek. The balance of the project costs will be paid from the County Conservation Bond Fund.

Johnson County plans to chip seal the ½ mile stretch of Half Moon Avenue, from the trailhead north, to provide a hard surfaced connection to Highway 6. The Iowa DOT resurfaced Highway 6 from Tiffin to the county line in the summer of 2011. A four foot paved shoulder was included in the resurfacing project. The paved shoulder will be utilized as a **temporary route** to connect the trail from Half Moon Avenue on to Kent Park. Like the existing segments of the Clear Creek Trail, any new alignments should strive to follow the riparian corridor rather than the Highway 6 right-of-way, due to the safety considerations, noise, aesthetics, and lack of interpretive opportunities.

Phase 1: Hawkeye Sports Complex	<u>Complete</u>
Phase 2: Hawkeye Sports Complex to 25 th Avenue in Coralville	<u>Complete</u>
Phase 3: 25 th Avenue to Interstate 380	Programmed FY14
Phase 4: Interstate 380 to East Tiffin Park	<u>Complete</u>
Phase 5: East Tiffin Park to Ireland Avenue	Programmed FY15
Phase 6: Ireland Avenue to Half Moon Avenue	Programmed FY14
Phase 7: Half Moon to Kent Park	Planned
Phase 8: Kent Park to Oxford	Planned
Phase 9: Oxford to Amana Colonies	Planned

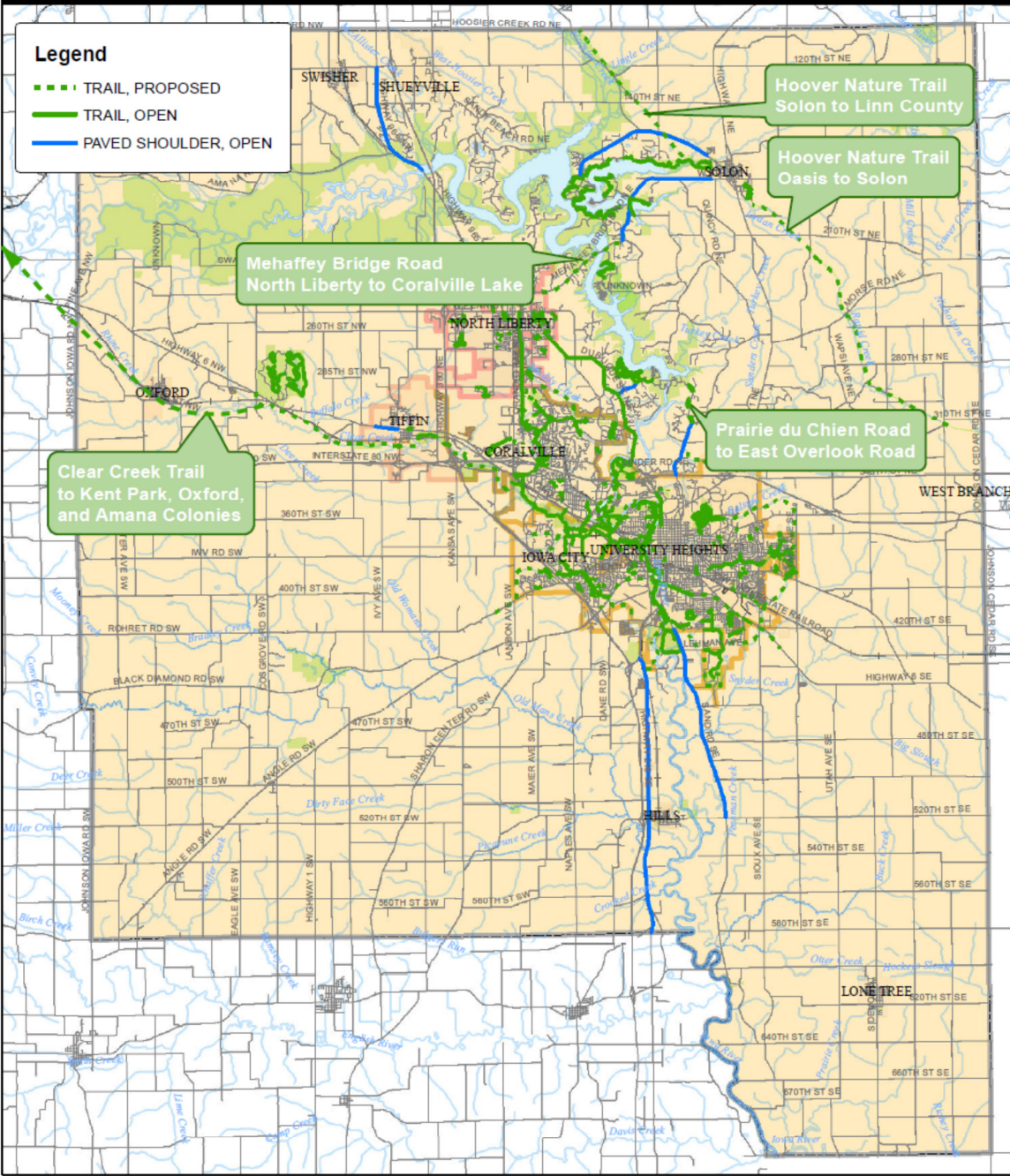
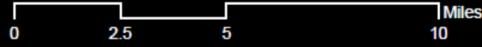


Top Priority Trails

Prepared by: K. Ackerson

Date Prepared: 6/10/11

Data source: Iowa DOT, DNR



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B. Mehaffey Bridge Road



The North Liberty to Solon corridor has the potential to connect two growing cities in Johnson County and link these communities to Lake MacBride State Park. This route is consistent with the planned American Discovery Trail. Six-foot paved shoulders have already been constructed between Sugar Bottom Road and Solon. Johnson County scheduled Mehaffey Bridge Road between North Liberty and Sugar Bottom Road in its five-year plan for FY2013, including a new bridge over the Iowa River in FY2012.

- Mehaffey Bridge Road reconstruction, including paved shoulders, North Liberty to Sugar Bottom Road; length ~2.5 miles; estimated project cost = \$2,000,000
- Mehaffey Bridge over Iowa River (including new pedestrian/bicycle facility); estimated project costs = \$4,500,000

The pending Mehaffey Bridge Road reconstruction will offer an opportunity to add a wide sidewalk on one side of the road. Adding a wide sidewalk as part of the overall reconstruction project will be less expensive than retrofitting later. The current Five Year Road Program, which currently has this trail programmed in FY14, estimates that project will cost approximately \$1 million. To-date, the county has been awarded \$447,152 in regional Transportation Enhancement funds to complete this project.

- Mehaffey Bridge Road Trail from North Liberty to Sugar Bottom Road; length ~2.5 miles; estimated project cost = \$1,000,000

C. Hoover Nature Trail

One good opportunity for a separated trail in Johnson County is the Hoover Nature Trail, which is a planned rail trail on the abandoned Rock Island Railroad corridor. The Hoover Nature Trail, which is planned to ultimately extend from the City of Burlington to Cedar Rapids, has also been designated as part of the American Discovery Trail. In the 1980s, a nonprofit organization, the Hoover Nature Trail Association, purchased segments of the railroad right-of-way.

Segments of the former Rock Island Railroad right-of-way are now owned by the Johnson County Trail Foundation Association, if the County were to begin to construct segments of the Hoover Nature Trail, the next step would be to confirm title (ownership) of potential trail segments.

Solon to Linn County

Of all the possible segments of the Hoover Nature Trail, the segment between Solon and Linn County fulfills the goal of developing regional trail connections, in large part because the Linn County Trail Foundation recently completed construction of the Hoover Nature Trail to Ely. This means that the Hoover Nature Trail runs *unencumbered* through Linn County. Because of the existing limestone base on the old railroad bed, the per linear foot construction cost is lower than a new trail.



Hoover Nature Trail, west of West Branch

- Hoover Nature Trail, Solon to Linn County; approximate length ~4.25 miles; estimated project cost = \$1,500,000 (not including property acquisition or bridge replacement costs)

Solon to Oasis

A segment of the Hoover Nature Trail in Johnson County has been constructed between Oasis (in Johnson County) and West Branch (in Cedar County), but the continuation of this trail to Solon and Linn County is a top priority.



Rock Island Railroad Corridor, east of Ely Road

- Hoover Nature Trail, Solon to Oasis; approximate length ~8.5 miles; estimated project cost = \$2,500,000 (not including property acquisition)

D. Prairie du Chien Road

Prairie du Chien Road between Interstate 80 and Newport Road was reconstructed with 6-foot paved shoulders, which improve pavement durability, safety, snow removal, and allow bicyclists to ride outside the travel lane. Many rural residential

properties use Prairie du Chien Road to access urban areas and the road is popular among cyclists riding from Iowa City to Coralville Lake and Reservoir.

