

BADGER STATE TRAIL MASTER PLAN

And Environmental Assessment



Wisconsin Department of Natural Resources

Bureau of Parks and Recreation

February, 2006

PR-667



This Plan Was approved by the Natural Resources Board in February, 2006

Wisconsin Department of Natural Resources Board

Gerald M. O'Brien, Chair

Christine L. Thomas, Vice-Chair

Jonathan P. Ela, Secretary

David Clausen

Howard D. Poulson

John W. Welter

Stephen D. Willett

Wisconsin Department of Natural Resources

Box 7921

Madison, WI 53707-7921

This publication is available in alternative format (large print, Braille, audio tape, etc.) upon request. Please call 608-266-2181 for more information.

You can also view this document on the Web at:

http://www.dnr.wi.gov/master_planning/



PUB-PR-667



Acknowledgments

Badger State Trail Planning Team

Mark Aquino	Regional Land Leader, South Central Region
Peter Biermeier	Section Chief, External Relations and Planning, Parks and Recreation, Madison
Tim Galvin	Regional Parks Program Manager, South Central Region, Parks and Recreation
Steve Johnston	Park Supervisor, South Central Region Parks and Recreation
Bill Morrissey	Bureau Director, Parks and Recreation, Madison
Greg Pittz	Park Supervisor, South Central Region Parks and Recreation
Jeffrey Prey	Senior Planner, Bureau of Parks and Recreation, Madison
Dana White Quam	Parks and Recreation Specialist, South Central Region Parks and Recreation

TABLE OF CONTENTS

Chapter One – Introduction and Executive Summary 1
Chapter Two – Management, Development and Use 3
Chapter Three – Background Information 12
Chapter Four – Assessment of the Environmental Impacts of the Master Plan 18
Chapter Five – Alternatives and Their Environmental Impacts 28
Chapter Six – Summary of Public Involvement 30

TABLES

Table 1: Future Developments 8
Table 2: Use Mileages and Locations 9
Table 3: South Central Wisconsin Trail Related Recreation Participation* 16
Table 4: Distances Between Communities 17

MAPS

Map A: Badger State Trail and Facilities

Chapter One – Introduction and Executive Summary

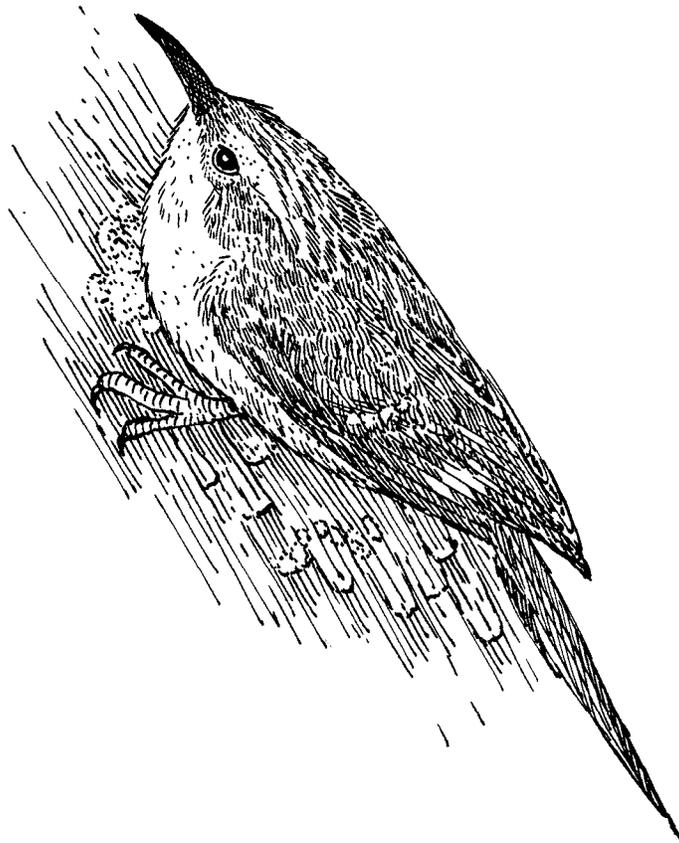
This plan outlines the development of a 40-mile State Trail on the former Illinois Central Gulf Railroad corridor between Madison and the Illinois state line. The Natural Resources Board (NRB) authorized acquisition of this corridor in April 2000. The Wisconsin Department of Natural Resources (DNR) has signed a lease with the Wisconsin Department of Transportation (DOT) and the South Central Wisconsin Rail Transit Commission allowing the development and operation of a recreational trail. The DOT still owns fee title to the corridor. The name of this abandoned rail corridor is the Badger State Trail.

This trail will provide a regional connection to such trails as the Capital City State Trail, Military Ridge State Trail, and the Ice Age National Scenic Trail. The Badger State Trail and the Sugar River Trail will intersect in Monticello, making the Badger State Trail a potential spoke in a much larger hub of regional trails. South of Monroe, the trail will extend to the Illinois border and proceed south on the Jane Addams Trail to Freeport, Illinois. From Freeport the trail will connect to the 500 mile Grand Illinois Trail System.

The DNR will manage and operate this trail which is expected to attract 100,000 to 175,000 users annually. Trail uses include biking, hiking, rollerblading, equestrian use, winter ATVing and snowmobiling. The trail will also provide space for activities such as berry picking, bird watching, and general nature study.

Development of the year-round multi-purpose state trail is estimated to cost \$4.7 million. This price includes tunnel reconstruction and repairs, bridge decking and railing, trail surfacing, trail heads, parking areas, fencing and signing. To date, over \$600,000 has been spent on bridge decking and railing, regulatory signing, and brushing of the trail corridor.

There has been strong support for development of the trail from recreational user groups and most local units of government have been supportive of converting the former rail corridor to a recreational trail.



Chapter Two – Management, Development and Use

Chapter two describes the management, development and use of the Badger State Trail. The content of this chapter is compatible with the property's designation, goals, and capabilities as well as the site's regional analysis.

Goals

- Provide a 40-mile recreational trail for pedestrians and bicyclists with winter use to include snowmobiles, limited ATV use and other appropriate trail activities,
- Provide a portion of the Ice Age National Scenic Trail,
- Act as link to other state and local trail systems, while connecting communities to outdoor recreation within a larger regional trail network.

Property Designation

This trail is a State Trail (under the provisions of Wisconsin State Statute 23.175 and DNR Administrative Code Chapter 45.09). The name of this trail corridor is the Badger State Trail.

Land Management Classification

Land Management Classifications are assigned according to Section NR 44.06(8) and NR 44.07(7) of the Wisconsin Administrative Code. The Land Management Classification for the Badger State Trail is Recreation Management Area Type 4, Recreational Use Setting. The Trail will be a fully developed Trail as defined by Wisconsin Administrative Code Section NR 44.07(3)(h).

Project Boundary

The railroad corridor used for the development of this trail system encompasses approximately 40 miles of the area formerly used by the Illinois Central Gulf Railroad in Dane and Green counties. On its north end, the trail begins in Madison at Lovell Lane. Passing through Madison and extending southward, the corridor passes through the City of Fitchburg, the unincorporated Village of Basco, the Village of Belleville, the Township of Exeter, the Village of Monticello, the City of Monroe and the Township of Clarno (see Map A, Future Trail and Facilities Map)

Future Uses and Development

The Badger State Trail will be developed to accommodate biking and hiking with specific areas allowing snowmobiling, rollerblading, equestrian use, and winter ATV use.

The trail will be divided into Northern and Southern Sections. The Northern Section will run from Lovell Lane (City of Madison) to Sun Valley Parkway. The Southern Section will run from Sun Valley Parkway to the Illinois border.

Development activities for the Badger State Trail will include decking and railing of bridges and surfacing the trail tread with a 10-foot-wide layer of either finely crushed limestone or asphalt pavement. Parking lots, rest areas, and other associated facilities will be developed by the DNR or in cooperation with local partners. There are currently 43 at-grade or street crossings, 20 grade separated crossings, and 30 stream or ditch crossings. Many of these stream or ditch crossings require upgrading or replacement bridges.

The development and designated used for each trail section is discussed in more detail below.

Northern Section – Lovell Lane to Sun Valley Parkway (Dane County, City of Fitchburg) 7.1 miles

Existing Facilities: The DNR's responsibility for the Badger State Trail begins at Lovell Lane in the City of Fitchburg. Here the trail links with Madison's Southwest Path and the Capital City State Trail. A 12 car parking area on the Capital City State Trail (located ¼ mile east from the Badger State Trail) will provide user access to the Badger State Trail. This parking area is owned and operated by the City of Fitchburg.

Objective: *Provide for year round passive recreation on 7.1 miles of trail, while providing a year round commuter link to and from the Madison metro area.*

Future Northern Section Uses:

The following trail uses will occur within the Northern Section:

Primary uses:

- Biking
- Hiking / Walking
- Rollerblading
- Nature Study

Future Development:

This section of the Badger State Trail from Lovell Lane to Sun Valley Parkway is expected to be heavily used by bikers commuting to and from Madison. Of this 7.1 mile length, 6.1 miles from Lovell Lane to Purcell Road will be developed into a 10 foot wide asphalt surfaced tread. This corridor will include mileage markers running from Lovell Lane south to Sun Valley Parkway. The City of Fitchburg anticipates the construction of trailhead facilities at this parking lot (to start in 2007) that will include bathrooms, a shelter, and an expanded parking lot. A kiosk describing Badger State Trail and other trails within the region will also be built at the existing parking lot in the City of Fitchburg's Dawley Park.

