A Guiding Document for the Legacy Section of the Mississippi River Trail

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A GUIDING DOCUMENT FOR THE
LEGACY SECTION OF THE MISSISSIPPI RIVER TRAIL

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EXECUTIVE SUMMARY

Introduction

Marquette, McGregor, and Guttenberg, located in northeast Iowa, have a vision for a complete 17-mile recreational trail, called the Legacy Section of the Mississippi River Trail, that will be designated part of the Mississippi River Trail and the Iowa Trails System. The trail, in the most current plan, will connect Marquette, McGregor, and Guttenberg with a further connection to Pike's Peak State Park. The existing trails in the system are located in McGregor, Guttenberg, and along the Great River Road. The Great River Road trail consists of paved shoulder bike lanes, extending from State Highway 340, south to Guttenberg, roughly 15 miles. Existing trails in McGregor and Guttenberg consist of sidewalk-type trails running along the Mississippi River.

Linking the in-town trails to the Great River Road trail will require the construction of additional trails. The towns have secured Vision Iowa money and have pledged some of their own funds to complete the trails.

The purpose of this project is to give assistance to our clients for making their Legacy Trail a success in providing economic development and attracting tourism. Our recommendations are contained in four sections:

- Public and Private Involvement
- Maintenance
- Design, Costs, and Financing
- Marketing
Methodology

Our methodology was to conduct extensive research and match this research to the needs of the client. Information was found in journals, government literature, books, and trail planning documents. This information was synthesized into relevant sections that would provide general information to the client; using this information we then made recommendations for the client.

Recommendations

The main recommendation is the creation of a trail management organization. Without a central organization, simple day-to-day activities cannot be performed, let alone things like marketing and maintaining a trail. The second main recommendation is to follow the *Iowa Trails 2000* and the *Iowa Mississippi Trail Plan* closely to adhere to their design recommendations and other recommendations that will make linking to the Iowa Trails and Mississippi River Trail systems smoother.

Vision

We believe that the guiding document written for Marquette, McGregor, and Guttenberg will provide them with a solid base to proceed with the construction of the Legacy Trail and its associated activities. We also believe this document will contribute to the success of the Legacy Trail and any other future trail segments included therein.
Background

The information contained within this document provides a concept plan for a bike/pedestrian trail connecting the towns of Marquette, McGregor, and Guttenberg. These three communities have a population of approximately 3,000 and are located in Clayton County in Northeast Iowa. According to these communities, the trail will serve as an economic development tool to promote additional tourism in their communities.

Some segments along the trail corridor have already been constructed along the Great River Road and along the Mississippi River in McGregor and Guttenberg. However, to make the trail segments continuous four additional segments must be constructed. Upon the trail’s completion, these communities anticipate its inclusion as part of the proposed Mississippi River Trail; the completed trail will be called the “Legacy Section of the MRT.”

These communities face several challenges in the planning and construction of the remaining trail segments. For the purpose of clarification, the four trail segments which comprise the Legacy Section of the MRT are referred to throughout the document as the Trail of Two Cities, the Great River Road, the Pike’s Peak Connection, and the Guttenberg Legacy Trail.

The Trail of Two Cities is approximately one and half miles long and connects the towns of Marquette and McGregor. There are two primary obstacles to the construction of this trail segment. First, large bluffs separate the two towns, which means that a portion of this trail segment will be an on-road trail. The road along which the trail will be
routed (US Highway 76) is bordered on one side by the Mississippi River and on the other by these large bluffs. The road would need to be widened in order to accommodate a bike lane; however, this will prove to be both difficult and costly as trail construction will necessitate chipping away the bluffs (see Figure 1). Second, the remaining portion of the trail route will continue along the railroad right of way, which has not yet been secured by either of the two towns. In addition, once the right-of-way is secured, trail construction will be further hampered by distance regulations that require a minimum distance of 25 feet from the center line of the railroad tracks to the trail itself (distance between tracks and river varies--see Figure 2).

The portion of the Legacy Section of the MRT along the Great River Road, or County road X56, already exists as a paved shoulder trail. This trail is approximately 15 miles in length and connects McGregor and Guttenberg. The segment is an on-road trail and would need to be widened in accordance with the Iowa-MRT regulations. In addition, much of the existing bike lane is often covered with sand and gravel (see Figure 3). This segment necessitates routine maintenance to ensure the bike lane is free of debris for trail users. Finally, the bike lane ends at the bridge just north of
Guttenberg; the bridge is not wide enough to legally accommodate a bike lane (see Figure 4).

![Figure 3](image1)
![Figure 4](image2)

The Pike's Peak connection is approximately a half mile in length. This trail will connect the Great River Road to the Pike's Peak State Park main entrance via an on-road bike lane (See Figure 5). However, before this trail segment can be constructed, the communities must obtain permission from Matt Tschirgi, Pike's Peak Park Manager.

The Guttenberg Legacy trail will be a loop trail around the town. A portion of this trail has already been constructed along the Mississippi River (see Figure 6). The remainder of the trail will be routed through the downtown; either the sidewalk or the road will need to be widened to accommodate the trail (see Figures 6 and 7).
Although portions of the Legacy Section of the MRT already exist and some funding has been secured for trail construction, these communities lack the resources and knowledge to complete a project of this magnitude. Thus, this document is intended to assist the towns in planning and building new trails. This document provides guidance for developing a management organization to coordinate all aspects of trail planning, implementation and evaluation among local governments and other entities in the region. This document also provides guidance for trail design, construction and related costs, financing options, trail maintenance, and developing a trail marketing strategy to promote the trail.

Outline of the Document

The towns of Guttenberg, Marquette, and McGregor have secured funding for the development of a trail system and are eager to begin the planning and implementation phases. However, trails often cannot be quickly developed because of the complexity of the process and the large number of factors involved. This document is intended to assist these communities in planning and creating of the Legacy Section of the MRT.
The document is organized into five chapters, as well as appendices providing additional information and resources. Chapters begin with general information on the topic followed by more detailed information, and conclude with specific recommendations for the Legacy Section of the MRT. The first chapter addresses public and private involvement in the trail planning process. This chapter addresses the role of citizen participation, discusses how to integrate the trail into local policy and law, and presents a variety of trail management strategies. The second chapter addresses a variety of design elements. Included in this chapter is a discussion of trail classification, trail surface materials, safety issues, trial signs and markings, and trail accessibility information. This chapter also describes the various costs associated with trail construction and provides information on additional financing sources. The topic of the third chapter is trail maintenance, including a discussion of trail maintenance activities, and explanation of how existing trails are maintained, and a description of how a maintenance plan could be developed for the Legacy Section of the MRT. Finally, chapter four outlines how to develop a marketing strategy for the trail. This chapter includes a discussion of the role of publicity, how to work with various forms of media to maximize publicity, and how to use trail related publications to increase public awareness of the trail.

Benefits of Trails

This area is well known for its rich history and natural beauty. Tourism is very important for local economic growth. The primary functions of the trail will be to help to
attract more tourists to this area, provide recreational opportunities, and bring other economic benefits to the towns.

The trail would bring many benefits to citizens of the three towns as well as to visitors. First, bicycling and walking greatly improve people’s health and physical fitness. Studies have shown that even small increases in light to moderate activity will produce measurable health improvement to those who are least active (Ryan 1994). Bicycling and walking also have positive health effects on those suffering from stroke, cancer, arthritis, and other diseases. Second, the trail would provide people with opportunities to access the Mississippi River. The trail links Marquette and McGregor with the Pike’s Peak State Park, and offers visitors different and varying experiences. Last, the trail can educate and increase awareness about the history and culture of the region, aiding in the preservation of these three historical towns (The National Bicycling and Walking Study 1994).

The trail will also generate both direct and indirect economic benefits for the communities. Direct community benefits include expenditures for goods and services related to the trail, employment created by the trail, and charges or fees for using the trail. Indirect benefits are expenditures by trail-related businesses, tax revenues, and construction and maintenance services (Barton-Aschman 1990). Case studies in the Iowa Statewide Recreational Trail Plan (1990) indicate that communities along trails gained great benefits from them. For instance, the Heritage Trail in Dubuque County is 26 miles long and attracts over 60,000 visitors annually. User fees cover all operating costs of the trail, including the cost of a range of maintenance expenses.
Trails have been found to be safe, and generally increase or have no effect on property values. In a 1992 survey conducted at Sonoma State University, CA (Webel 2002), seventy five residents were surveyed regarding the effect of trails on property values and crime. The result showed that 64% of respondents felt the trail increased the quality of life in the neighborhood, 33% said the trail would make their home easier to sell, and 23% said the trail would make their home sell for more. The study showed neither increased crime nor decreased property values due to trails. Another study done by the University of North Carolina at Chapel Hill (1995) supported the hypothesis that most residents feel satisfied with greenways and that problems are minimal.

The Legacy Section of the MRT will provide recreational opportunities, increase local economic development, and attract additional tourists and visitors to the area. This document provides specific guidance for this trail to meet these goals.
1.1 Trail Planning and Management

An important step in planning a multi-jurisdictional bike/pedestrian trail is to develop some sort of organizational structure, such as a council or partnership, to plan the trail and to decide who will manage the trail after it is built. Whether the trail will be managed by a single agency or through cooperative management, each jurisdiction should attempt to make the project a priority. According to Dick Westfall (2000), Greenways & Trails Supervisor for the Illinois DNR, “trying to do a large-scale trail development partnership project on top of existing work or ‘during coffee breaks’ does not work well. Ideally, at least one of the partners should dedicate at least one staff person to the project” (p. 3). The most important task this person will do is coordinate various internal departments that will deal with the trail, such as planning, public works, or police, and coordinate between agencies.

When none of the agencies involved in a trail project are able to supply a staff member with the appropriate knowledge, experience, and time to plan a trail, an outside contractor can be hired. The advantages to this are that hired consultants will have prior experience in trail planning and building, and will be able to give the necessary time to the project to meet deadlines. However, communication between the consultant and all agencies involved may be limited, and the contractor will not have the same level of trust from the community (Flink, et al 2001). Either way, the most effective way to plan and manage a trail is to have at least one person who can commit full-time to the project.
1.1.1 Managing with an Independent Council or Partnership

An independent council or partnership can be effective in managing a trail because each jurisdiction is represented within the council, yet the council has the power to make decisions about the trail independent of each jurisdiction’s government. A representative of each stakeholder group should be included in this council.

The Grand Illinois Trail (GIT), a 475 mile trail in northern Illinois, connects a number of small and large cities, state parks, federal areas, and local parks. To ensure progress on the trail and coordination between stakeholders, the GIT Executive Council was formed with representatives from local governing agencies, organizations such as bicycle clubs, and agencies like the Illinois Department of Transportation and Illinois Department of Natural Resources (DNR) (Westfall 2000). The Executive Council is in charge of making all decisions regarding the management of the trail. A single managing agency means the trail is “more likely to have a homogeneous look, a comprehensive design, a uniform trail surface, a single set of trail regulations, and a consistent level of maintenance along its entire length” (Flink et al 2001, p. 140).

1.1.2 Cooperative Management Strategy

When the formation of a single managing agency is not possible, Flink, et al (2001), recommend developing a cooperative management strategy for the trail in order to “promote some consistency and…[to] establish guidelines and expectations for each agency” (p. 142). In this situation, each town, county, or other agency cooperatively—but independently—manages the section of the trail that falls within their own jurisdiction. Together, all jurisdictions involved should develop a design, management,
and maintenance manual (the trail policy plan) that is supported by and will be used by each agency.

1.1.3 Managing Development Along the Trail

If the area surrounding the trail is designated a conservation or floating zone, the trail corridor itself can still be protected by monitoring development along the corridor and requiring licenses and fees for certain actions taking place in the corridor. While some uses are plainly no compatible with a trail, others may be compatible with this trail, and may even become a source of income. Potentially compatible nontrail uses may include:

- Telephone or fiber-optic cables
- Cable television wires
- Gas pipelines
- Sanitary sewers
- Garden plots
- Private parking lots

After the trail is established, a valuable source of income for maintaining the trail can be requiring compensation for allowing utility companies, agencies, or adjacent landowners to make use of the corridor and its right-of-way. This is especially true when the trail is the only continuous non-road passage through an area, such as on the Trail of Two Cities, or when the trail runs through a residential area.

A licensing program can be set up to both regulate use along the trail and bring in money. For example, the Northern Virginia Regional Park Authority (NVRPA) created a licensing program along a trail that not only protects the corridor, but also controls activities of those holding licenses, minimizes inconvenience to trail users, defines
standard for conduction, and recovers the administrative and overhead costs associated with the licensing program. NVRPA receives approximately $450,000 per year from administrative and review fees, onetime and recurring rental fees for businesses using adjoining property, and fiber-optics license fees (NVPRA, 1989).

The Legacy section of the Iowa-MRT could benefit from nontrail uses in the following ways:

- A licensing program as used by the NVRPA.
- **Land-Use Fees**: Charge fees (rather than selling licenses) for the use of trail land for utilities or other uses along the trail. Fees can be imposed either as a one-time, up-front charge or on a renewable rental basis. Rental fees can then be designated for maintenance or administrative costs.
- **Exchanges**: A corporation may agree to provide trail improvements in exchange for access to the trail. Trail improvements that could be used include trailheads, bridges, shelters, or parking areas.
- **Overpass or Underpass**: Transportation department plans for a road across the right-of-way can be a barrier to trail use and a safety concern. Request that they build a bridge or tunnel bike trail traversing the roadway in exchange for cutting across the right-of-way.
- **Adjacent Land Use Fees**: Unlike regular land use fees for items running along the length of the trail, this calls for charging landowners or entrepreneurs for using small plots of land in the trail right-of-way. This can include garden plots, private driveways, an outdoor eating area at a restaurant, or a spot in a shelter for a vending machine.
1.1.4 A “Friends of the Trail” Group

According to Flink, et al (2001), “No matter how competent and savvy the governmental agency that manages the trail, there will always be times when a group of active volunteers can provide the kind of assistance—whether through muscle power or political power—that will noticeably improve [the] trail” (p. 170). This is the role of a “Friends of the Trail” group.

Even when a citizen organization is not formed during trail creation, a Friends group should be set up after the trail is built to serve as an advocate for the trail, whether defending it or promoting it; where a CAC was formed, some of the members may be interesting in starting or joining the Friends group. In addition, bicycle enthusiasts, adjacent landowners, local citizens, and environmentalists may be involved in the Friends group.

The Friends group should be legally separate from the trail managing agency; however, the two entities should communicate closely and coordinate activities and programs (Ryan 1994). Because the Friends group does not have a vested interest in one particular segment of the trail, they will be better able to market the trail as a whole, raise money for overall trail improvements, and recruit volunteers to work on the trail.

For the Legacy section of the Iowa-MRT, the Friends groups will do much of the post-construction marketing and serve as a liaison between the separate jurisdictions.

1.2 The Trail in Policy and Law
In “Trails for the Twenty-First Century,” Flink et al (2001), say that the success of a trail depends on its “integration into the policy and planning documents used by planners, engineers, and other decision makers” (p. 36). When one or a number of government agencies are involved in planning and implementing a trail project, an important step early in the process is to ensure that bike and pedestrian trails are included in the comprehensive plan and zoning ordinance of each jurisdiction, as well as in region-wide plans.