Prairie du Chien Road from Newport Road to Saddle Club Road is no longer in the county's Five Year Road Program. However, since this corridor is a popular bicycling route, connects to a major recreation area, and is an area of residential growth, this plan recommends that pedestrian and bicycle accommodations should be provided.

- Prairie du Chien Rd., Newport Rd. to Saddle Club Rd.; approximate length ~1.2 miles; estimated project cost = \$750,000 (not including property acquisition)



Other Long Term Trail Opportunities

Over time there may be opportunities through land grants or conservation easements for the County to acquire right-of-way for recreation trails. The following map illustrates corridors that will become priorities as the previous projects are completed.

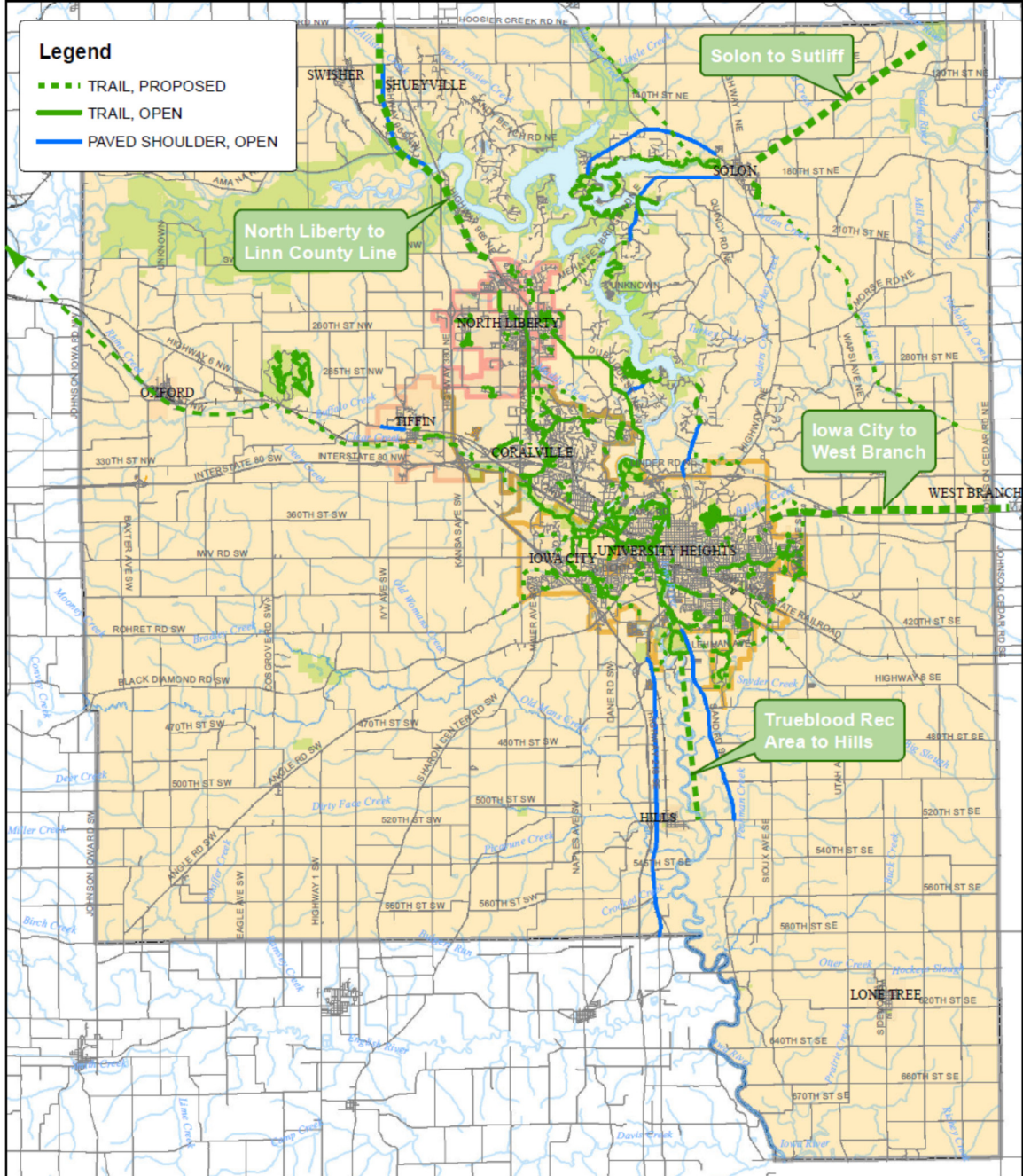
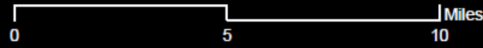
Johnson County, Iowa
**Other Long Term
 Trail Goals**



Prepared by: K. Ackerson

Date Prepared: 6/10/11

Data source: Iowa DOT, DNR



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Signed Bike Routes

In 2011, the Johnson County Trail Foundation (www.jctf.org) – founded as a 501(c)(3) nonprofit in 2007 – purchased forty-four bike route signs for approximately \$4,200 and paid \$2,200 for installation.

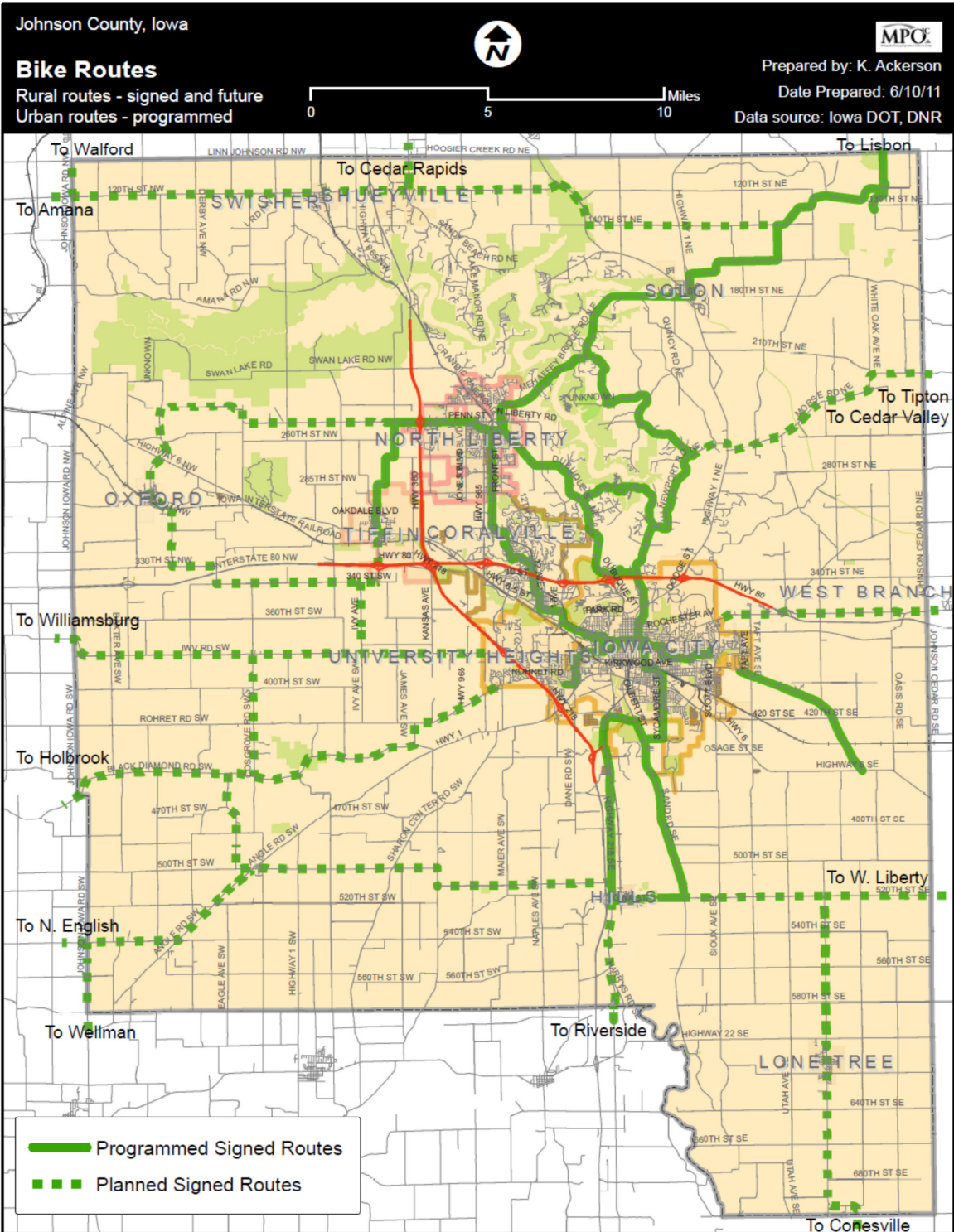
The green signs, which are topped with a white bicycle design, have directional arrows, mileage to destinations and on many, the average amount of time it will take to arrive. The additional signage along roads could enhance safety by alerting motorists to the possible presence of cyclists. For the same reasons, the cities Coralville, Iowa City, North Liberty, University Heights and Tiffin applied for and received a \$15,000 grant to install similar signs along their trails and bike routes. Those signs are expected to be installed in 2011-12.