Plowing the paved section of the trail for winter commuters will be explored as a cooperative option with other units of government. Snowmobiling will not be allowed within this section of the trail due to the surface damage that can occur from the carbide steel studs of snowmobile tracks. Other motorized uses will not be permitted within the section due to the expected high volume of pedestrian traffic from the City of Madison and surrounding communities.

This trail corridor crosses CTH PD (McKee Road) in the City of Fitchburg, which is a 4 lane, divided highway that connects CTH D (Fish Hatchery Road) and US Hwy. 18/151. A pedestrian bridge crossing CTH PD will be built to provide a safe passageway over an increasingly busy highway. When designing this bridge, consideration will also be given to connections with the Military Ridge State Trail (which connects to the Capital City Trail near the Badger Trail) and possible alignments that would allow for one crossing that could accommodate both trails. Other bike routes as established by the City of Fitchburg bicycle trail map will also provide crossing points on Hwy PD.

South of Purcell Road, pavement will end and the trail will be surfaced with crushed limestone. The trail will pass under the existing bridge at Sun Valley Parkway. Bicyclists who do not wish to ride on this limestone surface will be able to access county and local roads designated as suitable for bicycle traffic in the Dane County Bike Plan¹. These roads will provide connections to the Village of Paoli and other destinations.

Southern Section – Sun Valley Parkway (Dane County) to the Illinois State Line (Green County) 32.9 Miles

Existing Facilities: The Village of Belleville currently operates Library Park adjacent to the Badger State Trail corridor. Library Park offers 5 parking spaces, picnic tables, a historic library building and a gazebo.

There is a ¼ mile long curved railroad tunnel in Exeter Township that the Badger State Trail will run through. Although this tunnel has a bend which limits visibility to bikers and walkers, no improvements are planned to correct this problem. The interior tunnel brick lining is in poor condition and approximately one-half of the tunnel will need to be re-lined.

In the Village of Monticello there is a DNR managed rest area providing water, parking, and pit toilet facilities. Near the rest area, the Village of Monticello has restored the railroad depot and now operates a hostel.

Within the City of Monroe, Twining Park is located adjacent to the trail corridor. Twining Park provides shelters, toilets, parking, play areas, a volleyball area, a basketball court, baseball diamonds, tennis courts, and a bandshell.

Objective: Provide for year round recreation on 32.9 miles of trail, while allowing for snowmobile and limited ATV use during the winter.

Future Southern Section Uses:

Primary Uses:

- Biking
- Hiking / Walking
- Nature Study
- Ice Age Trail Designation

Secondary Uses:

¹ Dane County Bike Plan , 2002; Department of Transportation Bike Plan , 2005

- Equestrian
- Winter ATV
- Snowmobiling

Future Southern Section Development:

The surfacing from Sun Valley Parkway to the Wisconsin/Illinois State line will be limestone screenings and the trail width will be 10 feet. Mile markers will be installed and limited signage will be developed at major road crossings.

Library Park in the Village of Belleville, adjacent to the Badger State Trail, is located in the heart of the Village. There is a small vacant lot between the trail, Post Office, and new Library. Working with the Village of Belleville, a cooperative rest / trailhead area will be developed in this area to provide 10 additional parking spaces, toilets, a small shelter and a rest area for trail users. A Kiosk will also be installed at this location to provide information about the trail and other local features to trail visitors.

Although it is not yet listed on the National Register of Historic Places, the ¼ mile long tunnel located in Exeter Township is a historic structure. The State Historical Society was therefore consulted to determine the best course of action for carrying out the structure's needed repairs. The interior of the tunnel will be relined with stamped concrete to give the appearance of a brick lining. The entrance of the tunnel will remain historic in appearance. The tunnel will be closed during winter months for preservation and safety by means determined by the Department. As is the case with all State owned trail tunnels on trails, no lighting will be installed inside the tunnel.

The Sugar River Trail runs parallel to the Badger State Trail between CTH EE and CTH C in the Village of Monticello. These trails will be co-located for approximately one mile through the Village limits. This simplification of trails will allow a user to access either trail once leaving the Village limits. South of Monticello, near CTH C, the two trails split, Badger State Trail running south towards Monroe and the Sugar River Trail running east to Broadhead and the DNR managed rest area in the Village of Monticello.

Heading south from the Village of Monticello there are 7 road crossings that will be signed as intersections. One intersection, Gutzmer Road, will need to be specially marked and signed as there are poor sight lines at this crossing.

Special road markings will be placed at the STH 11 crossing, a divided 4-lane state highway. Vehicle speeds here reach 65 mph but visibility is excellent in both directions for both trail users and vehicles. Markings along the pavement and bike crossing signage along the freeway corridor will help ensure this passage remains safe for both trail and highway traffic. Signage warning trail users about the high speed traffic crossing will also be placed at the intersection.

The City of Monroe is proposing to develop a loop connector trail running from the Badger State Trail corridor through the downtown area and back to the Badger State Trail. Monroe operates Twining Park which is located adjacent to the Badger State Trail corridor at the intersection of 4th Avenue. The Department will work cooperatively with the City to ensure that trail users have access to the facilities within this park. A trailhead will also be established at this park.

Within Monroe city limits, the trail crosses busy Hwy 69. This route is established within the City limits and no additional at grade work is required.

The unincorporated Village of Clarno is the last stop before entering the State of Illinois and the Jane Addams Trail. A 5-10 car parking area will be developed here and will provide minimal facilities such as pit toilets, a hand pump well, and an information kiosk.

Special Trail Use Designations

Ice Age National Scenic Trail (City of Fitchburg, Townships of Oregon and Montrose)

The section of trail running from Purcell Rd to Frenchtown Rd in the City of Fitchburg and Townships of Oregon and Montrose be designated to serve as part of the Ice Age National Scenic Trail. This 6 mile section of trail will be used as a connector to other Ice Age Trail segments located near the Badger State Trail. Signage designating this section as Ice Age Trail will be placed along this corridor. If lands become available, the Ice Age Trail may be moved onto the preferred route identified in the *Ice Age Trail - Dane County Land Protection Plan*². It is also possible that the portion of the Badger State Trail between Belleville and Monticello will be used as a connector to the existing Ice Age Trail segment in the Brooklyn State Wildlife Area and Sugar River State Trail.

Snowmobile Use

Snowmobiling is allowed on most of the Southern Section of the trail when the trail is covered with 6 inches or more of snow. Sections not allowing this use include the ¼ mile long tunnel in the Town of Exeter, and the section in the City of Monroe. In order to ensure a continuous passage, alternative routes with connections back to the trail will need to be established on private lands around Monroe. Snowmobiling is allowed on the Jane Adams Trail which will allow for up to 45 miles of snowmobiling on these two trails combined.

Winter ATV Use

Winter ATV use is allowed on the 11 mile section from Monroe to Monticello. Since this is considered a secondary trail use, no other facilities will be built to accommodate ATV's. This use will be allowed during a 3 year trial. The following conditions will be monitored during this trial period:

- Use can only occur from Dec. 1 – March 15.
- Use can only occur when snowmobile use is not allowed.
- The trail surface must be frozen to allow use.
- Use will not be allowed off the trail tread.
- Use will not be allowed on the Sugar River State Trail.

During this 3 year trial period, there will be an annual review involving local ATV clubs, the Department, and all interested governmental jurisdictions adjacent to the trail. The review will address issues that have arisen and discuss possible solutions to outstanding issues. At the end of the 3 year trial period a written assessment will be created that addresses environmental damage and enforcement problems associated with ATV use. Following this assessment the Department will make a determination on continued use.

² National Park Service & Ice Age Park & Trail Foundation – Dane County Land Protection Plan

Equestrian Use

Within this Southern Section an equestrian trail will be accommodated. This trail will exist as a separate trail tread within the corridor from Sun Valley Parkway to the City of Monroe. The Badger State Trail corridor topography is a mix of upland, wetland, rock outcroppings, cattle passes and river/creek crossings that make it impractical to develop a contiguous equestrian trail within the corridor. For this reason, only 2 miles of the Badger Trail will be open to equestrian use following the development of 6 miles of publicly accessible trail outside the corridor. The establishment of these 6 miles will add to the equestrian trail system already present on roads and private lands and will aid in providing riders with a high quality riding experience in the southern Wisconsin region.

Department standards for equestrian trails lengths are a minimum of 7 miles for a ½ day riding experience³. By these standards, the 2 miles of trail on the Badger Trail and 6 miles off the trail will offer a ½ day riding experience. As part of this use, carts will not be allowed on the Badger Trail tread (2 miles) and equestrians will not be allowed in the Tunnel. The future equestrian trail tread will not be developed in designated wetlands or prairie areas containing endangered or threatened species. To maintain user safety and provide a high-quality user experience, horses will not be permitted as a combined use on the bike trail surface. Because it is considered a secondary trail use, no other facilities will be built to accommodate equestrian use.

In summary, the following facilities, developments and uses will occur on the Northern and Southern Sections of the Trail:

Table 1: Future Developments

New Development	Northern Section	Southern Section	Total
Trail Grade	6.1 miles of asphalt / 1 mile of crushed limestone	32.9 miles of crushed limestone	40 miles
Tunnel Refurbishment		.25 mile	.25 miles
Parking spaces		20	20
Trailheads	1	2	3
Shelters	1	2	3
Wells		2	2
Toilets	1	2	3
Grade Separated Crossings	1		1

³ Department of Natural Resources Manual Code 8605.1, Department Design Standards, Section 30-80.