1.2.1 The Comprehensive Plan

Ryan and Winterich (1994), of the Rails-To-Trails Conservancy, state, “if your trail is part of a [comprehensive] plan, that means the agency has recognized the trail opportunity and implementation, in theory, should be easier” (p. 32). When the bike/pedestrian trail is included in the comprehensive plan, it is recognized as something supported by the public, and is more likely to be included in annual budgets and development plans. Integrating a trail plan into an existing comprehensive plan generates familiarity toward, awareness of, and legitimacy for a trail (Flink et al 2001).

The trail under question in this project is part of many different jurisdictions, and so should be included in the comprehensive plans of each jurisdiction (where one exists): Clayton County, Marquette, McGregor, and Guttenberg. Clayton County’s comprehensive plan was originally written in the 1970s, and is currently being renewed and revised in order to facilitate new development resulting from Vision Iowa money. Provisions for a bike trail should be included in these revisions (Midwest News: Vision Iowa 2002).
If Clayton County does not include a bike trail, or if other jurisdictions in the area do not have comprehensive plans, the trail must be made part of future plans for the area in other way, including in the zoning ordinance and licensing structures, tourism plans, and the establishment of a trail protection policy.

1.2.2 The Zoning Ordinance

According to Flink et al (2001), zoning ordinances should include ways to regulate uses outside the corridor that may affect a trail’s integrity, such as runoff from construction, loss of views or scenic vistas because of development, or noise from traffic. When the trail is integrated into the zoning ordinance, the governing body has the power to monitor proposals for development adjacent to the trail corridor, and to impose license and permit conditions along the trail (Flink et al 2001). In addition, roadway design manuals are very important to making bike/pedestrian trails part of local infrastructure. For example, in Seattle, WA, “pedestrian and bicycle considerations are routinely incorporated into policies, manuals, and standards” (Zegeer 1994, p. 98).

The most effective zoning device for protecting views and vistas is to designate a “conservation zone” for the entire viewshed surrounding the trail, or, in the case of portions of the trail, for the area between the trail corridor and the Mississippi River. This would serve to protect both the trail itself and the River from negative impacts resulting from development or run-off. The area along the trail can be zoned as shoreline, open space, or park land. These zoning designations prevent development within the zone.

Another way to use the zoning ordinance to protect the segments of the trail within city limits (the Trail of Two Cities and the Guttenberg Legacy Trail) is to create a
floating zone—for example, an “economic development area” or “tourism development area”—and apply that floating zone to the trail area. This would aid in protecting a trail that runs through very different areas, such as a residential area, a downtown business district, or a city park, because it requires trail protection measures without taking ownership or taking away owner privileges.

1.2.3 Establishing a Trail Protection Policy

All the protection measures discussed so far, whether the trail is included in a comprehensive plan and zoning ordinance or not, should be included in a Trail Protection Policy and made into law by each city and county government so that the policy is enforceable.

A Trail Protection Policy has four important functions:

1) To set forth primary uses of a corridor: In the case of the trail, this will be recreation and perhaps tourism.

2) To outline compatible uses: Those uses that will be considered for use in the corridor but carefully regulated.

3) To outline incompatible uses: Those uses that will not be allowed in the trail corridor under any circumstance.

4) To anticipate and manage change in a way that protects the trail’s qualities for present and future generations.

The Trail Protection Policy should be set up to give trail governing bodies the authority to do the following (Flink et al 2001):

- Regulate all non-primary uses of the trail corridor in a consistent manner.
• Ensure that governing agencies receive compensation for administrative and repair costs associated with compatible uses.

• Inform all public and private interests of expectations of the trail management group in regards to both primary and compatible uses.

• Establish uniform standards for construction and restoration of the trail for damage and maintenance resulting from primary and compatible uses.

• Minimize damage to the trail corridor.

• Ensure protection of wildlife habitat and natural and historic resources within the corridor.

• Issue permits and licenses for primary compatible uses.

The trail managing agency may not hold full title to the trail corridor; for instance, the agency may hold a recreational easement over privately-owned land adjacent to the trail, but have no legal control over other uses of the land. In a case like this, the ability of the agency to do all the actions listed in the trail protection policy may be limited. If so, the agency should initiate communication with all parties connected to the trail corridor. Find out who holds title to lands in the corridor and open lines of communication with them, whether they are government agencies, individuals, or environmental groups. Developing relationships with these groups will put the trail agency in a better position to direct development and mitigate negative actions in the trail corridor.

1.3 Public Support and Citizen Participation

The planning of most bike trails begins either in a local government body or with a group of active citizens; because most trails pass through more than one political
jurisdiction and will affect many different groups, involving many different stakeholders in trail planning will streamline the process, making it easier to overcome “political, legal and financial challenges along the way” (Ryan 1994, p. 6). Flink et al (2001) advise that all possible stakeholders be involved in the trail development process, even those opposed to the trail. The trail planning agency should establish a strategy for involving the public, communicate that strategy to the public, and follow that strategy throughout the planning and development of the trail (Iowa Trails 2000).

1.3.1 Identify and Involve Stakeholders

Whether the idea for a bike and pedestrian trail begins with a group of interested citizens or a governing body, the planning, design, and maintenance of the trail will involve many different stakeholders. Businesses, local governments, landowners, state agencies, special interest groups, volunteers, and the users themselves will all be impacted by, benefit from, or be interested in the trail. According to Flink et al (2001), “building rapport with stakeholders will be vital to your project’s success” (p.7). In addition, “failure to involve interested groups can result in opposition that can cripple progress” (Bike-Ped Handbook 2000, p. 17).

Potential Stakeholders:

- Community Groups
  - Recreational Clubs (bicycling, walking)
  - Environmental Organizations
  - Groups for the Elderly
  - Garden Clubs
  - Persons with Disabilities
  - Historical Societies
  - Chambers of Commerce
1.3.2 Getting the Public Involved

A crucial step in creating a trail is to involve the public in all aspects of the trail, from planning, to management, to maintenance, to financing. “While many successful programs have a high level of citizen involvement, such activity sometimes stands out as the major reason for the longevity and integration of the program” (Zegeer 1994, p. 96). Citizens who are involved in the planning process will be vocal about their support of the trail, and will greatly empower local decision makers. In addition, a pro-active public participation process will give the trail managing agency the best chance to address opposition from the very beginning of the planning process.

Volunteers who are involved in the design and planning of the trail are more likely to support the trail monetarily if asked or to help with maintenance. When local businesses feel they have been part of the trail project, they are more likely to “donate money, post information prominently in their establishments, write letters to the editor and to elected officials and co-sponsor events” relating to the trail (Ryan 1994, p. 88).

Adjacent landowners especially should be involved from the beginning of the planning process; their proximity to the trail may make them anxious, and listening to
their concerns at the beginning will help alleviate their fears and lead to increased support for the trail.

The public workshop is an important method of public participation that should be part of the trail planning process. All members of the public are invited to these meetings, which are often held at a neutral location such as a public library. Each workshop should have one focus (Flink et al 2001):

- **Benefits, Goals, and Objectives Workshop**: This workshop allows the trail planning agency and the public to discuss the benefits of a trail, including economic, recreational, transportation, health, quality of life, or other benefits. The public can identify goals and objectives for the trail that will lead toward these benefits.

- **Issues Identification Workshop**: This workshop is used to identify objections and concerns about the trail project.

- **Design Workshop**: This workshop allows for public input on the actual design of the trail; attendees make suggestions and express their desires for landscaping, buffers, benches, rest stops, etc., not on trail location.

- **Open House Workshop**: This is a panel discussion/information free flow between trail planners and members of the public. The agenda is flexible, allowing people to come and go and ask questions throughout the allotted time period. In addition, members of the public can have one-on-one time with trail planners.

Another method that can be used to involve the public in trail planning is a survey; this method can be very effective because it allows people to address concerns
or feelings anonymously. In addition, people who were not able to attend a workshop can still be involved in the planning process (Flink et al 2001).

1.3.3 Citizen Advisory Committee

A citizen advisory committee (CAC) may be formed as an outlet for many different views to be represented and for consensus to develop. The CAC would also serve as a forum for the exchange of information between the general public, government agencies, and the trail management agency (Flink et al 2001). Up to fifteen individuals should be selected for the CAC and it should represent a variety of stakeholders, including environmentalists, homeowners, members of bicycle clubs, or advocates of those with disabilities. The CAC can help to “create consensus, identify issues and needs, and review planning efforts” (Bike-Ped Handbook 2000, p. 18).

Flink et al (2001) say that a CAC should be formed near the beginning of the trail planning process, should meet throughout the planning and development of the trail, and can evolve into a nonprofit trail development organization, or “Friends of the Trail” organization, after the planning process is completed.

Recommendations:

Follow a cooperative management strategy for management. Because the three towns involved in this trail project are small, they may find it difficult to devote one staff member entirely to the trail. Instead, all agencies involved—the towns of Marquette, McGregor, Guttenberg, Clayton County, the Iowa Department of Transportation (Iowa DOT), and the citizen action committee—should work together to produce a design,
management, and maintenance manual (see Section 1.2.3). The manual should be adopted as a policy or law by each jurisdiction. Each jurisdiction will be responsible for the maintenance of its own segment of the trail and will receive the benefits from its own segment. At the same time, the entire trail will have consistent design and maintenance levels.

A “Friends of the Trail” group will be an important part of the future of the trail. The Friends group will be legally separate from the managing agency, but both groups will communicate closely and coordinate activities and programs. The Friends group will most likely take the lead in marketing the trail as a whole because it will not have a vested interest in any individual segment of the trail.

The first priority in making this trail part of public policy in all jurisdictions is to create a trail policy plan, as described in Section 1.2.3. This will allow each jurisdiction to have some control over the trail and its corridor even if it is not a part of comprehensive plans or ordinances. The trail policy plan should be developed jointly by the management organization (Section 1.1), which will include all government agencies, and a citizen action committee (Section 1.3.3).

As Clayton County is currently reviewing and revising its comprehensive plan, now is an opportune time to ensure that this bike and pedestrian trail is a part of the plan. Including the trail in the comprehensive plan will help make the trail a part of future growth and policies in the county. In addition, it will help create public awareness about the trail.
After a trail policy plan is formed, each government agency will be able to distinguish which zoning tools will best protect the trail and still fit the goals of the trail policy plan. They can then develop and implement the appropriate zone designations.

Thus far, the public has not been highly involved in the trail planning process in Marquette, McGregor, and Guttenberg. This may be partly because part of the Legacy section of the MRT (along the Great River Road) is already in existence. Furthermore, the cities have already received funding for the trail that will expire after a certain period of time, so they may feel that they need to complete the trail planning process and begin construction on the actual trail as soon as possible. Public involvement is very important to planning and managing a trail and should not be completely left out simply because it has not happened so far in the process.

Because the trail route is already established, and because certain design elements are mandatory as part of the Mississippi River Trail network, the public will not be highly involved in deciding these things. Workshops should be held, however, to identify the benefits of the trail to these communities, to set out goals and objectives, and to address issues and concerns that the public may have toward the trail.

In addition, a Citizen Advisory Committee (CAC) should be formed as soon as possible. This group will provide a link that is currently missing between the public and the trail planners. The CAC can also be the beginning of a “Friends of the Trail” group (discussed in Section 1.1.4).
2.1 Trail Design

According to a report from Shapins Associates (2000), a successful trail system development should be well planned, including phasing, long term maintenance and funding; it should clearly connect Point A and B as well as connect numerous points in between; it should have clear focus; it should be well signed; and it should have support services such as restrooms and lodging. While the first two requirements fall under trail management, the latter are included in trail design.

The design of a bike and pedestrian trail includes a number of aspects, including accessibility, conflict between different users, trail surfaces, signs, design speed, lighting, and railroads adjacent to the trail. Accessibility of a trail for people with disabilities is partly determined by the condition of its surface and the surface materials. Three factors are used to evaluate the surface: firmness, stability, and slip resistance. *Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines* (New Jersey DOT 1996) contains a table indicating the advantages and disadvantages of each type of surface materials: asphalt and concrete have high installation cost and are costly to repair, soil and wood have low cost and low maintenance but are not all-weather surfaces and are not accessible. Selecting which type of surface material to use depends on the funding available for the project and the preference of the client.

Signs are an essential component of any trail because they provide information to users. An introductory sign needs to be easy-to-understand with limited text and graphics providing objective information such as the accessibility of the trail, allowable
types of use, and the total length of the trail (Beneficial Designs, Inc. 2001). Other signs, such a 4-inch wide yellow centerline stripe to separate opposite directions of travel, should also be considered (New Jersey DOT, 1996).

The Guidelines for Developing Rural Bike Routes by the Wisconsin DOT (1998) also supplies information on trail marking. According to these guidelines, all trails should have appropriate signage marking all routes. These signs should be understandable at a glance, and should all be uniform in appearance. At least three types of signs are needed on any recreational or transportation trail. The first is an identification and reassurance marker, which identifies the facility, helps the user distinguish routes, and reassures the user that they are on the route they chose to use. Second are warning markers, which identify hazards along the route such as bumps, road or railroad crossings, pedestrian crossings, and other potential hazards or changes in the trail. The third type of sign is a regulatory marker, which provides control over the use of the facility. Examples of regulatory markers are stop signs, yield signs, right-of-way signs, and no parking signs. All signage must be sure to comply with the prevalent route markings (Wisconsin DOT 1998).

A Trail Information System of presenting trail information is highly recommended to show trail users the accessibility ratings, trail conditions, skill-levels (if appropriate), and up-to-date maps appropriate to the trail. This system is useful for all potential and regular trail users and uses symbols and trail layouts to guide trail users.

Lighting can help reduce conflicts along the path and allows the users to see the direction and obstacles on the trail. Lighting is important and should be considered
wherever riding or walking at night is expected. For a recreational trail, night use is generally an option (North Central Texas Council of Governments 1995).

Part of the trail will be located along a railroad that is currently in use. To increase the safety of users, there should be a distance between the rail and the trail to separate them; a fence could be used to remind trail users to keep away from the rail. (North Central Texas Council of Governments 1995). Because the standard is not for recreational trails, it will need to be modified for our project; Section 2.1.3 discusses this issue in more depth.

Because the trail will be used by both bicyclists and pedestrians, there is a potential for conflicts between different users. Designing Sidewalks and Trails for Access (Beneficial Designs, Inc. 2001) provides several ways for easing conflicts that may be feasible for our project. For example, signage along the trail can remind people to watch out for different types of user, the width of the trail should sufficient to allow people to pass, and separate lanes or areas can be provided for bicyclists and pedestrians. Even among the same kind of users, conflicts can exist. For example, basic riders and young children who travel below 9mph will conflict with more advanced riders traveling at speeds greater than 12 mph (New Jersey DOT 1996). Bicycle paths should be designed for a speed that is at least as high as the preferred speed of the fastest bicyclists. In general, a minimum design speed of 20 mph should be used (New Jersey DOT 1996).

Design standards vary dramatically when applied to different trails because of local conditions, community desires, changing trends, intensity of use, and guidelines from major agencies that have close relationships with the trail (Iowa DOT 2000). This
trail will be part of the Mississippi River Trail (MRT) as well as the Iowa State Trail System, so its design standards will be based on the standards published in two documents: the Iowa Department of Transportation’s *Iowa Trails 2000* and the *Iowa Mississippi River Trail Plan* (Iowa-MRT).