The Metropolitan Planning Organization of Johnson County assisted this project by designing the signs and the County Secondary Roads Department installed the signs.

Recommendations: Bike route way-finding signs are resources for cyclists and motorists alike because they inform roadway users about popular, nearby destinations. To ensure existing and future bike route signs are maintained to engineering standards, the County Trails Advisory Committee should consider recommending that the Board of Supervisors increase funding for sign maintenance in the Secondary Roads Department budget and review the sign policy, which has not been revised since 1995. The pending federal requirement that all road signs meet new retro-reflectivity standards will likely come-up during upcoming budgeting discussions and bike route signs should be discussed at the same time.

Second, the County and City of Iowa City should coordinate improvements to the South Riverside Drive and Old Highway 218 corridor to enhance on-street facilities for cyclists and sidewalks or trails for pedestrians. A summary of funding opportunities is located in the last section of this plan.



Paved Shoulders

Paved shoulders are integral to the roadway paving, but separated from the main travel lane by a painted white stripe. Paved shoulders have many benefits beyond

accommodating bicyclists, including reducing edge degradation of the roadway, providing extra space for slower-moving farm vehicles and horse and buggy vehicles, and providing extra space to temporarily park damaged or stalled vehicles.

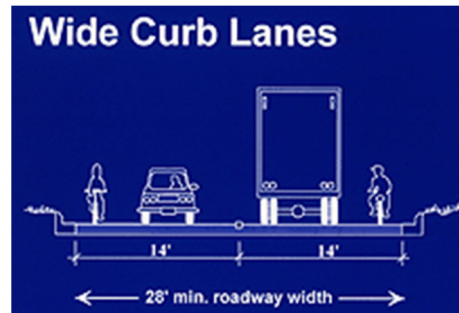
Most bicyclists prefer a dedicated bike lane to a paved shoulder because less experienced cyclists feel safer and bike lanes (and the associated signs) help reinforce that bicycles are permitted on roadways. In the absence of bike lanes, paved shoulders are viable accommodations for cyclists in unincorporated Johnson County.

To accommodate bicycling, Johnson County should continue its policy of constructing a paved shoulder as part of the design of any secondary road reconstruction project. While the size of the shoulder is ultimately to be determined by the County Engineer, attempts should be made to make it at least 4 feet wide to provide adequate space for bicycles as well as other slow moving road users. On roads where vehicle speeds exceed 50 mph, up to 6-foot wide paved shoulders should be considered.



Paved shoulder, Sand Road

Over time, this ‘paved shoulder policy’ has already begun to provide an extensive network of facilities for bicyclists and will continue to result in a robust bicycle network in Johnson County.



Diagrams courtesy of Iowa Department of Transportation

The American Association of State Highway and Transportation Officials’ (AASHTO’s) *A Policy on Geometric Design of Highways and Streets* recommends a minimum 4-foot wide shoulder (free of rumble strips) to accommodate pedestrian bicycle traffic on roads that do not have sidewalk or trail facilities. AASHTO’s *Guide for the Development of Bicycle Facilities* states that:

Paved shoulders should be at least 4 feet wide to accommodate bicycle travel. However, where 4-foot widths cannot be achieved, any additional shoulder width is better than none at all... shoulder width of 5 feet is recommended from the face of guardrail, curb, or other roadside barriers. It is desirable to increase the width of shoulders where higher bicycle use is expected. Additional shoulder width is also

desirable if motor vehicle speeds exceed 50 mph, or the percentage of trucks, buses, and recreational vehicles is high, or if static obstructions exist at the right side of the roadway.

The following map illustrates planned road construction projects, which will all include paved shoulders per the Board of Supervisors policy.

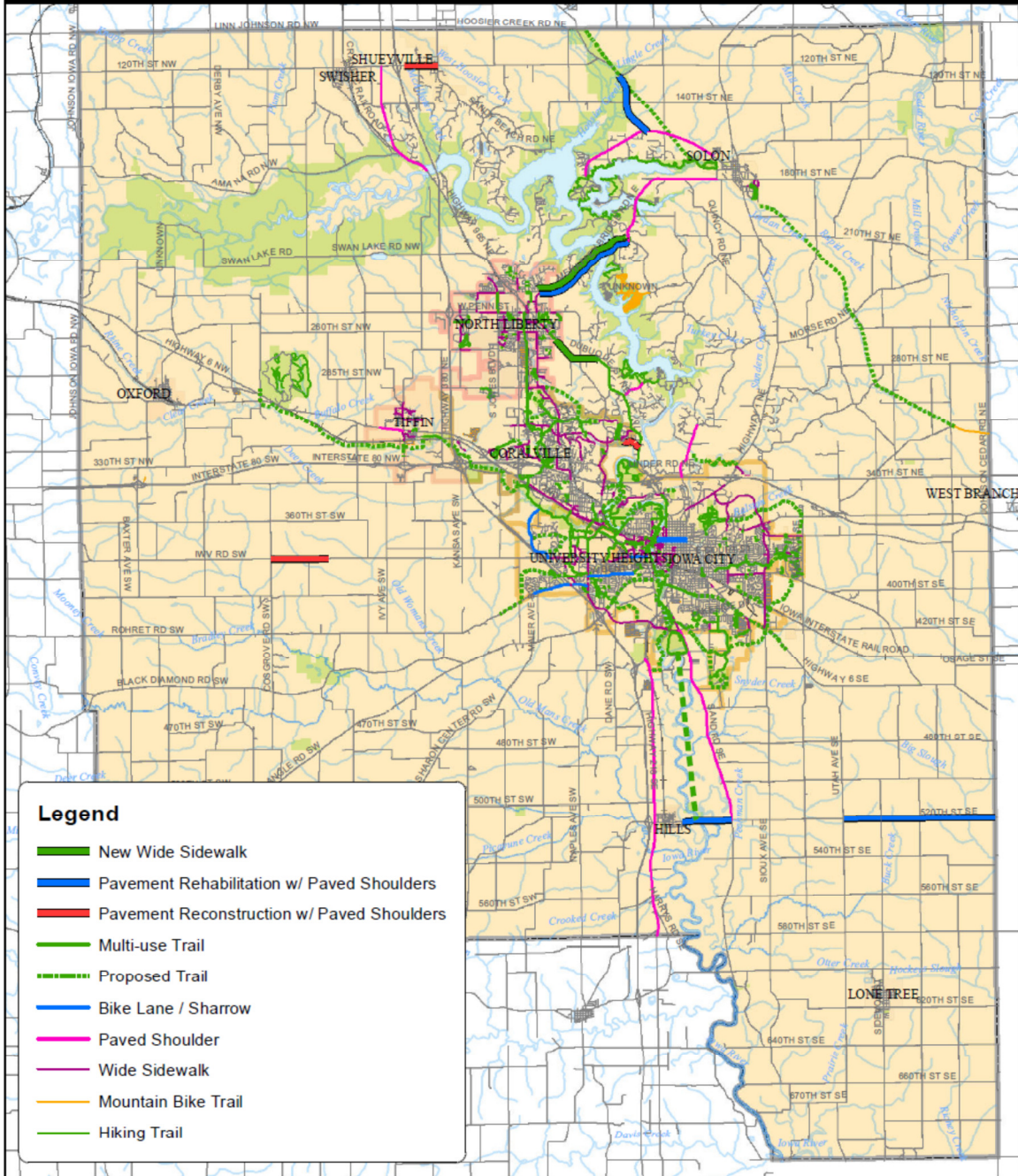
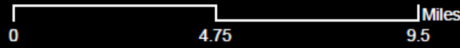
Johnson County, Iowa
**Planned Road Projects
 & Trail Infrastructure
 FY11-15**



Prepared by: K. Ackerson

Date Prepared: 6/10/11

Data source: Iowa DOT, DNR



File location: S:\Iowa City GIS\JCCOG_Maps\Bike Ped Trails\20110406_Johnson Co Trails Plan Update\Bike Route Map.mxd

Seal-Coat Roads

Seal-coat (aka chip-seal) roads typically do not have the levels of traffic to require a separate shoulder to be striped. Seal-coat roads typically do not have pavement markings. For on-road bicycling, AASHTO recommends a 14- to 15-foot travel lane

to allow for shared use by bicyclists and motorized vehicles. This results in a recommended 28- to 30-foot roadway surface for seal-coat secondary roads.

