

CHAPTER II

BACKGROUND / LITERATURE REVIEW

HISTORICAL BACKGROUND OF LINEAR PARKS

Although the term "linear park" became popular in the 1960's and 1970's, the use of long narrow strips of park-like land as transportation links were employed by Olmsted in the 1800's. Parkways were used in Boston, Buffalo, and many other cities to create a relaxing, tranquil, and enjoyable access to the large pleasure grounds from the other sections of town. At times, Olmsted used existing drainage ways to link a series of parks such as the Emerald Necklace in Boston. In this system, parkways for horse and buggies, as well as separate pedestrian walks connected the parks and open spaces (Zaitzevsky, 1982).

With the use of the reform park and the recreational facility, which dictated a block or grid form, linear park land was not as popular in the early to mid 1900's (Cranz, 1982). Even the parkways were perceived more as a transportation link rather than as a scenic, relaxing drive through open space. The benefits of the linear park system were basically forgotten or ignored.

INTEREST IN TRAIL DEVELOPMENT

In the 1960's, due to the greater interest in outdoor activities, trails played an increasing role in meeting the demand for more recreational opportunities. These linear paths were developed on many different types of land including traditional park land and wilderness areas. But because of the limited availability of open space near urban areas and the rising cost of land prices, recreational agencies began to look at land not previously associated with park use. Natural and human-made corridors offered unique possibilities because they were unused, underdeveloped, or abandoned.

Edges along marshes, wetlands, lakes, coastal beaches, and rivers are examples of natural corridors that have been developed for trail use. Streams and rivers through urban areas have become increasingly popular for park land, due to the restricted development of the flood plain in many areas (Bentryn, 1976). Rapid City, South Dakota, for example, experienced a disastrous flood through the middle of town in the 1970's. Building construction in the flood plain was limited and a linear park and trail system was created along the Rapid Creek. Another redevelopment project, the Cedar River Trail System in Renton, Washington, won an ASLA Merit Award in 1980 for its 4.8-mile linear park design (Clay, 1980).

Many types of human-made corridors have been recycled for park and trail development. Dams, levees, causeways, canals, street rights-of-way, power and pipe line rights-of-ways, and abandoned railroads are all examples of reused land (Bentryn, 1976). Two parks that won ASLA Merit Awards for design in 1980 were developed on abandoned corridors. The

Boeing Renton Linear Park in Renton, Washington was converted from a barren railroad right-of-way near an industrial facility. And Lowell, Massachusetts, as part of a renovation program, reclaimed a neglected urban canal and established Western Canal Park (Clay, 1980).

CONVERSION OF RAILROAD RIGHTS-OF-WAY

Converting railroad rights-of-way into linear parks and trails has become popular in the past 25 years. Several factors contribute to this interest in recycled land (CACEQ, 1975):

1. The popularity of linear recreational activities.
2. The increased demand for access to natural outdoor areas providing recreational use.
3. The increasing number of abandoned railroads which were available for reuse.
4. The number of rights-of-way which were accessible and desirable for park use.
5. The low cost in physical reconstruction of the railroad trail.

Outdoor activities that are well suited for recreational trails have increased in popularity in recent years. According to a national recreation survey conducted in 1982 and 1983 by the U. S. Department of the Interior, Americans spend more time outdoors enjoying nature and exercising than 20 years ago. Walking, biking, jogging, canoeing, and snow skiing have all increased rapidly in popularity since the 1960's. But the study also indicates that the amount of time spent outdoors is limited by a lack of time and money to travel to recreational areas. In addition, old age and child-raising may restrict the availability of certain types of activities for some people (Rooney, 1986).

In 1962, the Outdoor Recreation Resources Review Commission completed the first comprehensive outdoor recreation assessment. Three major observations by the Commission as reported by Cordell (1983:42), included:

1. Outdoor recreation opportunities are most urgently needed near metropolitan areas.
2. Considerable land is available for outdoor recreation, but it does not effectively meet the need.
3. Outdoor recreation is a major leisure time activity which is growing in importance.

Because of the increased demand, additional recreational facilities which are easily accessible to people are needed. Linear railroad trails in or close to urban areas are a viable solution.

