



Utilizing Crowdsourced Georeferenced Photography for Identification and Prioritization of Areas for Scenic Conservation

Lacey Goldberg

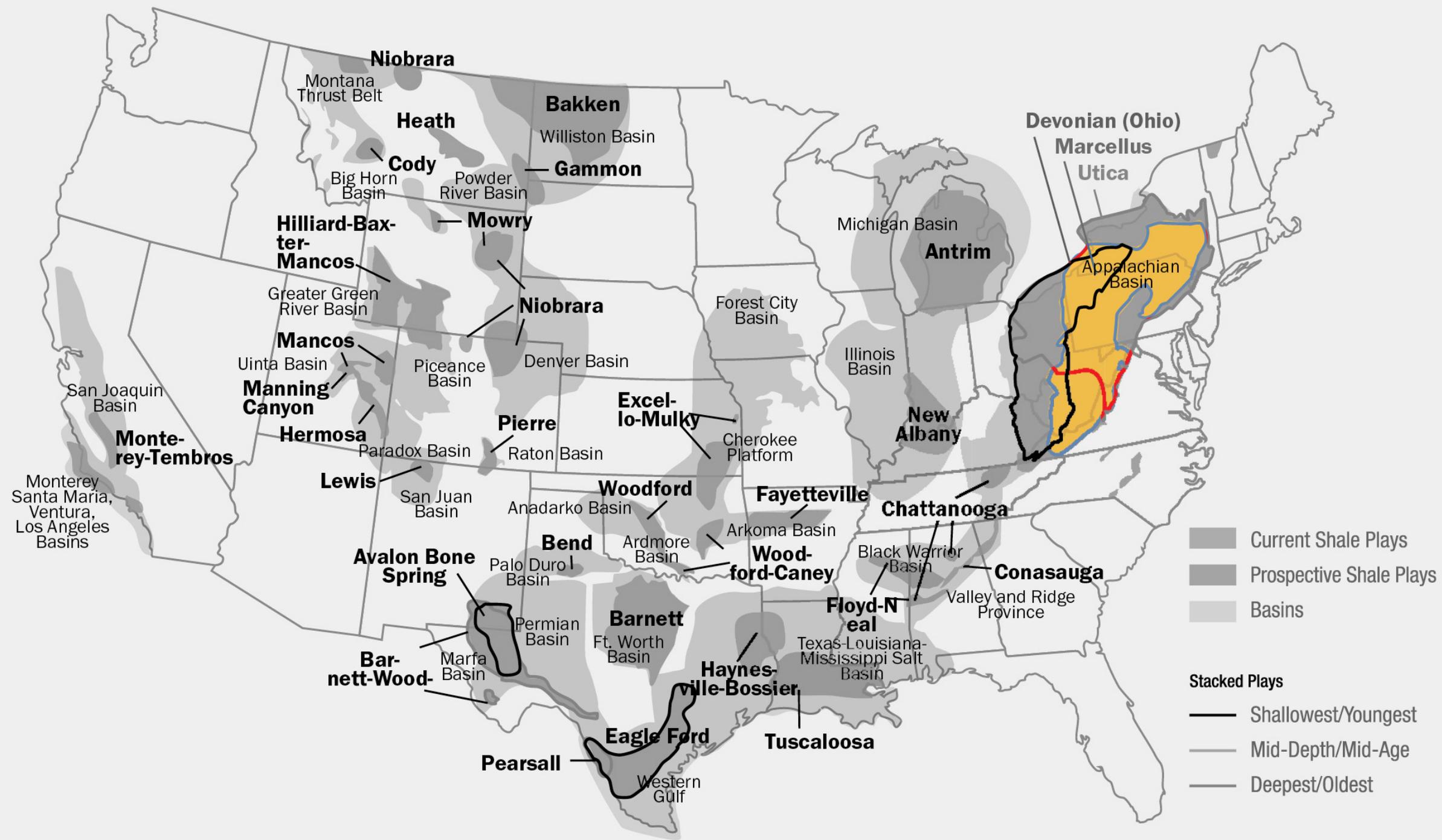
The Pennsylvania State University, United States of America