These two documents have specific standards for trail surface, signs and markings, trail dimensions, and a trail information system that must be followed on this trail. However, not all the aspects of design standards have been discussed in the two documents. Some aspects, such as trail lighting, accessibility for all people, and conflicts between different users, are not discussed in detail. The design aspects that were not designated in *Iowa Trails 2000* and the *Iowa-MRT* plan are listed along with their sources in this section; all other aspects come from these two plans.

### 2.1.1 Trail Surface

The trail surface is an important design issue for two reasons. First, the accessibility of a trail can be partly determined by the material of the trail surface; disabled people are better able to use a trail with softer and slip-resistant surface materials. Second, different surface materials will have dramatically different costs. Generally speaking, asphalt and concrete have high installation cost and are costly to repair, while soil and wood are low cost and low maintenance but are not all-weather surfaces and are not always accessible by people with disabilities.

According to *Designing Sidewalks and Trails for Access*, trail surfaces can be asphalt, concrete, soil with stabilizer, crushed rock (3/4” minus) with stabilizer, or wood planks (Beneficial Designs, Inc. 2001). However, according to *Iowa’s Mississippi River Trail Plan*...
Trail, Iowa MRT lanes will all be paved with asphalt, which is a less expensive material than concrete but provides a smoother ride than a granular surface (Iowa MRT, 2002). Because this trail will be part of the Mississippi River Trail, all new segments should be paved in asphalt.

2.1.2 Trail Classification and Dimensions

According to the Iowa Trails 2000 and the Iowa-MRT, trails in Iowa that are along the Mississippi River will be classified into two kinds of trails: off-road bicycle trails and on-road bicycle lanes. For the short term, areas where on-road trails are feasible will use that type of trail because of lower costs. Long term, however, off-road trail will be substituted for on-road lanes out of concern for public safety (Iowa Trails 2000).

The Legacy segment of the Mississippi River Trail has four segments:

- Trail of Two Cities (from Marquette to McGregor)
- Great River Road (from McGregor to Guttenberg)
- Guttenberg Legacy Trail
- Pike’s Peak Connection

The trail will be off-road for the Trail of Two Cities and the Guttenberg Legacy Trail, and possible for the Pike’s Peak Connection. County Road X56, or the Great River Road, currently contains on-road bike trails, and those trails will continue to be used.

Off-road bicycle trails

Although this kind of trail is defined as a bicycle trail, bicyclists are unlikely to ever enjoy exclusive use of the trail facility; in most cases, bicycle trails will also
accommodate pedestrians. Conflicts between different trail users will be discussed in further detail in the following section.

Dimensions of off-road bicycle trails are as follows (Iowa Trails 2000):

- Recommended width for two-way bicycle trail is 10 feet
- Bicycle trails should maintain a minimum 2-foot wide clear zone on each side of the trail (Clear Zones refer to the area on each side of the trail between the traveled surface and any obstructions, such as trees, walls, or fences).
- Bicycle trails should maintain an 8-foot minimum vertical clearance. (Vertical Clearance refers to the height above the trail that is free from protruding objects and overhead obstructions, such as tree branches or bridges).

**On-road bicycle lanes**
This type of trail is a lane on the shoulder of a road or highway. Safety is of great concern in the design of on-road bicycle facilities. On this kind of bicycle lane, conflicts with pedestrians, automobiles, or other bicyclists can lead to serious injury.

Dimensions of off-road bicycle trails are as follows (Iowa Trails 2000):

- Although the lane width specified in Iowa Trails 2000 is 4 feet, The Iowa-MRT specifies 6-foot paved shoulders for bicycle lanes. The first priority is to complete the length of the trail; when that is complete, existing lanes should be widened as per Iowa-MRT specifications.
- Bicycle trails should maintain a minimum 2-foot wide clear zone on each side of the trail.
Because the bicycle lane is on the road and road design standards will ensure sufficient distance between vehicle and bicyclists, no clear zone requirements are in effect.

2.1.3 Trail Safety

The greatest potential safety hazard to trail users is when a trail crosses a roadway, railroad, watercourse, or another trail. The best way to increase safety is to increase visibility. It is important that crossings are visible both to trail users and to motorized vehicles.

Wherever possible, trails should cross roadways and railroads at right angles. In cases where trails approach the roadway at a skew, the trail should be routed to achieve a right-angle crossing wherever possible (Iowa Trails 2000).
Another way to enhance the users’ safety is to separate people from the railroad. When the trail is built along a railroad right-of-way, buffers are a reliable ways to prevent accident.

According to Iowa Trails 2000, the edge of the trail should be at least 25 feet from the centerline of active tracks. If a trail is nearer to an active track, fencing should be installed at the edge of the trail. The Iowa Trails 2000 requirement is a stricter standard for the distance between the trail and the rail: in most cases, the minimum distance between the center line of the railroad track and the trail is 10 feet (North Central Texas Council of Governments 1995). Though few specific standards about fencing separating the rail and the trail exist, the North Central Texas Council of Governments (1995) has declared that fences should be at least 4.5 feet tall and have 1.6 feet of additional clearance to the far edge of the pathway.

2.1.4 Trail Signs and Markings

Signage increases safety and comfort on trails, and is an important amenity not to be overlooked. Signs may assist in the navigation of a trail or trail system, warn of approaching roadway crossings, regulate trail use, or interpret features along.

- **Directional signs**: This type of sign shows street names, trail names, directional arrows, mileage to points of interest, and other navigational information.

- **Cautionary signs**: These signs warn of upcoming roadway crossings, steep grades, blind curves, or other potential trail hazards.
- **Regulatory signs**: This type of sign tells the "rules of the trail" by prohibiting certain uses or controlling the direction of travel.

- **Interpretive signs**: These signs offer educational information on environmental, historical, or cultural features along the trail.

- **Objective signs**: These signs provide information about the actual trail conditions, including grade, cross slope, surface, clear trail width, and obstacle height. This allows users to make more informed decisions about which trails best meet their trail needs and abilities.

### 2.1.5 Trail Information System

The trail information system provides information in various places along the trail to ensure that people have enough information about the trail. Four aspects should be address in the trail information system: trailheads and access points, rest areas, and interpretive facilities.

*Trailheads and Access points*

Trailheads are parcels specifically designed as a primary means of accessing a trail. These parcels may include restrooms, maps, parking areas, picnic facilities, or other recreational amenities. Access points are minor connections between the trail and nearby parks, communities, or roadways. When developing trailheads and access points, it is important that designers take into account people with disabilities and design to allow them to enjoy the trail. Furthermore, people with disabilities participate in trail activities at a wide range of skill levels. Therefore it is recommended that an accessible pathway be provided to all trailheads and access points, regardless of the permitted uses.
Rest Areas

Rest areas are generally small support facilities located along a trail that do not provide access to surrounding amenities. Rest areas are places to stop and rest that are off the main traveled way of the trail. They may also serve as interpretive areas or overlooks.

Interpretive Facilities

Many trails will offer the opportunity to educate the user on various aspects of the landscape, including native plants and animals, geologic history, local history, or the local economy.

2.2 Costs

2.2.1 Introduction

A major consideration during trail implementation and design is cost. The potential cost of a trail may have implications on what types of funding are used, whether the trail project is phased or built all at once, and what surface is installed. It is important for trail planners and trail implementers to have a general understanding of trail costs at the inception of the project, so they may budget accordingly.

This plan includes an overview of estimated trail costs only for the trail types involved in this project. *Iowa Trails 2000* is a good source for further information on other types of trails. This cost analysis is designed to accomplish three goals:

- Assist implementers of the trail to properly budget for trails and to seek adequate funding.
• Set forth an estimated cost for the trail.

• Assist policy makers to evaluate implementation progress and to allocate adequate resources toward the completion of the trails system.

2.2.2 Assumptions

All the data shown in this chapter comes from Iowa Trail 2000. This is the most adequate resource for the cost analysis because it is newly released and calibrated to the needs of trail within Iowa. Furthermore, the data are fairly reliable because the document was prepared by the Iowa Department of Transportation.

Trail construction costs can vary due to a variety of factors, including local conditions, trail type (use mode), and the support services that will be included. This cost analysis, therefore, is a general guideline for the purpose of preliminary estimation of trail costs. More detailed cost estimations should be performed at other points in the trail implementation process, particularly when applying for funding, during preliminary design, and prior to bidding for construction.

Some assumptions were made to accommodate the needs of this project, as well as to maintain the generality of the plan.

• All dollar amounts are in Year 2000 dollars, and do not include allowances for inflation. A discussion on the effects of inflation is included in Section 2.2.5.

• Trail widths and surfaces are according to the design guidelines listed in Section 2.1. The clearing and grubbing of trees and brush includes the width of the trail and associated clear zones. The granular sub-base extends one foot beyond the edge of the trail on each side.
• Grading costs assume moderately flat or partially prepared (railroad grade) surfaces. Trails in new corridors in hilly areas may incur higher grading costs.

• None of the costs for trail grading take into account adverse soil conditions, such as contamination or severely wet soils. Such situations will require additional grading and/or excavation and will increase the project cost.

• Granular sub-base refers to Iowa DOT-approved aggregate placed under a hard surface trail to a depth of 4 inches.

• Asphalt surfacing has a depth of 4 inches.

• Seeding/mulching includes broadcast seeded turf grass with straw laid down to prevent erosion. Additional erosion control on steep slopes is not included.

• Additional costs refer to typical drainage considerations, such as swales, culverts, or water bars; and support services, including rest areas, signage, and pavement markings. These are based on typical percentages of trail costs.

• Contingencies are included in all trail costs to account for localized increases in material costs, increases in labor cost due to time of year and contractor availability, and other unforeseen cost increases.

• Costs by trail type are for construction only and do not reflect planning, design, administration, or subsequent operations and maintenance.

• Some numbers are rounded for ease of calculation.
2.2.3 Unit Costs

Table 2.1 shows general costs for elements typically included in trail projects. These unit costs are used to develop overall costs for each type of trail.

**TABLE 2.1 UNIT COSTS FOR TRAIL ELEMENTS (INSTALLED)**

<table>
<thead>
<tr>
<th>Trail element</th>
<th>Unit</th>
<th>Price per unit (year 2000 construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearing and grubbing</td>
<td>Acre</td>
<td>$2,000.00</td>
</tr>
<tr>
<td>Grading for hard-surfaced trails</td>
<td>Mile</td>
<td>$3,000.00</td>
</tr>
<tr>
<td>Grading for natural-surfaced trails</td>
<td>Mile</td>
<td>$2,500.00</td>
</tr>
<tr>
<td>Granular sub-base</td>
<td>Sq. ft.</td>
<td>$.40</td>
</tr>
<tr>
<td>Asphalt surfacing</td>
<td>Sq. ft.</td>
<td>$1.00</td>
</tr>
<tr>
<td>Seeding/mulching</td>
<td>Acre</td>
<td>$1,600.00</td>
</tr>
<tr>
<td>Other costs (drainage, signage, and support services)</td>
<td>Mile</td>
<td>10% of trail cost</td>
</tr>
<tr>
<td>Planning</td>
<td>Mile</td>
<td>2% of trail cost</td>
</tr>
<tr>
<td>Preliminary design</td>
<td>Mile</td>
<td>2% of trail cost</td>
</tr>
<tr>
<td>Construction documents</td>
<td>Mile</td>
<td>5% of trail cost</td>
</tr>
<tr>
<td>Construction services</td>
<td>Mile</td>
<td>5% of trail cost</td>
</tr>
<tr>
<td>Administration</td>
<td>Mile</td>
<td>5% of trail cost</td>
</tr>
</tbody>
</table>

Source: Iowa Trails Plan 2000

2.2.4 Other Costs

*Plan Review*

Most trail projects will require review by a variety of state and regional agencies. This review, in many cases, is required by law. While these reviews may not increase
the actual project cost, they will require time, which may affect the project schedule or result in additional fees for consultants. Many trail projects will have to be reviewed for existing polluted sites, existing cultural/archaeological resource impacts, potential wetland or floodplain impacts, and acceptability of roadway crossings.

**Right-of-way acquisition**

In general, representative costs for the purchase of a right-of-way will vary drastically from region to region. Local or regional governments will most likely be best equipped to estimate costs for property acquisition in their particular area. The Iowa DOT makes right-of-way purchases based on fair market value for the particular county where land is being purchased. In rural counties, the fair market value is currently approximately $2,000 per acre. Ranges in price will occur depending on the agricultural potential of the land. In urban areas, acquisition costs will vary more significantly than in rural areas. Statewide, the approximate cost for land in urban areas ranges from $12,000 to $15,000 per acre. In some cases, urban land is registered on a square foot basis, and costs are even higher than the above figures.

When estimating the cost of land acquisition, local governments should speak with a local real estate appraiser to gain an understanding of actual costs for land in the general area and in specific locations to be acquired for trail use. Many grants will require such an appraisal.

**2.2.5 Inflation Costs**

*Iowa Trails 2000* used Year 2000 dollars for cost calculation, so we opted to use the same for this document. However, the trail will be built in a later year, so costs will
have to be adjusted to take the inflation into consideration. A Construction Cost Index for construction materials available from the Federal Highway Department (FHWA) or a Materials Cost Index available from the Engineering News Record periodical should provide the towns with reliable and relevant inflation figures for constructing trails.

<table>
<thead>
<tr>
<th>20-CITY: 1913=100</th>
<th>March 2003 Index/Price</th>
<th>% chg Month</th>
<th>% chg Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATERIALS</td>
<td>1959.90</td>
<td>-0.1</td>
<td>-3.9</td>
</tr>
<tr>
<td>CEMENT $/TON</td>
<td>83.07</td>
<td>+0.4</td>
<td>+1.4</td>
</tr>
<tr>
<td>STEEL $/CWT</td>
<td>25.71</td>
<td>+0.1</td>
<td>-4.8</td>
</tr>
<tr>
<td>LUMBER $/MBF</td>
<td>439.97</td>
<td>-0.3</td>
<td>-3.7</td>
</tr>
</tbody>
</table>

Engineering News Record Cost Inflation Table (www.enr.com): 2003

The Engineering News Record periodical lists materials inflation tables for all types of construction, but for this document the materials inflators will be the most useful. The construction materials cost inflators are constructed by collecting data on the cost of materials from around the United States, then comparing them to a base year cost. The difference is the inflation rate. By referencing the construction cost inflator, the towns will be able to more accurately gauge the real cost of their construction projects.

The FHWA construction cost index is available from the FHWA in publication form. This index also uses a similar cost inflation calculation by taking samples of costs from around the country and comparing them to a base cost to calculate the inflation.

The cost indices presented here should give the towns a good estimate on how construction costs are rising, and possibly help them plan for new trail construction. Accurate cost information is crucial for planning any substantial construction project, like the segments on the Legacy Trail.
2.2.6 Bridges

The actual cost for bridges will vary depending on existing conditions. As a trail moves into the development stage, the trail developer should consult with a structural engineer to determine a final estimated cost. The following estimated costs for bridges will be applicable in many cases.