Many thousands of miles of rail lines have been abandoned in recent years. In 1920, about 260,000 miles of railroad track were in service in the United States. At the present time, there are 145,000 miles in use and by the year 2000, a 100,000 mile core rail system is predicted by analysts (Burwell, 1986). Although all abandoned tracks are not desirable for linear parks, many could easily be adapted for trails use.

Railroad rights-of-way have several characteristics that make them desirable for linear parks and trails. According to the urban planner, William H. Whyte in The Last Landscape (1968:173), "...linear strips are probably the most efficient form of open space..." People see and also use the edges of park land the most for recreation. Whyte felt that in urban areas where land is difficult to obtain, linear strips of open space could be developed on obsolete transportation rights-of-way.

Linear parks established on railroad corridors, come into contact with more private land than does traditional park land. These rights-of-way cut through may different types of land use and allow access to large numbers of people with a variety of activities. Many of these abandoned routes are close to urban areas, where additional recreational opportunities are needed.

Because railroads require gentle grades of less than three percent, they generally follow drainage patterns along creeks and rivers and through mountain valleys and passes. In many cases, these routes offer outstanding scenic beauty and unique plant and animal habitat, and also represent our historic past (Fig. 2.1 Grade Cut on Rail-Trail; Fig. 2.2 Old Railway Bridge; Fig. 2.3 Bridge Near Lake). Since much of our railroad system preceded land cultivation, some rights-of-way contain the remnants of original plant ecosystems. Converting these corridors to park land preserves the cultural and historic past, the scenic beauty, and the existing ecosystems as a living and working museum for the future (Burwell, 1986).

Developing a trail on an existing railroad right-of-way will save money on labor and materials and in some cases, save time in acquiring property. If there are no problems, the entire length can be purchased in one transaction, as opposed to dealing with several owners individually. Because of the tax burden, rail carriers are sometimes eager to sell the abandoned right-of-way. If bridges and culverts are left intact, little physical construction remains. Once the ties are removed and the existing roadbed is graded, only an application of a surfacing material is needed (CACEQ, 1975).



Figure 2.1 Grade Cut on Rail-Trail The Root River Trail near Lanesboro, Minnesota as it passes through an old railroad grade cut.



Figure 2.2 Old Railway Bridge An iron railroad bridge on the Luce Line Trail at Orono, Minnesota.



Figure 2.3 Bridge Near Lake A typical wood-planked bridge on the Luce Line Trail at Oak Lake near Watertown, Minnesota.

At the present time, 158 trails in 31 states have been converted from abandoned railroads (Fig. 2.4 Location Map of Rail-Trails). Most of these trails are located in the north-central, north-eastern, and extreme western sections of the country. Nine states have seven or more developed trails: California, Wisconsin, Illinois, Pennsylvania, Iowa, Washington, Minnesota, Ohio, and New York. Many of these states have the best programs in the country for developing rail-trails. A complete listing for all converted trails can be found in A Guide to America's Rail-Trails (1988), published by The Rails-to-Trails Conservancy, Washington, D.C. (The Rails-to-Trails Conservancy, 1986, "Old Rails Become New Trails Across the U.S.") (Gaby, 1988).