Gravel and Grade B Roads

Gravel and Grade B (minimum maintenance) roads are quickly becoming popular for a growing number of cyclists in Johnson County. The popularity of these roadways stems from the low traffic volumes, pastoral landscapes, and easy access to all corners of the county. In fact, recent organized rides on gravel roads have been held in Johnson County, including the Gritty Brevet (www.grittybrevet.wordpress.com) and Night Nonsense 100 (www.nightnonsense100.blogspot.com).

Mountain Bike Trails

The popularity of mountain biking has grown significantly in the past decade, and Sugar Bottom Recreation Area provides renowned off-road, single-track trail riding. The Sugar Bottom trail system was established in 1990 and has continued to expand over the years. The Iowa Coalition of Off-Road Riders (ICORR), a local non-profit, builds and maintains the trails through a unique partnership with the U.S. Army Corps of Engineers, which owns the land. ICORR logs 600 volunteer hours of trail work and 200 volunteer hours of patrol each year to keep the 10.6 miles of Sugar Bottom trails open for bikes.

ICORR is a leader in mountain bike trail design, utilizing International Mountain Bicycling Association standards that minimize erosion and maintenance costs. Due to their trail re-construction efforts at Sugar Bottom Recreation Area to meet these standards, ICORR has reduced maintenance to levels that are enabling them to pursue opportunities for new trails close to urban areas. In the future, the County is open to discussing opportunities for new mountain bike trails on County-owned land.

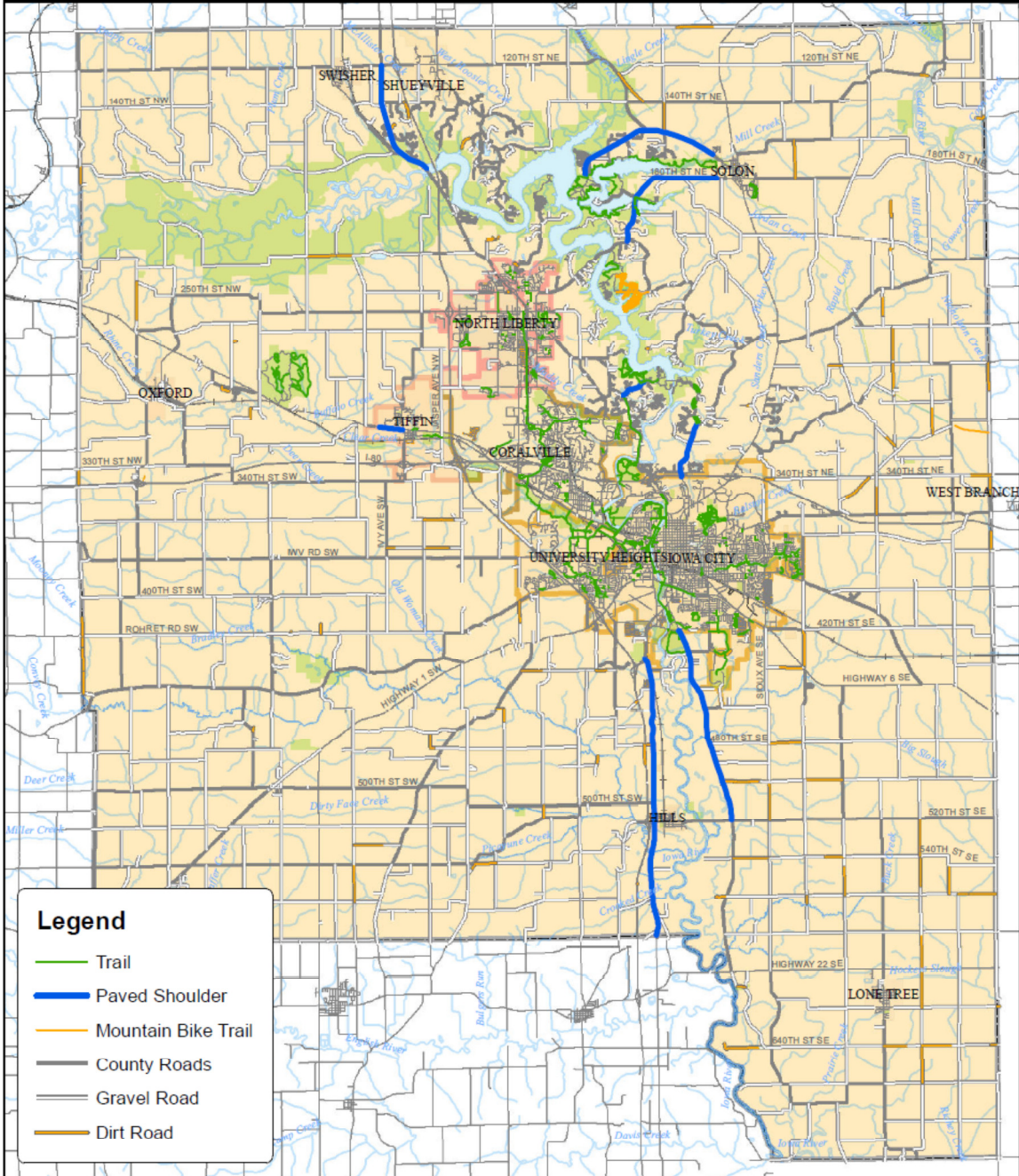
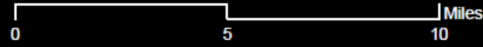
Johnson County, Iowa
**Paved Shoulders,
 Gravel, and Grade B**
 County Road Types



Prepared by: K. Ackerson

Date Prepared: 6/10/11

Data source: Iowa DOT, DNR



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American Discovery Trail

According to the American Discovery Trail (ADT) website (www.discoverytrail.org), the trail's western terminus is at the Pacific Ocean at Point Reyes National Seashore in California. From there, it traverses California, Nevada, Utah and Colorado, where in Denver it splits into two routes. The Northern Midwest route travels through Nebraska, Iowa, Illinois and Indiana. The Southern Midwest route explores Kansas, Missouri, Illinois and Indiana. After rejoining just west of Cincinnati, the route continues through Kentucky, Ohio, West Virginia, Maryland, Washington, DC, and Delaware, where the eastern terminus is at the Atlantic Ocean at Cape Henlopen State Park.

The route of the ADT was selected through the efforts of citizens working with local, state, and federal land managers in the localities through which the trail passes. In 1990-91 a scouting team mapped the route determined by this citizen effort. There is a volunteer coordinator in each ADT state – Joe Galloway of Des Moines for Iowa – who leads the ongoing effort to refine the route, to incorporate new trails into the route, and to promote and sign the trail.

The Northern Midwest route, when completed, will pass through Johnson County along the proposed Hoover Nature Trail alignment. In addition, the proposed 'Old Capitol Loop' will direct trail users into the Iowa City metro area (see map) and to access the services provided by these communities.

