

7. Recommended Bike and Pedestrian Network

This section describes the recommended bicycle and pedestrian trail network in the Village. The network was developed through the public participation process, future development plans and plats, an assessment of local roadways and current transportation plans. The network was designed to provide coverage throughout the community, including access to schools, parks, and other popular destinations, and connectivity into surrounding municipalities.

7.1 Proposed Network

A map of the proposed bicycle and pedestrian network is presented on the following page. As shown in Table 1, the proposed network expands the bicycle and pedestrian facilities in the Village from approximately 10 miles to 98 miles. Slightly more than half of the total network is comprised of on-street bicycle lanes, while the remainder is primarily composed of paved shared-use paths. These facilities, combined with installation of sidewalks in new developments and along rebuilt roadways, will result in a robust network for pedestrians and bicyclists.



A newly striped street providing one travel lane, one bike lane and one parking lane in each direction.

Table 1: Existing and Planned Bicycle and Pedestrian Facilities (miles)

	Existing	Proposed	Total
Bicycle Lanes	2.29	50.98	53.27
Shared-use Path (Paved)	3.74	27.18	30.92
Shared-use Path (Gravel)	3.53	2.24	5.77
Recreational Trails	0.80	7.52	8.32
Total	10.36	87.92	98.28

The proposed facilities will need to be individually evaluated for feasibility and environmental constraints before implementation, particularly the shared-use paths and proposed future streets.

A full map of existing and proposed bicycle and pedestrian facilities is located at the back of this plan. Small maps on the following pages divide Pleasant Prairie into thirds and detail the proposed facilities within those areas.

7.2 Facility Recommendations and Conceptual Costs

This section provides more detailed information on the proposed bicycle and pedestrian facilities, including segment lengths and conceptual costs. Costs for bicycle projects vary widely across the state and the country and the figures provided should be treated only as very rough planning figures.

Cost Calculator

A detailed project cost calculator is provided Pedestrian and Bicycle Information Center. This tool provides regional averages for construction, planning, administrative and other costs while also allowing users to specify known costs.

<http://www.bicyclinginfo.org/bikecost/>

Bicycle Lanes

The cost assumptions for bicycle lanes are for pavement markings and signage only. It is assumed that streets with proposed bicycle lanes either have adequate width to add lanes or that space for lanes will be added when the street is next reconstructed. *Construction costs are not included in the cost estimates for bicycle lanes.* Based on costs provided by WisDOT and from recent City of Milwaukee projects, an estimate of \$5,000/mile is used for painted bike lanes.

Shared-Use Paths

Cost estimates vary widely for paved shared-use paths depending on the topography, soil and water features, drainage issues and other environmental constraints. Common figures for a 10' paved shared-use path vary from \$240,000/mile (Florida Department of Transportation) to over \$1.3 million/mile (Roseville, CA Bike Plan) for basic paths. Road crossings, environmental constraints, drainage issues, and path amenities can rapidly escalate these costs. For the purposes of this plan, an estimated cost of \$500,000/mile is used.

The proposed gravel multiuse paths are estimated to cost \$25,000/mile. Pricing for recreational trails is not provided as costs can vary widely given ground conditions.

Budgeting

The Village should budget for engineering costs, including a contingency for cost overruns. Federal and State funding is awarded for a fixed amount, and will not cover cost overruns, so budgets should be made carefully. A common figure to budget for engineering and contingencies is 20% of the total project cost.



A divided shared-use path in Madison provides separate space for bicyclists and pedestrians.