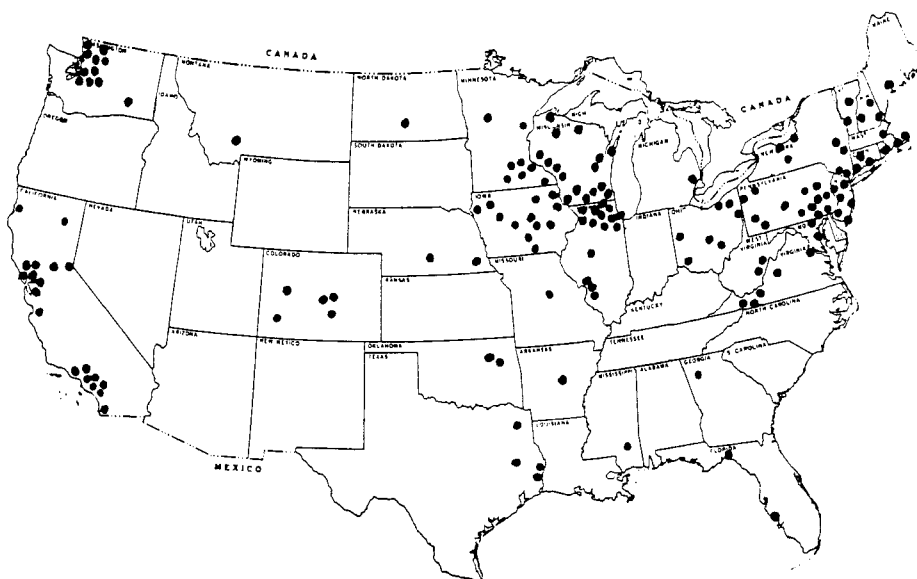


Figure 2.4 Location Map of Rail-Trails Location of the 158 trails that were converted from abandoned rail lines in the U.S. (Generated from The Rails-to-Trails Conservancy, 1988).

OPPOSITION TO RAIL-TRAILS

Although the conversion of railroad land to recreational use has broad based support in many parts of the country, some adjacent landowners view linear parks as a potential problem. The concerns of these owners about the negative impact on their property outweigh the possible advantages of the proposed trail. In 1980, a report on major controversial facilities in Minnesota was developed by the Citizens League, an independent, public affairs organization. This document indicates that state trails in Minnesota, face opposition on more issues about site selection and local effects, than do pipelines, power plants, power lines, or hazardous waste landfills (Fig. 2.5 Facility Siting Issues) (Citizens League, The Committee on Facility Siting, 1980).

FACILITY SITING ISSUES
(Issues raised by facility opponents)*

	POWER PLANTS	POWERLINES	PIPELINES	SOLID WASTE LANDFILLS	HAZARDOUS WASTE LANDFILLS	STATE TRAILS	STATE WILD AND SCENIC RIVERS
NON-SITING POLICY ISSUES							
PROCESS ISSUES							
Opposition to "Big Government," government agencies, "Big Business"	x	x	x	x	x	x	x
Lack of early local involvement in the process	x	x	x	x	x	x	x
Use or anticipated use of eminent domain	x	x	x	x	x	x	
Use of zoning							x
NEED ISSUES							
Lack of consideration of alternatives to proposed facilities	x	x	x	x	x		x
Projected demand for facility services in excessive	x	x	x		x	x	x
Lack of data on societal costs of no additional facility services	x	x	x		x	x	x
Lack of public planning regarding facility needs	x	x			x	x	
THE FACILITY COST ISSUE							
Lack of consideration of facility capital and operating costs	x	x	x			x	x
MAJOR ENVIRONMENTAL ISSUES							
Water pollution	x		x	x	x		
Air pollution (including dust and odor)	x	x		x			
Water quantity used	x						
SITE SELECTION POLICY ISSUES							
Use of agricultural (including forest crop) land	x	x	x	x	x	x	x
Use of rural land for urban purposes	x	x	x	x	x	x	x
Why not use public land?	x	x		x	x	x	x
Use of recreational and natural areas	x	x		x		x	x
Why not use existing facility sites?	x	x		x	x		
Non-compliance with local zoning or plans				x	x	x	x
Too much government-owned land already				x	x	x	x
Why not use other types of existing sites?		x	x			x	
Site according to property lines		x	x			x	
Site where district heating is possible	x						
LOCAL EFFECTS ISSUES							
LOCAL ECONOMIC ISSUES							
Loss of local property values	x	x	x	x	x	x	x
Impact on possible future local development	x	x	x	x	x	x	x
Increase in local public service costs	x	x		x	x	x	x
Impact on adjacent farm operations	x	x	x			x	x
Loss of local tax base				x	x	x	x
LOCAL ENVIRONMENTAL AND SOCIAL ISSUES							
Noise	x	x		x	x	x	x
Impact of feeder traffic	x			x	x	x	x
Health and safety effects	x	x	x	x	x		
Visual impact	x	x		x	x		
Fires				x	x	x	x
Type of construction		x	x	x	x		
Litter				x		x	x
Weeds		x				x	x
Need for fences			x	x		x	
Vandalism; trespassing; lack of privacy						x	x
"Experimental" nature of facility	x				x		
Radio and TV interference	x						

Figure 2.5 Facility Siting Issues Chart indicating the issues that opponents raised for each type of facility (Citizens League, The Committee on Facility Siting, 1980).