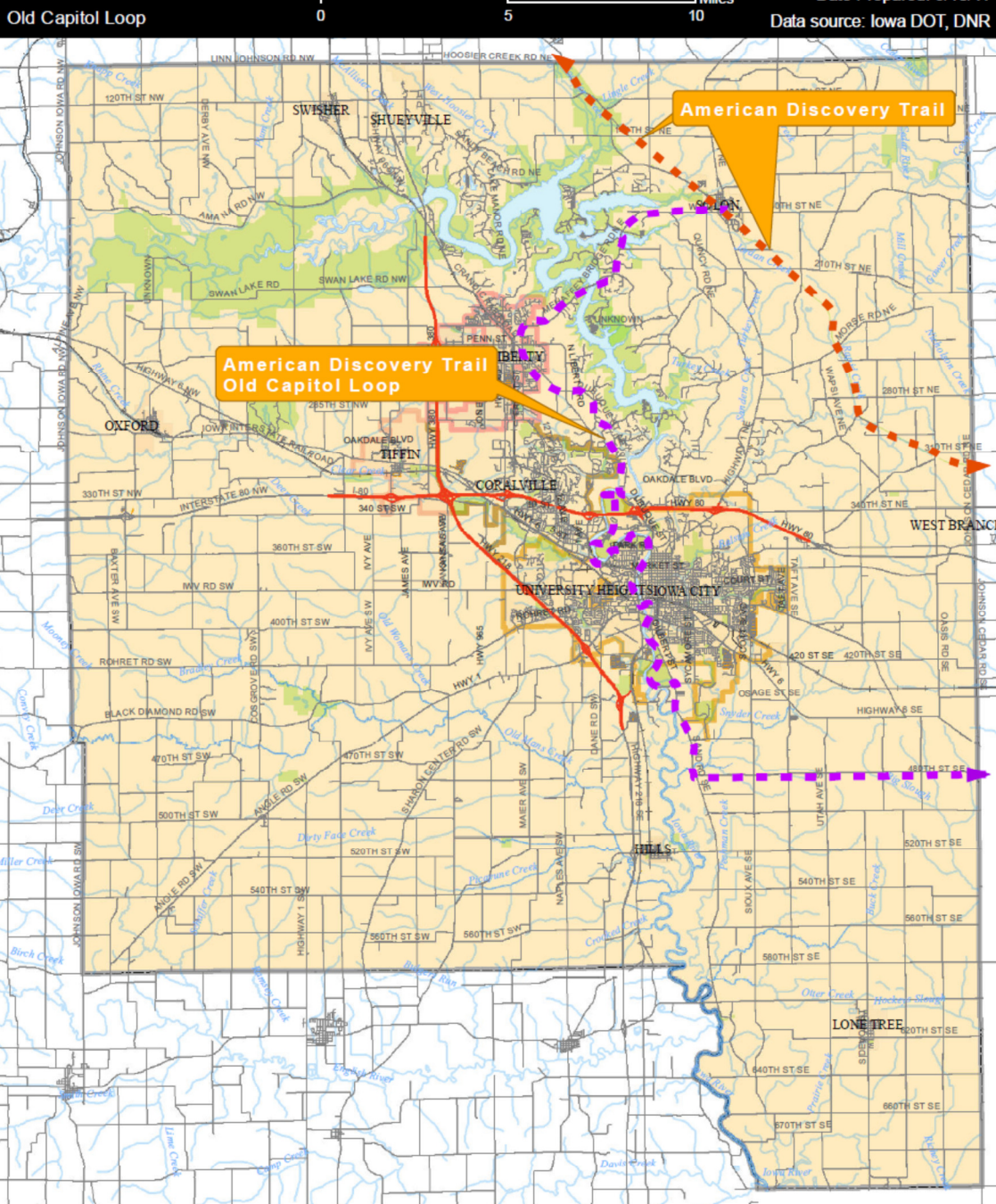
Johnson County, Iowa
American Discovery Trail



Prepared by: K. Ackerson

Date Prepared: 6/10/11

Data source: Iowa DOT, DNR



File location: S:\Iowa City GIS\JCCOG_Maps\Bike Ped Trails\20110406_Johnson Co Trails Plan Update\Bike Route Map.mxd

Multi-use Trail Maintenance

According to the IDOT's Iowa Trails 2000 vision defines routine maintenance for trails as follows: "Tree/brush clearing, mowing, map/signage updates, trash removal/litter clean-up, repair flood damage: silt clean-up, culvert clean-out, etc., patching, minor re-grading, or concrete panel replacement, snow grooming and/or plowing for winter-use trails, planting, pruning, and general beautification, and, installation and removal of seasonal signage." Municipal trail facilities are typically maintained by Parks & Recreation Department staff; wide sidewalks are maintained by abutting property owners; and streets/bike lanes are maintained by Streets Department staff.

This plan proposes a maintenance arrangement for bicycling and trail facilities in the unincorporated county that mirrors the incorporated areas – separated trails to be maintained by County Conservation Department staff; paved shoulders to be maintained by Secondary Roads Department staff; and wide sidewalks within right-of-way to be maintained by adjacent residential property owners where possible. Sidewalks adjacent to agricultural properties may need to be maintained by Conservation Department and/or Secondary Roads Department staff.

Different types of trails require difference levels of maintenance. Trail maintenance on separated trails is much more intensive than for paved shoulders. Maintenance for paved shoulders usually amounts to sweeping debris off of the shoulder during road sweeping several times a year.

Maintenance on separated trails may include things such as trail surface maintenance, mowing, weed control, snow removal, garbage and debris removal, and maintenance associated with signs, any bike racks or lighting, and occasional vandalism. Maintenance costs can be as high as \$3,000 per mile annually, including labor and materials costs, but often vary widely depending on site specific conditions.

Adopt-A-Trail Program

To assist with maintaining, enhancing and monitoring the trails and trailheads, Johnson County could consider creating an Adopt-A-Trail Program. The program can be tailored to meet the unique conditions of our community.

In communities with existing programs, anyone with an interest in trails and the outdoors is welcome to participate. Individuals, families, businesses, community and service organizations, churches, schools and scout troops are all examples of volunteers. Volunteers under 16-years-old, however, are typically required to be accompanied by an adult.

Adopt-A-Trail volunteers assist county staff in maintaining trail systems, but are not asked to perform tasks they are uncomfortable doing. Volunteer activities often include:

- Keeping the trail surface free of sticks, rocks and other debris

- Cleaning-up litter
- Pruning small limbs from the trail corridor
- Cleaning debris from benches, bridges, and stairs
- Reporting trees across the trail, erosion problems, suspicious or illegal activity, vandalism, and safety issues

Equestrian Trails

The needs of equestrian trail users are unique, and the design of an equestrian trail facility should respond to the setting, needs of the trail users, level of use, and safety issues. The County understands the special needs of these trail users and the conflicts that must be mitigated for equestrians to be safely included in a trail network. Some of the key considerations for equestrians include:

- Suitable trail surface for horses
- Availability of appropriate amenities like mounting blocks, hitching posts, water
- Trailhead parking to accommodate trailers
- Safe road crossings with modifications for users on horseback

Today, many state parks and forests in the region offer equestrian campgrounds and/or trails. The Iowa Department of Natural Resources website (www.iowadnr.org) provides a complete summary of equestrian facilities statewide, including Johnson and neighboring counties in the region.

Residents interested in opportunities for new equestrian facilities in Johnson County are encouraged to request the topic be included on the agenda of the next Johnson County Trails Advisory Committee meeting by contacting the Secondary Roads Department at (319) 356-6046.

Snowmobile Trails

With sixty-one snowmobile clubs grooming and maintaining more than 5,000 miles of trail in Iowa, snowmobiling is a popular winter recreational activity in our state. Trail-riding in Johnson County boasts scenic wooded and hilly terrain, wide-open vistas of agricultural landscapes, frozen rivers, and road right-of-way throughout the county.

The Iowa Snowdrifters (www.iowa-snowdrifters.org) was started in the early 70's by local snowmobile enthusiasts. According to the club's website, the members of this non-profit organization have developed over 220 miles of trails that connect the towns of Ely, Shueyville, Western, Walford, Fairfax, Norway, Blairstown, Solon, Sutliff, North Liberty, Tiffin, Cosgrove, Homestead, Amana, Windham, and Kalona. The majority of the trails are in Johnson County but also cover parts of Linn, Iowa, Benton and Washington counties. Seventy miles of trails were added for the 2010-11 season which now includes links the trail network to the towns of Van Horne, Newhall, Atkins, and Keystone.