Shale Gas Plays in the Continental United States



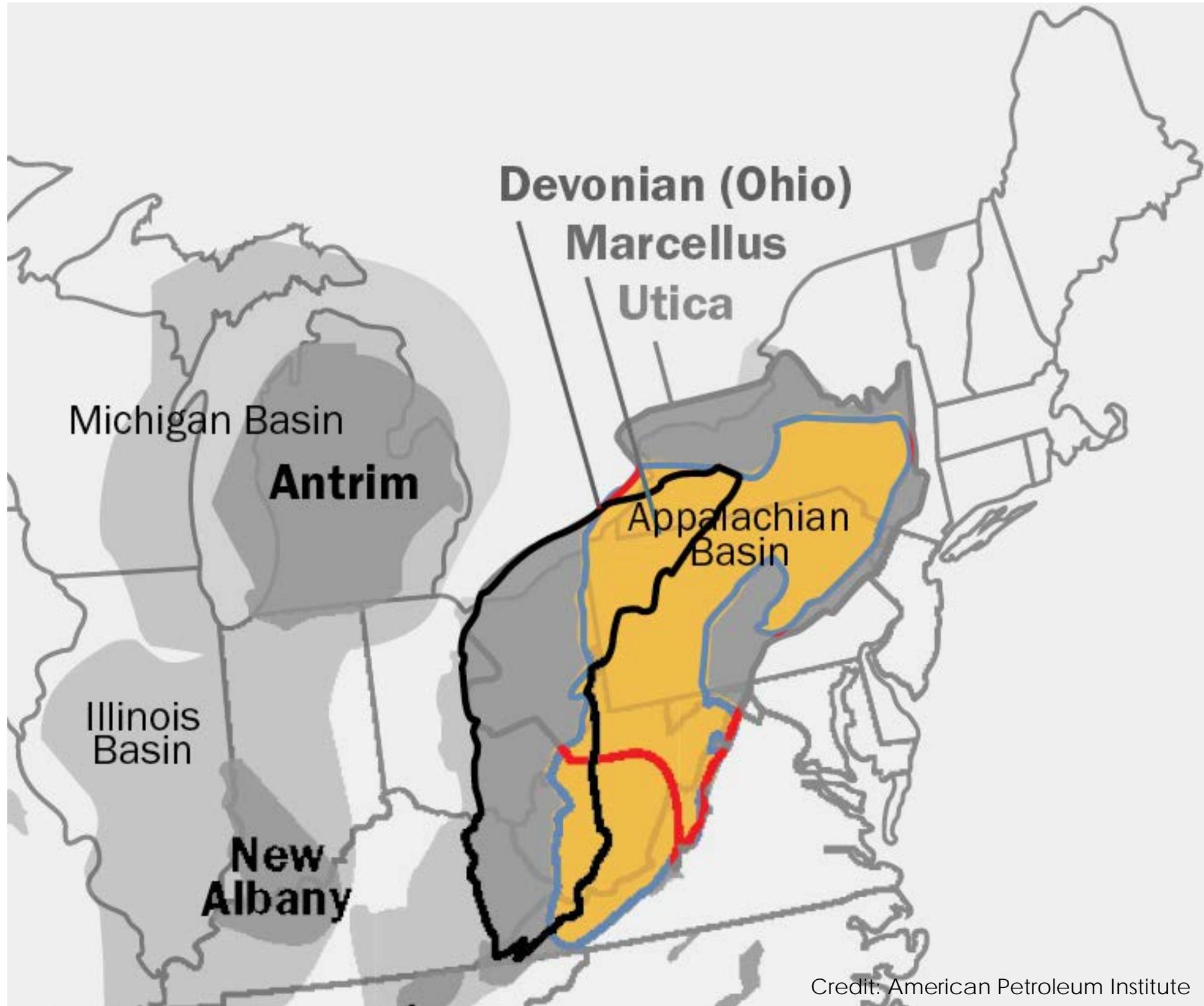
Credit: American Petroleum Institute

Shale Gas Plays in the Continental United States

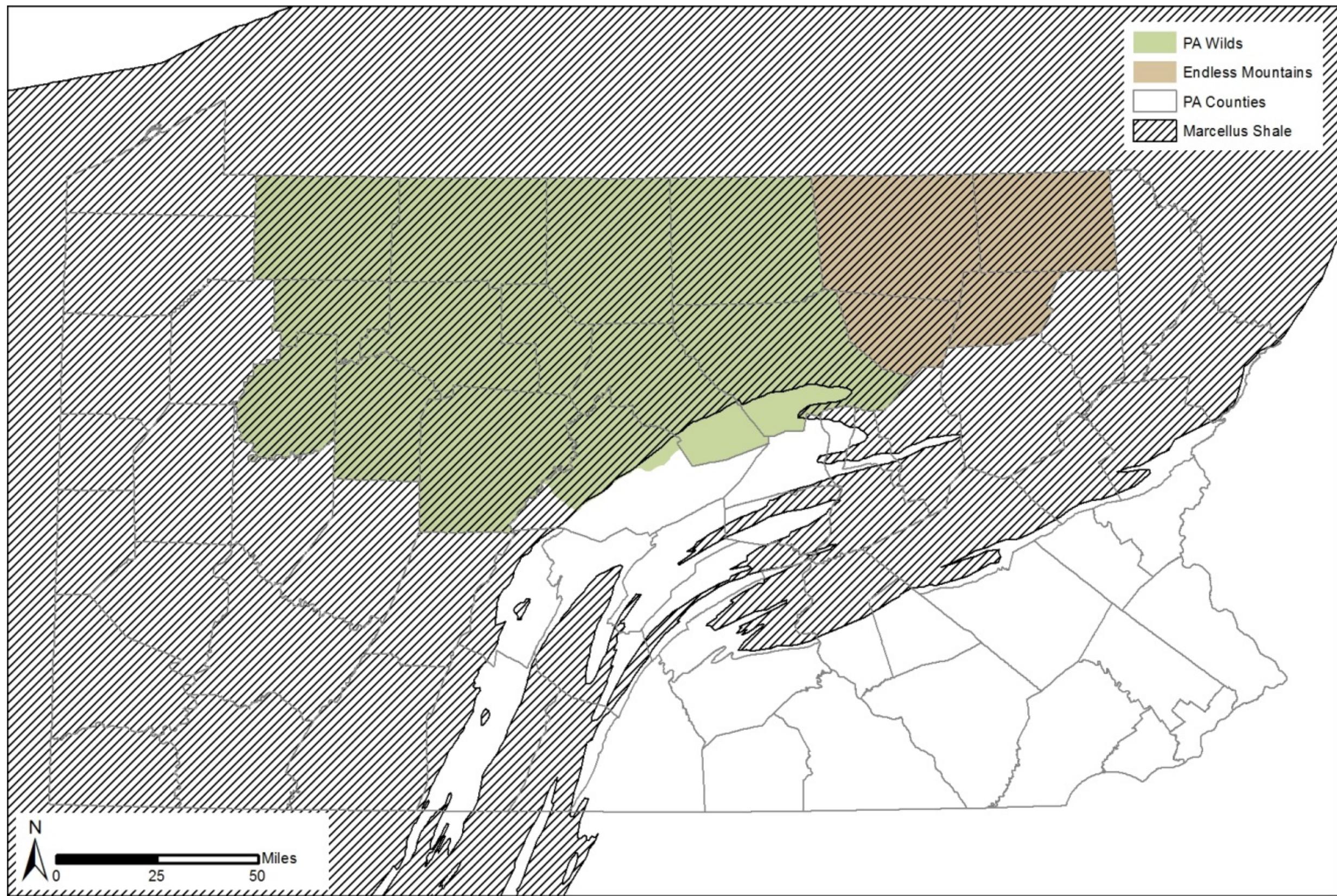


Credit: American Petroleum Institute