The organized opposition of nearby residents is a major obstacle to trail development (CACEQ, 1975). These people, for a variety of reasons, will work vigorously to prevent the establishment of the proposed trail. Individual landowners may be reasoned with, and their property quietly purchased or condemned, but organized opposition, in many instances, can halt the conversion of worthwhile projects (Macdonald, 1980).

For example, in 1986, a linear park and trail system proposed northwest of Kansas City, Missouri, was blocked due to the fears of the local residents for their property. John Birch, state representative for one of the districts involved, stated, "The local population was incensed. They were afraid for their property. Birch added, "It (the trail) sounded like a progressive idea to me. But I'm not going to shove it down my people's throats (Dvorak, 1987:B-3)."

In a more ambitious project, the Missouri Department of Natural Resources (DNR), has plans to create a 200 mile linear park from St. Charles to Sedalia along the historic Missouri River (Fig. 2.6 Location Map of MKT). The proposed trail receives wide support across the state and other parts of the country. Several citizens groups favor the trail, including the Conservation Federation of Missouri, the National Wildlife Federation, and the Rails-to-Trails Conservancy. Governor John Ashcroft, indicating his support, asked the General Assembly in 1987 to appropriate \$1.6 million for purchase and partial operation of the trail. But there was opposition in the legislature, reflecting resistance by some adjacent landowners, particularly the farmers. In December of 1986, 148 adjacent landowners and the Missouri Farm Bureau

filed a suit in U.S. District Court in St. Louis contesting the ownership of the right-of-way. In May of 1988, a federal judge ruled in favor of the trail. But these owners are expected to appeal the decision and the project will be placed on hold once again (Fig. 2.7 Battle of the MKT Trail) (Irons, 1987) (Schneller, 1987) (Gillmor, 1987, 1988) (Dvorak, 1987).

A common source of hostility for residents is the feeling that the unused railroad land rightfully belongs to the adjacent landowner, regardless of the actual property title. But indications that linear parks serve the majority of the people in the area, can change the attitudes of owners.

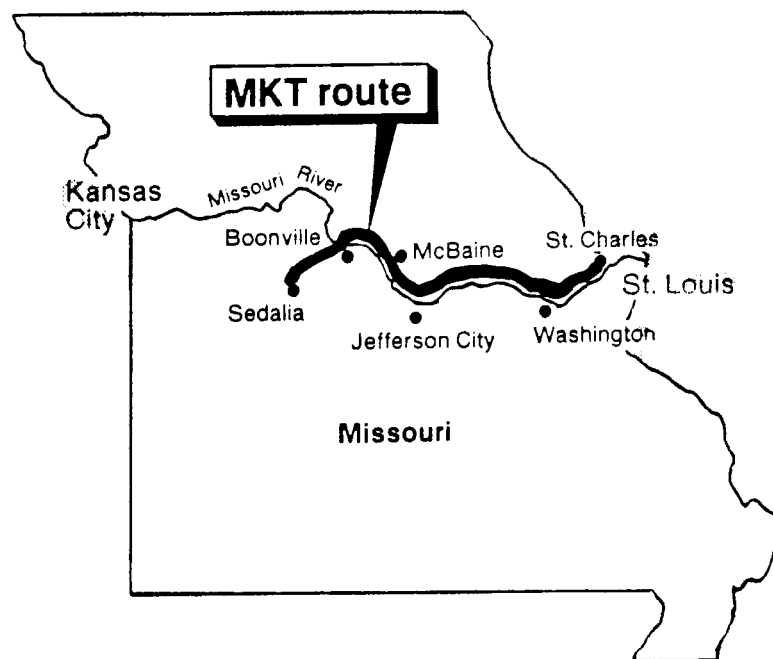


Figure 2.6 Location Map of MKT Location of the proposed (MKT or KATY) trail on the abandoned Missouri-Kansas-Texas Railroad Right-of-Way (Gillmor, 1987).

Battle of the MKT trail



Photos by Rich Sugg, Staff

This railroad track southwest of Columbia already serves as a bike path for John Hargis, 12; some hope to make it a 200-mile public trail.



Proponents of the trail largely ignore its costs to landowners, says opponent Bruce Florea, whose land adjoins the railroad near McBaine, Mo.

Landowners, naturalists compete for right of way

By Dan Gillmor
Mid-America Correspondent

McBAINE, Mo. — The people fighting over a proposed recreational trail through the heart of Missouri probably would agree that the sights and sounds from the Perche Creek trestle are the stuff of nature and history.