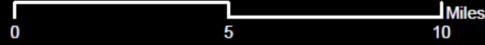


Snowmobile Trails

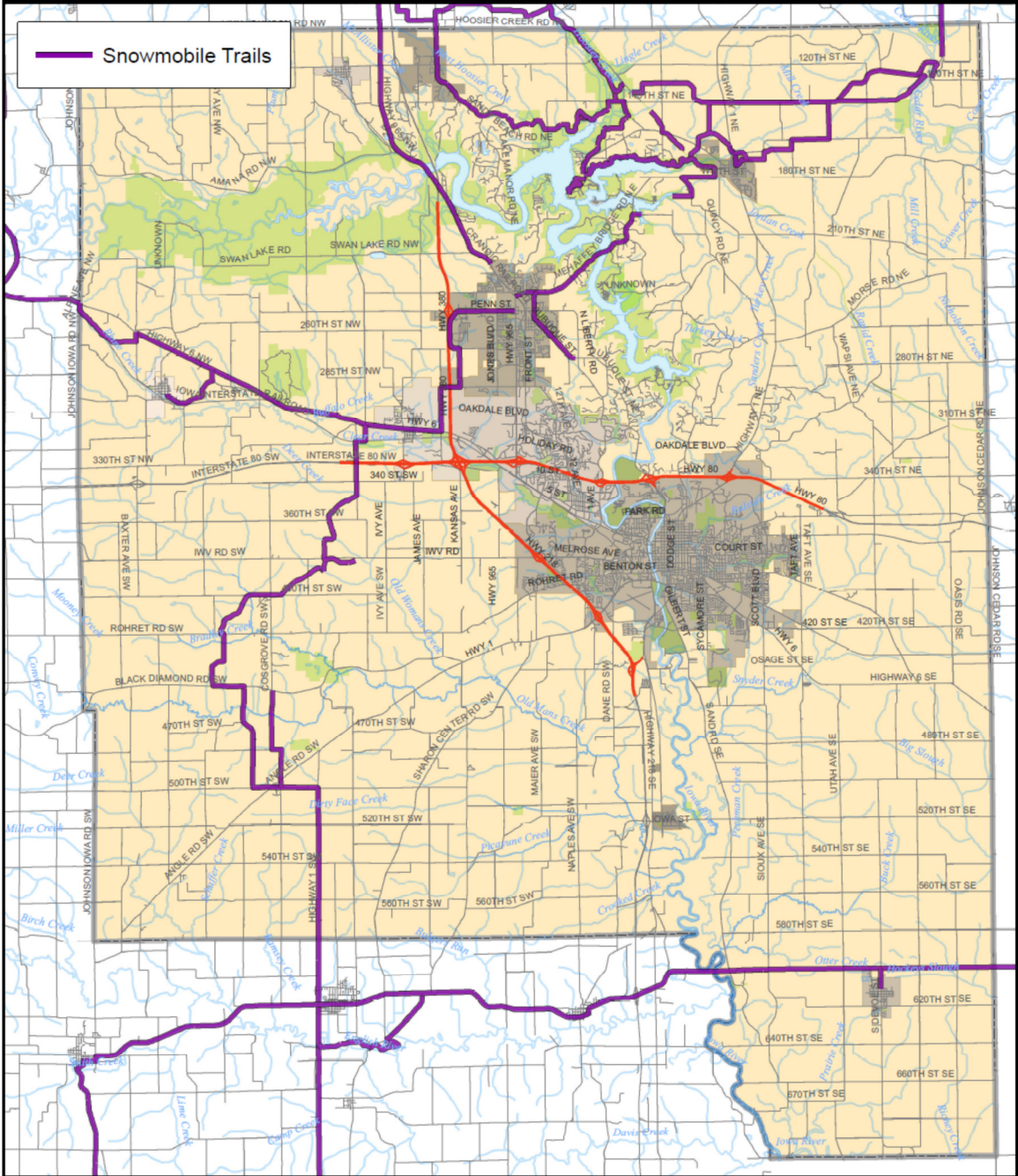
Prepared by: K. Ackerson

Date Prepared: 2/10/12

Maintained by Iowa Snowdrifters



Data source: Iowa DOT, DNR



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Water Trails

The first state capital building of Iowa was erected (c. 1847) atop a bluff overlooking the Iowa River. The river was the most important natural feature to the founders of our state and it remains a key landmark and natural amenity for residents today. As the Iowa River meanders through Johnson and its neighboring counties, it passes by the Amana Colonies – a cultural landscape listed in the National Historic Register – and numerous parks and recreation areas, including Lake MacBride State Park. South of Iowa City the Iowa River joins the Cedar River in Columbus Junction where it travels south to Lake Odessa and the Mississippi River.

Between the Amana Colonies and the Mississippi River there are three dams, two of which are located in Iowa City. The third dam is located within the Coralville Reservoir and is managed by the U.S. Army Corps of Engineers.

Iowa River Water Trail

In summer 2008, the Iowa Valley Resource and Conservation District created the *Iowa River Water Trail Map*, which highlights parks, dams, and tourist opportunities from Iowa County to Louisa County along the Iowa River.

Signage is a critical component of any water trail. In 2011, the City of Iowa City constructed a portage trail around the Iowa River Power Dam and installed signs along the river for navigation and safety using funds from several grants awarded by the Iowa DNR. Concurrently, the Johnson County and Louisa County Conservation Boards partnered to designate and sign the IOWA RIVER WATER TRAIL from Sturgis Ferry Park to the Mississippi River.



Water trails are marked routes on navigable waterways such as rivers, lakes, canals and coastlines for people using kayaks, canoes, rafts, or rowboats. Water trails also typically provide places ashore to camp and picnic and offer other facilities for boaters.

A combination of water trail signs, road signs on bridges, and road signs directing motorists to water trail put-ins make the paddling experience a safe and rich experience while promoting the Iowa River as a recreation resource. The recently completed IOWA RIVER WATER TRAIL webpage – www.IowaRiverWaterTrail.com – also improves access, way-finding, and safety.



In 2009, one hundred and twenty volunteers helped collect 45 tons of flood debris at the Iowa River Power Dam for the water trail and portage

In addition, the new paddling club, Sticks in the Water, as well as the University of Iowa's new boat house on Dubuque Street, illustrate the growing interest and popularity of paddling on the Iowa River.

Liveries

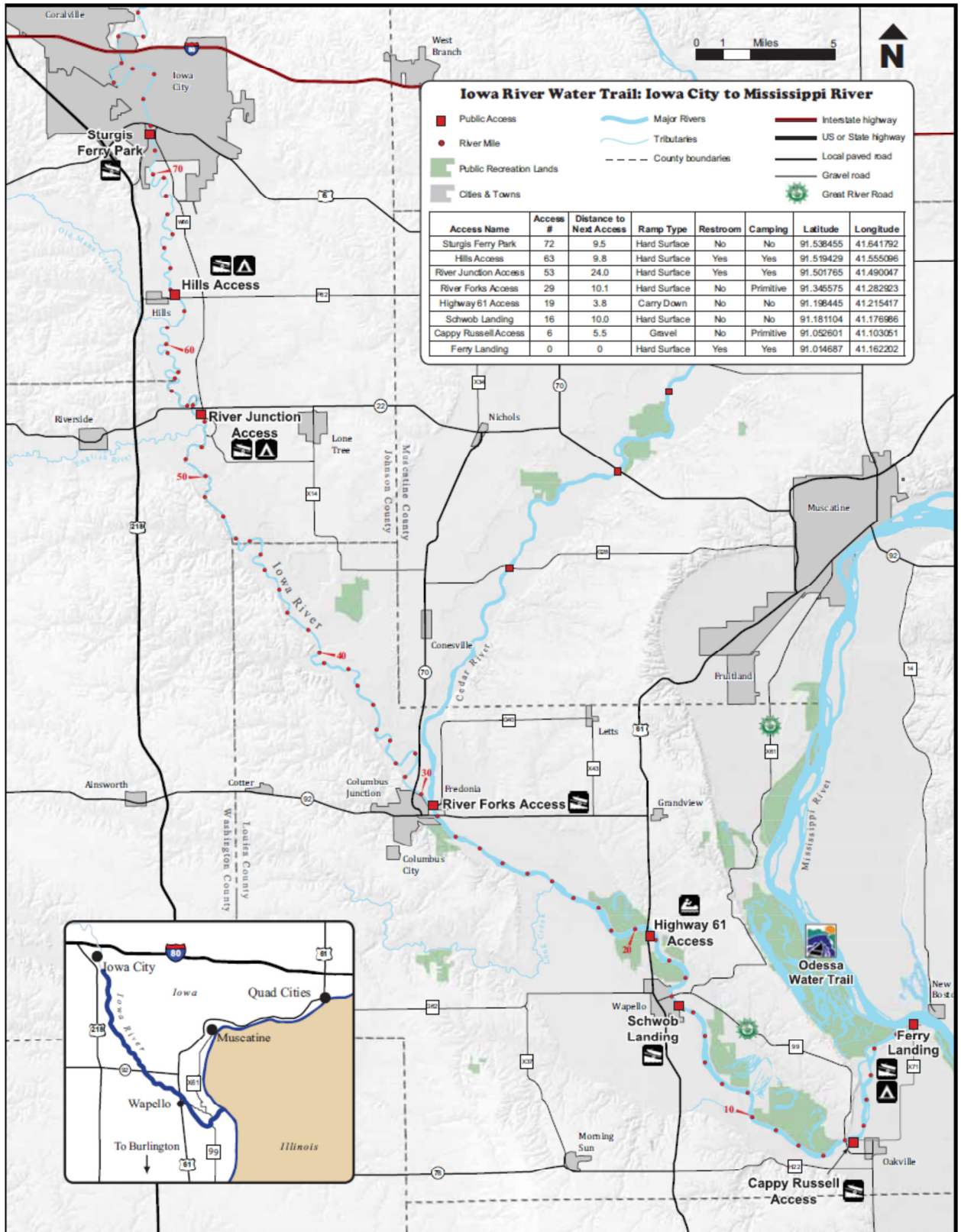
A canoe livery or canoe rental is a business engaged in the livery (or rental) of canoes or kayaks and are typically found on or near streams, rivers, or lakes that provide good recreational opportunities. Currently, residents and visitor have just one place to rent canoes and kayaks in Johnson County at the University of Iowa's Touch the Earth Outdoor Recreation & Education Program. In addition to life jackets and paddles, Touch the Earth also rents roof racks and trailers for paddling trips.

