

POLK COUNTY
Stower Seven
Lakes State Trail
Master Plan



Draft Plan Review

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"HEART OF THE GREATERS"
Wisconsin

Why We Wanted to Work in Polk County

- Desired to work in a rural area of Wisconsin
- Motivated by access challenges presented by multiple user groups on a popular trail
- Wanted to support efforts to build upon Polk County's leadership in trail-related economic development



Credit: Travel Wisconsin

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Toole Design Group



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- Rails to Trails Conservancy (VP of Trail Development)
- Economic impact of trails
- Trail feasibility studies

Schedule

- Notice to proceed (October 2nd)
- Review of related documents (October 8th)
- Stakeholder groups and open house (October 22nd)
- Alternatives analysis (November 15th thru present)
- General plan content (December 21st thru present)
- Refined draft plan (February 12th)



Table of Contents

- Chapter 1 – Executive Summary
- Chapter 2 – Trail Description
- Chapter 3 – Community Engagement
- Chapter 4 – Review of Related Documents
- Chapter 5 – Alternatives Analysis
- Appendix A – Community Engagement Report

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Chapter 2 - History

- First master plan adopted in 2004
- Trail opened in 2009
- On-going debate regarding permitted uses
- ATV's withdrawn in 2019



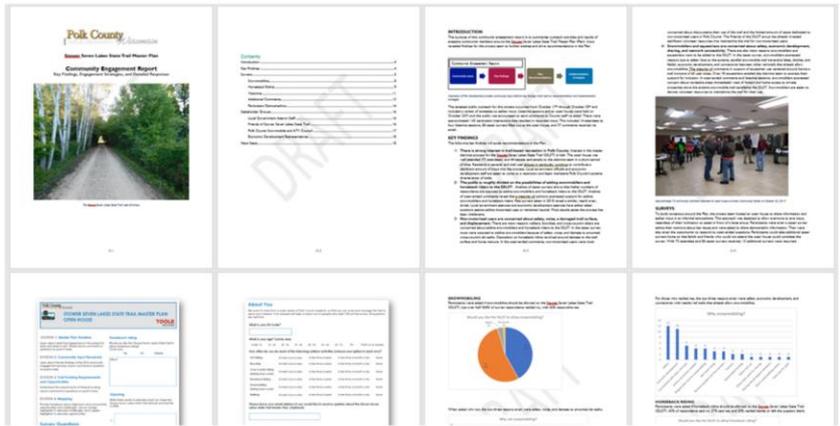
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ATV's withdrawn in 2019 for consideration due to federal funding.

Chapter 3 - Community Engagement

- Summarizes results of survey, public hearings, subcommittee, open house, and listening sessions with stakeholder groups
- Used to conduct alternatives analysis and expand review of related documents



This leads (**primary driver**) to why we are making the recommended alternatives.

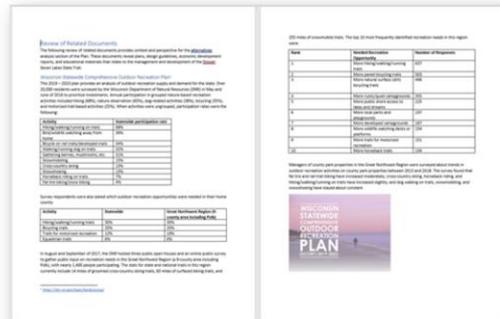
Key Findings

- There is strong interest in trail recreation in Polk County.
- The public is divided on adding snowmobilers and horseback riders to the SSLST.
- Non-motorized users are concerned about safety, noise, a damaged trail surface, and displacement.
- Snowmobilers and equestrians are concerned about safety, economic development, sharing, and network connectivity.