One side wants to preserve the beauty and heritage for bikers, hikers and tourists. The other wants to protect it from vandals, thieves and litterbugs.

Their fight in court and in the Missouri General Assembly for control of this abandoned train line is being watched nationally by those who want to turn vacated railroad routes into hiking and biking trails, and those who see such paths as an attack on property rights. Railroad trail enthusiasts say this 200-mile route is the longest, most scenic and most historic line in the country available for conversion to a recreation path.

The abandoned Missouri-Kansas-Texas Railroad right of way cuts a 100-foot-wide strip across Missouri, stretching from Sedalia to St. Charles County, just west of St. Louis.

At the aging steel bridge over Perche Creek, southwest of Columbia, the natural beauty at the center of the fight is abundant.

In the brow-mopping, pre-thunderstorm afternoon heat, the leaves gently rustle in the

cottonwoods and soft maples that flank the muddy creek, which winds a couple of miles downstream to the even muddier Missouri River. Bluebirds and sparrows dart and chirp through the thick air while gnats uncannily find the nearest human ear. The railroad tracks, rusted now from disuse, form their narrow vee into the distance through woods and fields of corn and soybeans.

A few hundred feet down the tracks stands a massive oak tree, a tree that long predates the celebrated expeditions of famed white explorers — Daniel Boone and Lewis and Clark among them — through this once-rugged country.

Those who favor turning the railroad bed into a public trail dream of the day when thousands of visitors will bike, hike and stroll along this stretch and others.

"This is a once-in-a-lifetime opportunity," said William Palmer, director of public information for the Missouri Department of Natural Resources.

But for some adjoining landowners, the dreams aren't so pleasant. They visualize litter and vandalism, and maybe worst of all, the trampling of their rights as property owners.

Proponents of the trail "are dwelling totally on the benefits and largely ignoring the

See LANDOWNERS, A-20, Col. 1

Figure 2.7 Battle of the MKT Trail Newspaper article from the Kansas City Times on the dispute between landowners and naturalists over the proposed MKT trail (Gillmor, 1987).

According to Dave Burwell, president of the Rails-to-Trails Conservancy in Washington D.C., opposition by adjacent landowners "is a theme that comes up again and again. When the trails get built they win friends (Gillmor, 1987:A-1)."

In some cases, organized landowner opposition does not prevent the conversion of the right-of-way into a trail. When the Cedar Valley Nature Trail in Iowa was being proposed in the early 1980's, neighboring farmers and small towns raised fierce opposition. But after this 52-mile trail from Waterloo to Cedar Rapids was completed, the resentment did not end. Nails were found protruding upward through thin boards buried in the trail surface. However, when arsonists burned two trestle bridges, many people, angry with the situation, became avid trail supporters. Rick Young, secretary of Old Interurban Trail Inc, a volunteer organization formed to develop the trail, said, "The bridge-burning was a turning point. That really riled a lot of people who'd been neutral before (Gillmor, 1988:A-10)." Now many of the former opponents are trail supporters. Darrel D. Loveless, La Porte City Mayor, stated, "I've changed my mind - I've seen what it's done for my community." The Police Chief of La Porte City, Larry Feaker said, "I was very skeptical of the trail. But it proved us wrong. The people out there aren't vandals or thieves. They're out for the scenery, a good time (Fig. 2.8 Former Foes Back Trail) (Gillmor, 1988:A-1,10)."

ADJACENT LANDOWNER CONCERNS

Since organized opposition can block or delay projects, trail planners should be aware of the concerns of local residents and be prepared to address and resolve potential problems. Issues such as

Former foes of trail in Iowa now back it

Continued from Page A-1

Loveless, originally an opponent of the trail, which was completed in 1984.

The debate over the trail, which is one of the longest rails-to-trails conversions in the nation, isn't over. In fact, one farmer near Urbana, a small town southeast of La Porte City, recently bulldozed and barricaded about half a mile of the trail and is planting corn on it. Riders and hikers now must detour several miles on gravel county roads.

"Why did we do it? Because it's ours," said Edward McKinley, who was legally within his rights after an Iowa Supreme Court decision that gave him possession of a small piece of the former railroad right-of-way. "We can straighten (the field) out and have three-quarter-mile rows."