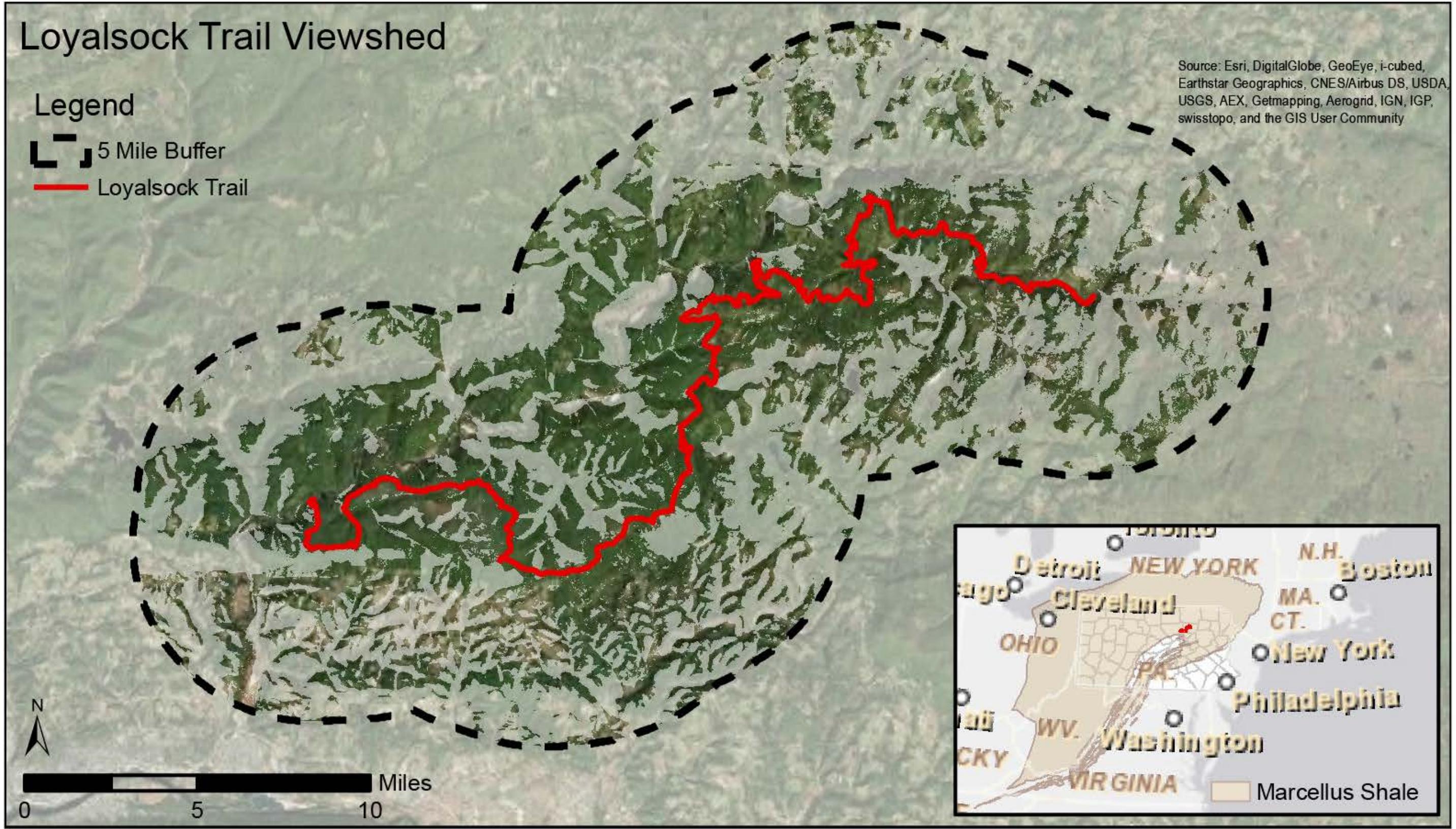
Marcellus Shale Formation



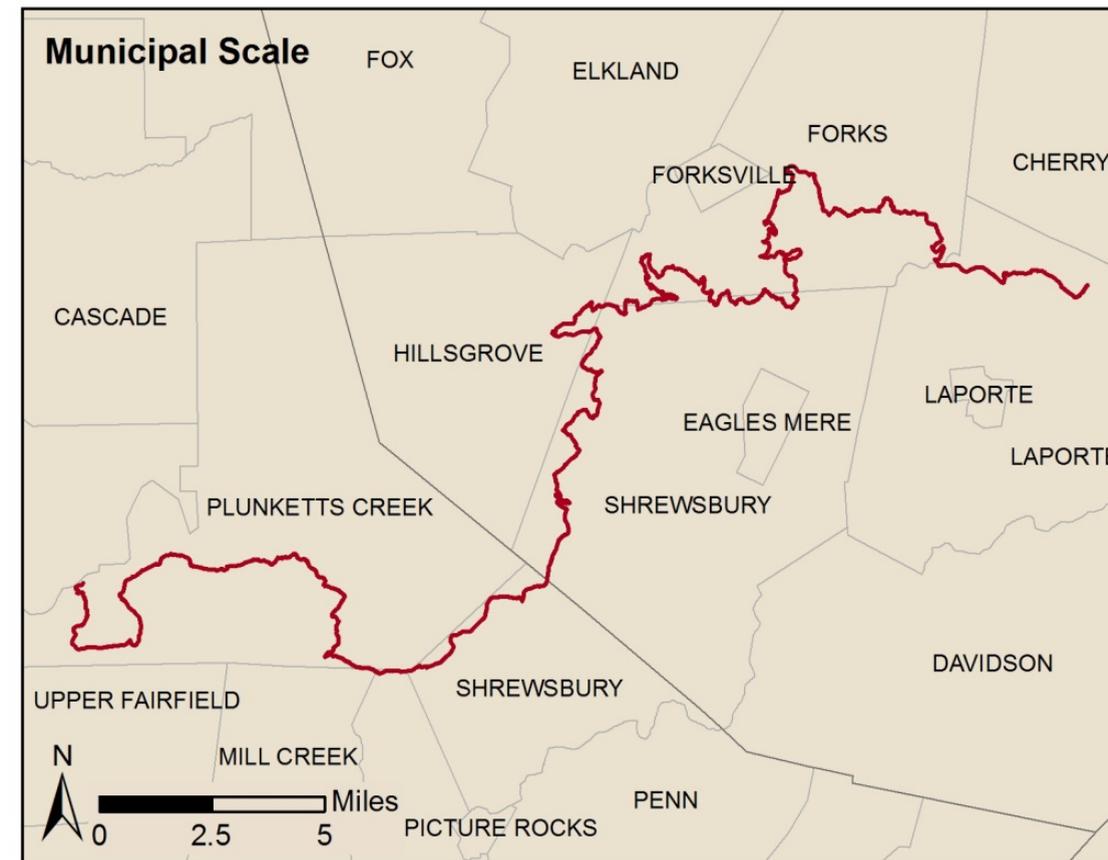
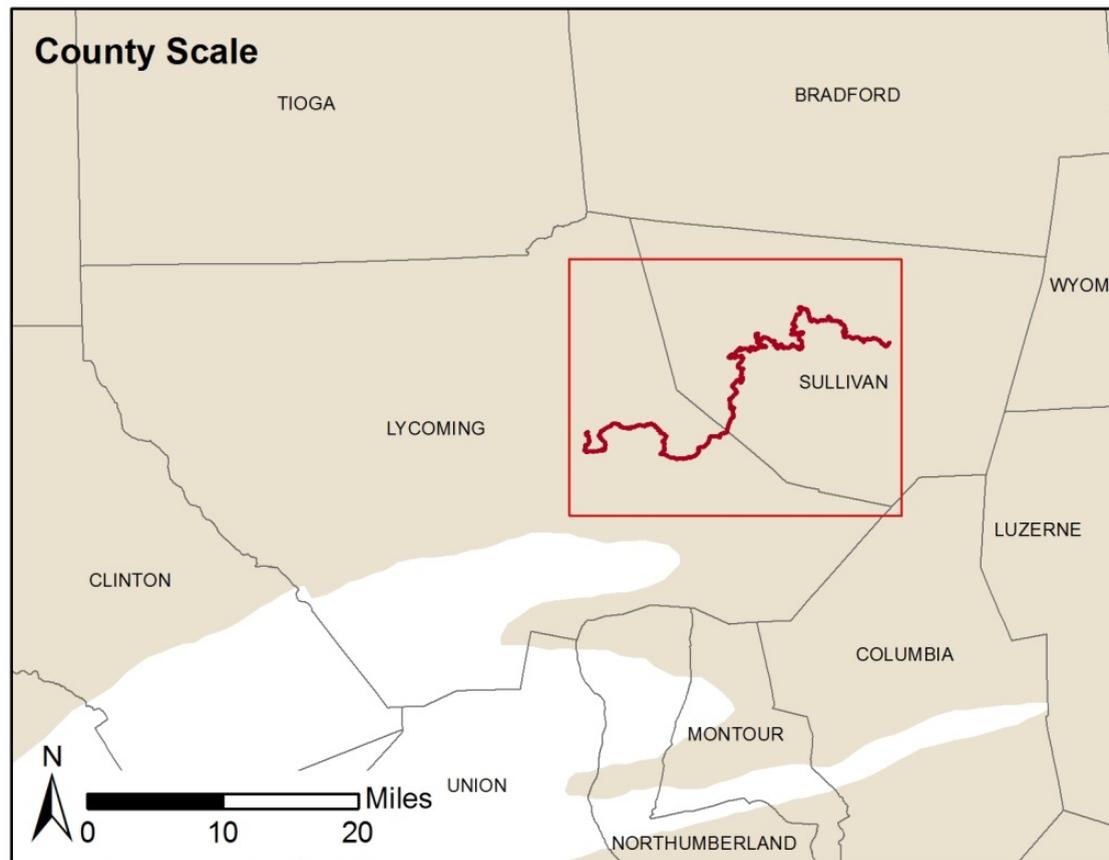
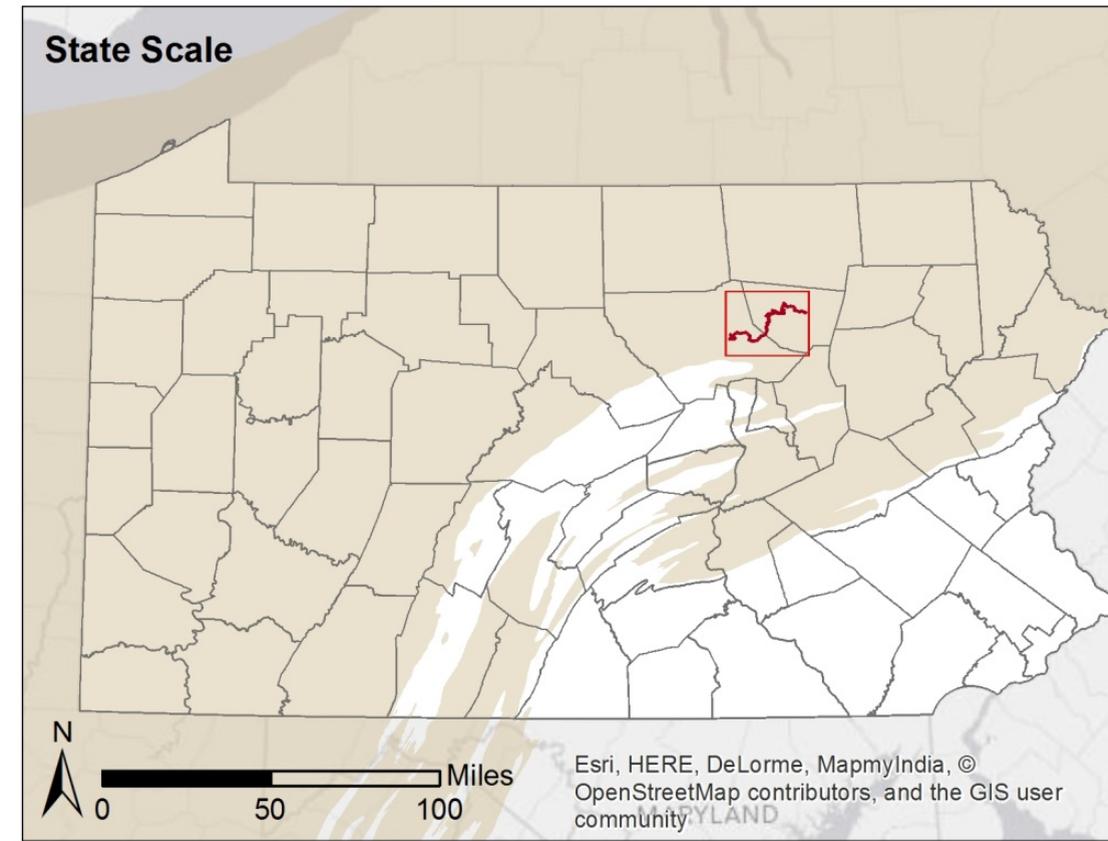
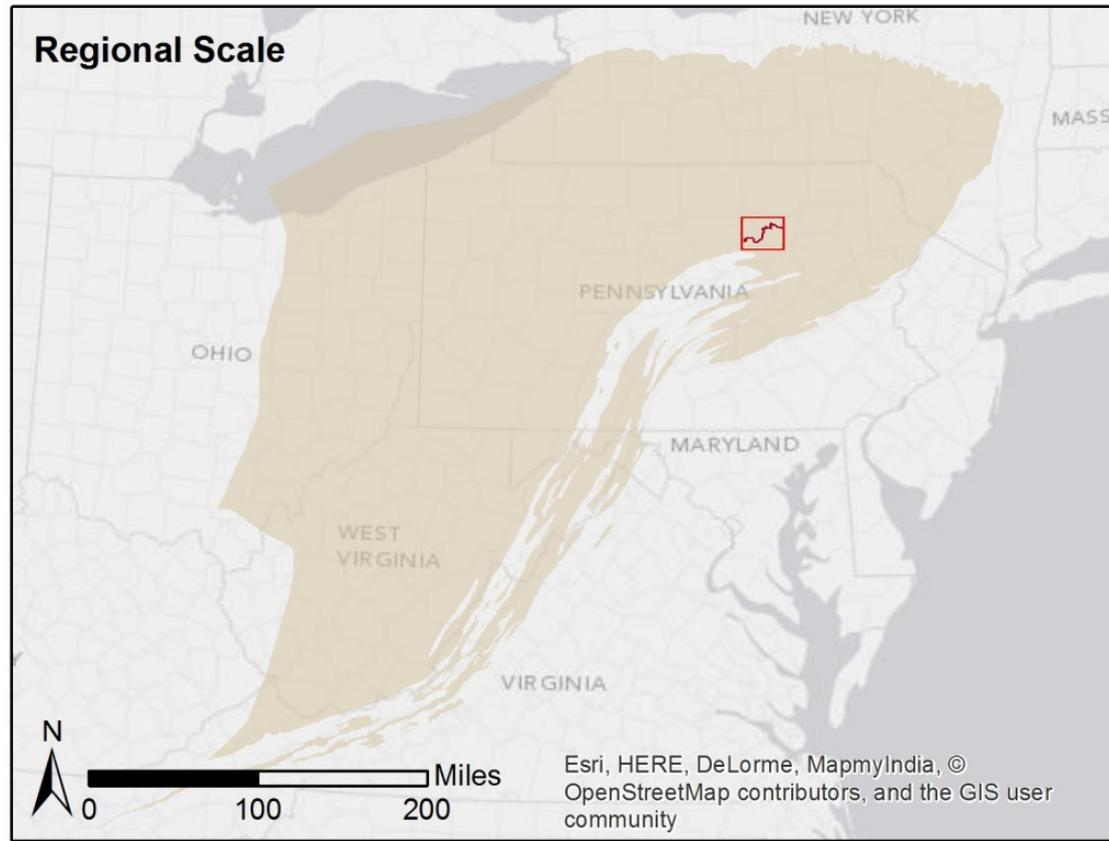
Pennsylvania Wilds and Endless Mountains Regions