Chapter 4 - Review of Related Documents

- Wisconsin statewide comprehensive outdoor recreation plan (SCORP)
- Wisconsin DNR design standards handbook
- Minnesota DNR trail planning, design, and development guidelines
- Equestrian design guidebook for trails, trailheads, and campgrounds
- Economic impacts of the Wisconsin state park system



Economic Impacts in the Wisconsin State Park & Trail System

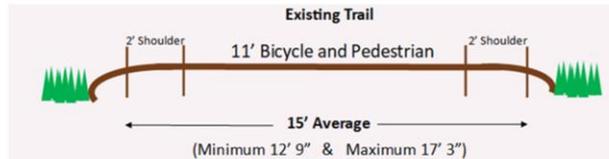
Table 2. Average Trip-Related Expenditure Pattern by State Park and Trail Activity (Meta-analysis equalized to 2013 USD individual daily expenditure by sector)

Activity	Spending Category									Total
	Overnight Accommodation	Restaurants & Bars	Gasoline & Auto	Groceries & Liquor	Entertainment	Misc. Retail	Admissions/ Fees/ Licenses	Equipment Rental & Repair	Equipment Purchase	
Running, Jogging	\$8.32	\$3.74	\$1.92	\$2.43	\$0.45	\$1.59	\$0.62	na	\$0.25	\$19.31
Hiking, Walking, Geocaching	\$13.05	\$4.99	\$3.01	\$3.01	\$0.91	\$2.10	\$1.04	na	\$0.65	\$28.75
Birding, Naturalist PGM, Siteseeing	\$5.27	\$7.54	\$7.04	\$0.10	na	na	\$0.31	\$0.39	\$10.78	\$31.42
Horseback Riding	\$4.26	\$4.89	\$11.51	\$6.93	\$1.75	\$4.04	\$1.11	\$0.11	\$0.09	\$34.70
Camping, Picnicking, Swimming	\$3.08	\$5.91	\$9.64	\$12.59	\$1.80	\$3.25	\$3.83	na	\$1.08	\$41.19
Cross-Country Skiing	\$29.17	\$9.55	\$4.73	\$4.31	\$0.63	\$2.27	\$1.97	\$0.57	\$1.02	\$54.21
Scenic Auto Touring	\$2.15	\$16.84	\$15.17	\$7.96	\$10.57	\$4.92	\$1.64	na	na	\$59.25
Fishing	\$9.72	\$10.21	\$15.44	\$9.97	\$2.12	\$4.12	\$2.13	\$3.36	\$4.94	\$62.03
Hunting	\$5.61	\$12.08	\$24.15	\$11.18	\$1.32	na	\$3.48	\$0.61	\$18.52	\$76.97
Bicycling	\$9.92	\$13.96	\$10.35	\$11.02	\$2.92	\$4.07	\$0.47	\$0.08	\$32.43	\$85.22
Boating, Canoeing	\$7.47	\$14.38	\$26.98	\$13.33	\$2.74	\$2.53	\$4.02	\$4.63	\$9.52	\$85.60
Downhill Skiing	\$26.94	\$24.81	\$15.64	\$6.60	\$12.77	\$5.11	\$6.04	\$0.74	\$3.96	\$112.62
Snowmobiling	\$46.76	\$59.22	\$38.25	\$13.97	\$1.02	\$22.50	na	\$14.26	na	\$195.97
ATV Riding	\$44.44	\$47.70	\$46.93	\$16.12	\$18.68	\$18.35	na	\$6.89	na	\$199.11
Wildlife Watching	\$38.17	\$21.95	\$69.21	\$2.96	na	na	\$2.56	\$33.39	\$99.63	\$267.87

This chart from the Economic Impacts of the Wisconsin State Park System illustrates the higher impact of snowmobilers than bicyclists, cross-country skiers, and equestrians.