Table 2: Use Mileages and Locations

Use	Mileage	Section
Hiking	40	Madison – Town of Clarno
Biking	40	Madison – Town of Clarno
Nature Study /Bird Watching	40	Madison – Town of Clarno
Rollerblading	6.1	Madison to Purcell Rd.
Snowmobile	32.9	Sun Valley Parkway to Town of Clarno (excluding tunnel)
Ice Age Trail Designation	6	Purcell Rd to Frenchtown Rd (Town of Montrose)
Equestrian	2	Sun Valley Parkway – Monroe (excluding tunnel)
Winter ATV	11	Village of Monticello to Monroe

VEGETATION MANAGEMENT

Objective: *Provide a cleared recreation corridor while reducing the spread of invasive, noxious and exotic species, providing shade and maintaining vistas of the distant landscape.*

Vegetative management of the Badger Trail will use various methods including cutting, mowing, and limited use of herbicides. Limited prescribed burns will be concentrated in the areas south of Monticello and north of Belleville. In some of these areas there are state-threatened pale purple coneflowers, roundstem foxglove, and kitten tails along with several other more common prairie species found within the right-of-way. While it is not the goal to create new or enhanced prairie areas, attempts will be made where possible to establish prairie demonstration areas.

Vegetation has encroached on the trail corridor throughout the Badger State Trail. Much of this vegetation is invader species—cherry, aspen, and boxelder with an understory of sumac, willow, and berry bushes. Many areas also have invasive/exotic species such as garlic mustard, honeysuckle, etc.

Trail management strategy will request, as a part of the biennial budget process, money for habitat management that will support inventory work, invasive species management, natural community restorations, prescribed burning, seeding, and erosion control. When possible, noxious weed control will also be undertaken. More of this work could be accomplished by creating partnerships with local support groups and the formation of a Friends Group to establish a base of volunteers.

WILDLIFE / HABITAT MANAGEMENT

A variety of wildlife management techniques will be used throughout the trail corridor as personnel, funding, volunteers, and contributions allow. For instance, artificial nesting boxes will be erected and maintained within the trail corridor near wetlands, streams, and rivers for use by wood ducks, hooded mergansers, screech owls, and other birds. Bluebird houses will also be erected along more open areas such as in the stretches of grassland.

Boundary Adjustments

Only minor boundary adjustments will be made to allow for connections to local road networks. When needed, these adjustments will be done through the normal boundary adjustment process.

Operations Policies

Operational costs associated with the Badger State Trail are the responsibility of the DNR. According to data from existing trails, annual operations costs range on average from \$1,500 to \$2,000 per mile per year. Therefore, DNR annual operation costs for the Badger State Trail are estimated at \$65,000 per year. This includes 1 FTE Ranger – Enforcement position and 2 LTE Laborer positions to provide visitor protection, law enforcement and maintenance as well as supplies and services for trail maintenance.

Adjacent Landowners

When needed, fencing will be provided to adjacent landowners with the agreement that the Department will provide materials and supplies, but that the property owner will maintain the fence for a 20 year period.

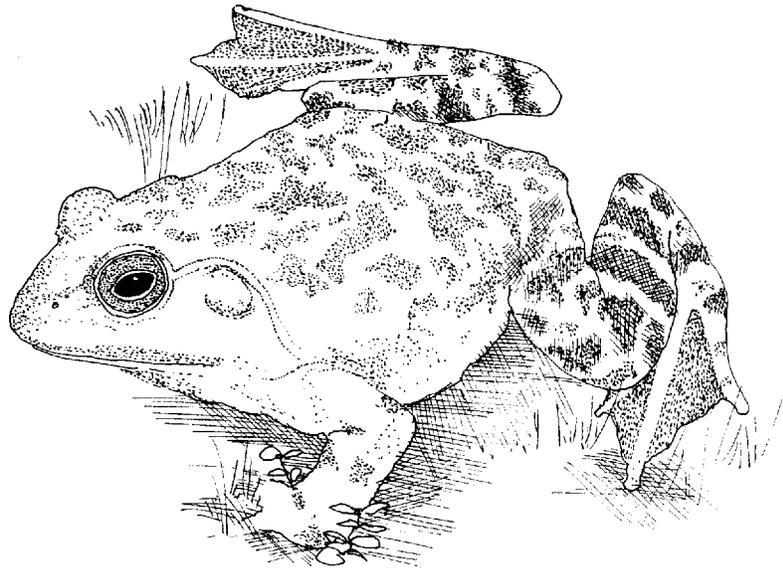
In addition, the Department will work with adjacent landowners to maintain access to working fields and crops.

Education and Interpretation

Development along the trail corridor will include interpretive signs and displays to explain the cultural, historical, and natural features found within and adjacent to the trail corridor. Major points of interests are the historic bridge in Belleville, the curved tunnel in the Town of Exeter and the site of the Historic Woolen Mill in Monticello.

Access and Use by Persons with Disabilities

All trail facilities including drinking fountains, rest rooms, parking, telephones, etc., will be accessible to people with disabilities. The trail, because of its nearly level grade, will be very accessible to and usable by those who use wheelchairs and other mobility aids. The use of motorized conveyances (other than wheelchairs) for people with severe mobility impairments will be evaluated on an individual basis. Nature interpretation labels and/or brochures will have large print to insure readability by those with visual impairments. The Department's Design Standards and Federal Americans with Disabilities Act Accessibility Guidelines (ADAAG) will be followed in facility construction and in the development of trail programs and services.



Chapter Three – Background Information

The corridor for the Badger State Trail encompasses approximately 40 miles in Dane and Green Counties. On the North end, the trail begins in the City of Madison (pop. 217,935), goes south through the City of Fitchburg (pop. 22,030), Basco (unincorporated), the Village of Belleville (pop. 1,891), Exeter (unincorporated), the Village of Monticello (pop. 1,147), the City of Monroe (pop. 10,973), and Clarno (unincorporated).*

At the Wisconsin-Illinois border, the corridor connects with the recently completed Jane Addams Trail in Illinois. This trail is part of the 500-mile Grand Illinois Trail System, a network of trails running throughout Northern Illinois.

Overall there are 43 at-grade road or street crossings, 19 grade separations, 30 stream crossings, and one separated intersection with another railroad grade.

This regional analysis details the natural and built amenities that comprise this trail corridor and the region that surrounds this.

History

The Illinois Central Gulf Railroad Company was incorporated in July 1886. Construction on the branch line of the railroad running from Freeport, IL to Madison, WI began almost immediately. Costs for building the line had initially been estimated at \$780,000, but by the time all tracks and ties were laid, actual costs totaled \$1,350,000.

Belleville's yellow brick depot was built in 1888, as was the railway tunnel four miles south of the village of Exeter. The tunnel was built on a curve, one-quarter mile long, with construction starting at both ends. At the time of its construction, it was seen as a feat of engineering that both ends of the inwardly constructed tunnel met precisely in the middle of the structure.

The Illinois Central Gulf Railroad Company operated within this corridor hauling grain, livestock, freight, and passengers. Passenger trains ran daily up until the 1960's and freight trains continued to operate until 1976.

Chronology of Property's Establishment and Development

The Illinois Central Gulf Railroad Company filed a petition for abandonment with the Interstate Commerce Commission (ICC) on November 5, 1976. The Department of Natural Resources inspected the Wisconsin segment of the rail corridor and completed a trail feasibility study in December 1976. In 1978 the South Central Wisconsin Rail Transit Commission (SCWRTC) was created when Dane and Green Counties entered into a contract to continue rail service in the branch running between Madison and Freeport, Illinois. The ICC approved the abandonment, and the Wisconsin Department of Transportation (WDOT) purchased the corridor as a short line

* Population numbers from: WI Department of Administration, www.doa.state.wi.us/docs_view2.asp?docid3583

operation (Wisconsin and Calumet Railroad) that continued to provide rail service. Eventually the short line operation was terminated and the corridor was again inspected on August 15, 1991 by Department staff for a possible conversion to trail use.

It wasn't until February 1997 that the WDOT and the SCWRTC began negotiations to convert the Monroe to Madison segment of the corridor to a recreational trail under the federal Rails to Trail act.

After conducting an extensive review of the past twenty year history of rail usage and a railroad shipper/business in the area, SCWRTC approved the conversion of the corridor. The survey used in this review was conducted jointly in October/November 1996 with the railway's operating carrier, the Wisconsin and Calumet Railroad, and the WDOT.

Findings of this survey indicated that freight traffic on the corridor had diminished to levels so low (less than twenty car loads a year) that it was uneconomical to continue to maintain the line as an operating railroad. Community efforts to market their industrial parks on the rail line did not emphasize the potential availability of shipments by rail – it was not considered essential. Rehabilitation of the track and bridges to sustain a reasonable railroad (Class II – 25 mph) operation would have cost approximately \$20 million.

In 1997, the Department of Natural Resources began to negotiate with the WDOT and the SCWRTC to convert the corridor from rail to trail use. After a feasibility study with public input, the Department reached agreement with the parties in March 2000.

NATURAL RESOURCES OF THE TRAIL CORRIDOR

(Excerpts for this section are taken from the Jane Addams web site at <http://www.janeaddamstrail.com> and are adapted for the Badger State Trail corridor)

Flora

Vegetation along the trail corridor reflects the many years of disturbance and various attempts to manage the area while it served as a rail right-of-way. Following cessation of management that kept the tracks clear for trains, numerous plants invaded the right-of-way. Today the area has many black cherry and box-elder trees with hackberry and white mulberry nearly as common. In all, at least 27 species of trees are found within the trail corridor.