Table 2: Proposed Bicycle Network Conceptual Costs

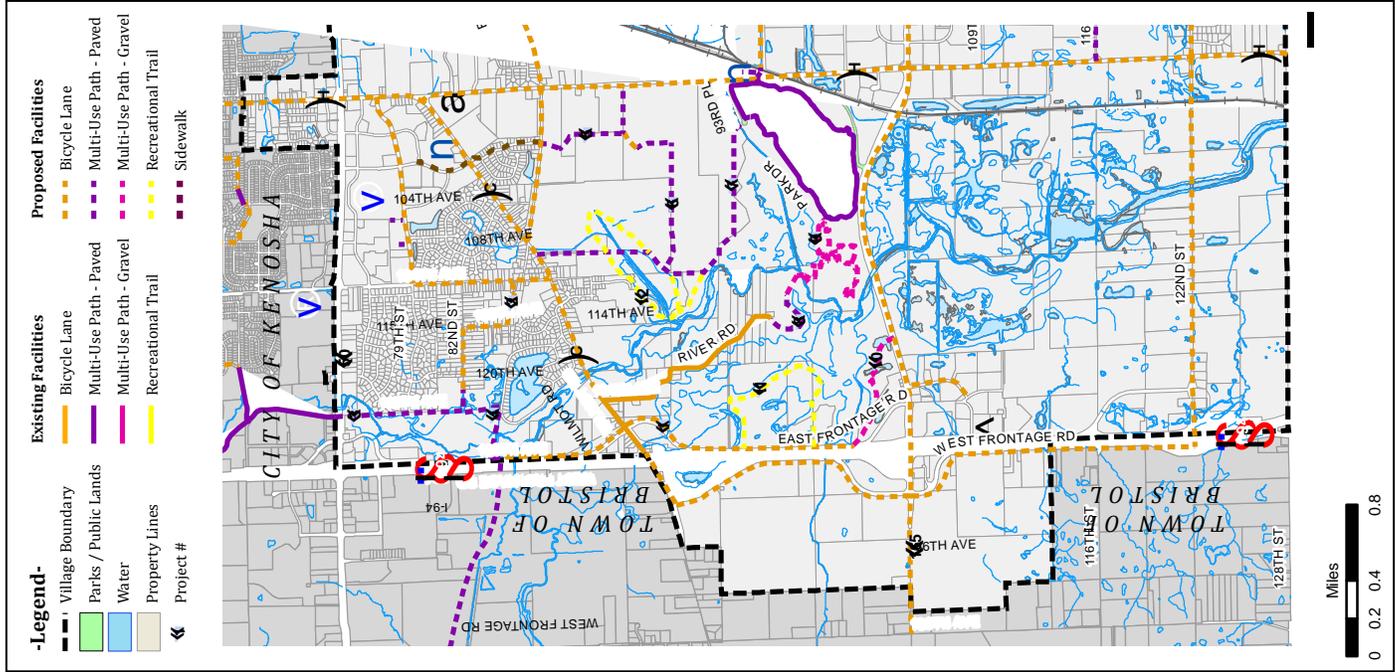
	Length	Cost per mile	Total
Bicycle Lanes	50.98	\$5,000	\$254,900
Shared-use Path (Paved)	27.18	\$500,000	\$13,590,000
Shared-use Path (Gravel)	2.24	\$25,000	\$56,000
Recreational Trails	7.52	N/A	N/A
Total	80.40		\$13,900,900

Existing and Proposed Facilities

West Section

West Village Border – 88th Ave

Name	#	From	To	Miles	Estimated Cost
Proposed Bike Lanes (On Street)					
Prairie Ridge Blvd		104th Ave	88th Ave	1.03	\$5,163
82nd St		E of 111 Ave	108th Ave	0.33	\$1,652
Bain Station Rd		104th Ave	88th Ave	1.02	\$5,114
Cty Hwy C		West Frontage Rd	88th Ave	2.50	\$12,516
104th St		W Village Border	88th Ave	3.00	\$14,984
122nd St		West Frontage Rd	88th Ave	2.09	\$10,431
West Frontage Rd		South of Cty Hwy C	122nd St	3.02	\$15,109
East Frontage Rd		104th St	S of Cty Hwy C	1.22	\$6,105
114th Ave		104th St	116th Ave	0.36	\$1,775
River Rd		Cty Hwy C	End	1.11	\$5,567
108th Ave		82nd St	84th St	0.24	\$1,218
104th Ave		Prairie Ridge Blvd	Bain Station Rd	0.73	\$3,668
88th Ave		S Village Border	N Village Border	5.54	\$27,698
Proposed Bike Lanes (Future Streets)					
East Frontage Rd	1	South of Cty Hwy C	North of Cty Hwy C	1.15	\$5,735
	2	108th Ave	104th Ave	0.26	\$1,304
Proposed Multiuse Paths - Paved					
Path 3		3 N Village Border	84th St	1.00	\$498,382
Path 4		4 W Village Border	84th St	0.33	\$163,584
Path 5		5 Bain Station Rd	Path 6	0.48	\$240,655
Path 6		6 Path 7	88th Ave	1.24	\$621,644
Path 7		7 Cty Hwy C	Lake Andrea Path	1.84	\$918,920
Path 8		8 River Rd	Jerome Creek	0.50	\$248,863
Proposed Multiuse Paths - Gravel					
Path 9		9 Jerome Creek	Lake Andrea Path	1.57	\$39,182
Path 10		10 East Frontage Rd	104th St	0.67	\$16,869
Proposed Recreational Trails - Gravel					
Trail 11		11 East Frontage Rd	East Frontage Rd	1.22	No estimate

