

07-0764 Aitkin-Itasca ATV/ORV Trail Project
GIS Mapping Plan and Objectives

GIS Advisory Committee:

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Dave Bily, Itasca County
Bob Moore, MN DNR
Doug Mensing, AES
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Tasks:

- 1) Reach agreement with Aitkin and Itasca Counties and DNR on analysis approach and outcome, and establish schedule for delivery of GIS data to DNR/County for preparation of EAW; identify additional out-of-scope GIS analysis (unrelated to trail siting) necessary to prepare EAW (e.g., ecoregional wildlife effect of reasonably foreseeable future trail system).
- 2) Set up ftp site and data sharing protocols; test large plot printing capacity of Counties using maps provided by AES.
- 3) Prepare draft alignment map for Nov. 27-28 meetings; Dovetail/Counties to record public feedback.
- 4) Field check a sample of trail impacts on Red Top Trail and Blind Lake Trail to understand relationship of environmental effects and GIS data.
- 5) Assemble GIS layers and begin analysis; prepare criteria for evaluating trail impacts, including review of literature on noise impacts and known ecological impacts of motorized trails; also review Beltrami County damage index and response system.
- 6) Evaluate in GIS the proposed 83-mile trail alignment for environmental effects; reconcile proposed trail alignment with results of local trail meetings in the Hill City Area (Hill Lake & Macville Twps.), Lawler Area (Millward, Salo, Beaver Twps.), and if needed the lower-priority Big Sandy Lake/Sioux Line-Palisade Area (Workman & Libby Twps.).
- 7) Propose alternative alignments to minimize environmental effects.
- 8) Evaluate cultural/economic impact and opportunity of alternative alignments and revise alignment with Oversight Committee.
- 9) Prepare final trail alignment and present at 2 public meetings in February.

GIS Layers:

Land Features

- Erodible slopes
- Erodible soils

Ecological Features

- Land cover (accepted MN DNR classification)
- Wetlands and setbacks¹ (Vary widths by type?)
- Lakes/open water and setbacks
- TMDL lakes & streams
- Rivers/streams and setbacks
- Natural Heritage Program species (ETSC) and native plant communities
- Large patches/core wildlife habitat (Species of Greatest Conservation Need)
- Wildlife travel corridors

Conservation Features

- State and county parks and buffers
- State Scientific and Natural Areas, Federal Research Natural Areas and buffers
- Other nature preserves and buffers (e.g., Nature Conservancy)
- Forest Legacy Candidate Areas (from Statewide Assessment of Need)
- Conservation easements on record and buffers
- Special forest management areas (e.g., old growth, long rotation)

Cultural Features

- Roads and noise buffer
- Existing ORV/ATV trails and noise buffer
- Proposed 83-mile trail alignment and noise buffer
- Lodging, dining and gathering locales
- Trail access/loading points (2)
- Trail rest areas (4)
- Historical/archaeological features (SHPO)
- Existing ORV/ATV damaged areas (DNR/MCEA inventory on public lands)
- Traditional hunting, trapping, gathering grounds

GIS Analysis:

- 1) Assemble land, ecological, and conservation layers.
- 2) Environmental analysis: Analyze GIS data and identify environmentally-based locations to avoid, ideal locations for trail placement, and intermediate areas (if useful).
- 3) Overlay proposed 83-mile trail and identify conflicts with environmental analysis.

¹ Setbacks will be based on existing state and county standards and modified using scientific data if appropriate.

- 4) Cultural analysis: Prepare cultural layer, overlay proposed trail alignment, and identify conflicts.
- 5) Identify alternative alignments which minimize environmental and cultural conflicts.
- 6) Review alternative alignments with oversight committee. Committee decisions on alignment will balance environmental, cultural, and economic issues.
- 7) Prepare final alignment and presentation for 2 public meetings.
- 8) If requested, perform additional cost analysis for final alignment (e.g., cost of private parcel easement acquisition).

Timeline:

Feb. – Aug. 2007: Solicit trail alignment ideas from townships (Hill Lake, Macville, Workman, Libby, Millward, Salo, Beaver).

Oct. 2007: Begin GIS work and establish technical basis for project.

Nov. 2007: Continue GIS work; conduct 2 meetings with tribe; present proposed trail alignment at public kick-off meetings (Nov. 27 & 28).

Dec. 2007: Complete GIS analysis; provide results to MN DNR/Counties for preparation of EAW.

Jan. 2008: Oversight Committee decides final trail alignment.

Feb. 2008: Public meetings to solicit feedback on final trail alignment (Feb. 5 & 20).

Mar. 2008: Revise and finalize trail alignment.