- Estimated cost for new pedestrian/bicycle bridges: $100/square foot.
- Estimated cost for redecking of existing bridges to accommodate surfaced trails (does not include trail surfacing or fencing): $50/square foot.
- Estimated cost for wetland boardwalks: $50/square foot.

2.2.7 Trail Costs

For the Legacy section of the MRT, only two kinds of trail design are involved: 10 foot wide off-road trails and 6 foot wide on-road bike lanes. Therefore, it will be simple to follow guidelines since the most construction happening along the trail will be in the towns. The off-road 10-foot lanes will be used in the towns, and costs for this type of trail are listed on the next page.
TABLE 2.2 ESTIMATED COST FOR NON-MOTORIZED MULTI-USE TRAILS:

ASPHALT SURFACE, 10 FOOT WIDTH

<table>
<thead>
<tr>
<th>Trail element</th>
<th>Unit</th>
<th>Price per unit</th>
<th>Element width</th>
<th>Units per mile</th>
<th>Trail cost per mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearing and grubbing</td>
<td>acre</td>
<td>$2,000</td>
<td>14 feet</td>
<td>1.7</td>
<td>$3,400</td>
</tr>
<tr>
<td>Grading</td>
<td>mile</td>
<td>$3,000</td>
<td>1</td>
<td>1</td>
<td>$3,000</td>
</tr>
<tr>
<td>Granular subbase</td>
<td>sq ft</td>
<td>$.40</td>
<td>12 feet</td>
<td>63,360</td>
<td>$25,344</td>
</tr>
<tr>
<td>Asphalt</td>
<td>sq ft</td>
<td>$1</td>
<td>10 feet</td>
<td>52,800</td>
<td>$52,800</td>
</tr>
<tr>
<td>Seeding/mulching</td>
<td>acre</td>
<td>$1,600</td>
<td>4 feet</td>
<td>.5</td>
<td>$800</td>
</tr>
</tbody>
</table>

Subtotal                                                                 $85,344

Other costs            10% of trail cost                                                                 $8,534
Contingency           15% of trail cost                                                                 $12,802

TOTAL COST PER MILE                                                                 $106,700

The Iowa DOT estimates the cost of off-road bike trails at $85,344 per mile, plus other costs and contingency costs. The total cost is $106,700 per mile.

According to the Iowa DOT (2000), paved shoulders cost approximately $107,000 per mile, plus other costs and contingency costs. Other costs, such as signage, come to ten percent of the estimated cost of construction. Contingency costs, such as regional differences in construction costs, are calculated at fifteen percent of the estimated cost of construction.
It is important to note that the per-mile costs listed above may vary drastically depending on the trail’s location, the construction schedule, and many other unforeseen issues. Trail cost estimates throughout the project should always be reviewed by a qualified engineer or other design professional. It is not unusual for actual trail costs to exceed initial estimates.

The following items are commonly found in trail projects. Because of their variability of type and therefore cost, specific unit cost numbers are not included. Trail implementers should determine to what extent these items will be included in the trail project, and estimate them accordingly.

- Fencing, either for safety or ornamental reasons (or both)
- Walls
- Special drainage considerations, such as fabrics and soil supplements in wet areas
- Interpretive facilities
- Associated parks, trailheads, or other amenities in addition to basic access points and rest areas
- Other custom design elements, such as bridges, walls, signage, bollards, benches, trash cans, or bicycle racks.

2.3 Financing

Funding sources for bicycle and pedestrian facilities and programs can be found at all levels of government as well as in the private sector. They can come from government, community fundraising, creative partnerships, and the business community.

2.3.1 Government Sources

Federal funding through the Transportation Equity Act for the 21st Century, or "TEA-21", is a popular source. This six-year funding bill (FY 1998 - FY 2003) authorizes
$217 billion in federal gas-tax revenue and other federal funds for all modes of surface transportation, including highways, bus and rail transit, bicycling, and walking. More than half of these funds are made available through programs for which bicycling and walking activities are eligible expenditures. These TEA-21 funds are contingent upon the act being renewed. The FHWA *Course on Bicycle and Pedestrian Transportation* (2000) lists several financing sources for trail planning and implementation through the nation’s current overarching federal transportation act, TEA-21.

- National Highway System Funds
- Surface Transportation Program
- Transportation Enhancement Activities
- Congestion Mitigation and Air Quality Improvement Program
- Recreational Trails Program
- National Scenic Byways Program
- State and Community Highway and Safety Grants
- Enhancement monies for funding trails

The Iowa Statewide Recreational Plan (1990) lists potential sources for funding that are only available in Iowa. The primary funding source is through the Iowa DOT State Recreational Trails Program. Every year, $1 million from the Road Use Tax Fund is given to trails across the state. Another source is the Resource Enhancement and Protection (REAP) Act. This source sets aside money to be split by counties, conservation boards, and competitive grants. Unfortunately, the money available in this fund has been reduced from $20 million in 1990 to approximately $3 million in 2002. Another funding source is Federal Highway Funds (obtained under TEA-21 legislation).
The IDOT may allocate up to 5 percent of their granted federal funds for transportation related trails. An updated fund source with and introduction and contact information can be found at the Iowa DOT’s website at http://www.dot.state.ia.us/fundguid.pdf.

Local funding is not a major consideration in this case, given the small tax base of the area. For reference, three common approaches are special bond issues, dedications of a portion of local sales taxes or a voter-approved sales tax increase, and use of the annual capital improvement budgets of Public Works and/or Parks agencies.

2.3.2 Other Funding Sources

Community fundraising has been found successful in many local trails. Many environmental organizations have raised funds for purchase of land where trails are built, especially rail-trails. In recent years, local corporations and businesses from the bicycling and outdoor recreation industry have joined in financial support of local projects and programs. In addition, a small group of local, regional, and national foundations have shown strong support for improving conditions for bicycling and walking for many years.

In Ashtabula, Ohio, the local trail organization raised one-third of the money they needed to purchase the land for the trail by forming a "300 Club." They needed three hundred acres for the trail, and they set a goal of finding 300 people who would finance one acre each. At a land price of $400 an acre, they found just over 100 people willing to buy an honorary acre, and raised over $40,000.

Selling bricks for local sidewalk projects, especially those in historic areas or on downtown Main Streets, is increasingly common. Donor names are engraved in each
brick, and a tremendous amount of publicity and community support is raised along with money to purchase basic construction materials. Portland, Oregon's, downtown Pioneer Square is a good example of such a project.

In Colorado Springs, the Rock Island Rail-Trail is being partly funded by the Rustic Hills Improvement Association, a group of local home owners living adjacent to the trail. In addition, ten miles of the trail was cleared of railroad ties by a local boy scout troop.
CHAPTER THREE: TRAIL MAINTENANCE AND CONDITION EVALUATION

3.1 Introduction

Trail maintenance may be defined as the activities performed to keep the trail in a safe and easy to use form. These activities may include clearing brush, repairing pavement, or sweeping a trail surface clear of debris (Beneficial Designs, Inc. 2001). Other maintenance activities include replacing worn or outdated signs, upkeep on trail amenities like bathrooms and benches, or even mowing along sides of the trail. Maintenance may include many different activities, but one purpose remains for performing maintenance: to provide for users a trail that is safe and easy to use.

This chapter will cover all aspects of maintenance that will be useful to the cities of McGregor, Marquette, and Guttenberg as they construct trails in their towns and link these new trails to existing trails in the towns, on the Great River Road, and eventually to the Mississippi River Trail. The following goals guide the maintenance section and the recommendations contained herein.

Trail Maintenance Goals

1. Provide for Safety of Users
2. Provide for Satisfaction of Users
3. Evaluate Maintenance Needs Efficiently and Cost Effectively
3.2 Importance of Maintenance

The maintenance of a bike trail is of extreme importance to all users; the Legacy Section of the MRT will have two predominate users—bicyclists and pedestrians. Both bicyclists and pedestrians are very sensitive to trail conditions. Bikes are sensitive to variations in the pavement due to their nature as a two-wheeled and skinny-tired vehicle (FWHA Course on Bicycle and Pedestrian Transportation 2000) as well as to other adverse trail conditions such as debris and disconnected pavement. Pedestrians may also be affected by the same conditions. These trail conditions introduce an unsafe environment that is undesirable for any trail user. An unsafe trail is one that is not easily used or used often. Therefore, maintenance is very important not only to satisfy users, but to keep them safe as well. Maintenance is important because it will help satisfy users and encourage them to stay in the area, spending money in McGregor, Marquette, and Guttenberg. Also, because the idea of linking the trail is to use it as an economic development tool and as a tool to attract tourism, the safety and satisfaction of users stemming from trail condition is of great importance.

3.3 General Trail Maintenance Activities

_Comprehensive or Minimal Maintenance?

The type of maintenance activity performed on the trail really depends on what kind of trail it is and what the purpose of the trail is. For example, a simple ‘back country’ limestone hiking trail that sees sparse use and is meant for serious hikers will not require very rigorous maintenance. It will not likely have trail amenities like bathrooms, rest areas, or trail information displays. For the types of trails that will be
linked and constructed in the Legacy Section of the MRT, a comprehensive maintenance approach is recommended. As we understand the vision, the Legacy Trail will have many trail amenities and attract many users. Considering the high number of users and the necessary trail amenities, the managing organizations of the MRT should conduct comprehensive maintenance in order to keep the trail and its amenities in top condition and to satisfy and keep safe all who use the trail.

General Trail Maintenance Activities

It is important to understand general trail maintenance activities before recommendations are made on how to maintain the trail. Trail maintenance activities can be basically broken down into three sections: surface maintenance, maintenance of trail information, and maintenance of trail amenities.

Surface maintenance on a trail is all maintenance done specifically to the trail surface. Basic surface maintenance activities may include, but are not limited to:

- Repairing cracked surfaces
- Filling in dips in surface
- Reconstructing washed out areas
- Clearing and sweeping surface debris
- Re-striping lane demarcations, lane information

Since the *Iowa-MRT* and the *Iowa Trails 2000* plans both call for paved trail surfaces for all trails designated as part of the MRT or Iowa Trails System, we anticipate the new trail construction along the Legacy Trail will be either hard surfaced asphalt or concrete. With paved surfaces, some common trail surface problems may not be as recurrent as on other trail surfaces, such as crushed rock.
Maintaining trail information displays (signs, etc.) is commonly overlooked, but adds much to the user experience. Accurate trail information can assist users to plan routes, understand regulations and guidelines, and use the trail more safely. In order to avoid inaccurate trail information, any changes to trails or surrounding areas should be immediately broadcast on trail information systems (signs, lane markings, displays, etc.). Trail information can be portrayed in the many forms, including:

- Signs, billboards
- Lane markings
- Information displays
- Brochures

Trail amenities add to any trail, and should be maintained accordingly. Many types of trail amenities exist, so the differences in maintenance needs for each amenity should thus be considered. For example, a bathroom along a trail will need maintenance more often than a trail light or a bench. The amenities give comfort and convenience to the trail user, and a poorly maintained amenity effectively cancels out any comfort or convenience that may otherwise be provided. For example, would many people want to sit on a rotted or rusted bench? Or would anyone wish to use a bathroom that hadn’t been cleaned in a year? Would anyone wish to use a bike rack that could damage their bike from its disrepair? The likely answer to all these questions is no. Trail amenities add much to a trail, and they should be maintained. The following is a list of some common trail amenities that do require maintenance.

- Benches
- Bathrooms
• Rest areas
• Lights
• Informative displays

Costs of Trail Maintenance

Another consideration for trail maintenance is the cost of maintenance. The Federal Highway Administration Course on Bicycle and Pedestrian Transportation (2000) mentions that all maintenance costs and potential requirements should be included in a maintenance plan, or a general maintenance policy. Budgets for maintenance and other trail activities may be simplified because a cost will already be outlined and ready for evaluation. This estimation should make funding trail maintenance easier. However, the hard part to this process is actually estimating the costs of all kinds of maintenance a trail may incur over its lifetime—this is not an easy process, but one that may be useful in the future.

This chapter won’t actually address the costs of trail maintenance. Since it is our recommendation that McGregor, Marquette, and Guttenberg form trail management organizations to manage the trail, we don’t feel we have enough information about what kind of management the trail will have to recommend costs for maintaining a trail. We are not outlining maintenance costs because decisions based off of unfounded recommendations could prove disastrous to a trail management organization’s budget.

3.4 Current Maintenance on Existing Trail Segments

The current maintenance on existing trail segments is very similar to existing road maintenance procedures for the cities and for Clayton County. Clayton County
performs only minimal maintenance on the Great River Road / X56 portion of the Legacy Trail. A County Roads representative explained that the shoulder lanes are plowed in the winter and repaired if necessary, but this was the extent of the maintenance. The County currently has no plans to sweep or pick up debris or regularly check the surface condition. With such minimal maintenance activities, problems that could pose safety threats to users are left unchecked on a regular basis.

Maintenance priorities for existing segments of trail in Guttenberg and McGregor also share similar maintenance procedures. The trails are cleared in the winter and repaired if necessary, but no regular methods of evaluating and maintaining the surface, amenities, or information exist on the trail. It makes sense that the maintenance is done this way, because a concrete slab trail with average use and minimal amenities does not need as much maintenance as a trail that could experience high usage and presents a wide array of amenities (like the future Legacy Trail). The reason is simple: more use and more amenities on a trail will mean more maintenance for the management organization. With the development of new segments of trail and addition of trail amenities, the future Legacy Trail will need regular and comprehensive maintenance activities.

3.5 Trail Policy Recommendations

3.5.1 The General Trail Maintenance Policy

Iowa Trails 2000 establishes that it is very important to implement a policy or policy document that will outline the maintenance responsibilities of the trail managing
group and courses of action for meeting maintenance responsibilities that the group may not be capable of carrying out. The general maintenance policy will provide the framework to implement other, more specific policies that will help manage and complete various trail management tasks and situations.

The general maintenance policy should provide for the most general and overarching responsibilities the management organization will have regarding maintenance. The general policy should contain things such as who the managing organization consists of, what their general responsibilities are regarding maintenance, and what their goals for maintenance as a management organization are. Policies should be provided for in the plan that will help achieve the goals. These objectives should be structured as detailed trail management policies and actions. Under this framework, more specific actions can be adopted for various situations and tasks the management organization may wish to undertake.

A trail management organization operating without a general trail maintenance policy may run into several problems. First, a management organization may not fully understand their own responsibility to trail maintenance. Defining what the general roles and responsibilities of a management organization are in maintaining its trail will save headaches and disputes later on. Maintenance duties and projects will be easily taken care of with a proper outline of what the management organization is responsible for.

Second, providing for more specific policies means that the responsibilities a management organization has to its trail and the maintenance activities associated with this segment will be more clearly defined. In this way, all activities needed to help meet
the goals of this plan will be laid out and easy to follow, and meeting the maintenance
goals will be simpler. When these goals are met, trail users will have a better
experience on the trail, and this will reflect on the rest of the area; that is, users that
have gained positive experiences on the trail will hopefully stay in the area longer.

Trail maintenance policies must be established, written, and adopted.

Establishing a trail maintenance policy is simply a matter of setting out general goals for
trail maintenance within the trail management organization. Public participation is also
strongly encouraged during the establishment of goals. Once goals are established for
trail maintenance, policies may be established that will help the trail management
organization achieve the goals it has adopted. These policies can also be developed
within the trail management organization, and public participation is strongly
couraged in this part of the process as well. Once policies are written and adopted,
specific actions that fit under the policies may be taken. This process is outlined below.