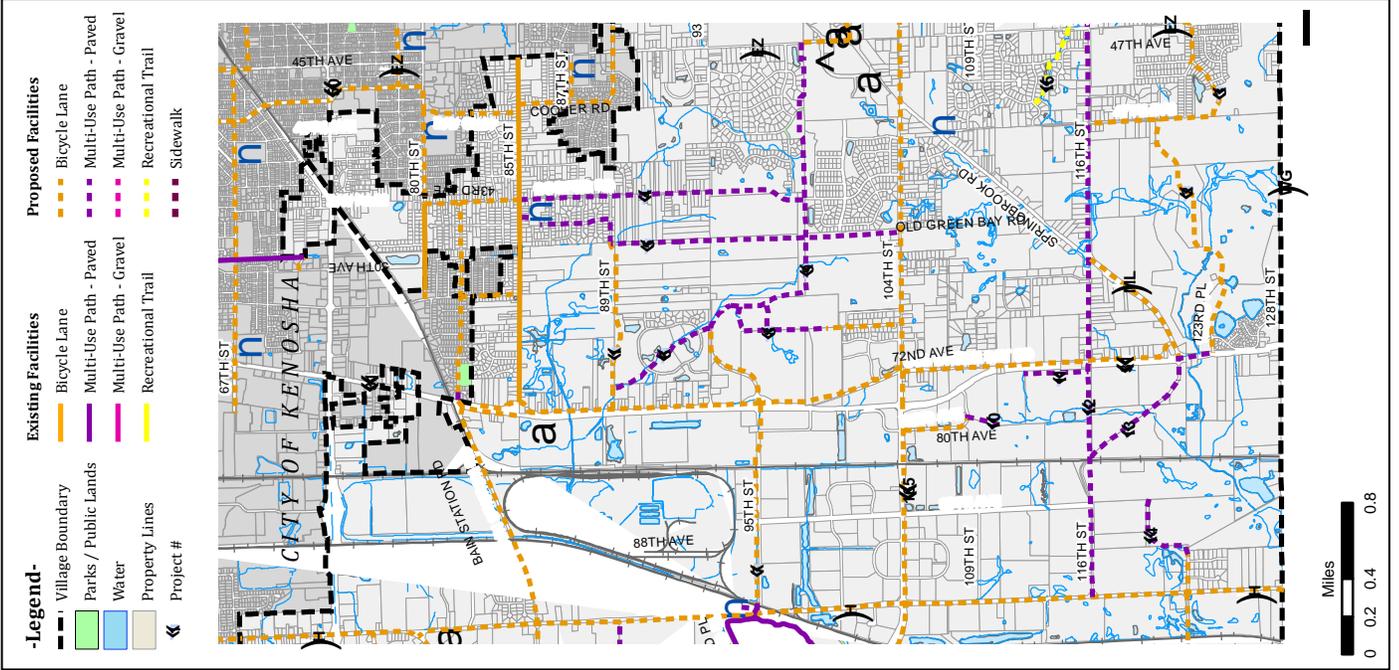


Existing and Proposed Facilities

Central Section

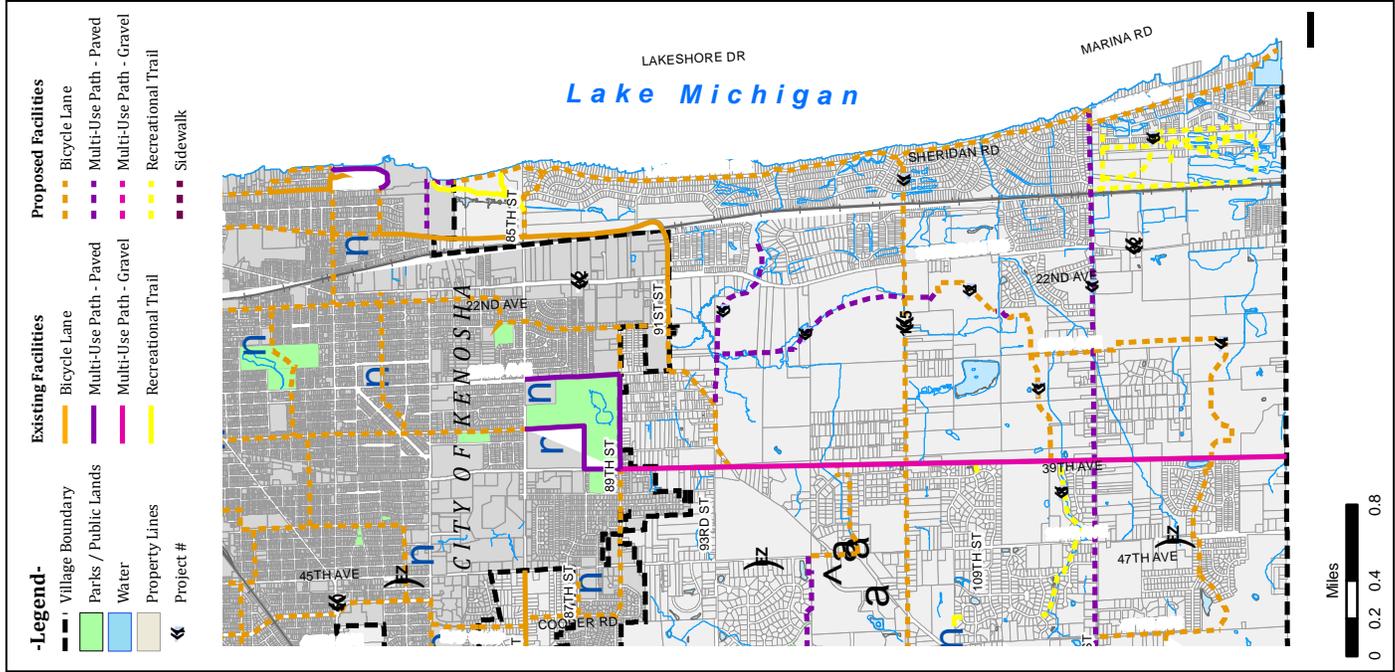
88th Ave – 39th Ave

Name	#	From	To	Miles	Estimated Cost
Proposed Bike Lanes (On Street)					
Bain Station Rd		88th Ave	Green Bay Rd	1.23	\$6,127
80th St		60th Ave	Village Border	0.55	\$2,730
82nd St		60th Ave	Cooper Rd	0.50	\$2,479
85th St		Green Bay Rd	39th Ave	1.89	\$9,472
86th Pl		43rd Ave	39th Ave	0.25	\$1,250
104th St		88th Ave	39th Ave	2.99	\$14,937
122nd St		88th Ave	End	0.22	\$1,096
123rd Pl		Green Bay Rd	End	0.45	\$2,242
122nd St		43rd Ave	39th Ave	0.19	\$962
123rd St		End	122nd St	0.15	\$754
Green Bay Rd		Bain Station Rd	85th St	0.30	\$1,519
Old Green Bay Rd		Bain Station Rd	Springbrook Rd	3.81	\$19,075
Cooper Rd		80th St	85th St	0.50	\$2,515
Springbrook Rd		Green Bay Rd	39th Ave	2.64	\$13,213
39th Ave		Path 8	100th St	0.26	\$1,290
43rd Ave		Village Border	85th St	0.25	\$1,251
43rd Ave		85th St	86th Pl	0.22	\$1,089
47th Ave		116th St	123rd St (Future)	0.65	\$3,257
72nd Ave		104th St	108th St	0.35	\$1,739
64th Ave		104th St	100th St	0.29	\$1,444