Below the trees exists a layer of woody shrubs composed of at least 25 different species. Poison ivy, honeysuckle, elderberry and black raspberry are ubiquitous.

There are also some 120 species of herbaceous plants in the corridor. Many are non-native weeds, but there are also native species such as great white trillium, golden ragwort, yellow pimpernel, Virginia waterleaf, wild ginger, woodland phlox and wild strawberry.

Fauna

Mammals along the corridor include the red and grey fox squirrels and white tail deer. Deer are plentiful and often use the trail as a path during winter. Other species include raptors such as red tail hawks, kestrels, great horned owls, barred owls, cooper's hawks, goshawks and screech owls.

Along waterways, heron and great egrets (a special concern species) are common and sandhill cranes are occasionally sighted. Some of these birds are migrants and are therefore incidental to overall bird populations.

A six-hour survey conducted in 2001 near the Wisconsin / Illinois border yielded 77 bird species. Included in the list were two herons and an egret, a semipalmated plover, short-billed dowitchers, five species of flycatchers, four species of swallows, nine species of warblers and six species of sparrows. Also included was a mourning warbler, a sedge wren and a pair of sandhill cranes.

DEMOGRAPHICS AND POPULATION TRENDS

The Badger State Trail corridor begins in one of the fastest growing and densely populated urban areas in Wisconsin⁴. Each community situated near the corridor experienced a rise in population from 1990-2004. Substantial growth occurred just south of Madison, specifically in the cities of Verona (39.53%), Fitchburg (28.97%) and the Village of Belleville (28.66%). No community saw a decrease in population levels and no such decreases are predicted by 2015.

RECREATION RESOURCES

Connection to Other State Trails

The Badger State Trail provides a link with numerous other trail systems, forming a major regional trail network in Southern Wisconsin and connecting cities and villages in Dane and Green counties.

Capital City State Trail

The Capital City State Trail connects with the Badger State Trail in the northwestern portion of the City of Fitchburg. The Capital City State Trail goes around and through Madison. The asphalt surface is excellent for bicycling, walking, jogging, and in-line skating. At this time, approximately seventeen miles of the Capital City State Trail is completed.

Military Ridge State Trail

This 41-mile trail from Madison to Dodgeville follows an old military road and intersects the Badger State Trail in southern Madison. The limestone-surfaced trail provides for hiking and biking along the entire trail. The segment between Verona and Madison is asphalted and therefore usable by in-line skaters.

Glacial Drumlin State Trail

The Glacial Drumlin State Trail is a 51-mile long trail through glacial landscapes that stretches between Waukesha and Cottage Grove. Though no trail exists linking Madison to the Glacial Drumlin State Trail, users can access the trail in Cottage Grove via County Hwy BB, approximately six miles east of Madison.

Ice Age National Scenic Trail

The Badger State Trail will allow users to utilize certain portions of the Ice Age Trail. Specifically, the 4-mile section from Madison south to Verona, the 2.5 mile stretch in Brooklyn along the Brooklyn Wildlife Area, and the 12.5-mile section that helps form the Sugar River State Trail from Bump Rd. to Exeter Crossing Rd. The Badger State Trail will provide links to these sections.

⁴ State of Wisconsin-Department of Administration, http://www.doa.state.wi.us/docs_view2.asp?docid3583

Sugar River State Trail

This 24-mile trail follows the Sugar River between New Glarus and Broadhead and is part of the Ice Age National Trail from Bump Rd. to Exeter Crossing Rd. The trail is limestone-surfaced and is used by both hikers and bikers. Intersection with the Badger State Trail occurs in the Village of Monticello.

Cheese Country Recreation Trail

This 47-mile trail links Monroe to Mineral Point. It is shared with ATVs, motorcycles, 4-wheel drive vehicles, equestrian riders, bikers and hikers. The trail surface is a coarser gravel surface than the typical crushed limestone surface of other trails. The Cheese Country Trail is accessible for Badger State Trail users in the town of Monroe.

Connection to State Parks

The Badger State Trail will allow users to visit numerous State Parks in southern Wisconsin. These connections could lead to higher attendance of State parks and higher park revenue.

Capital Springs Centennial State Park and Recreation Area (CSCSPRA)

Just south of Madison, CSCSPRA encompasses 3,000 acres stretching from Fish Hatchery Rd. east to Lake Waubesa, and includes most of the Nine Springs E-Way. Though not completed, CSCSPRA will join Dane County's Lake Farm Park and other state land as part of the overall State Park system. The Badger State Trail links to this area via the Capital City Trail.

New Glarus Woods State Park

This 431-acre State Park lies approximately three miles west of the Badger State Trail and provides areas for camping and picnicking. Six trails totaling 7.3 miles and ranging from 0.2 miles to 4.2 miles also provide opportunities for hiking. Direct access to this park is through the Sugar River State Park Trail which can be reached via the Badger State Trail.

Browntown-Cadiz Springs State Park and Recreation Area

Five miles west of the Badger State Trail, this State Park is 644 acres. Two spring-fed lakes, Beckman and Zander, form the focal point of most activities at the recreation area. Fishing, swimming, and the lake's beach are all popular activities and attractions. This Area can be reached via the Cheese County Trail via the City of Monore.

Wildlife and Natural Areas Near the Corridor

Brooklyn Wildlife Area

Existing in Dane and Green Counties, the Brooklyn Wildlife Area is approximately 2 miles off the Badger State Trail. This large (3,938 acres) area provides habitat for multiple species of wildlife and offers opportunities for hiking, trout fishing, and birdwatching. This Area will be linked to the Badger Trail via the Ice Age Trail connections.

Recreation Resources in Illinois

Jane Addams Trail

The Jane Addams Trail is a 12.85 mile multi use trail that connects to the Wes Block trail access area. This area has parking for 25 vehicles and pit vault toilets located along Bypass Illinois RT. 20, 1 mile east of Illinois RT. 26. Though still under development, the Jane Addams Trail is planned to continue into Freeport Illinois. Permitted uses on the trail include hiking, bicycling, snowmobiling and cross-country skiing. Uses not permitted include horses, motorcycles, ATVs and motor vehicles.

Grand Illinois Trail

A planned 500 mile series of trails between Lake Michigan and the Mississippi River, the Grand Illinois Trail joins together existing and proposed state and local trails to create the state’s longest continuous trail. It hugs historic canals, crosses unglaciated hills, parallels the Rock and Fox Rivers, and includes one of America’s first rail-trails. Links to this trail will be made via the Jane Addams Trail.

Freeport, IL

The Freeport Park District manages eight parks, a nature preserve, and a wetlands preserve covering more than 770 acres. Links to this trail will be made via the Jane Addams Trail.

Trail Recreational Activities

Listed in Table 3 are the average participation rates for selected trail related activities for persons ages 16 and above living in the south central Wisconsin region. Human powered / pedestrian based activities are the most popular forms of trail recreation.

Table 3: South Central Wisconsin Trail Related Recreation Participation*

<i>Activity</i>	<i>Percent Participating Age 16+</i>
Walk for Pleasure	88.6%
Bicycling	53%
Day Hiking	38%
Running / Jogging	32.1%
Mountain Biking	30.9%
Rollerblading**	20%
ATV -Off Road	15.2%
Snowmobiling	10.1%
Horseback Riding on trails	9.3%
XC Skiing	7.3%
Snowshoeing	3.5%

* *Draft 2005-2010 Wisconsin Statewide Comprehensive Outdoor Recreation Plan (SCORP)*

** *Statewide Average*

Counties and Communities Along the Badger State Trail

As shown in Map A, the trail connects with many communities along its corridor. These connections allow the trail to act as a link, the shared recreational resources along the trail serving to connect communities across southern Wisconsin.

Table 4: Distances Between Communities

From	To	Distance
City of Madison	Unincorporated Village of Basco	9 miles
Unincorporated Village of Basco	Village of Belleville	5.5 miles
Village of Belleville	Village of Monticello	9 miles
Village of Monticello	City of Monroe	11 miles
City of Monroe	Town of Clarno (State Line)	5.5 miles

Conclusion

The Badger State Trail is in the unique position of being able to provide outdoor experiences, environmental and cultural education, and recreation to a large portion of southern Wisconsin and northern Illinois.

This one trail, running 200 miles through various topography and vegetation, will connect users to five other State Trails. Trail users will also be able to easily visit four State Parks, all of which provide numerous recreational activities. Three wildlife/natural areas near the trail will provide a unique opportunity for wildlife viewing. For a more cultural and historical experience, trail users will be able to visit more than thirteen different communities in southern Wisconsin and Northern Illinois, all of which offer their own unique history and cultural activities.

Chapter Four – Assessment of the Environmental Impacts of the Master Plan

The purpose of this chapter is to explain the potential primary and secondary environmental effects of the management plan. Chapter 2 of this document describes the action or preferred management alternative. An analysis of the environmental effects or impacts is an important element of the Environmental Assessment (EA) for the Master Plan. The intent of the EA is to disclose the environmental effects of an action (the Master Plan) to decision-makers and the public and to determine if the action would have a significant impact on the human environment. If such an impact is determined, the proposed development requires preparation of an Environmental Impact Statement. The EA in this Master Plan has been prepared to meet the requirements of the Wisconsin Environmental Policy Act (WEPA) and Chapter NR 150 of Wisconsin Administrative Code.