**Establishing a General Trail Maintenance Policy**

1. Conduct meetings with trail management organization; develop, recommend,
   and list potential goals for trail maintenance and what trail maintenance
   responsibilities are for the trail management organization. Adopt most
   relevant goals and responsibilities. Adopted goals can be voted on from this
   list.

2. Conduct meetings again with trail management organization; develop,
   recommend, and list policies that may further the adopted goals. Adopted
   policies can be voted on from this list.
3. Organize meetings again; develop and recommend specific actions under policies that will meet policy objectives and further goals. Specific actions to be taken in the future can be adopted by voting on recommended actions.

4. Once all three parts are adopted (goals, policies, specific actions) they may all be adopted again in one document that will outline the general responsibilities, goals, policies, and specific actions the trail management organization has and will perform on the trail.

A sample outline of a general trail maintenance policy is found in the appendix.

3.5.2 Specific Maintenance Policies

The general maintenance policy should only include general information. Examples of this information may be general maintenance responsibilities of the management organization, and types of maintenance intended to be performed on the trail. The specific maintenance policy follows the general maintenance policy and then provides the framework for performing more specific maintenance activities. Basically, the specific maintenance policy is an outline for developing a maintenance action. This section includes examples of and uses of specific maintenance policies.

These trail maintenance policies are merely suggestions to what the cities of McGregor, Marquette, and Guttenberg may want to include in their own maintenance plan. These suggestions should help the trail management organizations put together a maintenance policy that will aid them in managing and maintaining their trail.
Developing an Annual Report

The Federal Highway Administration’s Course on Bicycle and Pedestrian Transportation (FHWA – CBPT 2000) advocates including an annual report for maintenance in its maintenance policy recommendations. A policy providing for annual reports should basically outline what the report should contain and how it furthers the maintenance goals of the trail management organization.

An annual report would summarize the maintenance performed on the trail during the past year and evaluate this maintenance. The annual report may spot trends in the trail’s maintenance record that require more attention than just maintenance. For example, places in the trail that require frequent maintenance may need redesigning and reconstruction rather than extended maintenance requirements. Such a redesign may incur a one-time cost larger than a one-time maintenance requirement, but the redesigning will prevent future maintenance costs.

The annual report may also identify maintenance activities that are needed at certain times during the year. For example, clearing the winter’s accumulation of sand, debris, and snow or ice may be needed in the spring time. Other activities may be annual maintenance of problem areas of a trail that are regularly over-vegetated or plagued by garbage and other debris. Such trends may be realized through the summary of maintenance contained in an annual report, then acted upon through other plans so that extended maintenance is not required. An annual report should include the following sections:

- Current inventory of trails maintained by organization
- A matrix of these trails comparing similar condition characteristics
• Ranking of priority maintenance issues identified by matrix
• Review of long term maintenance improvement program
• Expenditures on maintenance, projected funds and maintenance costs for next year.

Through adopting a policy like the annual report policy, the management organization will be better able to keep track of maintenance problems and address potential inefficiencies in their operations.

Snow Removal Policy

Snow removal may or may not be performed depending on preferred uses in the winter season; cross country skiers and snowmobiles will not need to have snowed cleared, while walkers and bicyclists will. This issue will need to be addressed in the Northeast Iowa area. Specific actions dealing with snow removal will be easier to implement under a snow removal policy.

Cooperative Maintenance Agreements

Managing agencies may not be able to take on all maintenance necessary in their trail segments. A good example of this is the Great River Road section of the Legacy Section of the Mississippi River Trail. Will trail management organizations in the towns want to take on the maintenance of 16 miles of trail along a highway? This task may be better performed through a maintenance agreement with a secondary or county roads department who can better perform some maintenance—like snow removal—than a trail management organization. However, other maintenance duties may be relegated to the trail management organizations, like clearing the trail of debris or
evaluating the surface condition. A policy on cooperative maintenance agreements will make a more specific action dealing with this issue easier to implement.

*Maintenance Improvement Program*

A maintenance improvement program is similar to a capital improvements program in its purpose. The purpose is to plan and provide for improvements to maintenance capabilities and different aspects of the trail that require maintenance. Improving maintenance capabilities includes things like purchasing machinery that cleans the trail surface or hiring part time maintenance workers.

The program may also provide for system improvements that require less maintenance than current implements, such as metal benches instead of wood or brick bathroom structures instead of portable ones. Grant funds or user fees may be earmarked to provide for the things outlined in the maintenance improvement program. This program may provide for the long term improvement of trail maintenance that otherwise might be looked over with out such a program.

*Condition Evaluation Methods*

By providing for specific condition evaluation methods, the trail management organization will be able to implement methods that evaluate trail condition. Possessing a method to evaluate trail condition is important because it doesn’t rely on inconsistent methods such as eye-balling trail condition. With a standard method, all condition evaluations will be carried out in the same manner, which will ensure that all maintenance needs are evaluated and taken care of in a consistent manner.
**Maintenance Schedule**

A policy providing for a maintenance schedule may be the most important specific maintenance policy. Providing a maintenance schedule will help ensure that maintenance needs are evaluated and addressed efficiently and effectively. The maintenance schedule shows what maintenance activity needs to be done, who will perform it, and when it will be performed. This schedule will help plan for maintenance, which is especially important when trail management organizations, like on the Legacy Section of the MRT, will be small and probably consist of volunteer staff. A sample trail maintenance schedule is located in Appendix B.

3.6 Trail Condition Evaluation Recommendations

Implementing a system of condition evaluation should be a priority for a trail management organization. A main question of concern when linking several sections of trail (McGregor-Marquette, Guttenberg, Pike’s Peak State Park, Great River Road) into one trail (Legacy Section of Mississippi River Trail) is to identify a coherent and systematic way of evaluating maintenance needs and performing maintenance throughout all sections of the trail. A systematic method will make evaluating maintenance needs and performing maintenance more efficient for whoever is responsible for these duties.

**Universal Trail Assessment Process**

Beneficial Designs, Inc. (2001), along with various U.S. Government agencies, developed a process called the Universal Trail Assessment Process (UTAP) that is basically a standardized process to evaluate the condition of any trail, whether
pedestrian or bicycle. The process is an inventory tool that records accessibility and maintenance information on a trail. This system was developed by the US Forest Service, US Bureau of Land Management, National Park Service, California State Parks, Florida Trail Association, Indiana Department of Natural Resources, and the Minnesota Department of Natural Resources. The UTAP utilizes four characteristics to rate trails: grade, cross slope, width, and surface.

This document will use a modified version of the UTAP, focusing on the maintenance capabilities of this evaluation process instead of its primary intended use of giving information to trail users. The characteristics listed are meant to provide the client with criteria to evaluate the potential maintenance needs of trails. These characteristics may not be readily applicable to relatively flat and paved sections of the trail. However, the modified UTAP will be useful should towns seek to construct trails in less developed and hilly areas, which are prominent in the area.

3.6.1 Grade

Grade measures the slope between two points on a trail. Generally this is done by using a clinometer or an inclinometer. The clinometer is used primarily for sections of the trail with typical grades. Sections of the trail with more severe grades may be measured using an inclinometer. The inclinometer functions essentially like the clinometer but measures much smaller sections of the trail, such as the length of one stride. Sections of trail with steeper grade may require more frequent maintenance than sections with a less severe grade because a steep grade creates conditions for runoff of
higher velocity and less stable soil and surface conditions. Sections with steep grade should be inspected more frequently than less steep sections of the trail.

3.6.2 Cross Slope

This characteristic measures the slope across trail using an inclinometer, the. Cross slope is important to maintenance much the same way grade is; may enhance runoff velocity and create less stable soil conditions. Sections of trail with steep cross slopes should definitely be inspected more frequently than sections of lesser cross slope. Sections of the trail that have a steep cross slope should also be built to a higher standard. Depending on soil conditions, topography, and trail location, trails with steep cross slopes should be evaluated individually by a structural engineer to evaluate their propensity for erosion and destabilizing actions, such as landslides.

3.6.3 Changes in Width

Excessive widening or narrowing of a trail may have significant consequences for users and the surrounding landscape. Excessive widening may intrude on sensitive areas; loss of vegetation on these areas can make them prone to soil erosion, thus destabilizing the trail area. Soil erosion also negatively affects deposit areas by adding sediment to water ways, and possibly by introducing species foreign to deposit areas.

Excessive narrowing causes more problems to the trail user than to the surrounding environment. Narrowing may increase the potential for accidents on a trail with other users. Generally, two-way traffic is accepted, and narrowing of a trail will discourage this traffic pattern. Narrowing also decreases the margin for error for trail
users. When viewing scenic areas, it is quite possible to stray off the path. Maintaining a proper design width should be considered in areas where there is a potential for excessive narrowing of the trail.

3.6.4 Surface

The surface characteristic of a trail is perhaps the most important aspect of evaluating a trail for maintenance, since users of a trail will be most affected by a change in surface conditions or types. Therefore, it is very important that a trail surface evaluation be performed on regular intervals in order to inform users on existing trail conditions and to ascertain which sections of trail need surface repair. Four trail surface characteristics used to evaluate trail surface condition are listed below.

- Step separation (vertical displacement 0.5 inches or greater) of places in the path
- Badly cracked pavement (indentations of greater than 0.5 inches)
- Spulled areas (fragments of pavement only, no continuous pavement)
- Settled areas of a paved or rocked path that collect water

These four surface characteristics can all be measured simply and easily by a technician. The only materials required are clear sight of the trail surface and possibly a tape measure to measure the severity of any step separation in the trail plus a way to record the information and display it to trail users. This system of evaluation may be used to keep track of the conditions of trails, and how they change over time.
It is important to note that all trail condition evaluation methods may not be readily applicable to all surface types. For instance, a limestone or pea-gravel trail may require more frequent and intense scrutiny than an asphalt or concrete trail.

### 3.6.5 Other Condition Evaluation Methods

*Designing Sidewalks and Trails for Access (2001)* describes a user-type survey to evaluate trail conditions in a timely manner. A user survey would be included either in spots along the trail or just at the end of the trail. A sequential survey placement is a good way to collect information about a trail that has many access points, while an end-of-trail survey placement would be better for a trail that has limited access points.

Surveys would be collected and disseminated by staff of the trail management organization. It is also recommended to develop some sort of database or filing system to organize and store all user comments for future use and records.

Collecting user surveys would be more time consuming for a maintenance organization than performing a periodical maintenance review. Depending on the resources available to the managing trail organization, either method could be beneficial. A sample user survey is included in Appendix B.

### 3.6.5 Needs Evaluation Matrix

One of the most important concerns for a trail management organization is prioritizing trail maintenance needs. This is especially important for the towns of Marquette, McGregor, and Guttenberg because of their limited resources – they can’t afford to fix everything at once. An effective tool to prioritize maintenance needs is the
needs evaluation matrix. Developed by the authors of this report, the matrix effectively groups all maintenance activities together and ranks them according to their condition. Put into the matrix, it is easy to see how needs are prioritized. In this way, maintenance needs can be compared and prioritized based on the severity of the maintenance needed. A simplified example of the needs evaluation matrix is found in Table 3.1.

<table>
<thead>
<tr>
<th>Maintenance Areas</th>
<th>Severity of Surface Problem, Surface Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>Very Low</td>
</tr>
<tr>
<td>Amenities</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.1: Maintenance Needs Ranking Matrix.

Along with being used to prioritize maintenance needs, the matrix can also be used to improve other things like the maintenance schedule. Problematic areas may be identified by comparing past needs matrices. If problematic areas are found, it is recommended that the maintenance schedule be updated to maintain the problematic area more often, or redesign to the area so its maintenance needs are not an issue.
The needs evaluation matrix may be filled out at whatever time intervals are appropriate for the trail management organization. Trails in the Midwest are predominately used the most in the summer time; therefore, we recommend that the matrix be filled out at the beginning of the busy season, in the middle of the busy season, and at the end of the season. In this way, needs are addressed when the season closes, when the season begins, and in the middle of the season. We feel most problems that may plague a trail may be taken care of in this manner.

When filling out the needs evaluation matrix, a trail volunteer or worker should use their own discretion in deciding whether or not the trail is usable and to what extent it is usable, referring to the appropriate maintenance activity. The full, detailed matrix and explanation is available in Appendix B.
4.1 The Importance of Publicity

Public awareness regarding a trail is salient to garner public support for the trail project. A variety of ways are available to increase public awareness of any trail. However, first the trail management agencies (of the “Friends of the Trail” group) must determine the level of publicity they desire. For example, they may initially decide to market the trail only to local residents and discover that this either does not generate enough revenue or underutilizes the full resources of the trail. At the same time, marketing the trail regionally or nationally could bring more trail users and generate more traffic than they desire. Therefore, in order to determine the ideal level of publicity for a trail it is important to consider several factors.

4.1.1 Types of Users & Trail Capacity

In most cases, the surface of the trail near or through towns will determine the types of users. For example, a paved trail surface it will be attractive to in-line skaters and cross-country skiers, but unattractive to mountain-bikers and studded-tread snowmobiles. Once the management agencies have recognized the primary types of users of the trail, they must also consider the capacity of the trail for these differing levels of use. It is also important to note that different types of trail users behave differently. For example, snowmobilers are more likely to travel in larger groups, stay longer, and spend more money than bicyclists (Iowa Trails 2000). Finally, the management agency should recognize that trail use often increases dramatically during
the summer months. This is especially true of recreation trails located in tourist communities.

The types of users and trail capacity must be considered when determining what level of publicity is desired for the Legacy Section of the MRT. In addition, these considerations are salient in identifying key market(s).

4.1.2 Trail Location

The location of the trail relative to other potentially affected stakeholders such as local businesses, schools, residential homes, and so on, may largely affect the amount and the type of publicity to pursue. The impact of the trail on these stakeholders varies according to the types of trail users because the needs and impacts of motorized and non-motorized trail users differs widely. For example, non-motorized users can pass through residential areas into historic downtowns with minimal impact while motorized users cannot (Iowa Trails 2000). As a result, the community must give careful consideration to the types of uses that would be appropriate given the proximity of the trail to various stakeholders. This consideration should be reflected in the ensuing publicity strategy.

4.1.3 Trail Accessibility

The accessibility of a trail to the general public can play a large role in how successful the trail is at attracting new uses. Trail access points should be located in town to increase trail visibility and to maximize accessibility. This will also help local communities capture the economic impacts of trail use. For example, locating trail
access points within a town allows service businesses (gas stations, restaurants, outfitters) to cluster and encourages tired trails users to stay for dinner or even overnight.

4.1.4 The Trail’s Role in the Local Economy

Before beginning to market a trail it is important to have an understanding of what role the trail will play in the local community. Communities lacking in quality lodging, entertainment, or dining services are ill-equipped to accommodate large numbers of visiting trail users and should not market themselves as recreation destination until adequate services are developed. However, if the community is well equipped to handle increased levels of tourism, using the trial as an economic development tool is a good option.

The community’s position in the regional trail hierarchy also influences its potential to capture the economic benefits of the trail. For example, a town is located at the junction of a backbone and a spur trail will naturally attract overnight visitors who will start out from that point. If the town is located in the middle of a loop trail, however, it will be more likely to receive midday visitation (Iowa Trails 2000).