Proposed Bike Lanes (Future Streets)					
89th St (Future)		1 Green Bay Rd	89th St (Existing)	0.90	\$4,523
123rd Pl Extension		2 123rd Pl (Existing)	47th Ave	1.01	\$5,049
123rd St Extension		3 47th Ave	123rd St (Existing)	0.20	\$1,003
64th Ave Extension		64th Ave		0.11	\$558
Proposed Multiuse Paths - Paved					
Cooper Road Path		4 85th St	Cooper Rd (S Section)	1.54	\$768,462
Path 5		5 1#1	104th St	1.54	\$768,877
Path 6		6 89th St (Future)	93rd St	0.64	\$318,033
95th St Path		7 88th Ave	Old Green Bay Rd	1.06	\$530,980
Path 8		8 64th Ave Extension	Path 9	0.72	\$361,901
Path 9		9 Old Green Bay Rd	39th Ave	2.47	\$1,237,366
72nd Ave Extension		10 72nd Ave	Park	0.17	\$85,915
Green Bay Rd Path		11 116th St	Park	0.35	\$172,609
116th St Path		12 88th Ave	39th Ave	2.98	\$1,492,488
Springbrook Rd Path		13 116th St	Green Bay Rd	0.63	\$313,406
122nd St Extension		14 122nd St		0.46	\$230,977
54th Ave Path		Park	89th St	0.37	\$186,785
89th St Path		54th Ave	End	0.12	\$60,220
Green Bay Rd Path		Springbrook Rd	123rd Pl	0.19	\$92,782
Proposed Recreational Trails - Gravel					
Trail 15		15 113th St	39th Ave	0.46	No estimate