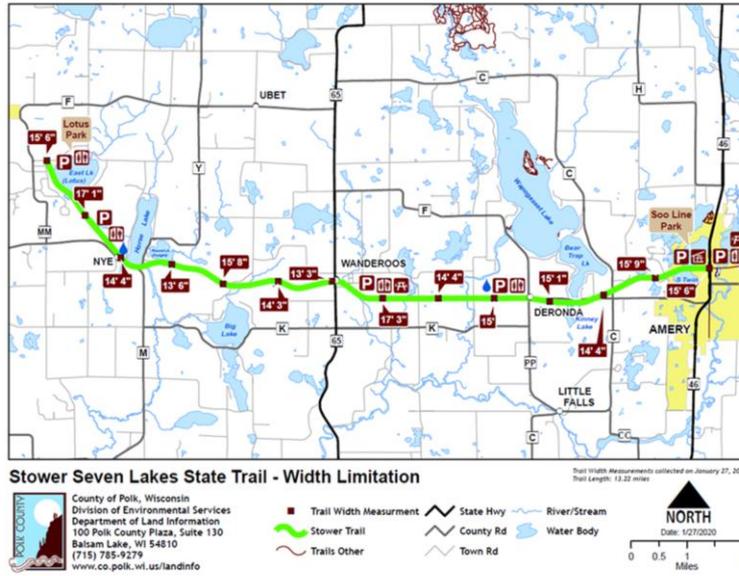
Chapter 5 – Alternatives Analysis

- Topographical features
- Locations of water features
- Parcel boundaries
- Tree locations and types
- Parking areas
- Connections to nearby trails
- Archaeological sites
- Public comment
- Desktop review
- National best practices
- County staff guidance



These are the data sets included in the alternatives analysis. The image on the right shows the average trail width. The minimum and maximum figures were determined by County staff measurements taken every mile, as shown in the next slide.

Sample Trail Widths on the SSLST



As measured from outside of shoulder to outside of shoulder.

Alternatives Considered

1. **Snowmobile Alternative 1 (SA1)** – Do not allow snowmobiles on any portion of the corridor.
2. **Snowmobile Alternative 2 (SA2)** – Do not allow snowmobiles on any portion of the corridor, but widen shoulders between State Highway 46 and County Highway C.
3. **Snowmobile Alternative 3 (SA3)** – Allow snowmobiles on the entire corridor with no changes to existing trail surface width.
4. **Snowmobile Alternative 4 (SA4)** – Allow snowmobiles on a portion of the corridor on separate and shared trails.
5. **Equestrian Alternative 1 (EA1)** – Do not allow equestrians on any portion of the corridor.
6. **Equestrian Alternative 2 (EA2)** – Allow equestrians on the entire corridor with no changes to existing trail surface width.
7. **Equestrian Alternative 3 (EA3)** – Allow equestrians on the corridor on separate parallel trails.

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This is a high level view of the 7 alternatives, which will be explored in further detail on subsequent slides.

Alternatives Evaluation Matrix							
	Cost to Implement	Economic Development Impact	Safety for all Trail Users	Tree Removal	Wetland Impacts	User Group Displacement	Additional Maintenance Needs
Snowmobile Alternative 1 (SA1)	Low	Medium ¹	Medium	Low	Low	Snowmobilers	Low
Snowmobile Alternative 2 (SA2)	High	Low	High	Medium	Medium	Snowmobilers	Medium
Snowmobile Alternative 3 (SA3)	Low	High	Low	Low	Low	Skiers, Bicyclists	Low
Snowmobile Alternative 4 (SA4)	High	Medium	Medium	High	Medium	None	Medium
Equestrian Alternative 1 (EA1)	Low	Low	High	Low	Low	Equestrians	Low
Equestrian Alternative 2 (EA2)	Low	Low	Low	Low	Low	Equestrians ²	High
Equestrian Alternative 3 (EA3)	High	Medium	High	High	High	None	Medium

This is the matrix used to evaluate the alternatives on 7 factors. Cells highlighted in green are the most positive outcome underneath each factor. The rankings were made to be relative to one another. These will also be explored in more detail on subsequent slides. Note that alternatives SA2, SA4, EA2, and EA4 would require additional resources prior to implementation (see “Cost to Implement” and “Additional Maintenance Needs” columns).

Snowmobile Alternative 1 (SA1)

Do not allow snowmobiles on any portion of the corridor.

Cost to Implement	Economic Development Impact	Safety for all Trail Users	Tree Removal	Wetland Impacts	User Group Displacement	Additional Maintenance Needs
Low	Medium ¹	Medium	Low	Low	Snowmobilers	Low



This status quo option is low cost to implement and has a low impact on tree removal and wetlands, as well as maintenance. It still displaces snowmobilers, and has a medium ranking for safety, since snowmobilers are still required to ride on streets parallel to the trail. Note that while economic development impact has been rated low for this alternative, trail amenities may be added to the SSLST to increase it, such as walk-in campsites for long distance bicyclists and warming huts for cross-country skiers.