In 2011, the City of Iowa City began construction on an environmental education and reception space located on the north shore of Terry Trueblood Recreation Area. This structure is planned to include non-motorized boat rentals for a small rental fee.

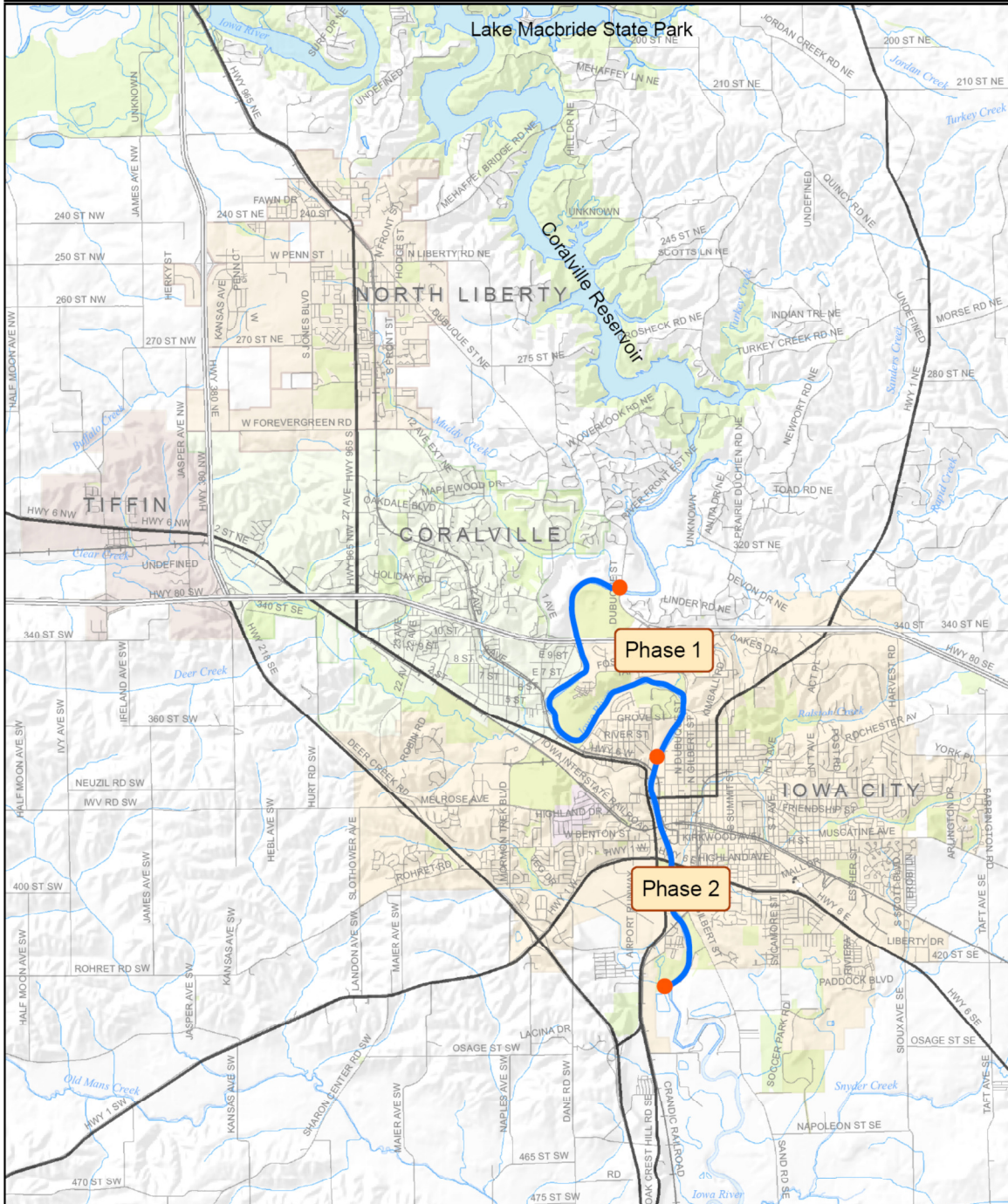
Recommendation: Johnson County is home to both the Iowa and Cedar Rivers. In the future, water trail facilities and official trail designations by the Iowa DNR should be pursued from Iowa County to Iowa City and at Sutliff on the Cedar River.

The City of Coralville was awarded grant funds to construct a put-in for Clear Creek at Camp Cardinal Boulevard, as well as sign a water trail along this waterway. In the future, the City of Tiffin could also explore to possibility of extending the water trail westward.

The designated Iowa River Water Trail from Sturgis Ferry Park to the Mississippi River could benefit from an additional put-in at the Izaak Walton League located on Izaak Walton Road SE. The County Conservation Board may consider exploring this possibility in the future.