Environmental Effects and Their Significance (long-term and short-term)

IMPACTS ON AIR QUALITY

During construction periods, dust may be present in the air surrounding project areas. Application of water from tank trucks is a common dust suppression practice that is used during highway construction. This technique may be appropriate for this trail project. Impacts on air quality, whether from fugitive dust particles or from construction equipment exhaust emissions, will be finite and transitory in nature. When construction is complete, no residual impacts to air quality will be detectable.

Snowmobiles may cause limited, local air quality impacts near the corridor. Large numbers of snowmobiles are not expected within the corridor, and with the use of less polluting 4 stroke motors in new snowmobiles, these impacts should be limited as older machines are replaced.

Limited ATV use may also cause limited, local air quality impacts. This use will occur on 11 miles of trail, which will limit overall impacts. Large numbers of ATVs are not expected within the corridor, and, with the advent of 4 stroke motors, air pollution will be minimized.

Since this trail is also intended as a pedestrian commuter corridor, it is possible that surrounding air quality will improve as more people ride bicycles, not cars, to work and other functions.

IMPACTS ON GROUNDWATER RESOURCES

Wells, Use of Groundwater

Two potable water wells will be drilled to serve trail facilities. None of the wells will individually qualify as high-capacity wells, Because of the dispersed nature of these wells along the trail, the effect on the local water table is expected to be minimal.

IMPACTS ON SURFACE WATER RESOURCES

An increase in impervious surface area will occur from trail improvements. The hard surface trail will be the main source of sheet runoff. There will also be some runoff from the pervious trail sections. All runoff from the path surfaces will be directed away from nearby streams and lakes, thus minimizing any risk of water pollution from spilled or water-transported materials.

IMPACTS ON GEOLOGICAL RESOURCES

New drilled potable water wells will penetrate the underlying bedrock in some places, but all wells will be drilled and installed according to state well drilling code, effectively minimizing any risk of groundwater contamination. Some rock excavation may be necessary for development of roads, parking lots, and facility foundations. Surface mining of rock is not anticipated.

IMPACTS ON VISUAL/SCENIC RESOURCES

Little if any impacts are expected on visual/scenic resources. Any new recreational structures such as shelters and buildings will be designed to harmonize with the natural surroundings of the trail landscape.

Vegetative management along the trail corridor will change the appearance of the trail in some sections. A number of hazardous trees and shrubs will need to be removed to allow for trail construction. This will improve the vistas to and from the trail corridor and will ultimately provide more scenic vistas for the trail user.

The newly constructed trail signs will be a new visual element along the trail, and will be evident mainly in communities surrounding the trail. Signs placed on nearby public roads that direct visitors to the trail will also present a new visual element.

IMPACTS ON LAND USE

The main impact on land use will be an anticipated increase in the level of active recreation along the trail corridor.

Most neighboring land use along the trail corridor is agricultural, residential, recreational, or commercial. Some areas of commercial business development also exist. It is possible that some increase in service sector business could occur as a spin-off of trail development. It is anticipated that some growth in recreation-oriented business development will take place in the vicinity of the trail. Local planning and zoning codes will regulate such development.

IMPACTS ON INFRASTRUCTURE AND TRANSPORTATION

Trails within the city limits of Madison have become major commuter corridors. It is anticipated that as Fitchburg grows south of Madison, trails will continue to serve as a daily travel to work corridor.

Local automobile traffic to the Badger State Trail corridor is not anticipated to increase as most users will ride to the trail on their bike or use existing park and recreation facilities as trailheads.

The trail is expected to be a generator of solid waste. In an effort to mitigate generation of non-recyclable material that must be disposed of in sanitary landfills, Wisconsin State Parks promote and participate in recycling programs. A licensed sanitary waste contractor will be hired to pick up recyclable waste and non-recyclable materials. The Wisconsin State Park System's "Adopt-A-Trail" program should be promoted to assist in keeping the corridor clean and litter free.

IMPACTS OF NOISE

Construction noise resulting from capital improvements such as trail building, vegetation management, shelter construction, and other development activities could have a moderate, temporary impact on the trail's neighbors and wildlife. All of these groups could be sensitive to this disruption, especially during warm weather when windows may be open. This noise will be peak (high level, short duration) during construction periods, rather than continuous.

The presence and activities of trail visitors may present a potential for reaction from neighbors or other trail visitors and thus may have some impact.

Seasonal noise generated by snowmobiles and ATVs may have a negative impact on neighboring properties. However, these uses will only take place during the winter when neighboring properties will have windows and doors closed, thereby reducing the noise impacts to residents along the trail corridor. Snowmobiles are currently allowed within the corridor and no complaints have been filed by existing land owners regarding their use.

IMPACTS ON RECREATIONAL RESOURCES

The establishment of a 40 mile long recreation trail will increase hiking, biking, rollerblading and wildlife observation opportunities in Dane and Green Counties.

The establishment of non-road paved bicycle trail in the region will represent a significant addition to the supply of trails in the region. This Master Plan's regional analysis indicates a high demand for pedestrian based activities within the region.

The routing of snowmobiles along the corridor will decrease the risk associated with trails running along roadways.

IMPACTS ON HUMAN HEALTH

By providing a trail that allows for increased exercise and aerobic activities, the Badger State Trail will benefit both individual users and the south central Wisconsin region as a whole. Increased outdoor exercise has been shown to reduce individual weight, increase overall endurance and allow for better cognitive skills. Improved physical fitness also reduces the incidence of many diseases such as congestive heart disease, cancer, and diabetes and extends overall life expectancy.

IMPACTS ON BIOTIC RESOURCES

Vegetative management for the approximately 100 feet of trail corridor will change the structure and composition of the area's existing forest stands. Vegetative management within the trail corridor will include removal of trees for construction, supplemental planting of new vegetation for landscape purposes, and the removal of hazardous trees when the need arises. The effect of this management will be a gradual reduction in understory density and a more open appearance in designated use areas.

In the short term, little, if any, change in vegetation will be noticeable. Some of the natural processes occurring within managed areas may be considered "unsightly," though these will be mostly in the more remote and inaccessible parts of the corridor. Effects of this management will, at times, be visible from the trail.

In most cases, the vegetative management of the trail will be passive. Dead and downed trees that have fallen through natural causes will be removed from the trail grade, but left in the general vicinity of the trail for insect and mammal habitat. Trees will not be actively removed unless they are determined to be a hazard. The anticipated effect of this management will be a slow succession to climax species and old growth conditions over a period of several hundred years.

In the longer term, downed and dead trees in various stages of decomposition will be visible along the trail corridor. The forest canopy will take on a denser character, and gaps in the canopy from fallen trees will eventually be filled by the growth of other trees. The forest will also become more diverse as older and younger trees grow into the same community.

While the passive or natural succession method of vegetative management will not necessarily have the direct effect of exacerbating forest pest outbreaks such as gypsy moth, oak wilt, or forest tent caterpillar, the overall impact of these pests may be greater due to the relatively weaker health of individual trees now present in the community. Under passive management, reactive measures such as sanitation, root pruning, or pesticide/herbicide application could still be used were an acute infestation to develop.

Exotic Plants

A program of regular monitoring and inspection for invasive exotic species will also be implemented. This program will be started during the construction phase with both aquatic and terrestrial species included. Some common invasive exotics that will be monitored are purple loosestrife, garlic mustard, spotted knapweed, tatarian honeysuckle, buckthorn, black locust, and wild parsnip. Department policies that address these invasive threats to the trail area's resource base will be followed. Control measures appropriate to the species of invasive will be used. These measures may include manual harvesting, plowing, use of herbicides or poisonous agents, fire, and natural predators. The effect of this management will be a purifying of the biotic community

and protection from future invasions. It is possible that equestrian use may cause the spread of invasives along a small portion of the trail corridor. Efforts will be taken to work with equestrian groups on control of invasives through education and manual removal done through trail work days.

IMPACTS ON ENDANGERED OR THREATENED SPECIES

At this time, no state or federally listed endangered species are recorded as occurring within the Badger State Trail area. The great egret is listed as a species of special concern, and the trail will continue to provide habitat for this species. Federal and state endangered, threatened, or special-concern species that may be discovered on Badger State Trail land or may occur on this land in the future will receive long-term protection and enhancement according to the property's management plan.

IMPACTS ON HISTORICAL AND ARCHAEOLOGIC FEATURES

The ¼ mile long tunnel located in Exeter Township is a historic structure, although it is not yet on the National Register of Historic Places. Inspections of the tunnel found significant deterioration of the tunnel lining from freezing and thawing during winter months. The Department and the State Historical Society have determined that a historic restoration of the interior with a brick lining would be impractical and unsustainable. The interior of the tunnel will therefore be relined with stamped concrete to give the appearance of a brick lining. This relining will not preclude the tunnel from being on the National Register of Historic Places. The entrance of the tunnel will remain historic in appearance and will be closed during winter months to avoid further deterioration. Available records show that no other archaeological sites have been documented within the trail corridor. This does not preclude the possibility of future discoveries, however.

ECONOMIC EFFECTS AND THEIR SIGNIFICANCE

The anticipated increase in tourist numbers will increase utilization of local business establishments. Economic benefits are anticipated to result from the influx of users to the trail. Recent data⁵ indicate that, in the Southwestern region of Wisconsin, local resident nonmotorized trail users contribute an average of \$4.02 per day to the economy, while non-local non motorized trail visitors contribute an average of \$32.83 per day. Motorized trail users on average spend \$163.54 a day. Combining these uses and anticipating the fully developed trail's annual usage to rise from 100,000 to 175,000 people per year, it is expected that the trail will have an economic impact of approximately \$2.1 million a year.