4.1.5 Motivation for Publicity

In addition to determining the level of use and types of users desired, the trail management agencies should also consider the primary motivation for publicizing the trail. The following is a list of potential reasons that outline why it may be important to publicize a trail (Flink et al 2001):
• The trail is incomplete and needs increased support to get funding and visibility.
• The trail is complete and an opening celebration is being planned.
• The trail is open, but is not well known or is underused.
• The trail is open but misused.
• Communities along the trail want to attract more tourists to the area.

4.2 Attracting Publicity

Although it is important to play a proactive role in publicizing a trail, it may not be necessary for the managing agencies to take the first step. Many times the media may have already heard about the trail project and planned to cover the project. If this is not the case, the managing agencies may need to initiate media coverage by contacting local reporters and encouraging them to do a story. One of the best means of obtaining media coverage while also raising awareness about a trail is to host an event and invite both the media and the public to attend. It is important to note that any event held should provide an opportunity for as many people as possible to participate (Flink et al 200; Iowa Trails 2000).

A variety of events can be sponsored that will increase the publicity of trail. Before deciding on an event, managing agencies or Friends groups must determine at which stage of the trail implementation process they would like to publicize. If possible, management agencies should begin publicizing the trail immediately after construction on the trail commences, throughout the duration of the construction process, after
completion of the trail, and at any point in time when the trail is altered. Ideally, publicity of the trail will be ongoing throughout its lifetime (Flink et al 2001).

Although several of these suggestions can be undertaken at numerous stages in the trail’s implementation process, they have been categorized temporally to provide additional guidance.

4.2.1 Events before Trail is Construction is Complete

*Trail Corridor Tours*

One way to attract attention to a trail prior to completion is to host events tours along the proposed trail corridor. Donors, members of the local press, or local politicians may be invited to participate in a variety of tours. Examples of possible tours include walking, bicycling, roller skating, or canoe tours. Depending on the current level of construction, it may be necessary to drive participants along the trail route. This will provide them with the opportunity to “preview” firsthand the surrounding scenery as well as to develop a sense of the overall access the trail will provide. Similar tours on established nearby trails can also be given to allow for comparison and to generate discussion regarding additional potential uses or provisions for the trail (Flink et al 2001).

*Trail Workday*

Another means of building community support and awareness of a trail is to hold a “trail workday.” Prior to the workday the managing agency should establish a list of activities that needs to be completed, including chores for people of all ages and abilities. Activities that may be included are cleaning or grooming the trail; planting
trees, shrubbery, or wildflowers; or helping to build trail amenities along the route.

Encourage volunteers to spend a day helping to build one trail segment. Also arrange shifts for those volunteers unwilling or unable to work an entire day. People will enjoy the opportunity to work together, to help “get the trail off the ground,” or to improve it. In addition, corporate sponsored teams or local business employees who may appreciate the opportunity to give back to the community can be recruited to work on the trail (Flink et al 2001; Iowa Trails 2000).

Photo Competition

A photo competition may be held to document the “before” and “after” stages of trail construction. These photos are a great way to document current or future improvements along segments of the trail, and will encourage older residents who may have pictures depicting former uses of the corridor to take part in the trail project (Flink et al 2001). Other members of the public can get involved by voting on their favorite pictures. Trail related prizes can be offered for each category established, such as a new bicycle, walkmans or Discmans, gift certificates for outdoor gear (such as hiking shoes, coats, etc.), or free passes to local campgrounds or other outdoor recreational opportunities. Photos should then be displayed in a public place.

Poster Contest

One means of increasing local children’s involvement in the trail is to sponsor a children’s poster contest. As with a photo competition, consider posting the drawings in a public place, allowing local citizens to select their favorite drawing, and awarding prizes to winners. In addition, the best drawing can be turned into a poster or brochure for distribution to local businesses. To solicit more sophisticated artwork, an adults’
contest for the best logo or natural rendering of the trail can also be sponsored (Flink et al 2001; Ryan & Winterich 1994).

4.2.2 Events on Opening Day

“Thank You for Giving” Event

During the process of celebrating the trail’s opening, a party may be held along an interesting portion of the trail to thank the donors who have made the project possible. If there was a high level of local contribution, members of local business, agencies, or individuals who contributed either financially or otherwise to your trail project will be invited. Consider asking local restaurants or grocery stores to donate food for the event (Flink et al 2001).

Trail-Athalon

If local citizens are already quite physically active, a race can be hosted that spans the length of the trail and involves several user groups. For example, a bicyclist can pass a baton to a runner, who passes it to someone in a wheelchair who then passes it to a roller-blader. Invite the local media to photograph the winning team for the local newspaper (Flink et al 2001; Ryan & Winterich 1994).

Decorated Bicycle or Float Parade

A less intensive alternative to hosting a Trail-Athalon is to host a bicycle parade. Ask participants (both adults and children) to decorate their bicycles for the opening day celebration, and provide some decorations for those participants who failed to come prepared! Decorate portions of the trail appropriately to celebrate the festivities; this may include tying balloons to trail signs or benches, offering “healthy” snacks such as
nuts, apples slices, or carrot sticks, and providing glasses of cold water along the trail route. Encourage participants to demonstrate proper bicycle safety, such as wearing helmets and following trail rules. Finally, offer a variety of prizes to those who display the most festive decorations, use of proper safety equipment, etc. Such a parade would also provide an opportunity to educate trail users about proper use of the trail, specific trail guidelines or rules, or general local safety issues (Iowa Trails 2000).

4.2.3 Events when the Trail is Altered or Extended

*Walk-a-Thon*

Similar to the hosting of trail corridor tours, hosting a walk-a-thon provides citizens the opportunity to “preview” future components of the trail. Have participants walk or bike the existing portion of the trail and use other means to transport them where the extension is not passable on foot. Depending on the condition of the trail extension, consider creating an “obstacle course,” providing assistance to participants as necessary. Again, invite the media to photograph and document the event (Flink et al 2001; Iowa Trails 2000).

*Thematic Walks*

Depending on the location and length of the trail, thematic walks can be scheduled along the trail route. Possible themes include identifying native plant species or wildlife or pointing out local historic landmarks. Hire local experts to conduct the tours. Schedule the tours at a variety of different times and along varying segments of the trail to maximize opportunities for participation. Also, be sure and advertise the schedule of tours at local schools and businesses (Iowa Trails 2000).
“Burma Shave” Signs

Do you recall the “Burma Shave” highway signs that used to be placed in series along highways? Each one contained a line from a rhyme and the last one read, “Buy Burma Shave.” This is a fantastic way to promote a trail and make it more interesting and enjoyable for users. Develop your own set of trail rhymes and post them along the trail extension as a promotion technique. The last sign can read “Support the trail.” Note: This technique can also be used year round to promote local support for the trail. Also, changing the signs periodically will help sustain sign effectiveness (Flink et al 2001).

4.2.4 Ongoing Events

Special Features Tour

Similar to the thematic tour, special features tours can be used to publicize the trail throughout its lifetime (Flink et al 2001). These tours can highlight interesting sights along the route including historic houses, forest preserves, or old churches. Local experts can be hired to conduct the tour or to provide self-guiding brochures to trail users locally (Flink et al 2001).

Contests

Consider periodically holding competitions that identify the “best of” just about anything related to the trail. This may include conducting writing, art, photo, or poster contests, or bicycle and foot races for various age levels. Again, allow local citizens to judge the submissions, display submissions in a public area, and offer prizes to the winners. Be creative in terms of the types of contests to hold—remember, anything that
brings more people to the trail and draws attention to it can be effective (Ryan & Winterich, 1994).

**Newspaper Column/Newsletter**

Where possible, initiate and write a regular column in the local newspaper or a newsletter featuring interesting information regarding the trail. (For more information regarding these publications, see Section 2.4.7.)

**Awards**

In order to attract trail users beyond the local market, consider applying for national awards to gain regional and national recognition. Awards such as “Take Pride in America,” “Keep America Beautiful,” and “Enjoy America’s Outdoors,” often draw national media coverage and attract users that previously were unaware or perhaps uninterested in a trail. In addition to generating publicity, these awards may also foster local trail pride and increase local support (Flink et al 2001).

**Holidays**

Holidays provide an excellent opportunity to involve local citizens in trail events. For example, encourage children to decorate the trail for Halloween by placing ghosts and witches along the trail; host an Easter egg hunt around Easter; around Christmas ask citizens to hang Christmas lights on nearby foliage or historic landmarks along the trail route. Take opportunities to celebrate other trail-related holidays as well, including Earth Day, National Trails Day, or Arbor Day (Flink et al 2001; Iowa Trails 2000).

**Follow-Up Observations**

Encourage and conduct scientific studies and personal observations following the completion of the trail. This includes tracking benefits which have accrued to local
communities as a result of the trail. Track business opportunities and improvements, increased local sales, or increased levels of tourism, and notify the press of any increases in property values, new businesses or improvements resulting from the trail, or individual health benefits associated with the trail (Flink et al 2001). Providing the community with examples of how the trail has fostered increased economic growth as well as increased social and/or physical well-being will promote a positive image of the trail and increase local support.

School Groups

Trails provide students with an excellent outdoor “laboratory” for conducting research and school related projects. Encourage local schools to use the trail as a tool to observe plants and wildlife, varying architectural styles, environmental concerns, or other trail related issues (Flink et al 2001; Ryan & Winterich 1994).

Adopt-a-Trail program

Encourage businesses, service clubs, churches or families to adopt a segment of the trail to maintain or improve, similar to an Adopt-a-Highway program. Place credit signs to recognize participants contributions and to build support for this type of long-term commitment (Flink et al 2001).

4.3 Working with the Media

Once the level and type of publicity and the kinds of events necessary for the trail are determined, the next step is working with the media to maximize publicity.
4.3.1 Newspapers and Press Releases

The most common ways to get a story into a newspaper is to issue a “press release.” A press release usually consists of one or two doubled-spaced, typed pages of text with a contact person and phone number listed in the upper-left corner (see Addendum). The release should be sent several days in advance of an event. Ideally, it should be addressed to a specific reporter with an interest in the trail (Flink et al. 2001).

To catch the reporter’s attention, the first paragraph of the press release should contain some “news;” that is, it should contain something original, current, and interesting to the public. If there is not any specific “news,” it will be necessary to create something to attract attention. Consider holding an event, such as those mentioned above, or notifying the press when there will be a photo opportunity during the construction of various segments of the trail. This will give the reporter news to cover as well as a photo opportunity. Including graphics along with the press release may assist in attracting a reporter’s attention. Pictures of beautiful landscapes or smiling children, cartoons highlighting interesting or humorous aspects of the trail or maps of the trail corridor may be both helpful and interesting to the press. Finally, telephone the reporter to ensure that the release was received and to offer any additional information s/he may need. Typically, a follow-up call will increase the likelihood that a reporter will pay attention to and act on a release (Flink et al., 2001).

In order to market a trail beyond the local area, press release should be sent to all presses in the region. It is generally more difficult to obtain coverage in large
metropolitan newspapers. However, when a story appears consistently in local papers it often draws the attention of larger newspapers (Ryan & Winterich 1994).

Addressing several different sections of the newspaper will expand any chances of coverage and readership. Send press releases to the editorial board, sports section, real state, society page, and features editor. Depending on the intended market, also seek coverage in national magazines and newspapers, particularly travel sections. This coverage can increase local use in addition to promoting tourism (Flink et al 2001).

Once a story on the trail is published, consider increasing the impact by asking existing trail supporters to write letters to the editor. These letters should expand upon the facts in the article, correct any mistakes, and add any last minute news. All letters should be positive, upbeat and supportive. Because rails-to-trails proposals often experience opposition, letters to the editor can be used to express positive aspects of a trail plan (Ryan & Winterich 1994).

Often, “op-ed” pieces or opinion articles can be more effective than letters to the editor. Op-ed pieces usually run near the editorial page, average 800 words in length, and should be well written, informative, and interesting. Highlight positive aspects of the trail such as recreation, conservation and transportation appeal, opportunities for stimulating tourism, and the trails ability to attract a diversity of users (Ryan & Winterich 1994).

4.3.2 Television and Radio Coverage

In addition to newspaper coverage, trail-related stories can be publicized by sending news releases and photographs to television and radio stations. As with
newspapers, news releases will require both newsworthy information and visuals to attract attention.

To supplement television and/or radio coverage, consider producing public service announcements (PSA’s). Usually, PSA’s consist of thirty seconds of pre-recorded commentary. They can often be produced on low budgets with volunteer professionals (Flink et al 2001).

4.3.3 Suggested Topics for Press Releases or PSA’s

The following subject options can be used for press releases and PSA’s (Ryan & Winterich 1994):

- Provide Trail Statistics. Offer information regarding the trail such as the number or types of users, length of trail, trail amenities, trail access points, etc.
- Success Stories of other Communities. Highlight successful trails in similar communities.
- Question and Answer Fact Sheet. Compile the 10 most commonly asked questions about the trail and provide the answers as well as additional information.

4.3.4 The Use of “Sound Bites”

Before talking with reporters or producing a press release, identify the main points to get across. Develop some short, interesting quotations, or one-line phrases called “sound bites,” that convey a lot of meaning in just a few words. These are
different from the motto or a mission statement that guides an agency or trail organization. For example, Will Rogers’ famous sound bite is “Invest in land, they ain’t making any more of it.” This was said to convey the idea that land should be conserved because it is not an unlimited supply. This or any other memorable line can be used to promote a trail. One example of a sound bite often used by trail promoters is “If you build it they will come” from the movie Field of Dreams. Inventing your own sound bite may assist in grabbing the attention of a reporter and the interest of local citizens (Ryan & Winterich 1994).

4.4 Trail Marketing Publications

Another way to increase the publicity of a trail is to use a variety of marketing publications that can be distributed throughout the local community, including local schools, businesses, recreation centers, bus stops, shopping centers, churches, and at local community gatherings.

Regardless of which type of publication is distributed, make sure all trail-related materials include the name of the trail managing agency, its address, and its telephone number. Each publication should be attractive, concise, and appropriately sized for its use; dull or oversized trail guides will not be as effective. In generating these publications, consider the various types of users the trail will attract—children, senior citizens, families, the disabled, or tourists (Ryan & Winterich 1994).
4.4.1 Posters/Flyers

Posters or flyers can be developed and posted to advertise a particular event, call attention to a meeting, or draw attention to the overall value of the trail to the community. Hang posters/flyers in restaurants, grocery stores, schools, drugstore windows, waiting rooms, gas stations, town halls, office lunch rooms, and anywhere else they are allowed (Ryan & Winterich 1994).

4.4.2 Bumper Stickers and other “Freebies”

Bumper stickers, T-shirts, key chains and other small items can convey important information, and are especially useful in widely distributing trail news and generating support for trail-related issues. For example, when trail-related issues are on upcoming ballots, bumper stickers may say, “Vote Yes for the Trail” (Ryan & Winterich 1994).

4.4.3 Fact Sheets

The fact sheets mentioned earlier to serve as potential press releases or PSA topics can also be posted in the local community to inform citizens about the trail and encourage people to experience the trail (Ryan & Winterich 1994).