Case Study



The Loyalsock Trail



Loyalsock Trail – September 1, 2010

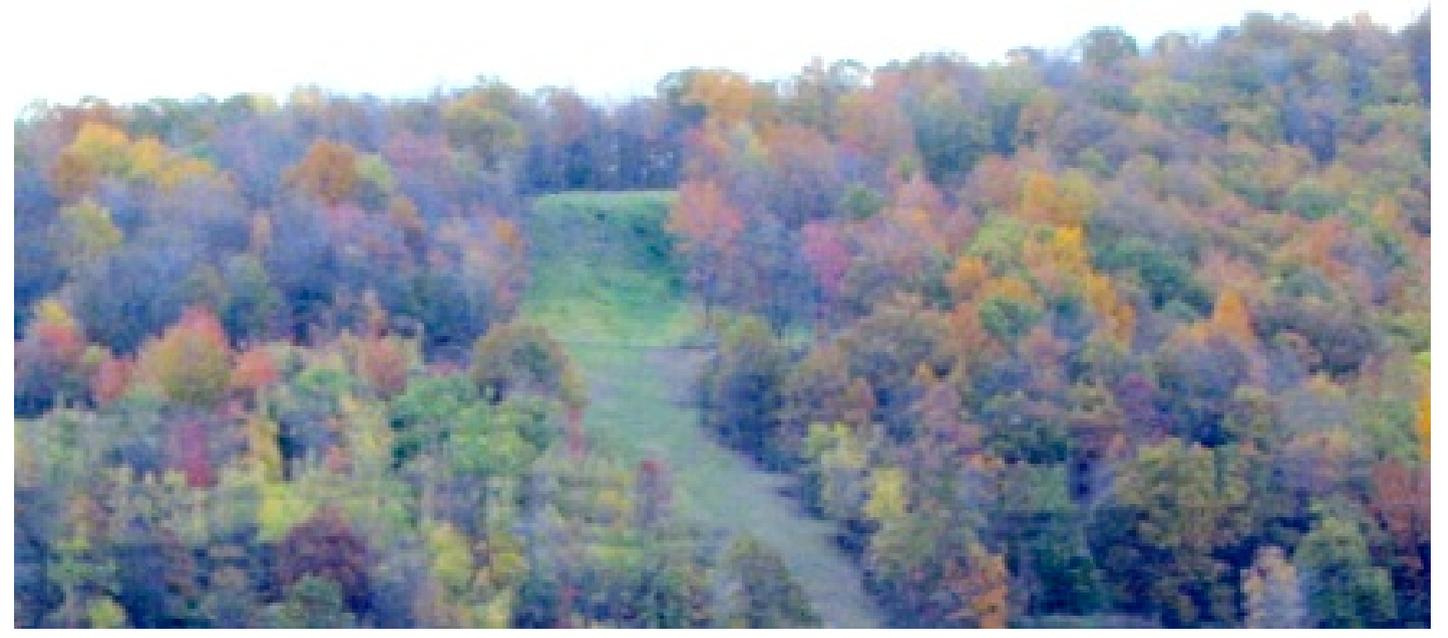


Loyalsock Trail – May 4, 2013



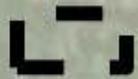


Seismic testing – Road widening – Proximity to Well Pads – Pipeline ROWs

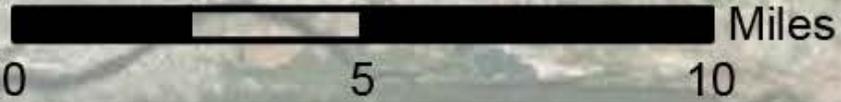


Loyalsock Trail Viewshed

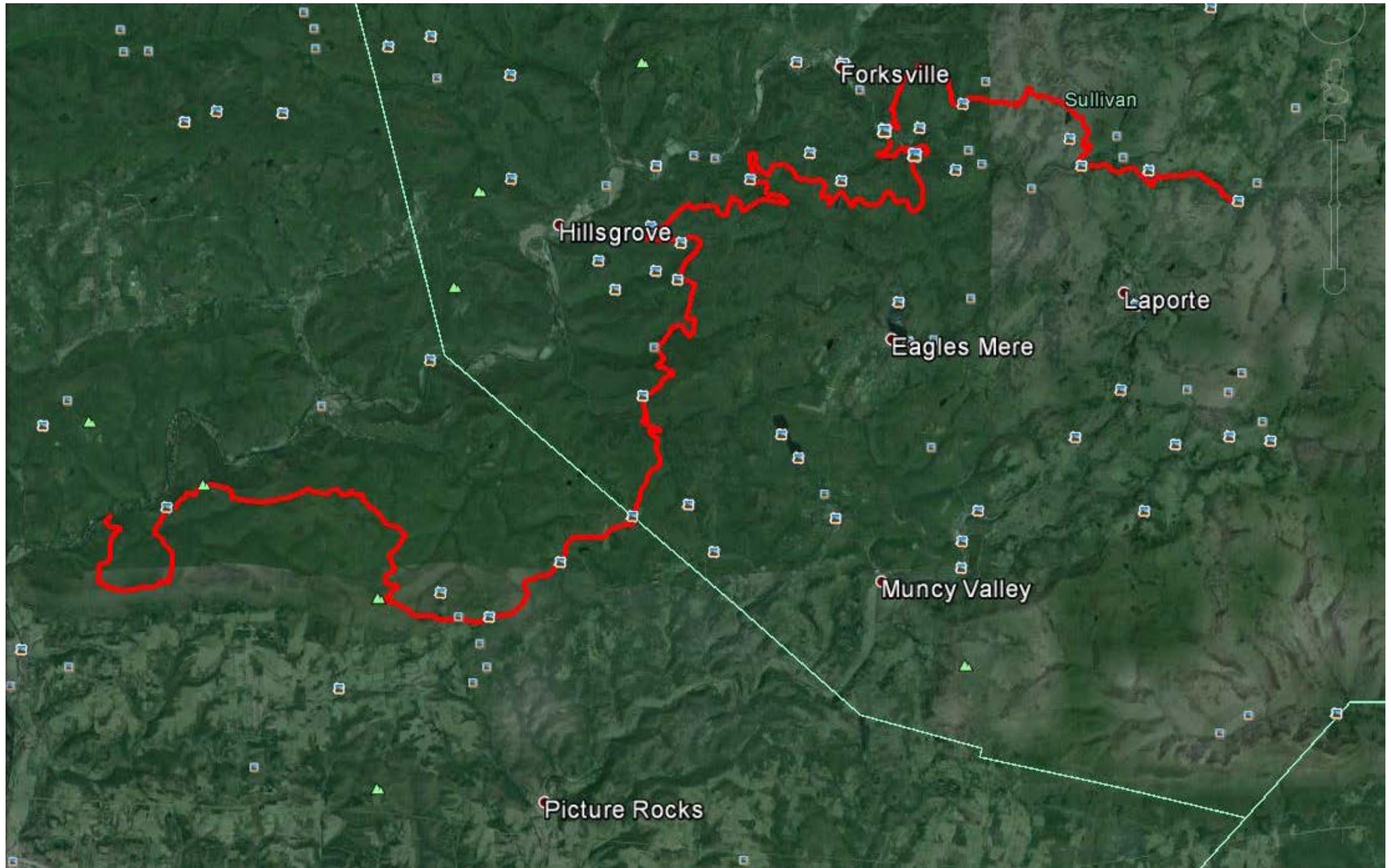
Legend

-  5 Mile Buffer
-  Loyalsock Trail

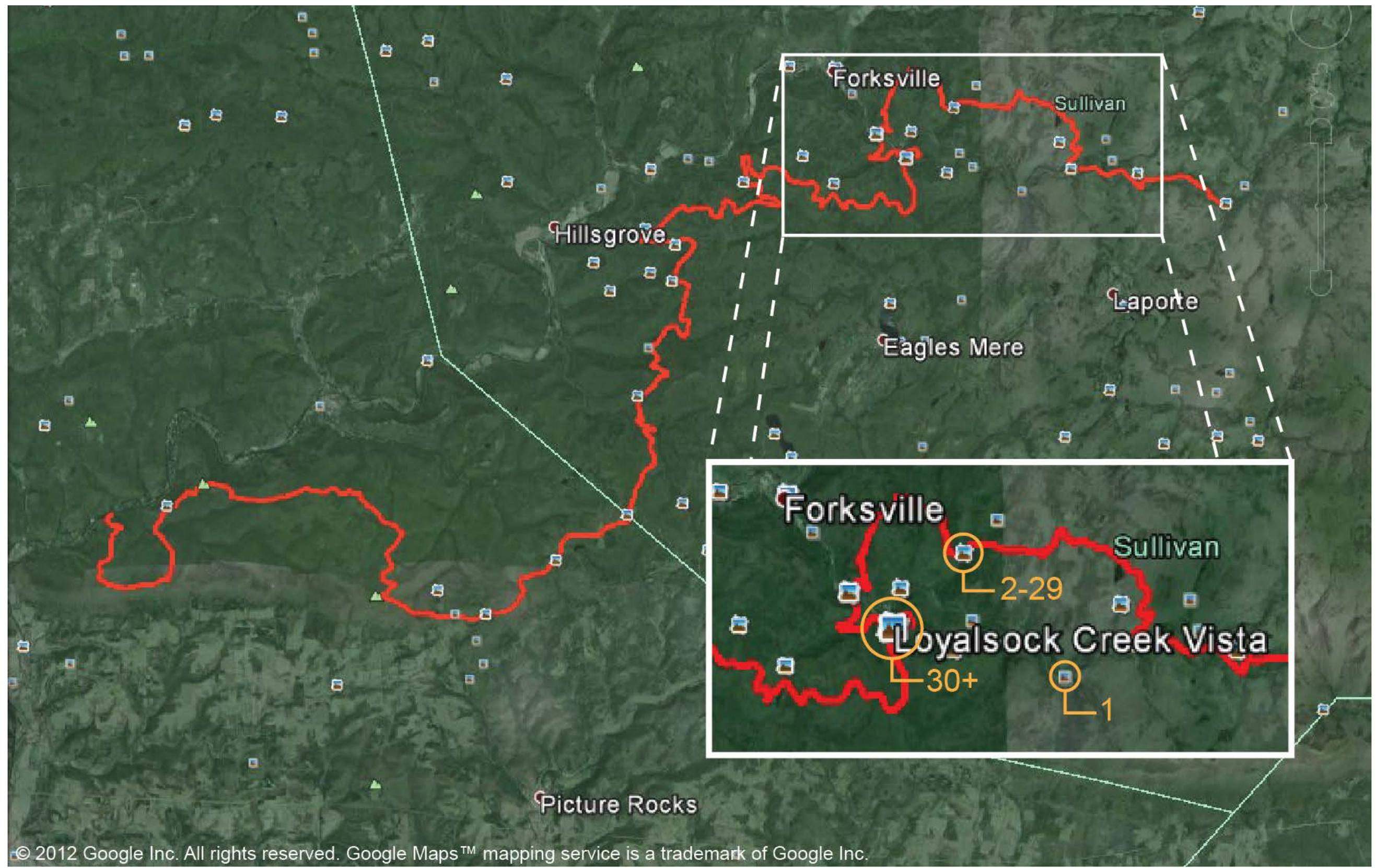
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