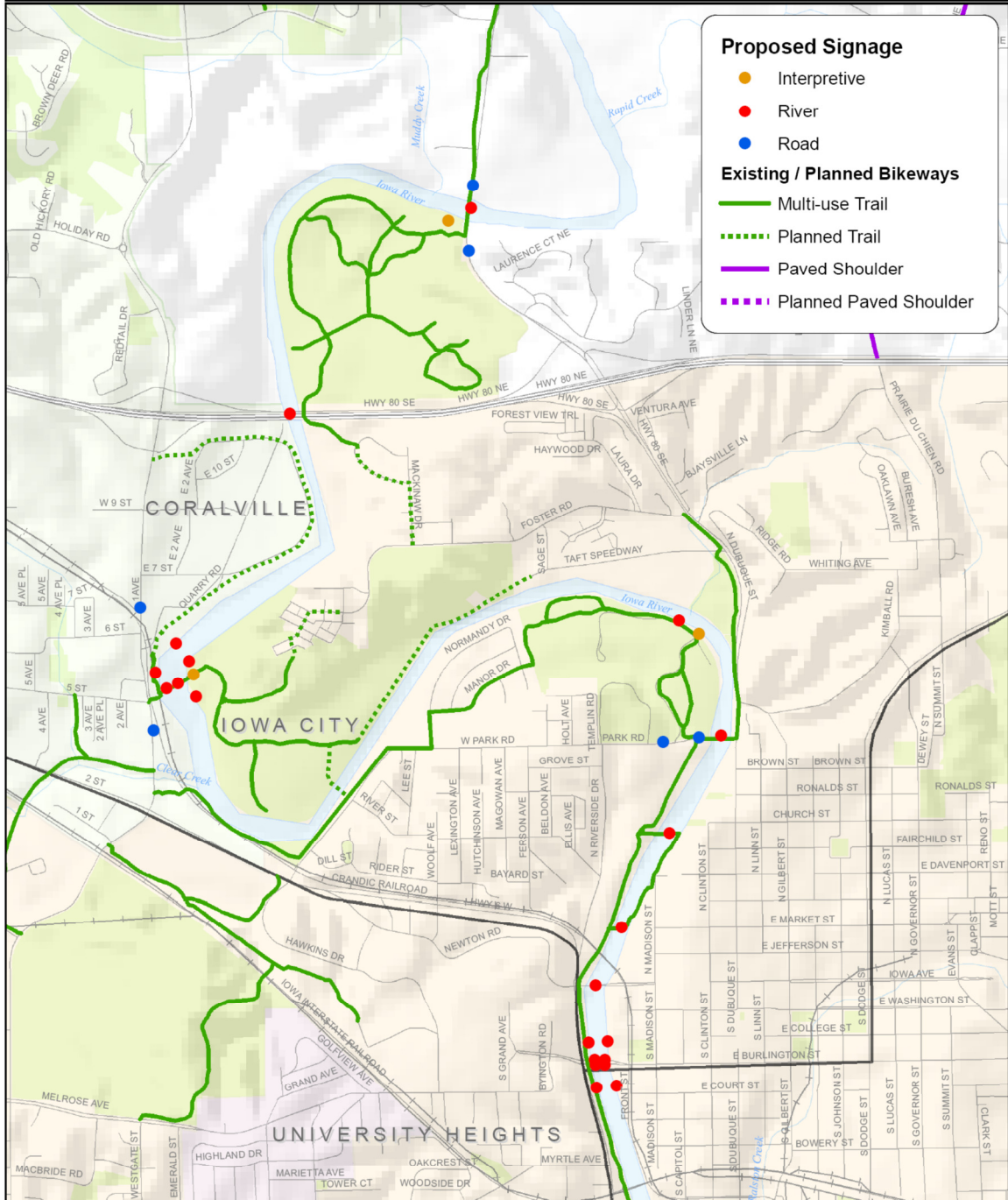


Urbanized Area
Proposed Phases
Iowa River Water Trail
Extent



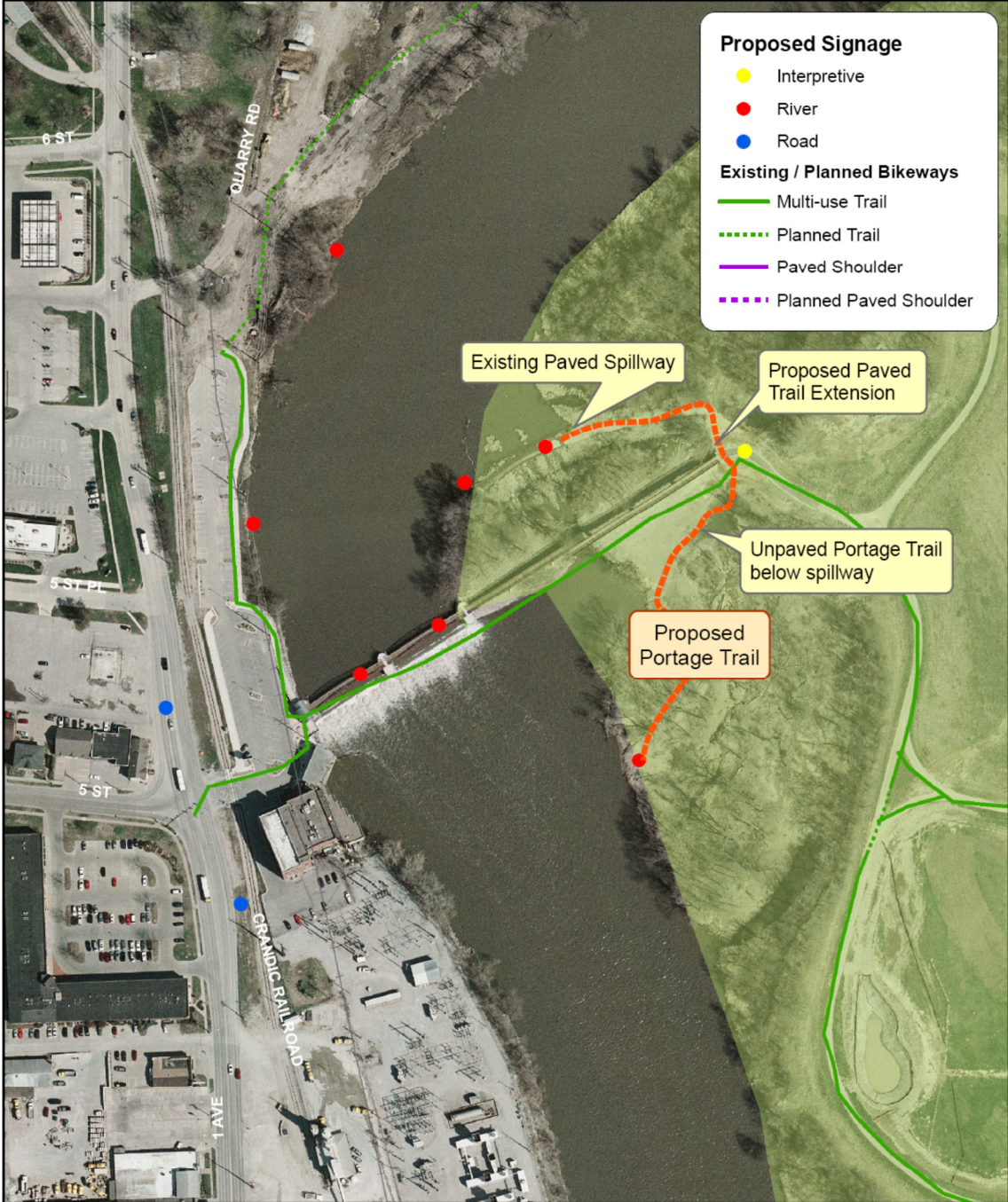
Prepared by: Kristopher Ackerson
 Prepared: January 26, 2009

Urbanized Area
**Proposed Phase 1
 Signage**
 Iowa River Water Trail



Prepared by: Kristopher Ackerson
 Prepared: January 26, 2009

Urbanized Area
**Proposed Iowa Power Dam
 Portage Trail**
 Iowa River Water Trail



Prepared by: Kristopher Ackerson
 Prepared: January 26, 2009

Grant Funding Opportunities

Regional Transportation Enhancement Program: A certain amount of Transportation Enhancement funds are allocated to the East Central Iowa Council of Governments for use in areas of Johnson County outside the Iowa City metropolitan area. Transportation Enhancement funds may be used on non-road transportation projects including trails, scenic and environmental transportation-related project, and adaptive reuse of historic transportation facilities. Grants are competitive, and funding decisions are made by the ECICOG Board. A 20% local match is required.

Web site: www.ECICOG.org
Contact: 108 3rd Street SE, Suite 300
Cedar Rapids, IA 52401

Federal Transportation Enhancement Program: The purpose of this program is to fund activities related to non-road transportation, including trails, scenic and environmental transportation-related projects, and adaptive reuse of historic transportation facilities. The Iowa Department of Transportation administers these funds, which are awarded on a competitive basis. A 20% local match is required.

Web site: www.IowaDOT.gov/systems_planning
Contact: Office of Systems Planning
800 Lincoln Way
Ames, IA 50010

Federal Recreational Trails Program: These federal funds provide for the maintenance and construction of motorized and non-motorized trail and trail-related projects such as trail heads. At least 30% of these funds are distributed to motorized trail projects, and at least 30% are distributed to non-motorized trail projects. A minimum 20% local match is required.

Web site: www.IowaDOT.gov/systems_planning
Contact: Office of Systems Planning
800 Lincoln Way
Ames, IA 50010

State Recreational Trails Program: The intent of this program is to provide funding for recreational trails. Funding levels have varied widely in recent years; in some years this program has received no funding. A 25% local match is required.

Web site: www.IowaDOT.gov/systems_planning
Contact: Office of Systems Planning
800 Lincoln Way
Ames, IA 50010

Resource Enhancement and Protection – County Conservation: The Iowa Department of Natural Resources administers the Resource Enhancement and Protection (REAP) program, which includes funds for county conservation activities.

These funds can be used to purchase land easements and capital improvements. Counties are eligible to receive these funds if they are dedicating at least 22¢ per \$1,000 of the assessed value of property in the county for conservation purposes. No local match is required; grants may fund up to 100% of project cost.

Web site: www.IowaDNR.gov/reap/
Contact: Iowa Department of Natural Resources
Des Moines, IA 50319

Land and Water Conservation Fund: The Land and Water Conservation Fund is a federally-funded program administered by Iowa DNR that provides matching funds of up to 50% for outdoor recreation area development and acquisition. Iowa's cities and counties are eligible to participate.

Web site: www.IowaDNR.gov/grants/landwater.html
Contact: Iowa Department of Natural Resources
502 E 9th Street
Des Moines, IA 50319

Water Trails Enhancement Grant: Iowa DNR River Programs help state designated water trails or in-progress water trails that are on track for state designation to upgrade to new requirements outlined in the 2010 statewide water trails plan: *Iowa Water Trails - Connecting People with Water & Resources*. All state designated water trails will be required to upgrade to these new requirements by 2014. \$32,000 is available this cycle with a submission deadline of August 5th, 2011.

Web site: www.IowaDNR.gov/Recreation/CanoeingKayaking
Contact: Iowa Department of Natural Resources
502 E 9th Street
Des Moines, Iowa 50319-0034