4.4.4 Sunday Supplements

Many local newspapers allow supplements to be inserted into their papers. A simple flyer, with a headline, some news about the trail and perhaps a photo or map can be used for this purpose (Ryan & Winterich 1994).
4.4.5 Brochures

General Information Brochures

One of the most basic and most important marketing tools for any trail is a general information brochure. The brochure should be an all-purpose, introductory document that includes the following information (Flink et al., 2001; Ryan & Winterich 1994):

- Name of the trail
- Brief history of the trail
- Description of the route and route length
- Permitted Uses
- Rules and Regulations
- Trail map
- Trail amenities
- Managing agency’s contact information (address, telephone number, e-mail address)
- Trial website address (if applicable)
- Photographs or drawing of nearly points of interest.

The brochure should be one page that is either folded into envelope size or left open for posting. Also, write the brochure in a general manner so that it will be useful for an extended period of time following publication (usually one year). Often local artists, photographers and printers will donate some or all of their services. If they do not, however, investing the money necessary to produce a well-written, attractive, and persuasive promotional brochure will be effective (Ryan & Winterich 1994).
Once the brochure is developed, distribute it widely. Brochures should be made available at the trail’s office and posted along kiosks at all trail access points. Brochures should also be placed at local chambers of commerce and visitor’s centers, nearby motels, restaurants, and other commercial establishments. Also, take the opportunity to distribute brochures at conferences, among local recreation clubs and civic groups, at public buildings (such as libraries and schools), in group mailings, at street fairs, in packets given away at large-scale runs or bike rides, or at state or regional division of tourism. Print plenty of copies because brochures are often the most popular trail-related publication (Flink et al., 2001; Ryan & Winterich 1994).

The importance of a trail promotion brochure cannot be overstated. The brochure will help draw attention to the trail, and will define the trail accurately and in the proper light. Keep in mind that the look and feel of the brochure will also contribute to defining the image of the trail and the managing organization and Friends groups.

Visitor’s Guide

An additional means of promoting a trail is to produce a visitor’s guide. This brochure can prove to be particularly useful in promoting tourism along the corridor. Visitor’s guides most often take the form of brochures that detail local attractions, restaurants, accommodations, and trail-related facilities located near the trail (Flink et al 2001). They may provide information on everything from motels, bed-and-breakfasts, and campgrounds to bike shops, museums, and historic sites. Visitor’s guides can be provided as free information to the public or sold at local commercial outlets and at the trail managing agency. Profits generated from trail related materials can be used for
trail maintenance. If a town already has visitor’s guides for existing attractions, consider adding information about the trail to these guides.

**Local History Guide**

When a number of historic sites are located along the trail corridor, a local history guide will provide an opportunity to highlight the interesting history and lore of the trail. Include photos of featured sites as well as a map indicating the location of these sites along the trail corridor (Flink et al 2001).

### 4.4.6 Trail Map

In addition to including a map in brochures, consider producing a separate, detailed map of the trail showing the facility’s relation to surrounding streets and communities. This is especially important for lengthier trails, trails that connect several towns or facilities, or trails that have many access points that cannot accurately be depicted in a brochure. The map should show the trail in relation to the existing road system and should highlight points of interest along the corridor. Also, make it a publication that is “foldable” and fits easily into a pocket (Flink et al 2001).

### 4.4.7 Newsletter

Many trails publish a periodic newsletter to keep trail users and local community members up-to-date on trail news (Flink et al 2001). Copies can be posted at kiosks and at trail access points along the corridor. Additional copies may be made available at local or state visitor’s centers, in commercial establishments, or included as supplements in local newspapers or shopper’s papers.
4.4.8 Website

In recent years, people have begun to regularly access the World Wide Web to for a variety of reasons. Most often, people use the Web to gather information about local events and attractions, conduct research, plan vacations, provide input to local civic and governmental agencies, and buy goods and services. Trail planners and managers should take advantage of this resource in order to promote their trails.

If a trail is large enough, a website can be developed that is devoted entirely to the trail. A professional or a skilled volunteer can be recruited to create your trail’s website.

On the site, include maps and photos of your trail route, available amenities, lists of trail rules, trail highlights or a list of special features, contact information for the trail managing agency, visitor information, links to websites of national trail organizations, and invitations to readers to submit suggestions regarding the future of the trail. Announcements regarding upcoming trail events and extensions should also be included (Flink et al 2001; Ryan & Winterich 1994). Providing downloadable copies of other trail-related publications such as visitor and local history guides will increase the value of the site for the user and decrease costs associated with producing printed publications.

Once a trail website is completed, publicize it through the other marketing tools mentioned in this guide. Include the website address on any flyers, posters, press releases, and brochures that are produced. In addition, strive to keep the website dynamic; that is, alter the site regularly to include updates and newsworthy information in order to encourage return visits (Ryan & Winterich 1994).
If the trail is not large enough to warrant an individual website, consider adding information about the trail, including photographs, to a city or county website. Provide a link to the trail information page on the website’s homepage.

Consider having links to trail information posted on other related websites as well. Contact local, state, and regional organizations, the chamber of commerce, local outdoor equipment distributors, and other agencies to have them insert links on their website to trail information. Finally, work with a website developer to make the website more recognizable by various Internet search engines (Flink et al 2001).

4.5 Recommendations

In order to ensure that the Legacy Section of the MRT is a success, it is important that you establish a clear vision of how you want the trail to help your community. The high level of seasonal tourism Clayton County experiences provides an excellent opportunity for your community to use the trail for economic development purposes. Recognizing the potential for your trail to serve as an economic development tool will assist your community in maximizing the ensuing benefits of your trail.

Recall that in order for you to garner support for your trail and maximize its potential, you must attract publicity to the trail. Given that there has been minimal public input into the trail planning process thus far, we recommend that you focus your publicity efforts locally and regionally. Marketing your trail locally will increase community awareness of the trail. Marketing your trail regionally (within Iowa, Wisconsin, and Illinois) will ensure that you begin to draw attention to your communities and attract potential tourist traffic. Once the Legacy Section of the MRT is officially
adopted as part of the Mississippi River Trail, a nationally recognized trail, it will be important to expand your publicity efforts to reach the national market. However, at that point in time, you may also seek to partner with the MRT in your efforts.

4.5.1 Types of Events to Host

As mentioned previously, there are a variety of events your community can host to attract awareness and publicity about your trail. Taking into account current trail and community characteristics, we recommend your communities begin hosting several events to promote the Legacy Section of the MRT.

Before the Trail is Complete

Again, because there has been little public input into the trail planning process thus far, it is imperative that your community strive to increase public awareness of the trail. Hosting a trail workday will encourage the community to get involved in the process and foster community pride.

Since much of your trail runs along existing highway and main street corridors, we discourage your community from hosting trail corridor tours because trail corridor tours are intended to provide participants with a “preview” of the scenery and the access the trail will provide upon completion. This anticipatory element is lost on trails routed along pre-existing corridors, such as the Legacy Section of the MRT. (See Section 2.2.1 for more information.)

Instead, we recommend you consider hosting a photo competition to document the “before” and “after” stages of your trail. Because many local residents are long-time residents, they will likely have controversial feelings about the changes being brought
about by the construction of your trail. Encouraging these residents and others to document how their community is changing will foster discussion about the changes taking place and how to make the experience a more beneficial one. Again, the primary reason for holding a photo competition is to increase citizen awareness about the implementation of the trail and to encourage them to contribute both creatively and constructively to the process. (See Section 2.2.1 for more information.)

Events on Opening Day

Perhaps the most important consideration to made regarding opening day is when to schedule the event. We suggest that your opening day event be held either in late spring or early summer to ensure a greater level of local participation and also attract the attention of current and potential tourists in the area.

Because the trail is being financed through Vision Iowa funds, it will not be necessary to host a “Thank You for Giving” event to recognize the contribution of a variety of sponsors. Instead, we recommend that you host a decorated bicycle or float parade as your opening day event. This event is preferred to a Trail-Athalon because it maximizes your participation opportunities. First, because of the low intensity activity associated with parades, they encourage participation of all age and abilities levels. In addition, parades are conducive to family participation. Finally, parades require only minimal preparation on the part of the participant, which is important since you want to attract both local residents as well as tourists who may just happen to be in the area to participant in the event. (See Section 2.2.2 for more information.)
Events for When the Trail is Extended/Ongoing Events

You’re already aware of how important ongoing publicity is for the success of your trail. As mentioned previously, you may consider hosting a number of events. However, due to limited financial resources and the current lack of public awareness of the trail, we recommend that you focus your efforts on hosting three different types of events as part of your strategy for attracting ongoing publicity. As trail use and support expands, you may want to consider hosting additional events to attract greater levels of publicity.

First, you should consider scheduling thematic walks or special features tours along your trail. The length and route of your trail are not particularly conducive to conducting walk/tours with native plant or wildlife special themes. But, you may consider conducting walks/tours which highlight historic landmarks along the trail route. Buildings on the National Historic Register in downtown McGregor or old churches along the Great River Road, for example, may be key points of interest for local residents and visitors. (See Section 2.2.3 for more information.)

Second, consider applying for national awards to attract recognition for your trail. As a recipient of national awards, your community will draw regional and perhaps even national attention to itself, attracting users that were previously unaware or uninterested in your trail. This may become a more realistic option once the Legacy Section of the MRT is officially adopted as part of the MRT. Drawing attention to the fact that a portion of the nationally recognized Mississippi River Trail is routed through your area will make trail users more aware of what your community has to offer. (See Section 2.2.4 for more information regarding awards.)
Third, as part of both your trail promotion strategy as well as your trail evaluation process, you should encourage and conduct follow-up observations after completion of your trail. For example, you may choose to monitor how the trail has fostered economic growth, such as increased levels of tourism. You should provide the community and the press with examples of how the trail has increased economic growth and social and physical well-being to promote a positive image of your trail and increase local support. (See Section 2.2.4 for more information.)

4.5.2 Publications

One of the most effective ways to create awareness of your trail and provide information about the trail to interested parties is through the use of written publications. Perhaps the most important of these publications is the general information brochure. This brochure should be ready for distribution no later than the trail’s opening day. For more information regarding what your general information brochure should include, see Section 2.4.5.

In addition to the general information brochure, we recommend that you develop a local history guide. This guide should include a listing of historic sites along the trail route, such as homes or buildings on the National Register of Historic Places. It may also include other historic sites or facts about your community and the surrounding area that aren’t necessarily along the trail route. We suggest you produce the local history guide (with trail related highlights) in conjunction with other tourism efforts.

More generally, communities often produce visitor’s guides to promote their trail. While this publication could be a separate document, we recommend that you include
information about your trail in existing visitor’s guides, such as the brochure produced by the Clayton County Development Group, Inc. Adding a small section about your trail to visitors guides that already exist has several benefits: it reduces costs associated with brochure publication, eliminates the need to establish distribution locations, and ensures that information about your trail will reach a wider market than just those interested in recreational activities. For example, you may want to consider including information about your trail in the Pike’s Peak Visitor’s Guide, in local campground or shopper’s guides, or in the Iowa State Visitor’s Guide. This will provide exposure to information about the opportunities available in your community to those visitors who were initially attracted to the area for another reason.

Of course, any publication you produce should include a map of your trail route. We recommend that you also post trail maps at all trail access points, at local campgrounds and at any other local recreation attraction such as Pike’s Peak, Effigy Mounds National Monument, and the Mississippi Fish and Wildlife Preserve.

4.5.3 Develop a Cooperative Marketing Strategy

Remember that your trail is just a small part of a larger visitor experience to your community. In order to truly capitalize on the economic development potential of your trail, your community must provide other opportunities (both recreational and non-recreational) to draw a more diverse group of visitors.

Since your community is already a prime tourist destination, we suggest you to tap into existing markets in order to encourage longer stays and repeat visits. Therefore, your marketing strategy should involve an informative component in which
you strive to educate current visitors about the full range of opportunities your community has to offer. In order to facilitate this, we recommend you develop a cooperative marketing strategy in conjunction with a variety of interests.

You should work with local businesses and interest groups, such as the Clayton County Development Group and the McGregor/Marquette Chamber of Commerce, to promote your trail along with other local recreational activities such as boating, camping, fishing and hunting. Marketing your trail as one of many local attractions, such as Effigy Mounds, the Ewalu Stone Retreat Center, and the Bixby State Preserve make your overall community more attractive to prospective tourists.

We suggest that all three towns work together, perhaps through the Friends group, to promote an entire trail system rather than just your trail segment. Your trail will become more attractive as a destination if there is more to see and do along the way.

We recommend that your communities take advantage of the resources provided by existing tourism promotion mechanisms, particularly at the state and regional level. The State Visitor’s Bureau and regional tourism offices maintain relationships with tour developers and group tour operators. It is much more efficient to work with local hotels, attractions, restaurants, museums and others catering to tourists to create a compelling reason for your community to be included on regional and national tours rather than for your community to create the contacts from scratch.

We also recommend that your community “piggy-back” onto existing tourism marketing tools, rather than going to the expense to create them yourself. One example mentioned previously, is to include information about your trail in existing visitor’s
guides. In addition, you should stock state and local visitor centers with information about your trail and other attractions within your community. Finally, we recommend that you make information about your trail available on the World Wide Web. While it may not be economical to produce an independent website for the Legacy Section of the MRT, you should consider linking information about the trail to existing sites. You may want to consider seeking links to the following organizations’ websites: the Iowa State’s Visitors Bureau, Clayton County, the Mississippi River Trail, and the Iowa Natural Heritage Foundation. (See Section 2.4.8 for more information on using the World Wide Web as a marketing tool.)

A list of state and federal government resources, business and consulting resources, as well as other trails and case studies to consult when developing a marketing strategy for trail-based economic development is provided in the Appendix.

4.5.4 Closing Note

Remember, that no matter which marketing strategy you employ, in order for your trail to be a success you must ensure that visitor needs can be satisfied by the opportunities your community provides. This means that your community must provide a quality visitor experience to each individual user. For newly constructed trails this is especially important, because the only way to ensure that tourists will visit again is to give them a positive experience.
This document has presented information about trail management; trail design, costs, and financing; trail maintenance; and marketing a trail. The document contains specific recommendations that will aid the towns of Marquette, McGregor, and Guttenberg in planning, constructing, and maintaining the Legacy Section of the Mississippi River Trail.

In addition to these current, specific recommendations, this document has presented a vast array of information about trails in general. This information will allow this document to be a useful trail source for these three towns in the future, as well as for other areas in Iowa that are planning sections of the Mississippi River Trail. This document will be a valuable tool for creating trails now and for years to come.
APPENDIX A: DESIGN, COSTS, AND FINANCING

1. Product Companies for Trail Design

- **Pin Foundations, Inc.** manufacturer of precast foundation systems for low impact trails construction. Components can be installed without excavation and do not interrupt natural drainage patterns or damage existing native vegetation. The systems have been used nationwide, including projects with the National Park Service, US Fish & Wildlife Service and Bureau of Land Management: [www.pinfoundations.com](http://www.pinfoundations.com); pinfound@pinfoundations.com; Contact Rick Gagliano, President, Pin Foundations, Inc., 8607 58th Ave. NW, Gig Harbor, WA 98332; Phone (253) 858-8809; Fax (253) 858-8607.