Snowmobile Alternative 2 (SA2)

Do not allow snowmobiles on any portion of the corridor, but widen shoulders between State Highway 46 and County Highway C.

Cost to Implement	Economic Development Impact	Safety for all Trail Users	Tree Removal	Wetland Impacts	User Group Displacement	Additional Maintenance Needs
High	Low	High	Medium	Medium	Snowmobilers	Medium

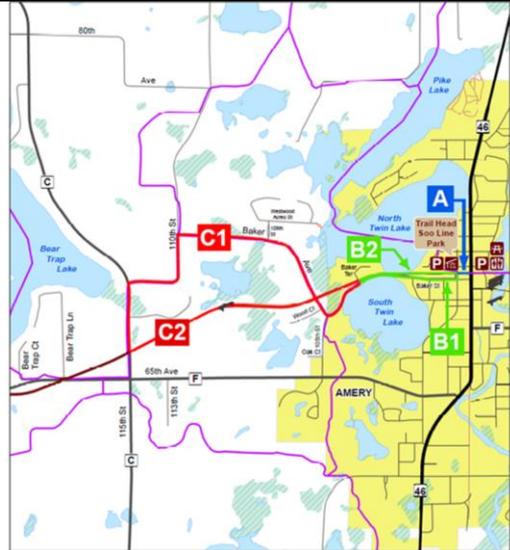
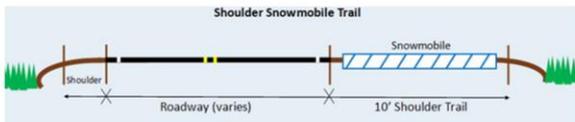


Snowmobile Alternative 2 is similar to SA1, except that snowmobiles are accommodated on wider shoulders between State Highway 46 and County Highway C. This approximate 2.5 mile segment was shared as a snowmobiling safety concern during the community engagement process, since snowmobilers ride on the streets and often get lost. We'll first look at the next slide but then come back to this slide to discuss the factor evaluation.

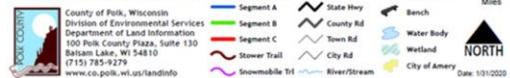
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The big benefit to this alternative is that it increases safety for snowmobilers while keeping safety high for bikers, pedestrians, and skiers on the SSLST.

Snowmobile Alternative 2 (SA2)



Stower Seven Lakes State Trail



Under this alternative, the idea is to widen one of the road shoulders and turn it into an adjacent snowmobile trail. In the map on the right, snowmobilers are currently traveling from Amery to points west using Baker Street, Baker Avenue, and County Highway C (shown as B1 and C1 on the map). Meantime the Stower Trail is shown as B2 and C2. Snowmobile trails are shown using purple lines. Going back to the previous slide . . .

Snowmobile Alternative 3 (SA3)

Allow snowmobiles on the entire corridor with no changes to existing trail surface width.

Cost to Implement	Economic Development Impact	Safety for all Trail Users	Tree Removal	Wetland Impacts	User Group Displacement	Additional Maintenance Needs
Low	High	Low	Low	Low	Skiers, Bicyclists	Low



This is the alternative that was recommended by the County in the previous draft of the SSLST Master Plan. This alternative is cheap, it will likely have positive economic development impact, its negative effects on tree removal and wetlands is low, and little additional maintenance will be needed. The biggest con for this alternative is that it will displace skiers and bicyclists, and has low safety.

Snowmobile Alternative 4 (SA4)

Allow snowmobiles on a portion of the corridor on separate and shared trails.