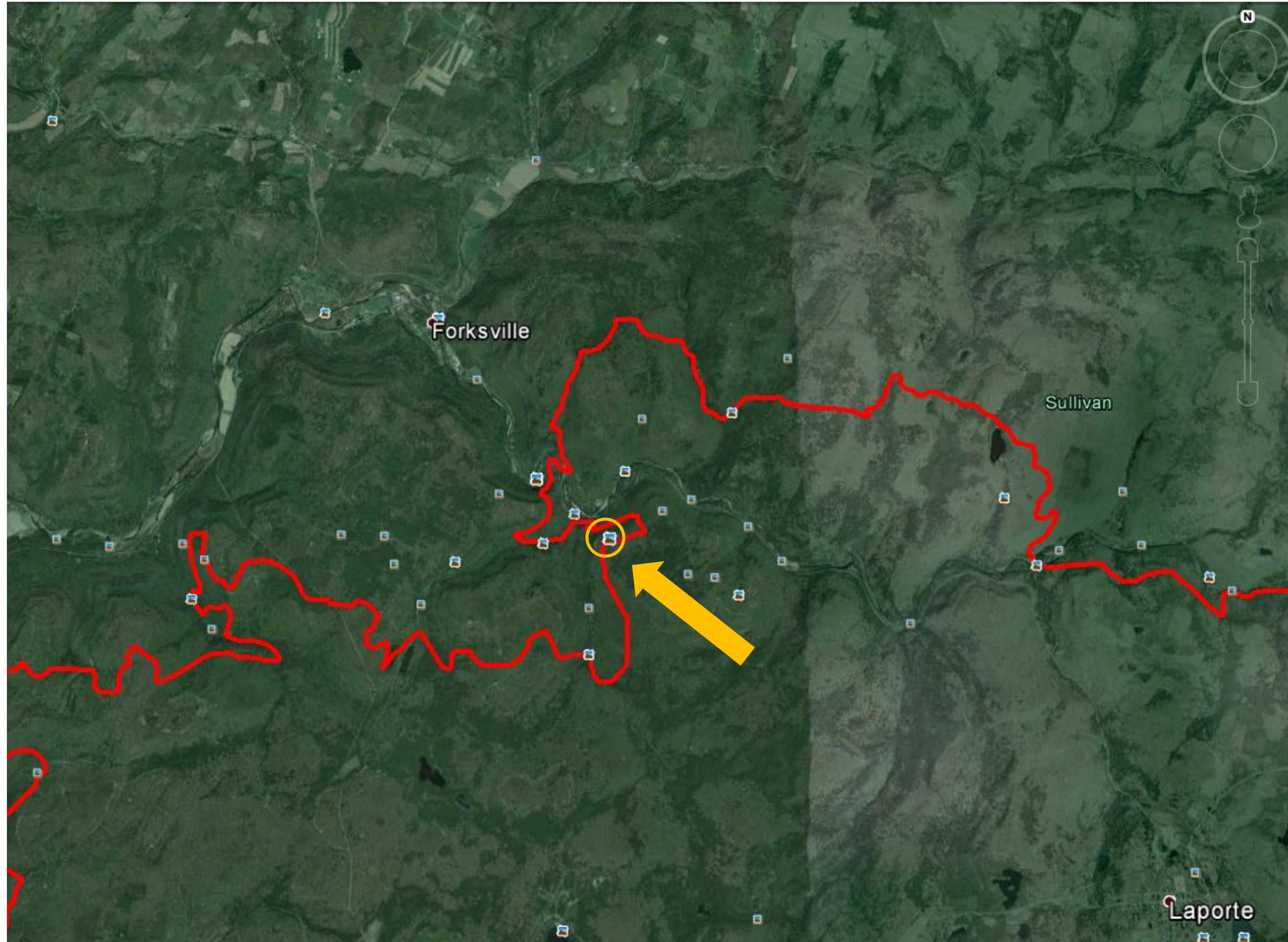
Crowdsourced photos in Google Earth



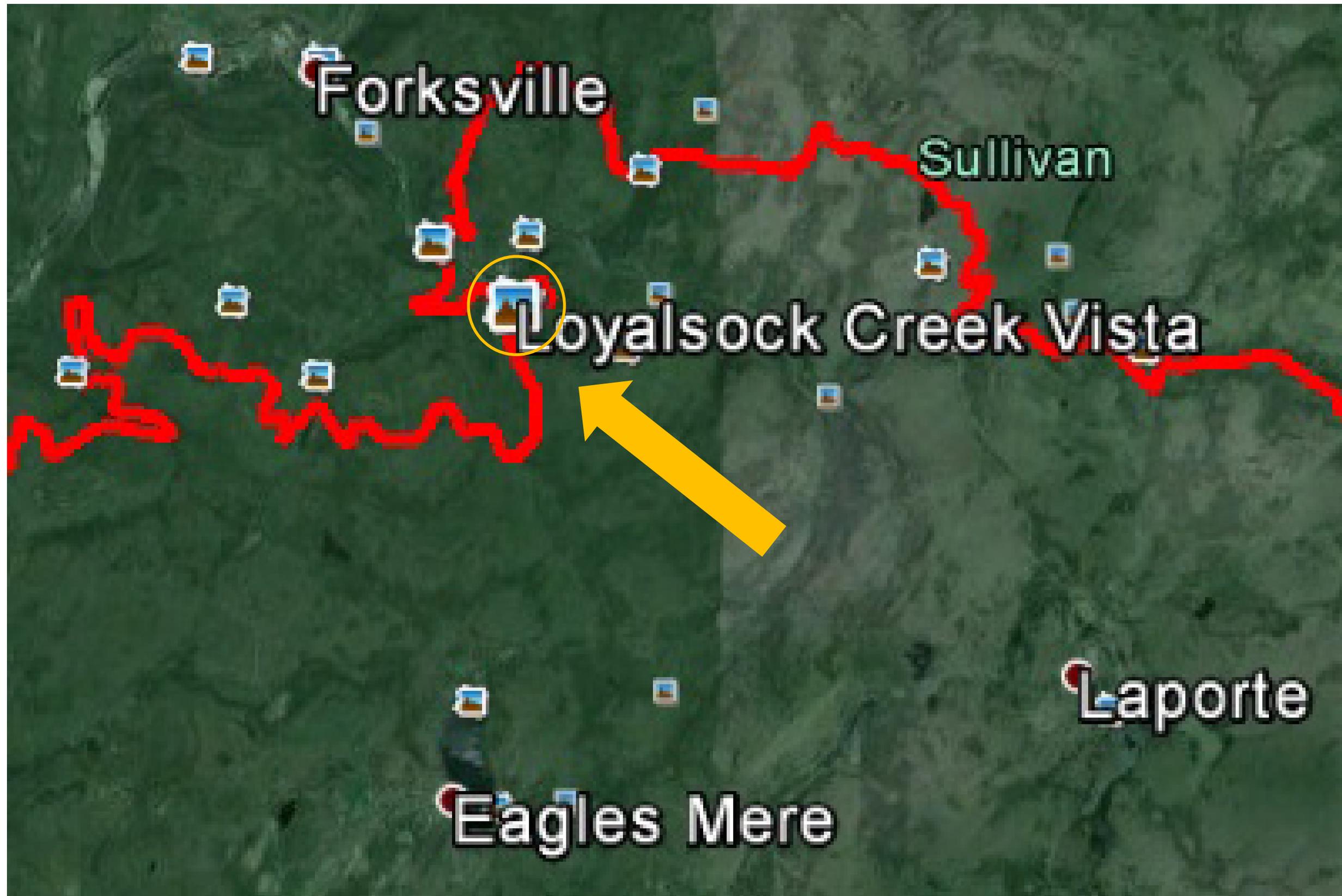
Crowdsourced photos in Google Earth



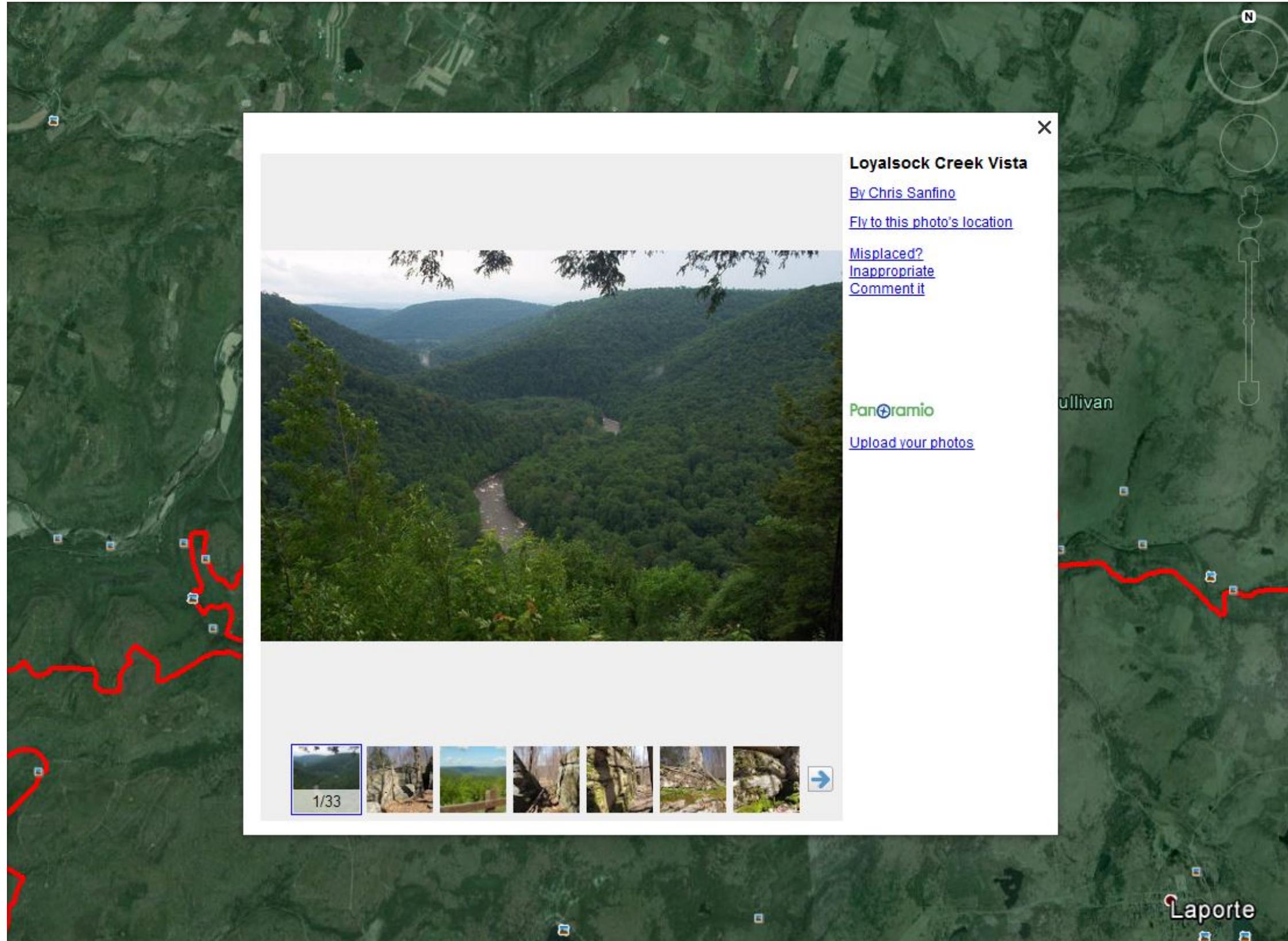
Large image cluster at Loyalsock Creek Vista



Crowdsourced photos in Google Earth



Loyalsock Creek Vista



Panoramio Interface - Popularity

The screenshot displays the Panoramio interface on a Google Maps background. The top navigation bar includes the Panoramio logo, Google Maps branding, an 'Explore' dropdown menu, a search bar with the placeholder text 'Search for a place', a 'Sign in' link, and a red 'SIGN UP' button. The main map area shows a satellite view of a park with several photo thumbnails overlaid. Key locations labeled on the map include 'Worlds End State Park Visitors Center', 'Double Run', 'Worlds End State Park', and 'Cold Run Road Falls'. Road markers for '154' and 'Sr3009' are also visible. On the right side, a filter menu shows 'Popular' as the selected category, with other options being 'Recent', 'Places', and 'Indoor'. Below the filter menu, there is a checked checkbox for 'Also show photos not selected for Google Earth'. A grid of 16 photo thumbnails is displayed, showing various natural scenes like forests, waterfalls, and scenic views. At the bottom of the interface, there is a footer with the text 'All photos in Google Earth', navigation arrows for 'Previous' and 'Next', and a copyright notice: '©2014 Google - Map Data | Terms of Use | Report a map error'. The map's coordinates are shown as '41°27'53"N 76°34'44"W'.

Panoramio Metadata

Panoramio | Google Maps Explore Search for a place Sign in SIGN UP



Loyalsock Creek Vista 14810 views 1 favorite

Selected for Google Maps and Google Earth

Comments (2)

northwestjunkie on June 29, 2008
This is truly a great shot. The tree texture reminds me of a blanket.
[Translate](#)

Chris Sanfino on June 29, 2008
Thanks. PA has got some crown jewels if you dig deep enough. It was a rainy day in this shot, and sometimes that can make for the best colors. Chris
[Translate](#)

[Sign up](#) to comment. [Sign in](#) if you already did it.

Chris Sanfino
23090 photos

World • United States • Pennsylvania
Forksville

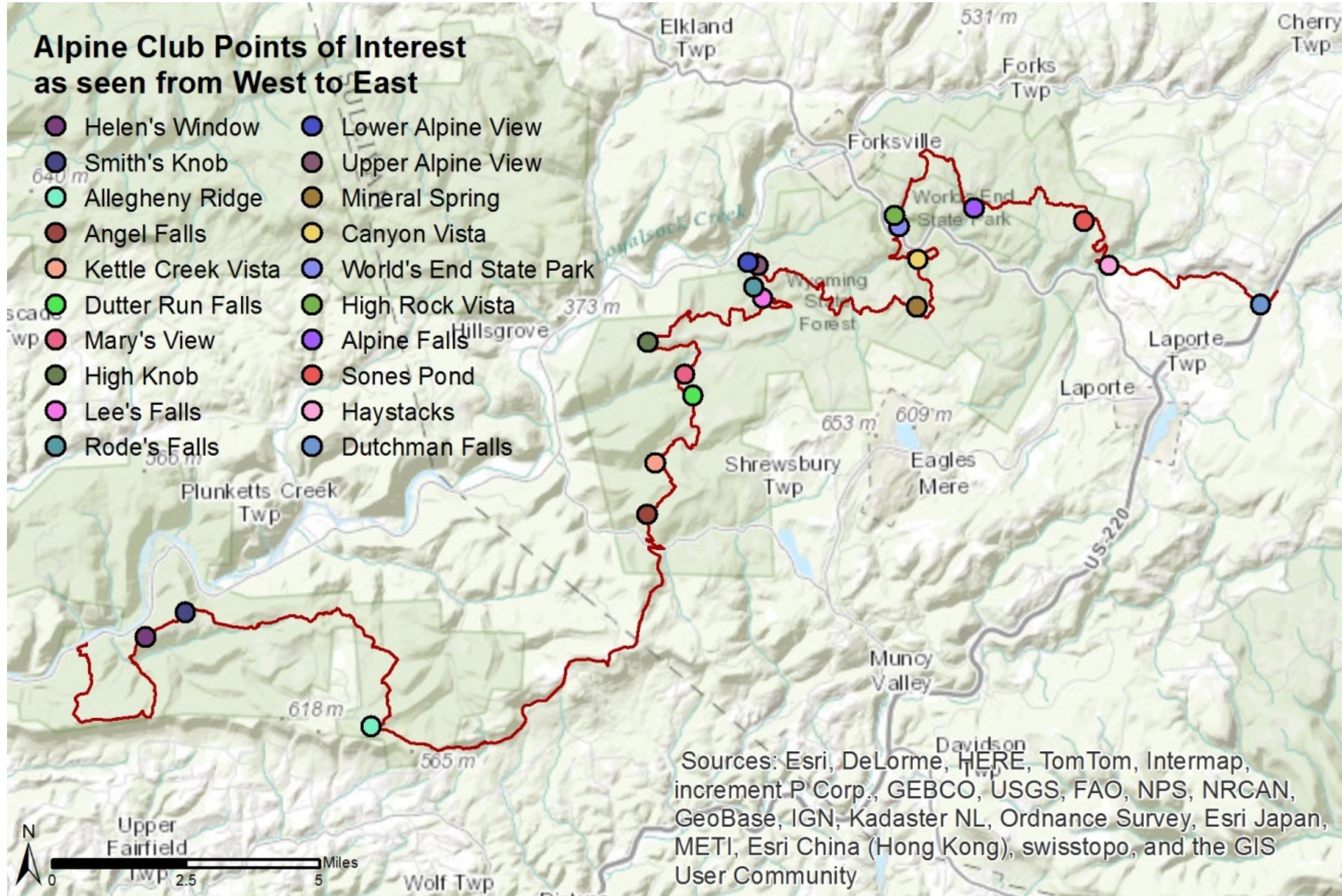
Satellite

Photo taken in Worlds End State Park, 82 Cabin Bridge Rd, Forksville, PA 18616, USA
41° 27' 45.61" N 76° 34' 22.15" W
[Misplaced? Suggest new location.](#)