- **Sutter Equipment Co.** Sweco 480 Trail Dozer and attachments, trail equipment and patented Sutter retaining wall. Also trail planning, design, training and construction services through affiliate "Trails Unlimited": Contact John Mueller, Owner, Sutter Equipment Co., 80 Chamberlain Ave., Novato, CA 94947; Phone (415) 898-5955; Fax (415) 898-5955.

- **Zac Tool Mfg., Inc.** manufacturers of McLeods and trail tools for trail maintenance and construction. Our tools are top quality and priced affordable. We have been in business for over 30 years servicing government agencies and private organizations: [www.Zactools.com](http://www.Zactools.com); Zactools@aol.com; Contact Larry Bain, Owner, 460 E. Easy St., #104, Simi Valley, CA 93065; Phone (805) 527-5207; Fax (805) 527-5411.

- **Outdoor Creations, Inc.** manufacturer of precast concrete signs, picnic tables, barbecues, benches, waste receptacles, foodlockers, etc.: odc@c-zone.net; Contact Scott Puhlman, Sales Manager, Outdoor Creations, Inc., PO Box 50, Round Mountain, CA 96084; Phone (530) 337-6774; Fax (530) 337-5129.

- **Permapost** supplies treated wood for bridges-trail construction-camp grounds and interpretive centers. Fabrication of these products are available upon request. Environmentally friendly wood preservatives for sensitive areas also available: [www.permapost.com](http://www.permapost.com); info@permapost.com; Contact David Bond, Chief Operations Officer, Permapost, 25600 SW Tualatin Valley Hwy, Hillsboro, OR 97123; Phone (503) 648-4156; Fax (503) 648-6383.

- **Pilot Rock Park Equipment** sells a wide variety of equipment for parks: pilotrock@rjthomas.com; Contact Steven Thomas, Pilot Rock, PO Box 946, Cherokee IA 51012-0946; Phone (800) 762-5002 or (712) 225-5115.

- **Bike Track, Inc.** develops products for accessible trails and bicycle parking. New EcoTrack path system, comprised of 2’ x 4’, structural plastic panels can be placed over land to form quality walking/bicycling/wheelchair access surfaces. Patented traction pattern provides excellent rolling and control. Water drains through. EcoTrack flexes over contours of ground, bridging smaller irregularities, and does not alter terrain. Links together, providing firm, even surface: [www.biketrack.com](http://www.biketrack.com); sales@biketrack.com; Contact Carol Weingeist, President, Bike Track, Inc., PO Box 235, Woodstock, VT 05091; Phone (802) 457-3275; Fax (802) 457-3704.
2. Funding Issue Resources Website

For more information about the funding issue, refer to Pedestrian and Bicycle Information Center at http://www.bicyclinginfo.org/pp/funding/bikes/index.html
## Maintenance Needs Matrix

### Maintenance Needs Ranking Matrix for Trail Segments

<table>
<thead>
<tr>
<th>Maintenance Areas</th>
<th>Severity of Surface Problem</th>
<th>Condition of Amenities and Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Very Low:</strong></td>
<td>Hardly Noticable</td>
<td></td>
</tr>
<tr>
<td><strong>Low:</strong></td>
<td>Minor Difficulties While Using the Trail</td>
<td></td>
</tr>
<tr>
<td><strong>Medium:</strong></td>
<td>Trail Use May Become Difficult</td>
<td></td>
</tr>
<tr>
<td><strong>Medium High:</strong></td>
<td>Caution! Could Bar Use from Trail</td>
<td></td>
</tr>
<tr>
<td><strong>High:</strong></td>
<td>Dangerous or a Barrier to Trail Use</td>
<td></td>
</tr>
</tbody>
</table>

### Surface:
- Step Separation
- Cracked Pavement
- Spulled Areas
- Settled Areas
- Debris
- Trail Shoulder
- Overhead Vegetation

### Amenities:
- Benches
- Bike Racks
- Bathrooms

### Information:
- Signs
- Map Info

<table>
<thead>
<tr>
<th>Very Good: Info current, amenities like new</th>
<th>Good: Info current, amenities show small signs of wear</th>
<th>Average: Info needs updating, amenities become hard to use</th>
<th>Below Average: Info outdated, some amenities unusable</th>
<th>Unusable: Trail info not relevant, amenities in disrepair</th>
</tr>
</thead>
</table>

A Guiding Document for the Legacy Section of the MRT
Using the Maintenance Needs Ranking Matrix

Definitions of Uncommon Terms:

Step Separation: Vertical displacement (0.5 inches or greater) in the path

Spulled Areas: Fragments of pavement only, no continuous pavement

Guide to Using the Matrix

The matrix is used to rank maintenance priorities on a trail segment. The matrix should be used according to the schedule on page XX, which indicates the matrix should be completed for the entire trail segment bi-monthly and seasonally. If the trail management organization does not have the volunteers or funds to pay staff to complete the segment reviews, then a different maintenance schedule may need to be developed.

The matrix should be used in the following manner. Amenities and information checks should be referenced to the bottom five categories, labeled ‘Condition of Amenities and Information.’ Trail surface maintenance needs should be referenced to the top five categories, labeled ‘Severity of Surface Problem.’ When all categories are completely filled out and checked, the maintenance priorities should be the checked categories to the furthest right of the matrix.
2. Sample User Survey

***Please fill out the survey as completely as possible. All comments are recorded and used in making trail maintenance as complete and timely as possible. All comments are appreciated.***

**General Information:**

Trail Section: Date: County, State of Residence:

Age: Gender:

---

**Questions (Please circle Y or N, write comments if needed):**

1. Were there any areas of damaged pavement? Y   N
   Comments:

2. Were there any debris on the trail (vegetation, rocks, or otherwise)? Y   N
   Comments:

3. Was there litter present on the trail? Y   N
   Comments:

4. Were trail amenities in good condition (benches, bike racks, bathrooms, scenic viewing areas)? Y   N
   Comments:

5. Did trail information signs offer up to date and useful information? Y   N
   Comments:

6. Were you satisfied with the overall condition of the trail? Y   N
   Comments:
3. Sample Maintenance Schedule For Mississippi River/Legacy Trail

**Note: This schedule was created from ideas found in the Iowa Trail Plan 2000**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Activity</th>
<th>Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>As Needed</td>
<td>Replace trail amenities (benches, etc)</td>
<td>Volunteers</td>
</tr>
<tr>
<td></td>
<td>Minor surface repair</td>
<td>Management Staff</td>
</tr>
<tr>
<td></td>
<td>Clearing of debris</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete ranking matrix</td>
<td></td>
</tr>
<tr>
<td>Bi-Monthly</td>
<td>Empty Trash</td>
<td>Volunteers</td>
</tr>
<tr>
<td></td>
<td>Pick up litter</td>
<td>Management Staff</td>
</tr>
<tr>
<td></td>
<td>Manage trail-edge vegetation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete ranking matrix</td>
<td></td>
</tr>
<tr>
<td>Seasonally</td>
<td>Snow grooming</td>
<td>Volunteers</td>
</tr>
<tr>
<td></td>
<td>Snow clearing</td>
<td>Management Staff</td>
</tr>
<tr>
<td></td>
<td>Planting/landscaping</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Installation/removal of signage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evaluate minor surface repair needs</td>
<td></td>
</tr>
<tr>
<td>Annually</td>
<td>Review annual maintenance report</td>
<td>Management Staff</td>
</tr>
<tr>
<td></td>
<td>Identify major projects or problems in maintenance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>methods. Use past matrices to evaluate maintenance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>needs.</td>
<td></td>
</tr>
<tr>
<td>2-10 Year Future</td>
<td>Implement maintenance improvement plan for</td>
<td>Management Staff</td>
</tr>
<tr>
<td></td>
<td>infrastructure, maintenance methods, trail</td>
<td></td>
</tr>
<tr>
<td></td>
<td>amenities.</td>
<td></td>
</tr>
</tbody>
</table>
The following is a list of organizations, businesses and consultants that provide a wide range of trail-related services and products and assistance.

**Federal Government:**

- **National Park Service**
  - Rivers, Trails & Conservation Assistance Program
  - [www.ncrc.nps.gov/rtca](http://www.ncrc.nps.gov/rtca)
  - Midwest Regional Office
  - 1709 Jackson Street
  - Omaha, NE 68102-2571
  - (402) 233-7300

- **Federal Highway Administration – Iowa Division**
  - [www.fhwa.dot.gov/iadiv](http://www.fhwa.dot.gov/iadiv)
  - 105 Sixth Street
  - Ames, IA 50010
  - (515) 239-1669

**State Government:**

- **Iowa Department of Transportation**
  - Office of Systems Planning
  - [www.dot.state.ia.us](http://www.dot.state.ia.us)
  - 800 Lincoln Way
  - Ames, IA 50010
  - (515) 239-1669

- **Iowa Department of Natural Resources**
  - Parks, Recreation and Preserves Division
  - [www.state.ia.us/goverment/dnr/organiza/ppd/parksdiv.htm](http://www.state.ia.us/goverment/dnr/organiza/ppd/parksdiv.htm)
  - Wallace State Office Building
  - 900 E. Grand Avenue
  - Des Moines, IA 50319
  - (515) 281-5814

- **Iowa Department of Economic Development**
  - Division of Tourism
  - [www.traveliowa.com](http://www.traveliowa.com)
  - 200 E. Grand Avenue
  - Des Moines, IA 50309
  - (513) 242-4727
Trail Mapping & Technology Maps:

**Bandana Map**
www.bandanaMAP.com
Contact Larry Smith, President
14969 Julia Ranch Rd.
Grass Valley, CA 95945
(530) 274-8787
larry@bandanamap.com

**RLA Geosystems**
www.rlageosystems.com; rlacom@ix.netcom.com;
Dick Lewis, Owner, RLA Geosystems
78161 Suncliff Circle
Palm Desert, CA 92211
(877) 535-4454 or (760) 772-6885

**Safety on Sight - John Wilson GPS**
John Wilson, Owner
61281 Center Dr.
Redding, CA 96001
(530) 241-4900
jwilson637@aol.com

Website Development & Technology Services:

**Bandana Map**
www.bandanaMAP.com
Larry Smith, President
14969 Julia Ranch Rd.
Grass Valley, CA 95945
(530) 274-8787
larry@bandanamap.com

**Wilderness Inquiry**
http://www.wildernessinquiry.org/
Trail Ethics & Education:

**Leave No Trace**
www.lnt.org
Amy Mentuck, Program Manager
Leave No Trace
PO Box 997
Boulder, CO 80306
(303) 442-8222
amy@lnt.org

**Tread Lightly!, Inc.**
www.treadlightly.org
Emily Daniels
Education & Program Specialist
Tread Lightly!, Inc.
298 24th St., Suite 325
Ogden, UT 84401
(801) 627-0077
emily@treadlightly.org

Printing & Publishing:

**Imagic Publishing**
ImagicKJ@aol.com
Kathy Jenkins, Owner/Designer
Imagic Publishing
2377 Walton Ave.
Shasta Lake, CA 96019
(530) 275-6530

**Plainwell Paper**
www.PlainwellPaper.com
Contact Brent Hawkins
Plainwell Paper
21091 Hawes Rd.
Anderson, CA 96007
(530) 365-2711
Travel & Tourism:

**Custom Travel**  
Judy Schierling, Travel Consultant  
Custom Travel  
2051 Hilltop Dr.  
Redding, CA 96002  
(530) 221-7800

**GORP's**  
[www.GORP.com](http://www.GORP.com)  
Contact Mark Leger  
22 West 19th St., 8th Floor  
New York, NY 10011  
(212) 675-6555  
mark@www.gorp.com

**Wilderness Inquiry**  
[http://www.wildernessinquiry.org](http://www.wildernessinquiry.org)  
Mike Passo, Associate Program Director  
808 14th Ave. SE  
Minneapolis, MN 55414  
(612) 379-3858  
info@wildernessinquiry.org

**Shasta Cascade Wonderland Association**  
[www.shastacascade.org](http://www.shastacascade.org)  
Karen Whitaker, Manager  
Shasta Cascade Wonderland Association  
1699 Hwy 2273  
Anderson, CA 96007  
(530) 365-7500  
karen@shastacascade.org

Case Study Contacts:

**Black Hawk County Conservation Board**  
[www.co.black-hawk.ia.us/depts/conservation](http://www.co.black-hawk.ia.us/depts/conservation)  
2410 W. Lone Tree Road  
Cedar Falls, IA 50613  
(319) 266-0328
Lanesboro Area Visitor Center
www.lanesboro.com
P.O. Box 348
Lanesboro, MN 55949
(800) 944-2670

Marthasville Chamber of Commerce
www.marthasville.org
P.O. Box 95
Marthasville, MO 63357
(636) 433-5242

Mid-America Regional Council (Kansas City)
www.marc.org
600 Broadway, 300 Rivergate Center
Kansas City, MO 64105-1554
(816) 474-4240

Rochester Area Economic Development, Inc.
www.rochestermn.com
220 S. Broadway, Suite 100
Rochester, MN 55904
(507) 288-0208

Sparta Area Chamber of Commerce
www.spartan.org
123 N. Water Street
Sparta, WI 54656
(800) 354-BIKE

Traverse City Convention & Visitor's Bureau
www.tcvistor.com
101 W. Grandview Parkway
Traverse City, MI 49684
(800) 940-1120

Other Resources:

American Council of Snowmobile Associations
www.snowmobileacsa.org
271 Woodland Pass, Suite 216
East Lansing, MI 48823
(517) 351-4362
American Discovery Trail Society
www.discoverytrail.org
PO Box 20155
Washington, DC 20041-2155
(800) 663-2387

American Hiking Society
www.americanhiking.org
1422 Fenwick Lane
Silver Spring, MD 20910
(301) 565-6704

American Motorcyclist Association
www.ama-cycle.org
13515 Yarmouth Drive
Pickerington, OH 43147
(614) 856-1900

American Trails
www.americantrails.org
P.O. Box 11046
Prescott, AZ 86304
(520) 632-1140

Institute for Decision Making
www.esd.uni.edu/idm
University of Northern Iowa
College of Business Administration
The Curris Business Building, Suite 5
Cedar Falls, IA 50614-0120
(800) 782-9520

League of American Bicyclists
www.bikeleague.org
1612 K Street, N.W., Suite 401
Washington, DC 20006
(202) 822-1333

National Off-Highway Vehicle Conservation Council
www.nohvcc.org
4718 S. Taylor Drive
Sheboygan, WI 53081
(800) 348-6487
Rails-to-Trails Conservancy
www.railtrails.org
1100 17th Street, N.W., 10th Floor
Washington, DC 20036
(202) 331-9696

The Trust for Public Land
Midwest Regional Office
www.tpl.org/tpl/nearu/mwro/index.html
420 N. Fifth Street, Suite 865
Minneapolis, MN 55401
(612) 338-8494

APPENDIX D: REFERENCES


Center for Transportation Research and Education, Iowa State University. 2002. Iowa’s Mississippi River Trail Plan (Iowa-MRT). Iowa Department of Transportation.


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Wisconsin Department of Transportation, Division of Planning; Wisconsin Department of Natural Resources. March, 1975. Guidelines for Developing Rural Bike Routes. Wisconsin Department of Transportation, Division of Planning; Wisconsin Department of Natural Resources.