The state may condemn and purchase a strip of McKinley's land under eminent-domain laws and restore the trail. McKinley, who is angry at being called selfish for using his land the way he sees fit, won't say whether he'd fight such a move by the state.

Rough pathway to success

Iowa leads the nation in the number of trails converted from abandoned railroad beds. But the road to success for the Cedar Valley Nature Trail, widely considered the jewel of the group and one of the nation's finest, has been anything but smooth.

Backers got serious about the Cedar Valley conversion around the turn of the decade. They encountered vehement opposition from many neighboring farmers and residents of the small towns, including La Porte City, along the route.

Opponents raised a fearful specter. They said litterbugs, vandals, thieves and worse would adopt the trail and neighboring property as a criminal playground.

The bad guys never made an appearance, law enforcement officials said.

"I was very skeptical of the trail," said Larry Feaker, chief of police in La Porte City. "But it proved us wrong. The people out there aren't vandals or thieves. They're out for the scenery, a good time."

Such was the fury aroused by the project at its inception, however, that someone pounded nails through thin boards and then buried the boards, nails protruding upward, in the trail. Arsonists torched two trestles, destroying one, since rebuilt, and seriously damaging the other.

"The bridge-burning was a turning point," said Rick Young, a Waterloo contractor who is secretary of

Old Interurban Trail Inc., a volunteer organization formed to develop the trail. "That really riled a lot of people who'd been neutral before."

Since its opening, the trail has made a lot of friends. Between 50,000 and 100,000 people, including visitors from at least 30 states, biked or walked on the trail last year, according to estimates from local officials and trail backers.

The most avid trail-users, naturally, are local people. One prominent devotee is Oleen Arenholz, a 58-year-old grandmother from La Porte City who rides her vintage one-speeder daily in good weather and ends a conversation with a smiling "Happy trails." Riding, she said, has improved her health — her doctors took her off her blood-pressure medication last fall. And it has increased her appreciation of nature.

"I learn new things every time I go out there," said Arenholz, who estimates she logged 2,750 miles on the trail in 1987.

A variety of Iowa terrain

Indeed, the trail's surroundings provide a powerful attraction. One stretch, for example, from La Porte City to Brandon, the next town to the southeast, features a surprising variety of terrain (within the limits of Iowa's geology), plant life and wildlife.

On a warm spring morning, a rider passes through newly planted fields, the long rows of cultivated earth stretching to the horizon. Cattle linger under shade trees while turtles bask in the bright sunlight on marsh logs.

Suddenly the sun is gone as the trail sweeps through a dense stand of box elder and Chinese elm trees, their leafy limbs forming a graceful canopy over the path of easy-to-maintain crushed limestone. The sky reappears as the trail crosses Cedar River, a wide, slow-moving waterway that gives the valley its name.

At Spring Creek, a rider encounters quiet evidence of the trail's angry history: a cement bridge that replaced the burned-out trestle. Then comes Dinosaur Lake, a large pond with a primeval look — tree stumps jut out of the water, which is lapped by the wind onto the marshy shore. Beyond the lake are limestone bluffs and a quarry, a reminder that this valley once was an ocean bed.

Along the way an assortment of birds chirp and sing. Wildflowers at their colorful peak decorate the



Tom Gillmor Staff

In good weather, Oleen Arenholz (right) of La Porte City, Iowa, rides her bicycle daily on the Cedar Valley Nature Trail. Esther Davison accompanies her on a recent excursion. The trail, formerly an abandoned rail line, stretches 52 miles from Waterloo to Cedar Rapids in Iowa.

trailside view as bees hover, then buzz from one flower to the next. Not a scrap of litter is visible.

"A man can go back in there and see new things every time," said Michael Andorf, a former trail opponent who has become one of the path's most impassioned advocates. "A cornfield? Not much new out there."

Andorf and his wife, Beverly, run a hog farm about 10 miles from the trail. They also operate a bed-and-breakfast inn, refreshment stand, gift shop and campground from a 65-year-old farmhouse adjacent to the trail just southwest of Brandon.

"Most farmers' definition of beauty is a weedless cornfield," Andorf said. "If this land belongs to anyone, it belongs to the Indians."