Existing and Proposed Facilities: East Section 39th Ave – Lake Michigan

Name	#	From	To	Miles	Estimated Cost
Proposed Bike Lanes (On Street)					
Springbrook Rd		39th Ave	91st St	1.38	\$6,922
89th St		Village Border	Village Border	0.17	\$832
89th St		22nd Ave	17th Ave	0.25	\$1,248
85th Ave		7th Ave	3rd Ave	0.22	\$1,121
3rd Ave		85th Ave	86th Pl	0.06	\$309
86th Pl		3rd Ave	1st Ave	0.10	\$516
100th St		39th Ave	32nd Ave	0.43	\$2,143
32nd Ave		39th Ave	Park	0.06	\$310
104th St		39th Ave	8th Ave	1.80	\$8,990
22nd Ave		166th St	End	0.25	\$1,259
122nd St		39th Ave	32nd Ave	0.37	\$1,837
32nd Ave		122nd St	Kenosha County Path	0.06	\$321
Marina Rd		116th St	End	0.87	\$4,363
Lakeshore Dr		116th St	86th Pl	2.98	\$14,876
Proposed Bike Lanes (Future Streets)					
104th St Extension	1	1104th St (Existing)	2nd Ave	0.30	\$1,490
	2			0.45	\$2,271
	3	Kenosha County Path		0.80	\$4,000
	4	Kenosha County Path	166th St	1.51	\$7,529
Marina Rd Extension		Marina Rd	Lake Michigan	0.24	\$1,188
22nd Ave Extension		22nd Ave	#3	0.09	\$452
Proposed Multiuse Paths - Paved					
Path 5	5	Springbrook Rd	Park	0.95	\$476,582
Path 6	6	104th St	Path 5	1.10	\$548,105
116th St Path	7	39th Ave	Lakeshore Dr	2.28	\$1,139,666
			Kenosha County Path	0.05	\$22,997
Proposed Recreational Trails - Gravel					
Trail 8	8	39th Ave	Kenosha County Path	0.45	No estimate
Trail 9	9	S of 116th St	E of RR Corridor	3.70	No estimate



7.3 Funding Opportunities

Many different funding sources are available for accommodating bicycles and pedestrians through on-street or off-street facilities. In order to be eligible for funding under most federal aid programs, bicycle projects must be primarily for transportation purposes. In general, federal guidelines consider any bicycle path or trail other than a closed loop trail as being principally for transportation and eligible for federal funding. State funding for the construction of on-street and off-street bicycle facilities is available through programs administered by the Wisconsin Department of Transportation (WisDOT), and includes funds provided directly by the state and “pass-through” funds provided by the Federal government as part of the Federal-aid Highway, Transit, and Highway Safety Programs.