Tags
• best • Western Pennsylvania

Photo details
Uploaded on July 17, 2007
© All Rights Reserved by Chris Sanfino

Identifying popular locations

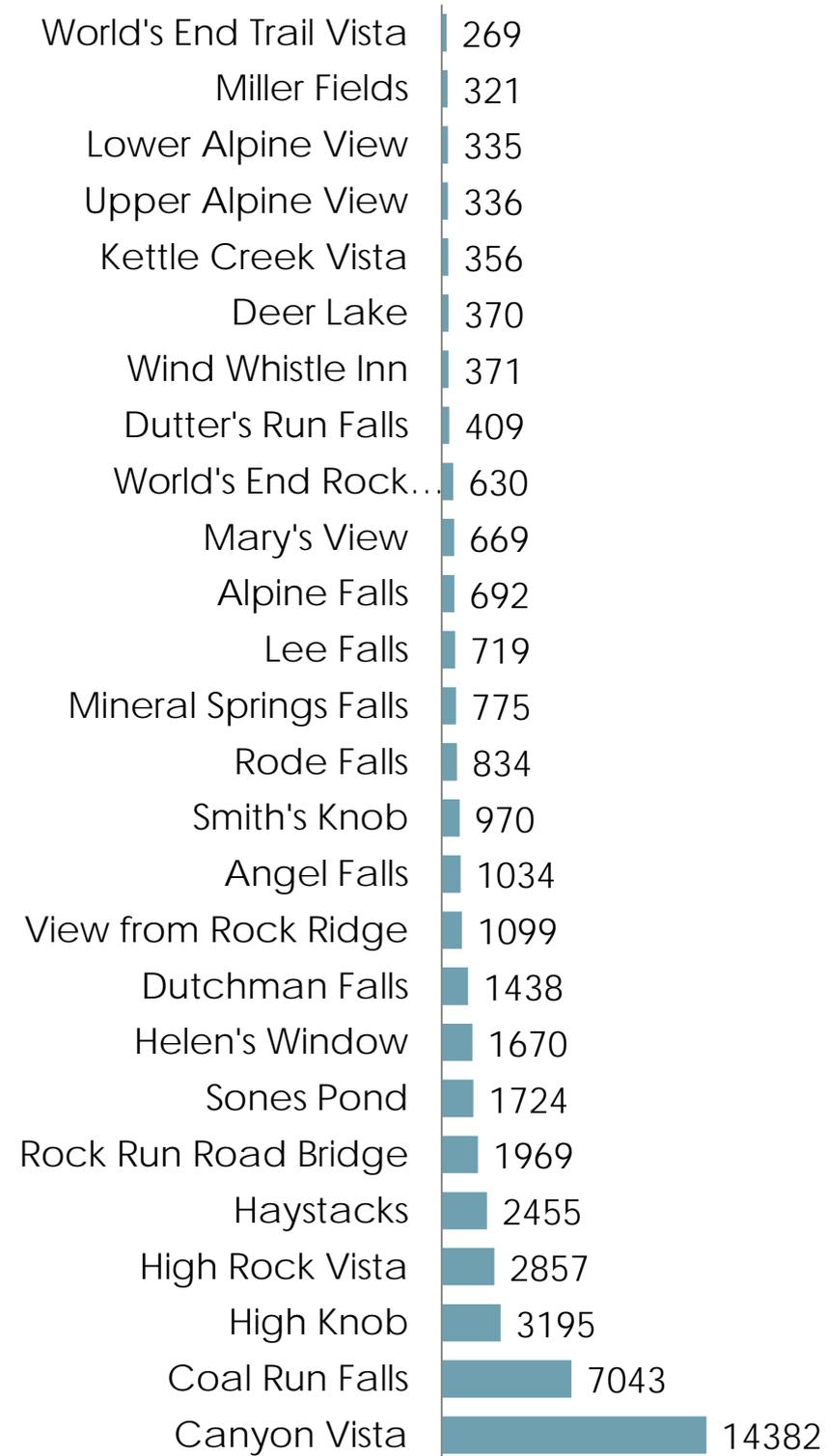




Ranking Points of Interest

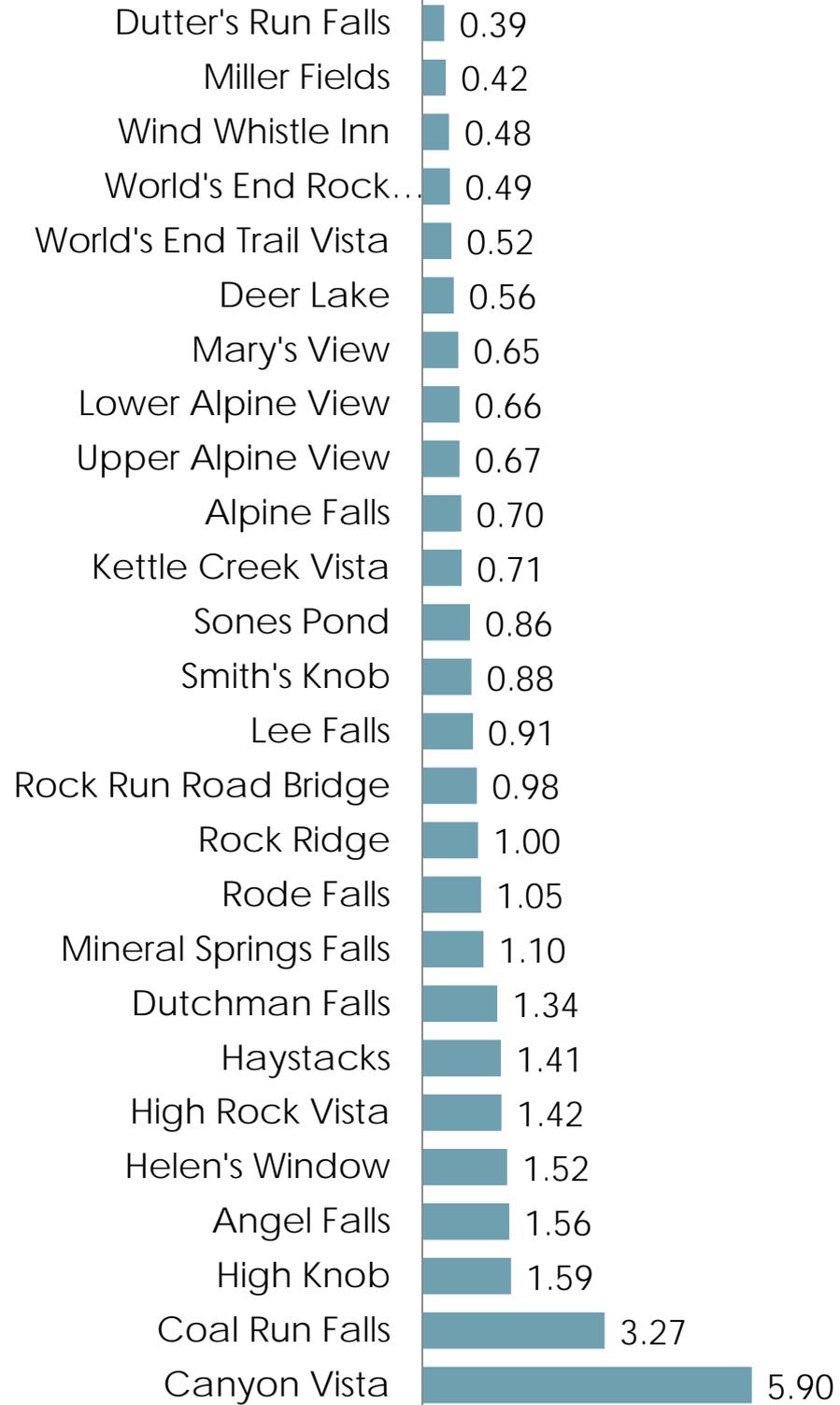
Total Views

■ as of 3/19/2014



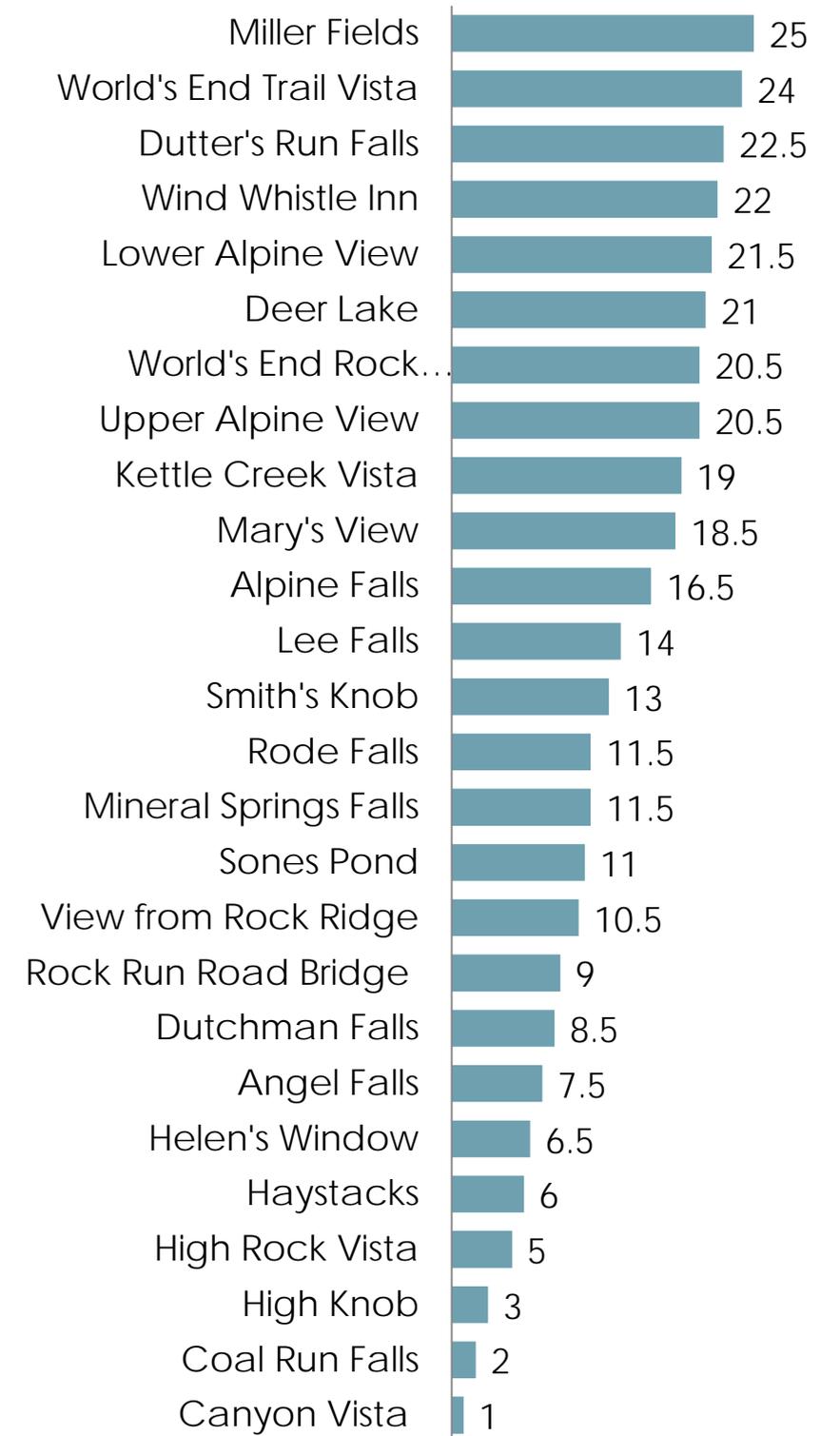
