

TrailGuard – Your Ice Age Trail Companion

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Abstract

TrailGuard: Ice Age Trail Reporter is your essential companion, dedicated to preserving the pristine beauty and elevating the hiking experience along the Ice Age Trail. This versatile web application, powered by Esri.js and ArcGIS Online, fosters a united community of hikers and devoted volunteers with a shared mission: to protect and explore this natural wonder.

TrailGuard revolutionizes trail reporting and enhances your Ice Age Trail journey with a seamless fusion of features:

Streamlined Reporting and Maintenance

- With utmost ease, report safety hazards and maintenance needs encountered during your Ice Age Trail expeditions.
- TrailGuard swiftly connects users and passionate volunteers to address reported issues, ensuring the trail's impeccable upkeep and safety.

Interactive Trail Maps

- Embark on your trail adventures with confidence, guided by interactive maps that highlight trail segments, trailhead parking locations, campgrounds, and essential potable water sources.
- Explore your ideal hiking destinations and discover picturesque spots for overnight stays.

Trailhead and Campground Insights

- Plan your excursions with meticulous precision, armed with comprehensive information about each trailhead and campground.
- Delve into the specifics of each location, including amenities, facilities, nearby attractions, and potable water sources.
- Explore not only campgrounds but also secluded backcountry cabins, offering unique lodging experiences.
- Identify vibrant Ice Age Trail communities and the headquarters that drive the trail's preservation and advancement as you explore its wonders.

Track your Completed Trail Segments

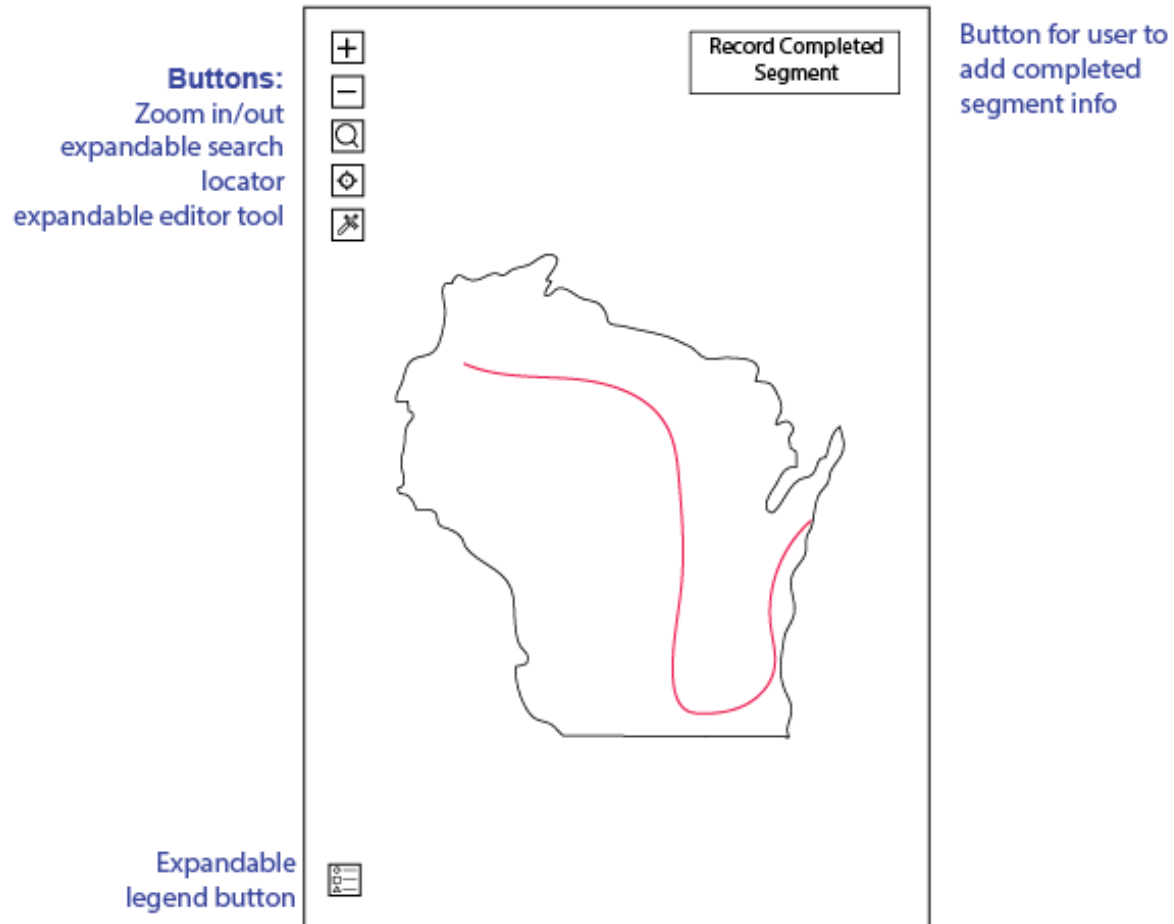
- TrailGuard introduces a new feature that enables you to record and track the Ice Age Trail segments you've completed.
- Mark your progress, set goals, and celebrate your hiking achievements as you conquer this remarkable trail.