Transportation-Based Funding Sources

The following is a summary of potential transportation-based funding sources for accommodating bicycles from WisDOT:

Local Transportation Enhancement (TE) Program Bicycle and Pedestrian Facilities Program (BFPF)

The Transportation Enhancement Program funds projects that increase shared-modal transportation alternatives and enhance communities and the environment. Federal funds administered through this program provide up to 80% of costs for a wide variety of projects such as bicycle or pedestrian facilities, landscaping, streetscaping and the preservation of historic transportation structures. Examples of bicycle projects include shared-use trails, paved shoulders, bike lanes, bicycle route signage, bicycle parking, overpasses/underpasses/bridges and sidewalks.

The Bicycle and Pedestrian Facilities Program (BFPF) was merged with the TE program beginning with the 2008 application cycle. As the name implies, BFPF funds bicycle and bicycle/pedestrian facilities. Per state statute, BFPF cannot fund exclusive pedestrian projects or streetscaping projects even if they include some bicycle and pedestrian elements. Because the TE program also extensively funds bicycle and pedestrian facilities, the two programs share the same application, review and selection process.

- Central Office Program Manager: 608-264-8723
- SE Region Program Manager: 262-548-8789



Shared-use paths should contain traffic control and directional signs where they intersect streets.

Congestion Mitigation and Air Quality Program (CMAQ)

The primary purpose of the Congestion Mitigation and Air Quality (CMAQ) Improvement Program is to fund projects and programs that reduce travel and/or emissions in areas that have failed to meet air quality standards for ozone, carbon monoxide (CO), and small particulate matter. Bicycle and pedestrian projects are eligible for CMAQ if they reduce the number of vehicle trips and miles traveled. Approved projects are reimbursable at 80% of the cost, and a local match of 20% is required. Almost all bicycle projects eligible for Transportation Enhancements are likely to be eligible, but a higher burden of proof that the project will reduce air pollution will be required for CMAQ funding. CMAQ is not a statewide program; only bicycle projects in Milwaukee, Kenosha, Racine, Ozaukee, Waukesha, Washington, Sheboygan, Kewaunee, Manitowoc, and Door Counties are eligible.

Hazard Safety Improvement Program

Bicycle and pedestrian projects are eligible for this program that focuses on projects intended for locations that have a documented history of previous crashes.

- Contact WisDOT SE Region Traffic Safety Engineer, 262-548-5958, for more details before contacting the statewide coordinator at 608-266-3341.

Surface Transportation Program - Urban

Metropolitan areas receive an allocation of funds annually. These funds can be used on a variety of improvement projects including bicycle and pedestrian projects. Most of the Metropolitan Planning Organizations (MPOs) that administer this program have been using these funds to integrate bicycle and pedestrian projects as larger street reconstruction projects are taken on. SEWRPC is the MPO for Southeast Wisconsin.

- Contact SEWRPC, 262-547-6722

Recreation-Based Funding Sources

The following information for potential recreation-based funding sources was culled from the Wisconsin Department of Transportation website.

Funding for the Recreational Trails Program (RTP) is provided through federal gas excise taxes paid on fuel used by off-highway vehicles. Towns, villages, cities, counties, tribal governing bodies, school districts, state agencies, federal agencies and incorporated organizations are eligible to receive reimbursement for development and maintenance of recreational trails and trail-related facilities for both motorized and non-motorized recreational trail uses. Eligible sponsors may be reimbursed for up to 50% of the total project costs.

Eligible projects include:

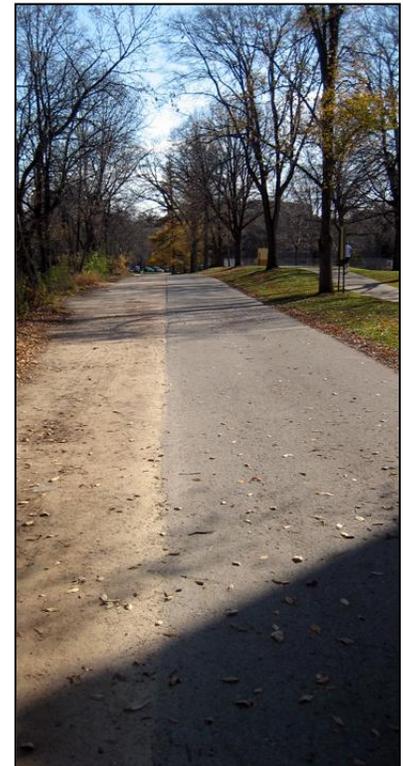
- Maintenance and restoration of existing trails
- Development and rehabilitation of trailside and trailhead facilities and trail linkages
- Construction of new trails (with certain restrictions on Federal lands)
- Acquisition of easement or property for trails

Wisconsin Department of Natural Resources (DNR) regional staff review and rank eligible projects. Projects are then ranked in a statewide priority listing. The highest ranking projects will be funded to the extent that funds are available.