Averaged Views Per Day

■ as of 3/19/2014



Averaged Popularity

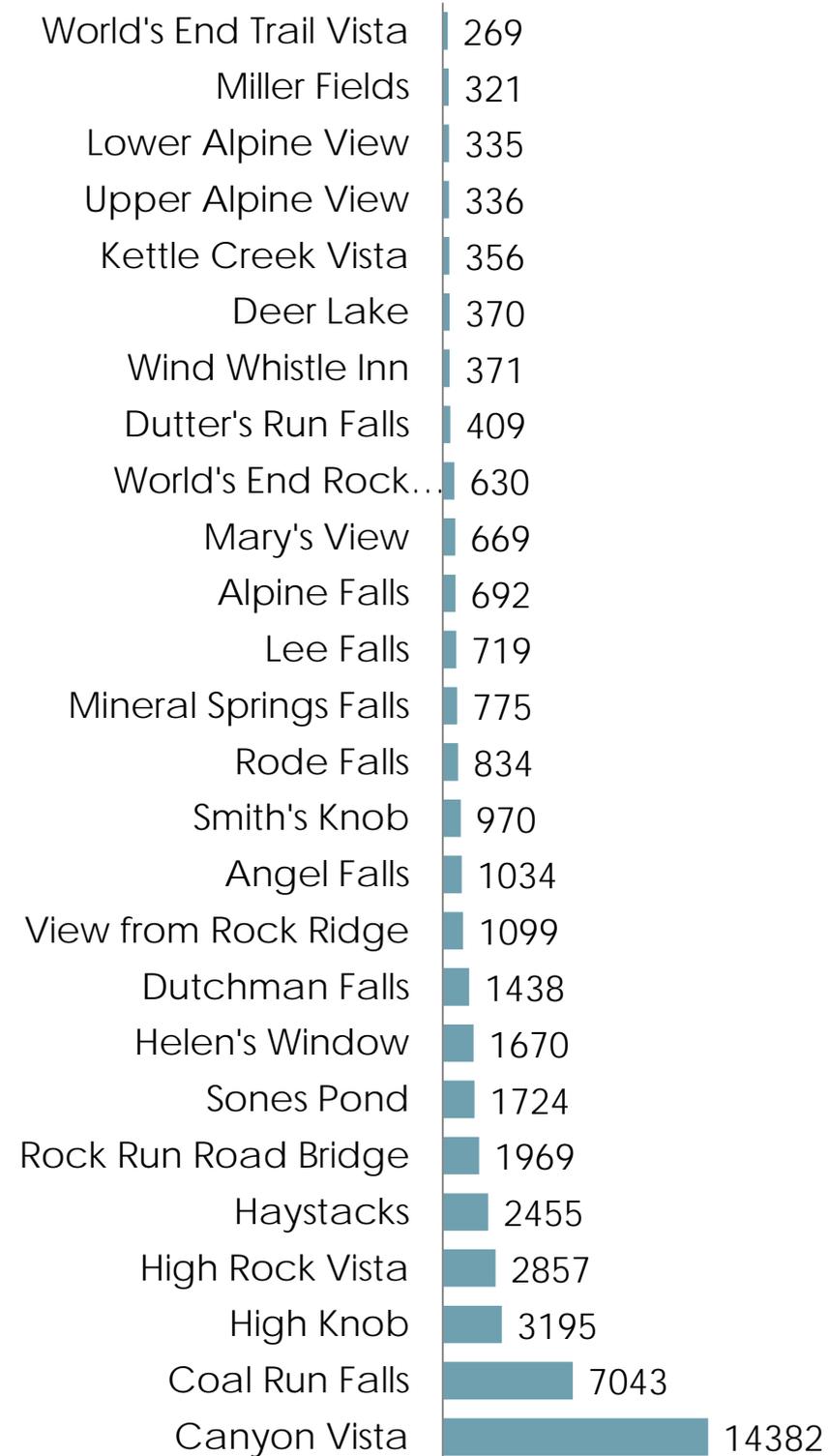
■ 1 = Most, 26 = Least



Ranking Points of Interest

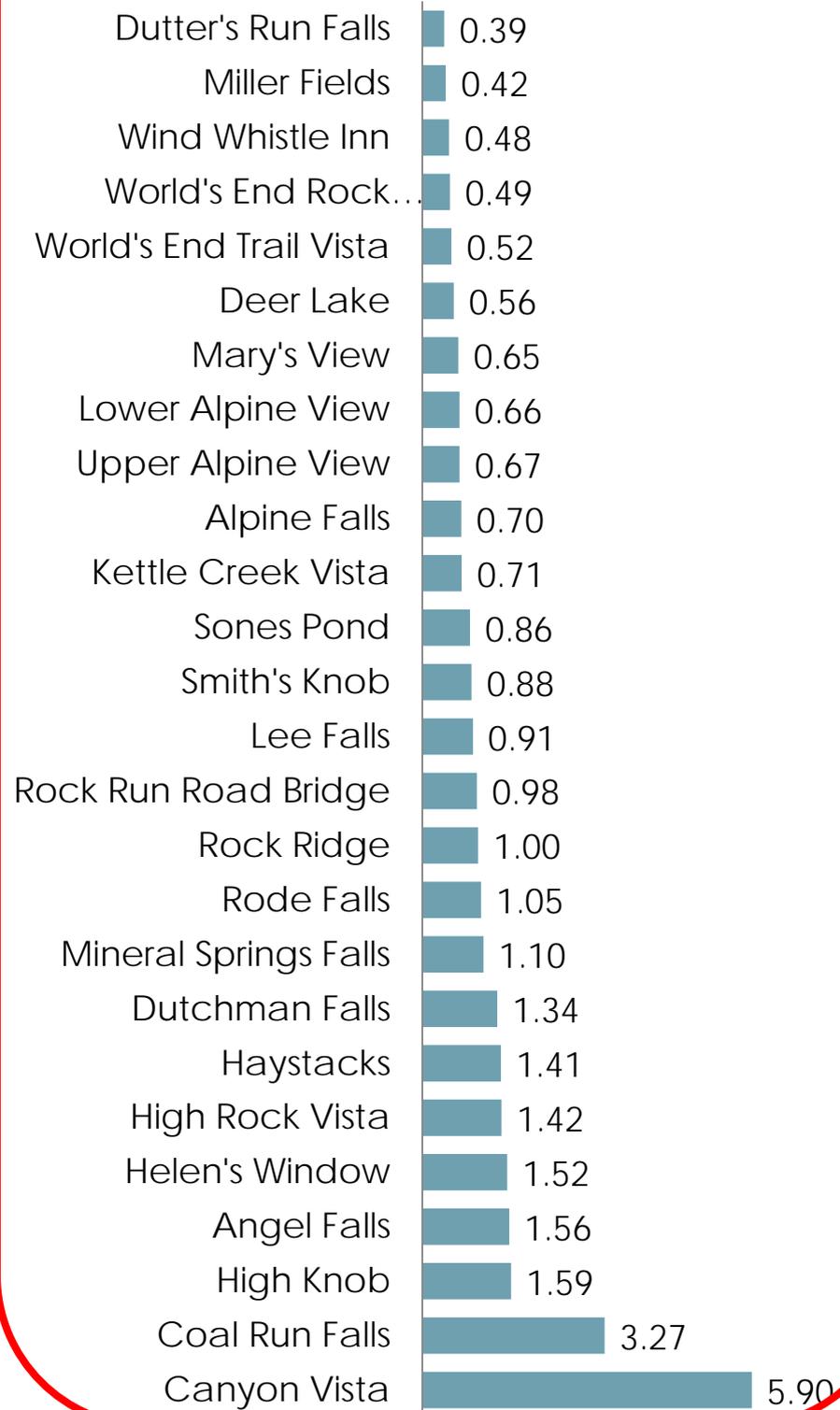
Total Views

■ as of 3/19/2014



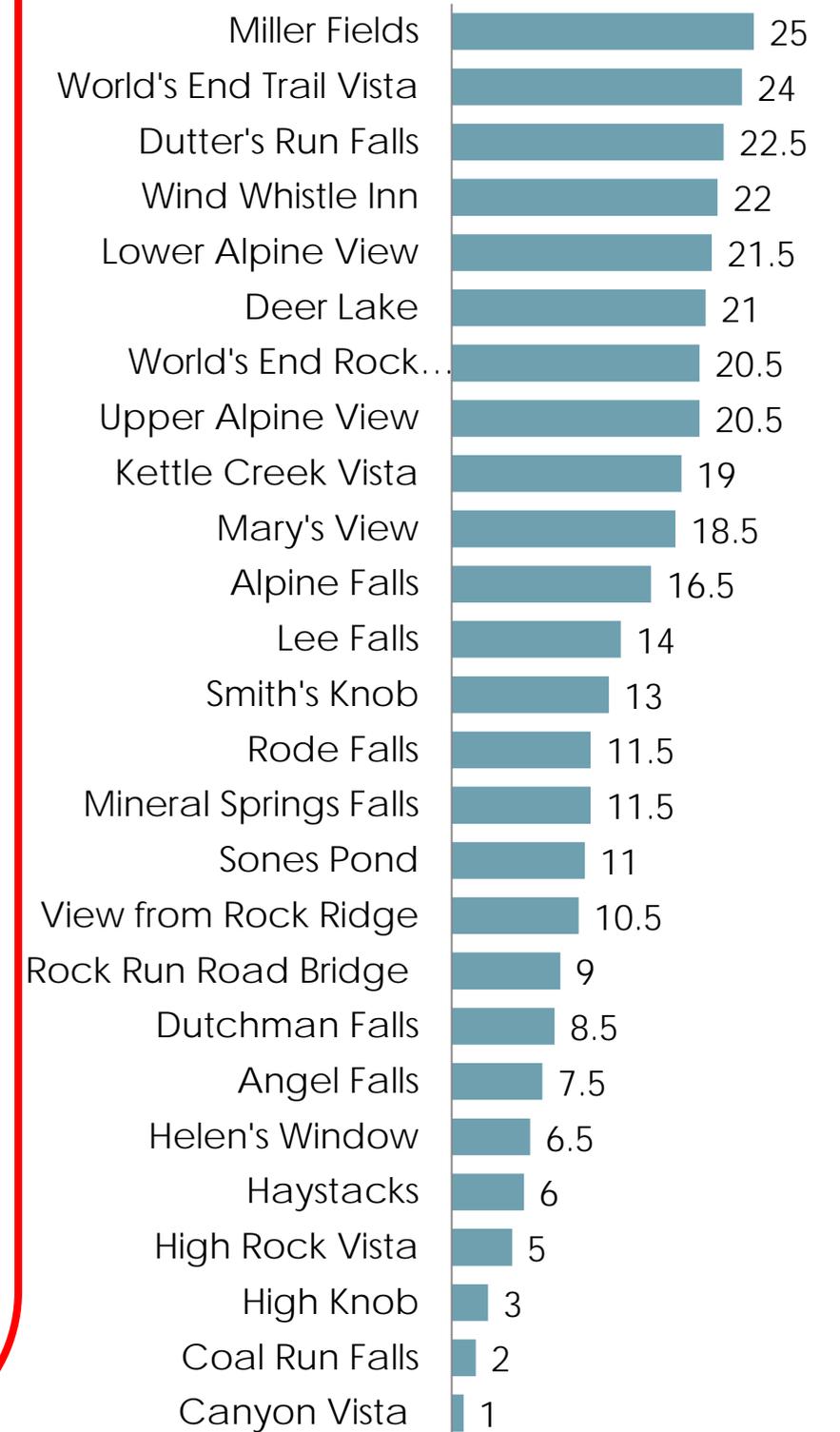
Averaged Views Per Day