The Andorfs' entrepreneurial activity mirrors that of other people along the trail. Business is better in all of the little towns and hamlets.

"We'd get by if it weren't here, but it's sure nice to have it," said Dave Hopkins, owner of Dave's Chicken House, a restaurant in La Porte City. "Any small town that's right on the trail can gain a lot."

And the business people say they enjoy not only the extra commerce but the visitors themselves.

"The best thing about it is the people we've met," said Beverly Andorf.

Lurking in the background, however, remains the ongoing battle being waged by the trail's implacable foes. Three landowners besides the McKinleys, the farm family that bulldozed the section on its property, are negotiating sale or lease arrangements with state and local officials in the wake of the court ruling here that affirmed the owners' rights to the land.

To date, only the McKinleys have removed the trail.

"Some of these people act as if we did this out of spite," McKinley said. "I have nothing against bicyclists. ... We just want to be treated fair."

Some trail boosters concede that McKinley and other landowners could have been dealt with more diplomatically as the process unfolded. They urge Missouri officials to consult early, sympathetically and often with farmers and others along the Katy path to avoid such situations.

But for many here in Iowa, the battle is over — or ought to be.

"I can't believe people are still trying to fight this," Hopkins said.

Figure 2.8 Former Foes Back Trail Portion of a newspaper article from the Kansas City Times about the dispute over the 52-mile Cedar Valley Nature Trail in Iowa (Gillmor, 1988).

noise, litter, trespass, loss of privacy, theft, vandalism, and lowered land values are major concerns for many owners. Convincing residents that their fears are exaggerated, can prevent many conversion problems.

Some nearby residents anticipate that noise from trail users will disturb the neighborhood. Hiking and bicycling, the two most popular activities, are relatively quiet. If snowmobiles or other motorized vehicles are permitted, their use could be restricted to rural areas or sections of the trail not as sensitive to the disturbance. Conversations of trail users may be heard on adjacent property, but these sounds are much quieter than the noise generated from a suburban street or from a railroad (CACEQ, 1975). In some cases, berms, railroad embankments, and plant material can act as a barrier or a screen and block out noise.

Another concern of owners is littering by trail users in the right-of-way and on their property. Trail planners can assure local residents by implementing an aggressive maintenance program. The strategic placement of trash receptacles, the use of "no littering" signs, and active trail enforcement can prevent this potential problem.

Many landowners are concerned that trail users will trespass on their property and their privacy will be invaded. Using "no trespassing" signs, backed up with an aggressive enforcement program can calm many of the fears. But the most effective solution may be the design of the trail itself. Fences, hedges, plant undergrowth, and railroad embankments can act as a barrier and maintain privacy. If the access to private land is reduced, trespassing will be negligible (CACEQ, 1975).

Some of the owners adjacent to proposed trails, are concerned that users will vandalize or steal from their property. But Dave Burwell, president of the Rails-to-Trails Conservancy, states that theft is not a problem. "After all, if someone is going to steal your television, they aren't going to haul it away on the handlebars of their bicycle (Irons, 1987:19). Don Mackie, Director of the Wisconsin State Park System in 1979, stated that, "vandalism on the trail or to adjacent property is nil (Thorson, 1979:7)."

Another concern of residents is that property values will decrease due to the negative impact of the trail. Dave Burwell notes that...

"the biggest fears are dropping property values and crime. But in Iowa, property values have actually gone up; real estate agents are promoting the trail as a recreational area, which it is (Irons, 1987:19)."

On the Elroy-Sparta State Trail in Wisconsin, some landowners feared that trail users would litter, trespass, frighten cattle, and invade their privacy. But working together, the Wisconsin Department of Natural Resources agreed to construct a four wire fence to keep the cattle off the trail, while the landowners agreed to maintain the fence for 20 years. After six years of use, rural landowners found that hikers and bikers did not litter, trespass, or frighten cattle. Instead these users took care of their needs in the towns that were located six to ten miles apart along the trail. In addition, owners found that bikers were not compelled to trespass, because of the natural barriers of overgrowth formed along the trail (Cleckner, 1973) (CACEQ, 1975).

Many communities are uncertain and sometimes apprehensive about the development of railroad trails. According to Don Mackie, "This is a

natural reaction, but fears rapidly subside once the trail becomes operational." Public relations on the Elroy-Sparta State Trail are so good that trail users rate the "friendliness of the townspeople and landowners" as a positive asset of the trail (Thorson, 1979:7).