Cost to Implement	Economic Development Impact	Safety for all Trail Users	Tree Removal	Wetland Impacts	User Group Displacement	Additional Maintenance Needs
High	Medium	Medium	High	Medium	None	Medium

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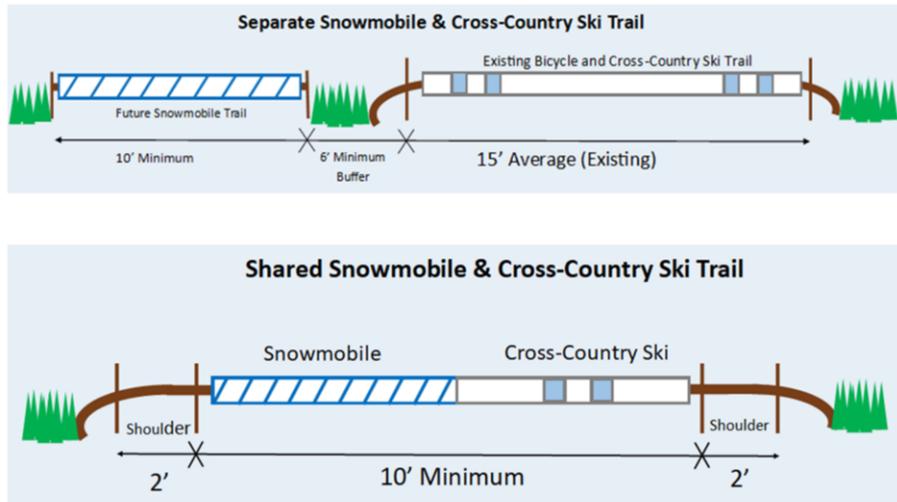
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The final alternative was generated to displace no user groups on the SSLST in the 2.5 mile segment of trail where snowmobilers have safety and navigational challenges. This is a big advantage, but other factors do not rank as well. On the following slides we'll examine why this is.

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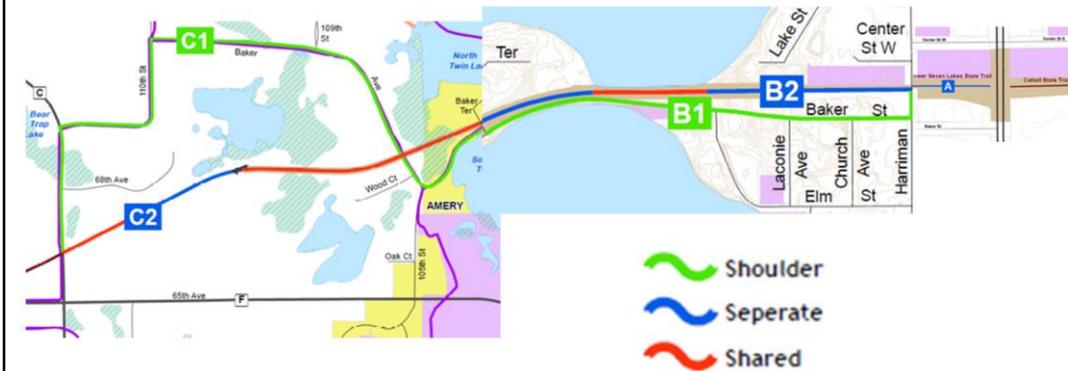
Coming back to slide 19, there would be higher costs and many trees would need to be removed.

Snowmobile Alternative 4 (SA4)



We came up with two potential trail types for SA4. The separate trails in the top image are a possibility where wetlands and topography allow the construction of a separate trail for snowmobiling. Where these challenges don't allow a separate facility, shared segments would be necessary, as shown in the bottom image. These would be two-way facilities for each mode, but would be so narrow as to require respective user groups to yield to their own user group when meeting head-on. This would require lower speed limits for snowmobilers and educational measures such as signs, kiosks, and brochures.

Snowmobile Alternative 4 (SA4)



This slide illustrates segments that are likely to be separate (shown in blue) and others that are likely to be shared (red). Going back to slide 19 . . .

Snowmobile Alternative 4 (SA4)



The top photo shows a trail segment that would need to be shared, and the bottom shows a segment where separation could be achieved with tree removal.

Equestrian Alternative 1 (EA1)

Do not allow equestrians on any portion of the corridor.