Following you will find general program information for programs that provide up to 50% funding assistance to acquire land or conservation easements and develop facilities for outdoor recreation purposes – the Stewardship Local Assistance Grant Programs, the Federal Land & Water Conservation Fund Program, and the Federal Recreation Trails Program. Any project application submitted will be considered for each of the following programs that it is eligible for.

Under the Knowles-Nelson Stewardship Local Assistance Grant Program, the following programs provide 50% funding assistance to acquire land and easements and develop trails, facilities, etc. for nature-based outdoor recreation purposes.

Aids for the Acquisition and Development of Local Parks (ADLP)



ADLP helps to buy land or easements and develop or renovate local park and recreation area facilities (e.g. trails, fishing access, and park support facilities). Applicants compete for funds on a regional basis.

Urban Green Space Grants (UGS)

UGS helps to buy land or easements in urban or urbanizing areas to preserve the scenic and ecological values of natural open spaces for outdoor recreation, including non-commercial gardening. Applicants compete for funds on a statewide basis.

Acquisition of Development Rights Grants (ADR)

ADR helps to buy development rights (easements) for the protection of natural, agricultural, or forestry values, that would enhance outdoor recreation. Applicants compete for funds on a statewide basis.

Land and Water Conservation Fund (LWCF)

LWCF provides 50% funding assistance for the acquisition and development of public outdoor recreation areas and facilities. Similar to the Stewardship ADLP program above except that active outdoor recreation facilities are eligible for grant assistance and school districts may be eligible project sponsors. Applicants compete for funds on a statewide basis.

Recreational Trails Act (RTA)

RTA provides 50% funding assistance for the development and maintenance of recreational trails and trail related facilities for both motorized and non-motorized recreational trail uses. Applicants compete for funds on a statewide basis.

These programs are administered by the Wisconsin Department of Natural Resources. The Stewardship Advisory Council, with representatives from local units of government and nonprofit conservation organizations (NCOs), advises the department on matters relating to the Stewardship program. Similarly the State Trails Council advises the department on matters relating to the Recreational Trails Program. The National Park Service plays the major role in working with the Department on the Land & Water Conservation Fund Program and the Department of Transportation plays a role with the Recreational Trails Program. Key components of the programs are cooperation and partnership between the Wisconsin Department of Natural Resources, the federal government, local units of government and NCOs. The programs recognize the important role each partner plays in meeting the conservation and recreation needs of Wisconsin residents and is designed to assist groups in meeting those needs. The application deadline for all of the programs is May 1 each year and complete applications should be submitted to the regional Community Services Specialist (CSS).

Pedestrian Specific Funding

Traffic Signing and Marking Enhancement Grants Program

The Traffic Signing and Marking Enhancement Grants Program provides funds to local units of government for the installation of traffic signing and roadway



marking enhancements, with the goal of improving visibility to assist elderly drivers and pedestrians. The program distributed approximately \$3.8 million in state funding in 2005 and 2006. Funding for the TSMEGP was eliminated in the 2007-2009 State Biennial Budget, but continues by Wisconsin State Statute 85.027 through June 30, 2009.

Other potential funding sources

Impact Fees and Dedications

Many of the paths and trails proposed in this plan are on land that has yet to be developed. Whenever possible, as new development is proposed, impact fees, easements, or dedications should be required to provide paths through the development and connecting to the larger network.

Additional federal, state and county programs

In addition to the funds administered by the state, funding for public bicycle and pedestrian projects can come from federal highway traffic safety programs, federal traffic safety (section 402) funds, the County (Kenosha County Department of Public Works), impact fees required of new development or redevelopment, public/private partnerships or wholly from the private sector. Additionally, TIF funding and Block Grants can be leveraged as local matching funding for state and federal grants.

Properly designated crosswalks and warning signs can alert motorists to the potential presence of pedestrians.