PREVIOUS RESEARCH ON TRAILS

Limited research has been documented on the attitudes of adjacent residents to proposed or existing trails. But the following three studies have a bearing on this research project.

In 1978, the East Bay Regional Park District in San Francisco, completed a study about the trail impact on adjacent property. This report, one of the first of its kind in the country, surveyed 410 residences of an urban area that were adjacent to two recreational trails. Non-residential property, such as schools and farms were not included in the study. One of the trails, the Lafayette-Moraga, was developed from an abandoned rail line, while the Alameda Creek Trail had been part of a flood control project. The following observations are based on the results of this survey (Table 2.1 Trail Neighbor Survey):

1. A large majority of the residents are satisfied with their trail and think it was a worthwhile expenditure of money.
2. Over 80% believe the trail increased or had no affect on the value of their property. Less than 10% feel their property values have been lowered as a result of the trail.
3. When comparing the new and continuing residents initial reaction to the trail with their current opinions, over 50% of the Lafayette-Moraga and about 25% of the Alameda Creek respondents feel the trail is "better than they expected."
4. A majority of the respondents experience few or no problems with the trail. However, 30% of the Alameda Creek residents have a problem with the dust and noise from illegal cars and motorcycles.

ISSUES	LAFAYETTE- MORAGA TRAIL	ALAMEDA CREEK TRAIL
Households That Use The Trail:	92%	74%
Satisfied With Trail:	90%	86%
Worthwhile Expenditure of Money:	85%	65%
Impact of Trail on Property Value:		
Increased Value	36%	18%
No Affect	48%	72%
Decreased Value	7%	4%
Continuing Residents:		
Attitude to Proposed Trail:		
Excellent-Good	76%	63%
Fair	9%	8%
Poor	14%	15%
Current Attitude to Trail:		
Better Than Expected	53%	26%
About What Expected	40%	60%
Worse Than Expected	7%	13%
New Residents:		
Influenced by Trail to Purchase Home:		
Liked Idea of Living by Trail	56%	33%
Trail Did Not Influence Decision	41%	59%
Disliked Idea of Living by Trail	4%	8%
Current Attitude to Trail:		
Better Than Expected	52%	22%
About What Expected	44%	64%
Worse Than Expected	4%	14%
Problems With Trail:		
No Problems	61%	42%
Noise/Dust From Motorcycles/Cars	8%	30%
Trespassing	11%	3%
Invasion of Privacy	7%	6%
Vandalism	3%	7%
Fire Hazard From Weeds	0%	8%
Other problems were less than 5%		

Table 2.1 Trail Neighbor Survey Attitudes of residents who live adjacent to the Lafayette-Moraga and the Alameda Creek Trails in the East Bay Regional Park District (EBRPD, 1978).

This study indicates that major problems with litter, theft, vandalism, and lowered property values do not occur on trails. In fact, many of the adjacent neighbors found the trail to be "better than they expected." Linear parks and trails have a minimal or positive impact on adjacent property (EBRPD, 1978) (Hornbeck, 1979).

A 1986 study examined the crime rate and real estate values of residential homes and condominiums near the Burke-Gilman Trail in Seattle, Washington. Nearby residents, real estate agents, and police officers were interviewed in the telephone survey. This study indicates that homes located near, but not adjacent to the trail, sell for 6% more than would be expected, due to the proximity of the trail. Homes that front directly on the trail, sell for only slightly higher than average. Burglaries and vandalism at homes adjacent to the trail were below the neighborhood average. About two-thirds of the residents believe the trail improved the "quality of life" in the area (Seattle Engineering Department, 1986) (The Rails-to-Trails Conservancy, 1986, "Property Value Rises Near Rail-Trails").

The Milwaukee Road Corridor Study in 1979, examined the attitudes of adjacent landowners toward a proposed rail-trail in southeastern Minnesota. This study found that three-fourths of the owners were opposed to the trail. In the same study, landowners adjacent to three existing trails in Minnesota and Wisconsin were surveyed. The results indicated that a majority of owners experienced few or no major problems with the trails. A closer examination of both surveys in this study will be included in Chapter III (Genereux, 1979) (Minnesota DNR, 1979-1980).