Benefits during construction of the trail and its components will accrue to building trade members, laborers, and suppliers, some of whom may be local. Competitive bidding procedures will be followed. Total development cost for the trail is expected to amount to several million dollars at completion, though the actual work may be spread over a considerable span of time. No estimate of dollar amounts to the local area is available, as extent of local contractor involvement is not yet known.

⁵ State parks and their gateway communities: Development and recreation planning issues in Wisconsin. 2002. University of Wisconsin - Madison, Wisconsin Department of Natural Resources.

Employees working on the trail will probably live in the vicinity of the trail. Those employees would participate in the local economy and expend a significant amount on their daily needs as members of the community.

FISCAL EFFECTS – STATE GOVERNMENT

Lands purchased for addition to the trail will likely be acquired using State Stewardship funds or a similar bonding fund. Bonding programs fund the development of much of Wisconsin's State Park System. The cost to the state of bonding for land acquisition and project development occurs when the interest or dividends must be paid on the bonds. Several methods of making these payments could be used, the main one being General Program Revenue (GPR).

The Wisconsin State Park program budgets for its capital development needs on a biennial basis, as do all state agencies. Because of the significant development cost of this trail corridor, funding priorities within the capital budget will necessarily be adjusted to accommodate trail construction. Without an increase in capital spending authority, construction of the trail could cause temporary delay or deferral of implementation of other State Park projects.

Estimated Costs of Development

Note: Costs for the development of trail are based on 2005 dollar-values and assume full completion of all proposed construction. In actuality, work may be phased over several state capital biennial budget cycles.

Northern Section

Development Cost:

Bridge Decking and Railing	completed in 2004
Trail Signing	completed in 2004
Asphalt Pavement (7.1 miles)	\$ 800,000
Surfacing Limestone-1.0 miles (Material & Installation)	\$ 18,200
Grade Separated Crossing (CTH PD)	\$ 1,250,000
Design & Supervision (12%)	\$ 273,720
Contingency (7%)	\$ 159,670
<hr/>	
Total	\$ 2,501,590

Southern Section

Development Cost:

Informational/Directional Signing (On Roadways)	\$ 100,000
Tunnel Restoration	\$ 330,000
Clarno Rest Area	\$ 75,000
Bridge Decking and Railing	completed in 2004
Signing	completed in 2004
Surfacing Limestone-32.9 miles (Material & Installation)	\$ 600,000
Drainage Corrections	\$ 422,200
Management Fees	\$ 125,600
Contingency (7%)	\$ 71,600
State HWY 11 Crossing	\$ 30,000
<hr/>	
Total	\$ 1,754,400

\$ 4,368,790 + (2004 costs \$499,000)

TOTAL ESTIMATED COST = \$ 4,754,990

Estimated Costs of Land Acquisition

DNR policy is to purchase land only from willing sellers. The purchase price is set by an appraisal prepared in compliance with state and national guidelines, unless the seller chooses to make a gift or partial donation of land.

The Master Plan recommends very little additional land be acquired for addition to Badger State Trail. The approximately 4-5 acres of land that will be added to the trail boundary would be valued at an average of \$3,000 per acre if acquired all at once using present day values. Individual parcel values will vary depending on the individual qualities of the site, as well as whether any improvements or buildings exist on the site. It is unlikely that all tracts within the trail boundary will be available for acquisition simultaneously, so expenditures will be spread over a considerable span of time, perhaps many years.

Projected Staffing Needs and Estimated Annual Operations Cost

Operational costs associated with the Badger State Trail are the responsibility of the Department of Natural Resources. Based on experience with other trails, annual operations costs range from an average \$1500 to \$2000 per mile per year. Therefore, DNR annual operation costs are estimated at \$65,000 per year. This includes 1 FTE Ranger – Enforcement position and 2 LTE Laborer positions to provide visitor protection, law enforcement and maintenance as well as supplies and services for trail maintenance.

Revenue Projections

The State Trail Pass will be the main revenue source of the new trail. Two other recreation trails in the Region with similar size and use are Military Ridge State Trail and the Glacial Drumlin State Trail. Based on estimates from these 2 trails, it is estimated that the Badger State Trail will generate approximately \$100,000 a year in trail pass sales.

FISCAL EFFECTS – LOCAL GOVERNMENT

Because this corridor is already in state ownership, little, if any fiscal impacts will be felt by local governments

If any additional property is acquired for this project on lands purchased by the DNR since January 1992, the "property value base," used to calculate payment in lieu of taxes (PILT), must be equal to or greater than estimated fair market value on a parcel for the year of purchase (s.s. 70.114). The purchase price is determined by an appraisal which is completed by a certified general private or DNR staff appraiser. The year after the initial PILT payment year and in all future tax years in which the DNR owns the parcel, the parcel's "property value base" is adjusted based on the change in land values in the municipality where the property is located. If the value in the municipality goes up, the value of DNR land is adjusted upward the same percentage. For example, if, in January 1992, the DNR purchased 1,000 acres located in the Town of Clarno for \$1,000/acre, the DNR would assume the normal tax bill for tax year 1992. Then, in 1993, the 1,000 acres would be listed as tax exempt status and receive a PILT. If the 1993 assessment level of land in the Town of Stephenson increased and land was now valued at \$1,500/acre, an increase of 50% (or 1.5 multiplied times the original "property value base"), the Department would adjust its "property value base" and make the PILT payments based on that figure to the taxing jurisdictions in the Town of Clarno. The DNR would thus realize the same assessment level adjustment as that of other private landowners in the town. Likewise, if the assessment in the

Township went up in the following year, the Department would adjust the PILT payment accordingly (Source: Legislative Fiscal Bureau report).

The anticipated increase in traffic on local roadways near the trail may slightly increase road maintenance costs.

SIGNIFICANCE OF CUMULATIVE EFFECTS

The cumulative effects from the preferred alternative for the Badger State Trail would have a long-term positive effect on the quality of the human environment. In particular, the public has recognized the need to preserve rail corridors to benefit future generations. They have demonstrated this support verbally and in writing.

SIGNIFICANCE OF RISK

Management and development of the Badger State Trail presents low overall potential risk to the environment. Because this was a graded railbed, most environmental impacts associated with trail construction occurred during the original construction of the corridor.

The presence of motor vehicles and other equipment during the construction phase may pose an increased risk from spills and erosion. These risks will be mitigated by plans and procedures outlined in the bid documents and at preconstruction meetings with contractors.

Risk to the resources of the site resulting from human activity on the trail will be mitigated by emergency action plans put in place by trail management staff. These plans are reviewed annually and updated as needed or when circumstances change.

Risk of introduction of invasive exotic species may increase due to public use of the trail. Plans and strategies, as described Chapter 2, are in place to prevent and control outbreaks and infestations.

Fire has been identified as a possible vegetative management tool, especially for the prairie restoration sites recommended by the Master Plan. Necessary precautions including having fire-fighting equipment and personnel present on site are always followed during prescribed burns. During periods of high fire danger, burning restrictions are put into effect. During exceptionally dry weather, a complete fire ban may be implemented. Additional protection during high fire danger periods will be available from a DNR fire control unit stationed in the vicinity.

SIGNIFICANCE OF PRECEDENT

Approval of this management plan does not significantly influence future decisions on other Department property Master Plans as all recreational uses described are currently allowed within other Department trail systems.

SIGNIFICANCE OF CONTROVERSY OVER ENVIRONMENTAL EFFECTS

Disagreement over Recreational Style, Uses Allowed or not Allowed

Some individuals have advocated for the use of “speeder cars” on the Badger Trail. Many “speeder car” enthusiasts favored leaving the railroad tracks in place so they could continue to drive these vehicles on the tracks. Since this was an unauthorized use of the corridor, the WDOT made the decision to remove the tracks in favor of converting the corridor to a recreational trail. After the DNR, WDOT, and Rail Transit Commission reached an agreement regarding conversion of the corridor from rail to trail, public opinion switched in support of the recreational trail.

The most recent controversial issue relates to ATV use on the entire trail. This Master Plan recommends that ATV’s be used on 11 miles of the Badger State Trail. This recommendation is based on the criteria of maintaining user safety, protecting natural resources, maintaining compatibility of different uses, and providing a high-quality user experience. In addition, ATV opportunities already exist within a Tri County Trail System that includes 57 miles of public trail plus another approximate 40 miles of ATV Club trails for public use.

Horseback Riding was also considered as a use within the entire trail. This Master Plan recommends up to 2 miles of trail be established within the corridor. Because the Badger State Trail corridor topography is a mix of upland, wetland, rock outcroppings, cattle passes and river/creek crossings, it is impractical to develop a contiguous equestrian trail within the corridor. A loop system is therefore proposed to be developed with public / private partnerships. In addition, horseback riding on public lands are available at both Yellowstone Lake Wildlife Area, located approximately 18 miles away from the trail, and at Donald County Park, located approximately 6 miles for the trail corridor. There are also 57 miles of public trail available for horse use on the Tri County Trail system.

Considerable public involvement has been solicited and obtained in preparation of the feasibility study and Master Plan for the Badger State Trail. DNR staff has met numerous times with all involved local officials and service organizations and has held several public comment forums. The consensus has been one of strong local support for the trail.