Cost to Implement	Economic Development Impact	Safety for all Trail Users	Tree Removal	Wetland Impacts	User Group Displacement	Additional Maintenance Needs
Low	Low	High	Low	Low	Equestrians	Low



For equestrians, this alternative is the status quo option. The economic development impact is low and equestrians are displaced, but every other category is ranked as the most positive.

Equestrian Alternative 2 (EA2)

Allow equestrians on the entire corridor with no changes to existing trail surface width.

Cost to Implement	Economic Development Impact	Safety for all Trail Users	Tree Removal	Wetland Impacts	User Group Displacement	Additional Maintenance Needs
Low	Low	Low	Low	Low	Equestrians ¹	High



Under this alternative, safety is low and additional maintenance needs are high. Even though equestrians would be allowed to use the SSLST under EA2, the Statewide Comprehensive Outdoor Recreation Plan (SCORP) indicates equestrians are deterred from horseback riding on trails that allow bicycling.

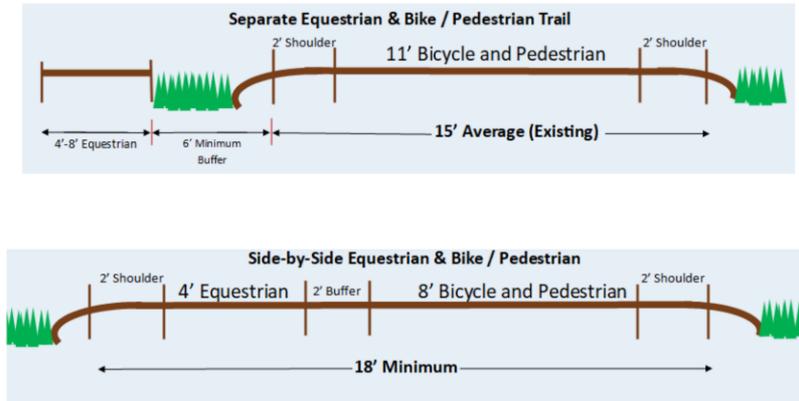
Equestrian Alternative 3 (EA3)

Allow equestrians on the corridor on separate parallel trails.

Cost to Implement	Economic Development Impact	Safety for all Trail Users	Tree Removal	Wetland Impacts	User Group Displacement	Additional Maintenance Needs
High	Medium	High	High	High	None	Medium



Equestrian Alternative 3 (SA3)



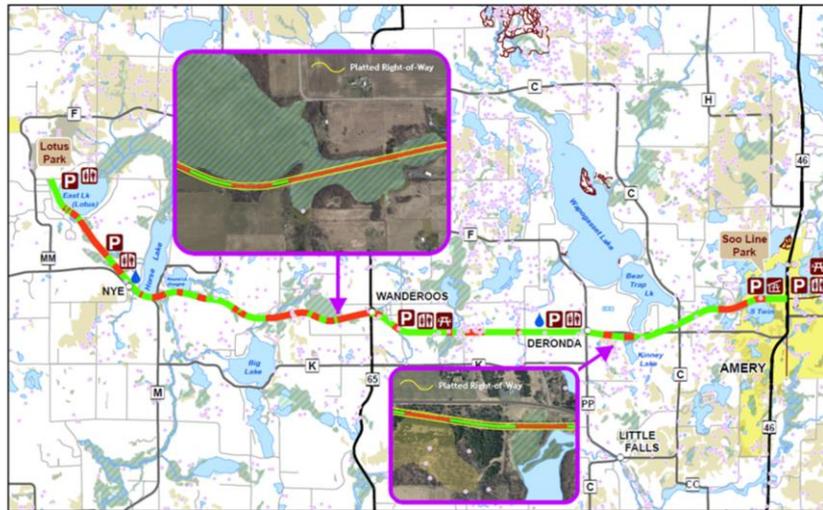
These are the 2 trail types considered. When we say “separate” we mean a large buffer between the two trails. Using the terms separate and side-by-side are confusing because both trails are separated and side-by-side, so we may need a better way to phrase this before a new draft is created.