TrailGuard invites you to embark on an enriched and informed Ice Age Trail adventure. By actively reporting hazards and maintenance issues, you become a valued member of a community passionately dedicated to preserving this national treasure. Join us in celebrating the trail's breathtaking beauty, ensuring its enduring vitality, and embracing the exhilarating spirit of adventure.

Wireframes

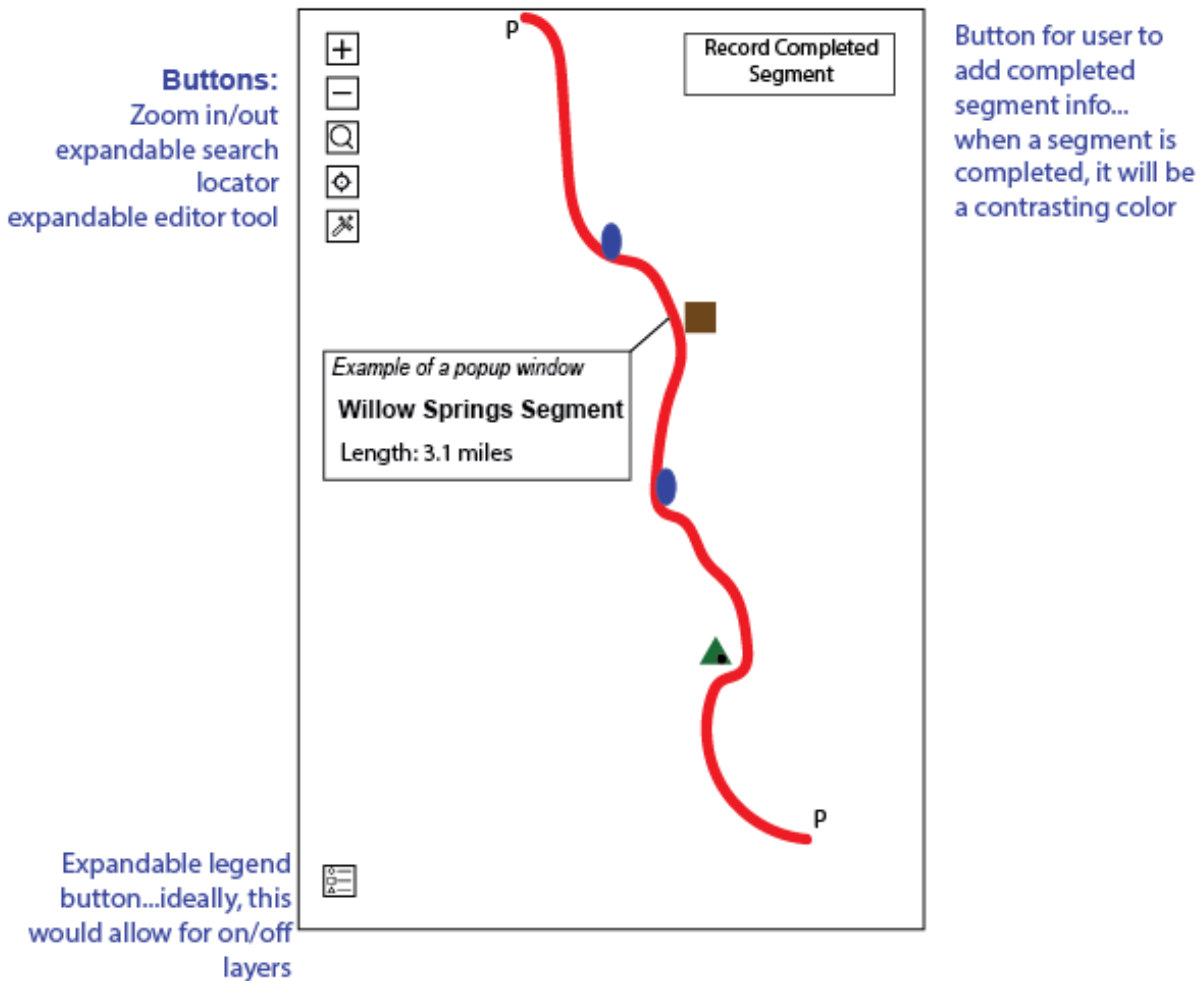
Opening Page

-default view centered on Wisconsin with **trail segments** visible



Zoomed Extent to Segment Level

- trail segments, potable water, parking lots, campgrounds, back country cabins visible (appropriate symbols will be used)
- all layers will have popup windows when a feature is clicked with relevant information included



Data Table

Data Used	Source	Purpose
Esri Basemaps	Light Grey Canvas Imagery Hybrid OpenStreetMap Streets Navigation Topography	These basemaps provide users with various map backgrounds to choose from, allowing them to select the one that suits their preferences and needs. The default "Light Grey Canvas" basemap offers a clean and uncluttered map, making it ideal for focusing on user-generated content such as reports and photos.
Ice Age National Scenic Trail Existing Sections & Connecting Routes	Polyline feature layer from IATA	This polyline feature layer depicts the existing sections and unsigned connecting routes of the Ice Age National Scenic Trail (IAT). It serves as a visual guide to the trail's layout, helping users understand the trail's extent and connectivity.
IAT Parking	Point feature layer from IATA	This point feature layer identifies the locations of parking areas along or near the Ice Age National Scenic Trail. It assists trail users in finding suitable parking spots, enhancing their convenience and safety during their trail adventures.
IAT Camping	Point feature layer from IATA	This point feature layer highlights camping areas along or near the Ice Age Trail. It helps users plan their overnight stays by providing information about available camping spots, facilities, and amenities.
IAT Communities	Point feature layer from IATA	This point feature layer marks the locations of Ice Age Trail Communities. It allows users to discover and engage with communities along the trail, promoting local involvement and support for the trail.
IAT Potable Water	Point feature layer from IATA	This point feature layer identifies potable water sources along or near the Ice Age Trail. Users can rely on this information to access safe drinking water during their hikes, ensuring their well-being and hydration.
IAT Backpack Shelters and Cabins	Point feature layer from IATA	This point feature layer pinpoints the locations of backpack shelters and cabins along or near the Ice Age Trail. It assists users in planning overnight stays and provides valuable information about available shelter options.
IAT Trail Hazards & Maintenance Issues	Point feature layer created by users	This user-generated point feature layer empowers trail users to report and pinpoint locations on the trail where maintenance or hazard-related services are needed. Users can share photos and detailed descriptions of issues they encounter, contributing to the trail's safety and upkeep.
MySegments	Polyline feature layer edited by each user	This user-generated feature layer allows users to keep track of trail segments and mileage that they've completed.

ER Diagram