CONCLUSIONS

Implementation of Master Plan recommendations for management and development of the Badger State Trail will provide positive recreational, ecological, social, and economic benefits to the region by providing a trail that links communities and provides easy access to outdoor recreation.

Chapter Five – Alternatives and Their Environmental Impacts

A Master Plan alternative is a grouping of a number of compatible options for resource management, recreational development, and public use of a Department property. The content of an alternative should be compatible with the property designation, vision and goals, the property capabilities, and the regional analysis. The alternatives summarized below are the most recent set of alternatives that were considered as part of the planning effort for the Badger State Trail.

RECREATION MANAGEMENT ALTERNATIVES

Alternative One: status quo.

Under this alternative, the rail corridor would be retained by the WDOT in its present state and would not be converted into a public recreational trail for biking, hiking, snowmobiling, cross-country skiing. State and interstate trail linkage opportunities would be lost. Adjacent encroaching land uses would continue and could possibly accelerate.

Alternative Two: ATV usage on the full corridor.

ATV use was considered on the full corridor. Because of expected pedestrian demand and possible enforcement issues with this alternative, and because of the fact that ATV's can create unsafe conditions for bikers and hikers merely by the nature in which ATV's operate, and because the corridor is not wide enough to accommodate multiple trail treads, this alternative was not considered feasible. In addition, the Tri County Trail System includes 57 miles of public ATV trail use plus another approximately 40 miles of ATV Club trails for public use just outside the trail corridor.

Alternative Three: equestrian use on the full corridor.

This alternative was considered as an option for the entire corridor. There was consideration that this corridor could become part of a larger regional trail network. However, because of limitations such as wetlands, rock outcroppings, cattle passes and river/creek crossings, it is impractical to develop a contiguous trail near or within the corridor. Other equestrian areas within the region offer a much better experience for this use. These public lands include Yellowstone Lake Wildlife Area, located approximately 18 miles to the west, and at Donald County Park located approximately 6 miles from the trail corridor. There are also 57 miles of public trail available for horse use in the Tri County Trail system. Because of the numerous equestrian opportunities this alternative was not considered further.

Alternative Four: Preferred Alternative - year round pedestrian and bike use, limited winter snowmobile and ATV use, and limited equestrian use within the trail corridor.

This alternative was chosen as the preferred option. There is enough length within the corridor to accommodate all pedestrian and bike uses. Winter time use will consist of snowmobiles which will allow for a regional connector to other established trails both in Dane and Green County. A three year winter ATV pilot period will be in place and will be evaluated at completion. After this evaluation period a determination will be made on permanent continuation of this use. The ATV portion of the trail will connect to the Tri-County Trail system, allowing an extension of this network. This alternative will allow for the best and most flexible use of the trail corridor while meeting the demands motorized users and those of the increasingly urban populations at the Northern end of the trail.

VEGETATION MANAGEMENT ALTERNATIVES

Alternative One: no cutting management except for safety.

This option would remove only hazardous trees within the corridor. This would allow for limited cutting and would not allow the user to enjoy vistas along the trail.

Alternative Two: Preferred Alternative - more active cutting for vista openings.

This alternative will allow for removal of some canopy trees, thereby opening vistas along the corridor. This removal will mainly involve removing invasive species while leaving native coverage where possible. Hazardous tree removal will be performed as needed. This alternative is preferred as it will allow the user to enjoy the rural landscape that is unique to the area.

REAL ESTATE AND BOUNDARY ALTERNATIVES

Alternative One: no additional land acquisition.

This alternative would allow no land acquisition beyond what is already owned and designated as Badger State Trail. The impact of this alternative would be a cessation of land acquisition. Lands recommended in the Master Plan for acquisition would not be acquired. This would not allow for the trail to make connections to adjacent communities.

Alternative Two: Preferred Alternative - acquire more land as recommended in the plan.

This alternative will allow for limited expansion of the existing property boundary and allow for small parcels of land to be obtained. Through these acquisitions, connections could be made to nearby communities. This will also allow for limited development when needed. This is the preferred alternative, as it will allow for moderate expansion of the existing corridor.

Chapter Six – Summary of Public Involvement

The planning process for the Badger State Trail began in 1997 with the compilation of the feasibility study. Between 1997 and 2000, DNR staff attended numerous listening sessions with private individuals, special interest groups and local government officials addressing the conversion of the rail corridor to a recreational trail. Staff from DNR also attended meetings organized by local units of government to discuss use of the corridor.

CHRONOLOGY OF PUBLIC INVOLVEMENT ACTIVITIES

- Public informational open houses were held in Fitchburg and Monroe in September, 1998. These open houses were used to gather input on the recommendations developed in the feasibility study.
- The Natural Resources Board approved the feasibility study in March, 2000.
- In October, 2001, the DNR held a meeting with local and state representatives of the ATV associations. The intent of the meeting was to acknowledge the need and demand for ATV facilities in the southern Wisconsin and to discuss alternatives for ATV use.
- In November, 2001, the City of Monroe held a public input session. Approximately 45 participants attended and provided input on trail use issues. Most of the input centered on their desire to see the trail completed. Most were in favor of uses compatible with the uses on the Illinois Jane Addams Trail. There were 4 people at the meeting in favor of accommodating ATV's on the trail corridor.
- Also in November, 2001, the Village of Belleville held a public input session. Approximately 30 participants attended. Most of the input at this meeting was centered on the type of trail surface, i.e. limestone vs. asphalt. Most of the participants were from snowmobile clubs and were against asphaltting the trail. There were 3 individuals in favor of horse use and another 4 people were in favor of accommodating ATV's on the corridor.
- In addition, several meetings were also held with local service organizations, the Monroe Chamber of Commerce, the Green County Board, the Southern Wisconsin Rail Transit Commission and other recreational user groups and individuals.
- The Draft Master Plan was released for public review in late October, 2005. Approximately 285 written public comments were received over a 30 day review period ending November 18, 2005. There were two public meetings held during the review period, one in Madison on Nov. 16, and the other in Monroe on Nov. 17. Combined, just under 200 persons attended these meetings.
- The majority of comments from these public meetings and responses focused upon three planning elements: silent sport, motorized and equestrian recreation opportunities. One other element, views from adjacent property owners, was also discussed. Presented below are comment summaries from the combined sources plus response to these comments.

Silent Sport Recreation Comments

For respondents against the use of motorized vehicles on the Badger State Trail, safety and aesthetic issues associated with this use were the most common concerns. Many respondents pointed out that motorized users pose significant threats to hikers and bikers who attempt to use the trail. ATV and snowmobiles travel at high speeds, and are often not aware of the pedestrian traffic around them. Many people—both ATV riders and pedestrians—are killed each year in recreational vehicle accidents. Many respondents felt that such a dangerous activity should not be allowed on a public-use trail.

Respondents suggested a non-motorized trail would provide a space for bicyclists and hikers to recreate free from fear of traffic. Although Wisconsin has an abundance of back roads that do permit biking and hiking along their perimeters, these roads are often so winding and narrow that they are too unsafe for pedestrians and bikers to use them. A non-motorized Badger Trail would provide the ideal traffic-free environment for these users to recreate in.

Non-motorized users also felt that ATVs and snowmobiles destroyed the aesthetic experience of the trail. These vehicles kick up dust, and create lots of noise, both of which make the trail unpleasant for both residents and trail users. Many respondents emphasized the natural character of the trail, pointing out the variety of wildlife—turkeys, songbirds, sandhill cranes, turtles, and others—that live in the area. Respondents felt that the trail should preserve this quiet, pristine environment for low-impact activities like hiking, biking, and nature watching. Motorized users do not require these sorts of pristine environments, and their trails can therefore be built in less environmentally valuable areas.

Non-motorized users also pointed out that motorized vehicles radically affect the condition of a trail. ATVs lead to loose, rutted soil, conditions that are dangerous for bikers, and are prone to erosion and runoff. The state would therefore need to spend more money to maintain and repair a motorized trail. Although the Master Plan for the Badger Trail allows ATVs to be used only between December 1st and April 15th, and only when the ground is frozen and covered with less than 6 inches of snow, many respondents felt that regulation of these rules would be difficult. Trails that may be frozen in the morning could quickly turn muddy by the afternoon, and trail destruction would be hard to prevent under these changing conditions.

Respondents expressed concerns over funding for trail maintenance and monitoring. They commented that allowing motorized use on the Badger Trail would require more personnel to enforce safety and use regulations, an act that would place additional strain on the already limited staff of State Trails. Given these constraints, many respondents feared trail managers would “look the other way” on ATV or snowmobile abuses, allowing riders to use the trail when there was not frozen ground or permitting unsafe riding practices.

Aside from avoiding the drawbacks of motorized usage, a non-motorized Badger Trail would also provide many benefits. Respondents noted that designating the trail as non-motorized would send a powerful message that the state of Wisconsin values healthy lifestyle choices. A non-motorized trail would encourage outdoor exercise by providing an inexpensive and easily accessible, local resource for transportation and recreation. This trail could be used for safe family fun, recreation, and fitness. Unlike motorized vehicles, bicycles and walkers are non-polluting and do not lead to trail destruction. Designating the trail as non-motorized would therefore also send a message that the state values the conservation of its natural spaces.