**Equestrian
Alternative 3
(SA3)**



And here are real-life applications of these trail types, on the Luce Line Trail west of Minneapolis. Separate facilities are in the top image, and side-by-side are in the bottom image. Orange arrows show the equestrian trail, and green arrows show the bike/pedestrian facility. The main difference between the facilities is the width of the buffer. Note the blue signs educating users on where equestrians should ride.

Equestrian Alternative 3 (SA3)



Stower Seven Lakes State Trail - Soil & Wetland Limitation

County of Polk, Wisconsin
 Division of Environmental Services
 Department of Land Information
 100 Polk County Plaza, Suite 130
 Balsam Lake, WI 54810
 (715) 785-9279
www.co.polk.wi.us/landinfo

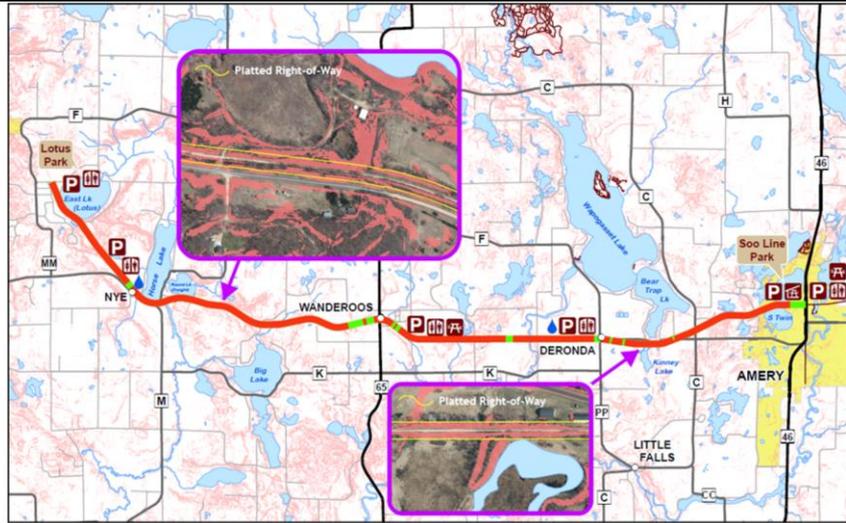
- Limitation
- Stower Trail
- Trails Other
- County Rd
- Town Rd
- River/Stream
- Water Body
- Undelineated Wetland - DNR
- Wetland - DNR
- Moderately Limited Soils (SSURGO)
- Significantly Limited Soils (SSURGO)

Limitation is included on this map if soil or wetland feature appear within plotted trail right-of-way.
 Trail Length: 13.22 miles
 Limitation Length: 4.09 miles

NORTH
 Date: 1/27/2020
 0 0.5 1 2 Miles

This map is a high-level planning evaluation of where separate (green segments) and side-by-side (red segments) trails are likely. An estimated 4 miles of side-by-side trails would be needed on the entire length of the trail.

Equestrian Alternative 3 (SA3)



Stover Seven Lakes State Trail - Steep Slope Limitation

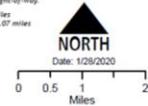


County of Polk, Wisconsin
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- 20% or Greater Slope
- Limitation
- Stover Trail

- State Hwy
- County Rd
- Town Rd
- Trails Other
- River/Stream
- Water Body

Limitation is included on this map if steep slope feature appear within platted trail right-of-way.
 Trail Length: 13.22 miles
 Limitation Length: 12.07 miles



This map is a high-level planning evaluation of where slopes may be a barrier with implementing a separate equestrian trail under Alternative EA3, although some slopes are acceptable and add interest/challenge with equestrian trails.

Equestrian Alternative 3 (SA3)



Comparing the existing typical trail dimensions to the side-by-side trail shows that on average, the trail is 3' narrower than needed. This means the trail would need to be widened to **minimally** accommodate an equestrian facility.

Next Steps?

- Share draft plan for public comment (beginning February 12th)
- Gather input on alternatives and draft plan (through February 25th)
- ESC selects recommended alternatives and schedules hearing (February 26th)
- Revise plan and send to County Board for consideration (March 17th)
- Revise plan and send to DNR for review



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Thank you!

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