Comments were also received that prohibiting motorized vehicles from the Badger State Trail would promote bike tourism within the state of Wisconsin. People across the country visit

Wisconsin for its well-developed bicycle trail network. These users stay overnight at local hotels, make purchases at local stores, and eat at local restaurants. These economic impacts support the economies of towns along these trails. The Badger State Trail occupies an especially valuable position between the trail network of Madison, and that of Northern Illinois. These trails, all non-motorized, are popular among bicyclists. Connecting the Badger Trail to these trails and making it non-motorized would therefore create a corridor for cyclists to enter out state.

Non-motorized users feel that designating the Badger State Trail as motorized would be a mistake. These users say that ATV users already have the Cheese Country Trail to use for their motorized activities. They wish to see Badger Trail preserved for the “silent sport” activities that will protect the natural landscape, encourage fitness, and bring money into the economies of trailside communities.

Response:

The primary recreational activities intended for this trail are pedestrian / bicyclist based uses. The intent of developing this trail for these uses is to ensure that a regional network of pedestrian / bicyclist trails will exist for the growing urban population of the Madison metro area. This trail, along with the other connected trails in the Madison area provides a very unique recreational experience in Wisconsin. This trail network connects trail users to four State Parks, a connection that is the only one of its kind within the state. Section 23.175 (2) (a), Wisconsin Statutes, states that “the department shall: Designate a system of state trails as part of the State Park system for use by equestrians, bicyclists, riders of electric personal assistive mobility devices, cross-country skiers or hikers.” The Badger Trail is considered part of the State Park system

This trail also connects with the Jane Addams trail in Illinois, thereby allowing for a multi-state experience. Once all Wisconsin and Illinois segments are developed, a user will be able to make connections from Lake Michigan to the Mississippi River using state trails and connections to other state owned properties.

No change to the plan was made.

Motorized Recreation

Many respondents supported the use of motorized vehicles on Badger State Trail. Reasons for supporting this use varied, but in general most respondents were snowmobile or ATV users who felt their demands deserved to be heard in the planning and management of Badger Trail.

Many respondents pointed out that, because Badger Trail was purchased with general funds, it should incorporate a wide variety of uses, both motorized and non-motorized. A multi-use trail could incorporate many different activities either on a year-round basis, or on a seasonal basis (hiking, biking and walking in the summer, snowmobiling and ATVing in the winter). If bicyclists felt uncomfortable on this trail, they could simply move to the Sugar River Trail, a non-motorized trail that passes through the same areas and environments as the Badger Trail. By allowing these multiple uses, communities along the trail would benefit from multiple sources of tourism.

Other respondents believed Badger Trail should be designated as a motorized trail because of the special role snowmobilers and ATV users play in trail financing and maintenance. These users pay vehicle registration fees and fuel taxes, both of which contributed to the funds initially used to purchase Badger Trail. Motorized vehicle users also pay trail fees—far more than any other

recreational group—and contribute to trail maintenance and upkeep through club work parties. For all that these groups contribute to the trail system, many feel that they deserve a larger area of land to accommodate their particular needs and demands.

Respondents felt that these demands are not being met. Comments stated that over the past few years ATV and snowmobile use has increased, but the number of motorized trails has not. Currently only one trail in southern Wisconsin, the Cheese Country Trail, allows motorized vehicles. This trail is often heavily used, and even congested. In a state that already has many bike trails, motorized users believe the DNR should focus on developing trails according to user demand; ATV trails are lacking and the state should move to support their growth.

Motorized users suggested that part of supporting this growth will depend on developing areas that can accommodate motorized use. Hikers, bikers, rollerbladers, and others can recreate anywhere there is a road or open area. Snowmobilers and ATV users, on the other hand, require large areas of open space for their recreational activities. The undeveloped land of the Badger Trail is an ideal location for a rural motorized trail. This form of trail would not need to be paved and would require little upkeep, thereby saving the state money on maintenance costs.

Many remarks were received that motorized trails have proven to be economically beneficial to communities along their borders. Snowmobile and ATV users eat at restaurants, stay overnight at hotels, and purchase fuel along trailside communities. Many towns and villages along the Badger State Trail are eager to tap into this potential source of revenue. ATV trails are also a way to promote tourism within the state. Opening Badger Trail to motorized use will connect the trail to trails in other states, facilitating the flow of tourists and tourist revenue into Wisconsin. If the state doesn't work to develop more motorized trails, however, tourists will see Wisconsin as ATV unfriendly, and will take their business elsewhere.

Respondents suggested that ATV and snowmobile use is a popular, family-friendly activity and ATV and snowmobile clubs are active in promoting safety among their users, young and old. These users feel that they would be able to use a multi-use trail in a way that is responsible and safe for all users. They believe that their growing demands need to be heard as the State works to expand its trail system and attract tourists onto its trails.

Response:

Motorized uses are approved within the plan. Over 80% of the trail is open for snowmobile use, and, when combined with the Jane Addams Trail, will allow for almost 45 miles of snowmobile trail use. This snowmobile use is consistent with other state trails within the region.

Wintertime ATV use is permitted as another motorized use for just over 25% of the trail. When considering this use it was realized that demand does exist for this use, but displacement of other trail uses would occur if it became the primary trail use. This use is typically not consistent with state trails as stated in State Statute section 23.175 (2) (a), Wisconsin Statutes. This section states that “the department shall: Designate a system of state trails as part of the State Park system for use by equestrians, bicyclists, riders of electric personal assistive mobility devices, cross-country skiers or hikers.” The Badger Trail is considered as part of the State Park system. However, consideration also needs to be given to the existing ATV use on the Country run trail system and to the connections that could be established to surrounding communities were the trail to be designated as motorized. Thus, a three year trail period will occur for winter time ATV use on 25% of the trail.

The argument that a motorized trail would increase economic activity is valid. The Departments of Tourism and Commerce are invested with this mission. The Department's mission is one of

environmental protection and providing balanced recreation opportunities in conjunction with this trail.

No change to the plan was made.

Equestrian Recreation

Several respondents felt that the new Badger trail should accommodate horse usage. These respondents believe that multi-use trails can and do work. The Badger Trail, an old railway passage, is wide enough to accommodate parallel treads—one for horses, one for walkers and bikers. Although horse use is part of the federal transportation budget, these users feel they are an underrepresented group in present-day trail networks. As more and more people in southern Wisconsin begin to ride horses, the State should make an effort to develop more horse-friendly trails. The trail heads and wide trail beds of the Badger Trail are the perfect environment to accommodate horse use.

Respondents suggested that if the Badger Trail were to incorporate Equestrian use, it would experience several benefits. Horse riding is a growing trend in southern Wisconsin and northern Illinois. Developing a trail that would link these two states would give users in the region a long-distance riding experience. These users would bring tourist money into the region as they ate at local restaurants, stayed overnight at hotels, and visited local shops. As a group, equestrians are not loud or rowdy and, unlike other potential users of the trail, their activity is non-polluting. Members of equine clubs are also active in trail upkeep and help raise money to contribute to overall state trail funds. These users therefore feel they deserve a portion of the developing Badger Trail.

Response:

Understanding the need for a regional connection to a horse trail network, this use has been shifted north to include the section from Sun Valley Parkway to Bellville. However, this change also eliminates horse use from Monroe to the State line. By eliminating this section, fewer conflicts will occur on the Jane Addams Trail as equestrian use is not permitted on this Trail.

The plan has been changed to reflect these new use zones.

Adjacent Property Owners

The majority of the adjacent property owners supported the idea of a regional trail. There was strong support that ATVs should not be allowed on the trail. One issue, the spooking of livestock by high speed motor use, weighed heavily in this opinion. Other issues that were raised included landowner access to adjacent working farm fields and fence maintenance. In addition, there was not support of adjacent landowners south of Sun Valley Parkway for a trail connection to the Parkway.

Response:

After further study and public comment it became evident that the engineering and safety concerns were too great to overcome, and thus this proposal for a Sun Valley Parkway connection was dropped. The plan has been changed to reflect the elimination of the Sun Valley Parkway access point.

The plan has also taken under consideration the possible livestock impacts by motorized recreation by only proposing snowmobile use and limited wintertime ATV use. Fencing language has been added to the plan that is consistent with other State Trails.

COMPLIANCE WITH THE WISCONSIN ENVIRONMENTAL POLICY ACT

Project Name: Badger State Trail

County: Dane, Green

DECISION (This decision is not final until certified by the appropriate authority)

In accordance with s. 1.11, Stats., and Ch. NR 150, Adm. Code, the Department is authorized and required to determine whether it has complied with s.1.11, Stats., and Ch. NR 150, Wis. Adm. Code.

Complete either A or B below:

A. EIS Process Not Required

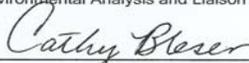
The attached analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action which would significantly affect the quality of the human environment. In my opinion, therefore, an environmental impact statement is not required prior to final action by the Department.

B. Major Action Requiring the Full EIS Process

The proposal is of such magnitude and complexity with such considerable and important impacts on the quality of the human environment that it constitutes a major action significantly affecting the quality of the human environment.

Signature of Evaluator 	Date Signed 10-17-05
---	-------------------------

Number of responses to news release or other notice: **285**

Certified to be in compliance with WEPA	
Environmental Analysis and Liaison Program Staff 	Date Signed 1-13-06

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

Note: Not all Department decisions respecting environmental impact, such as those involving solid waste or hazardous waste facilities under sections 144.43 to 144.47 and 144.60 to 144.74, Stats., are subject to the contested case hearing provisions of section 227.42, Stats.

This notice is provided pursuant to section 227.48(2), Stats.