■ as of 3/19/2014

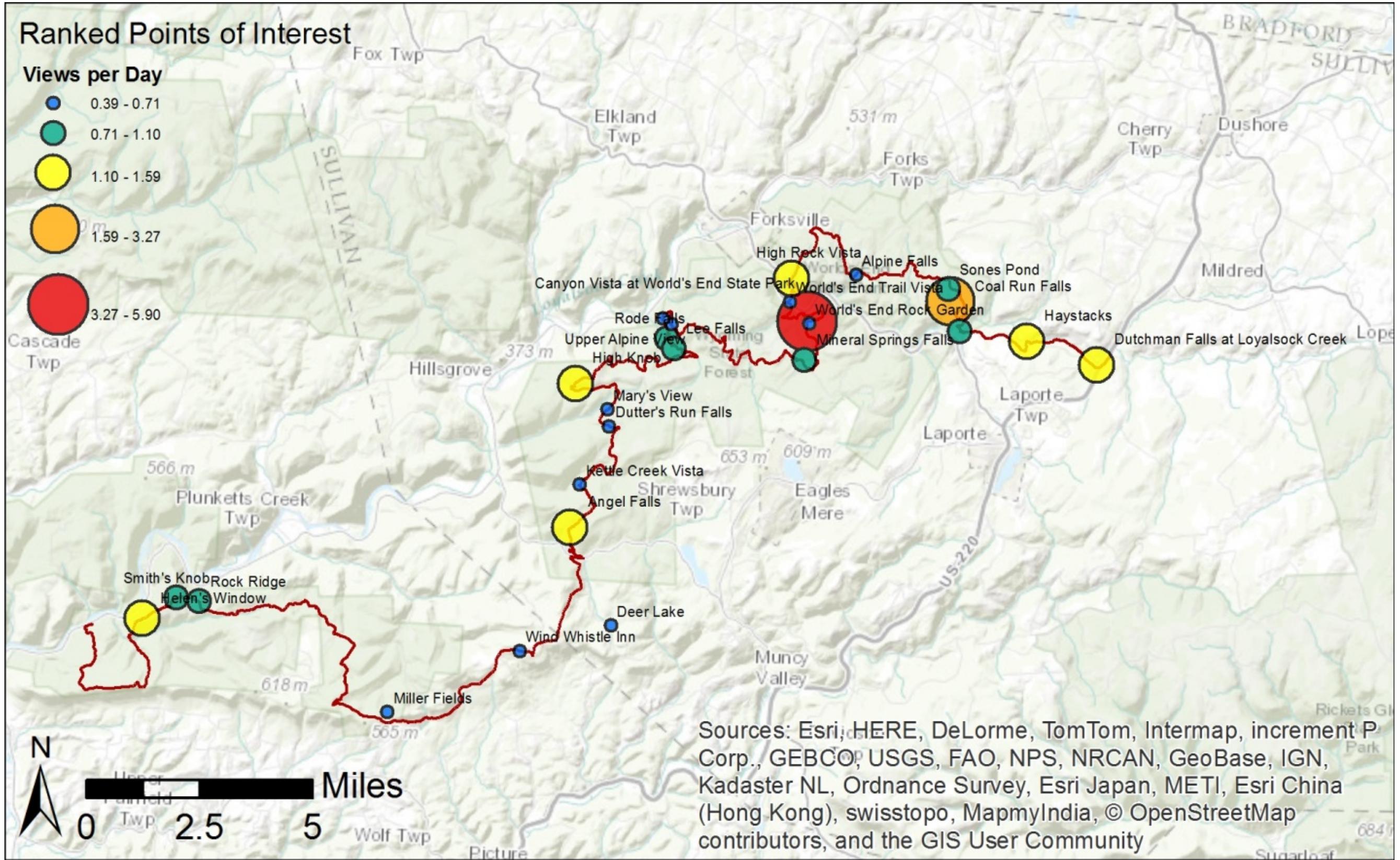


Averaged Popularity

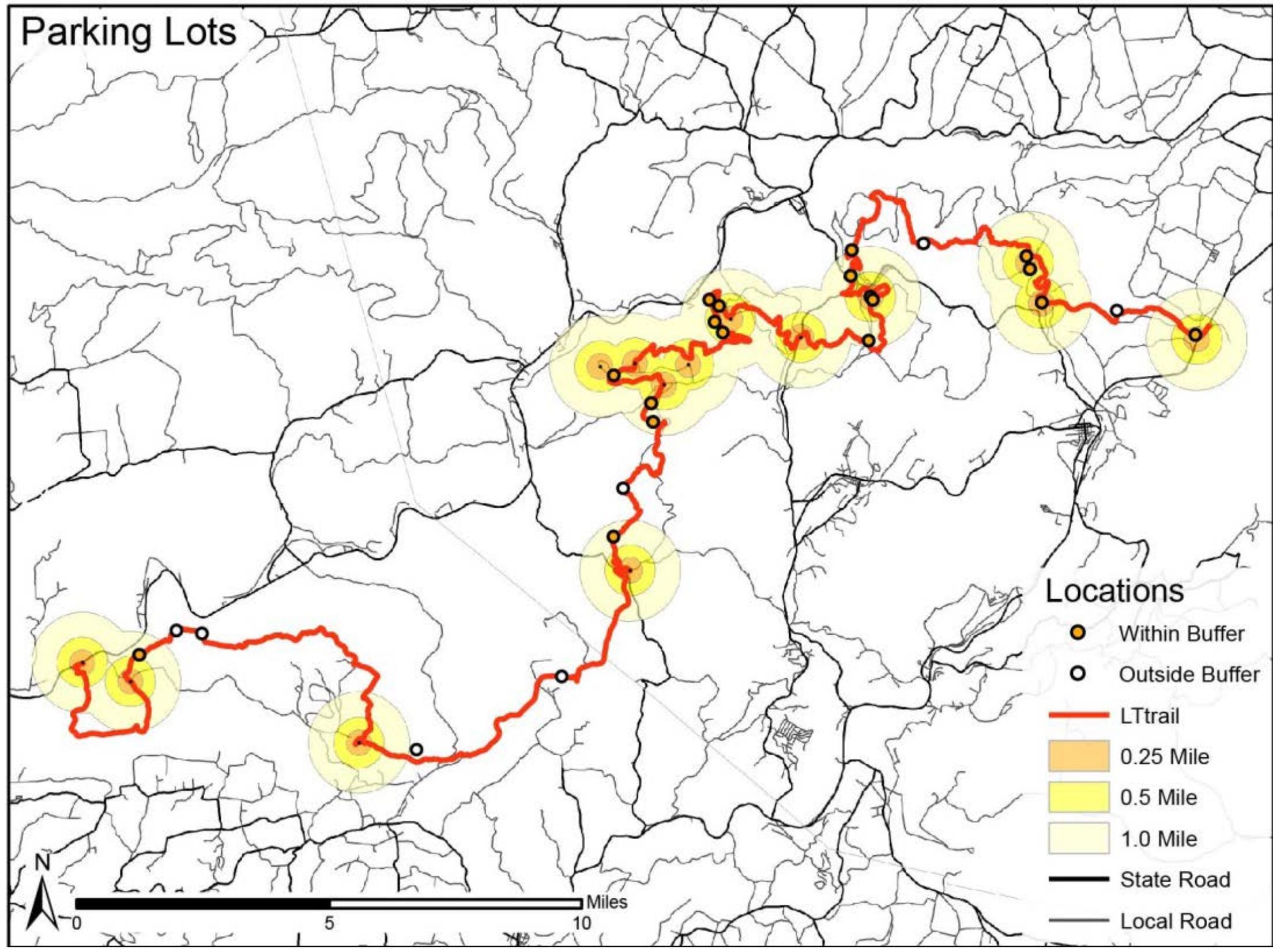
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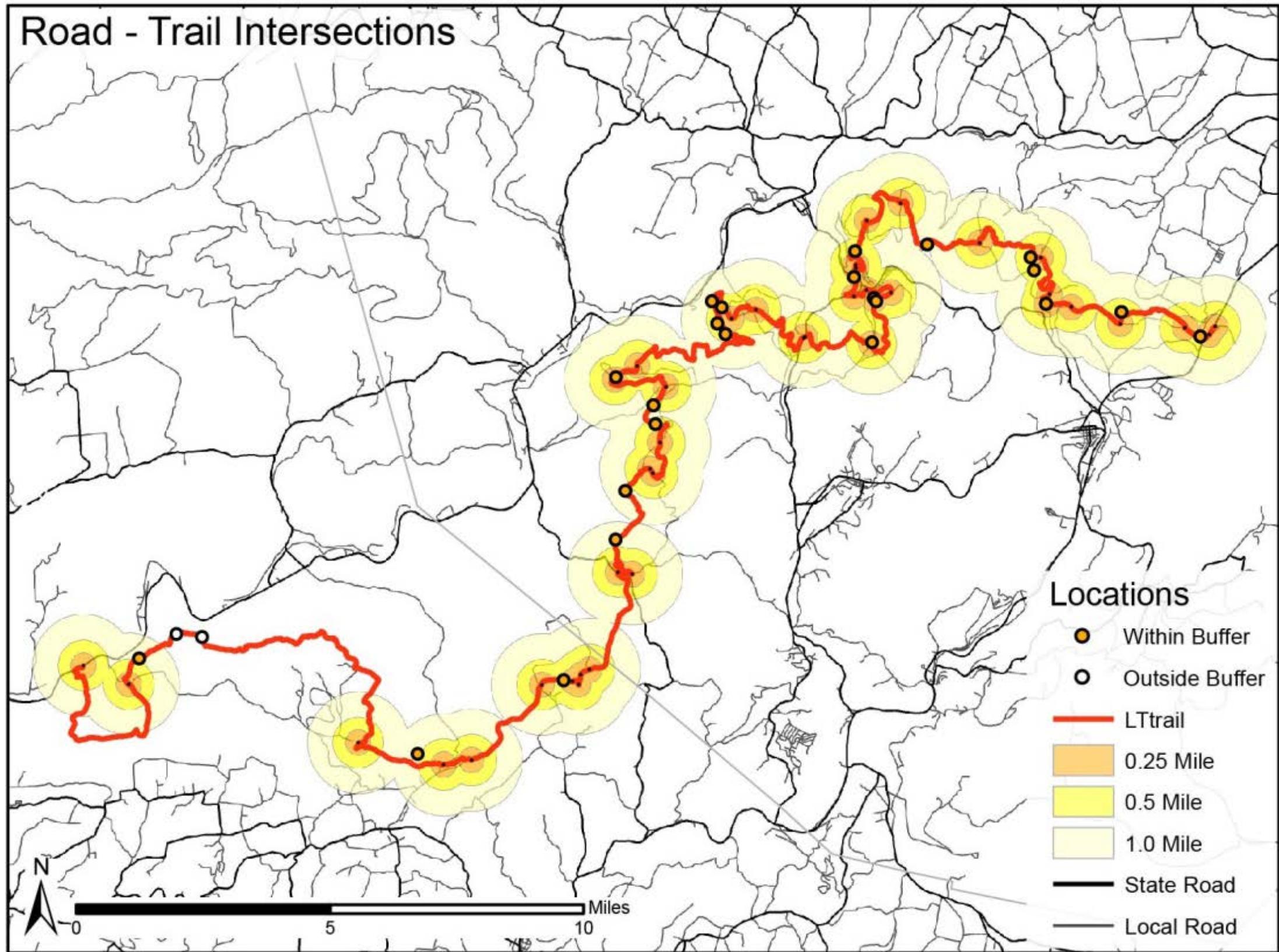
Ranked by views-per-day



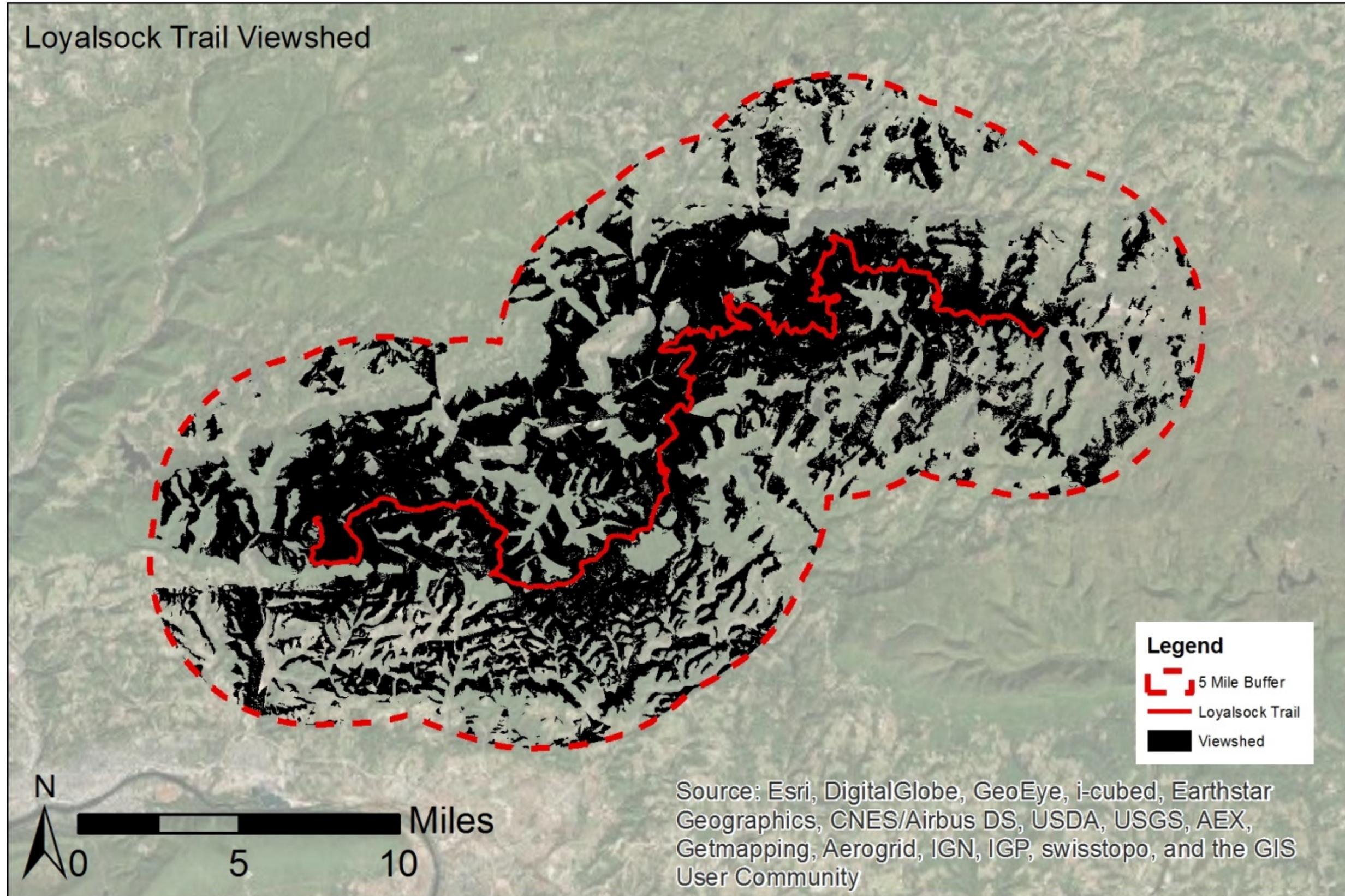
Factors to consider...



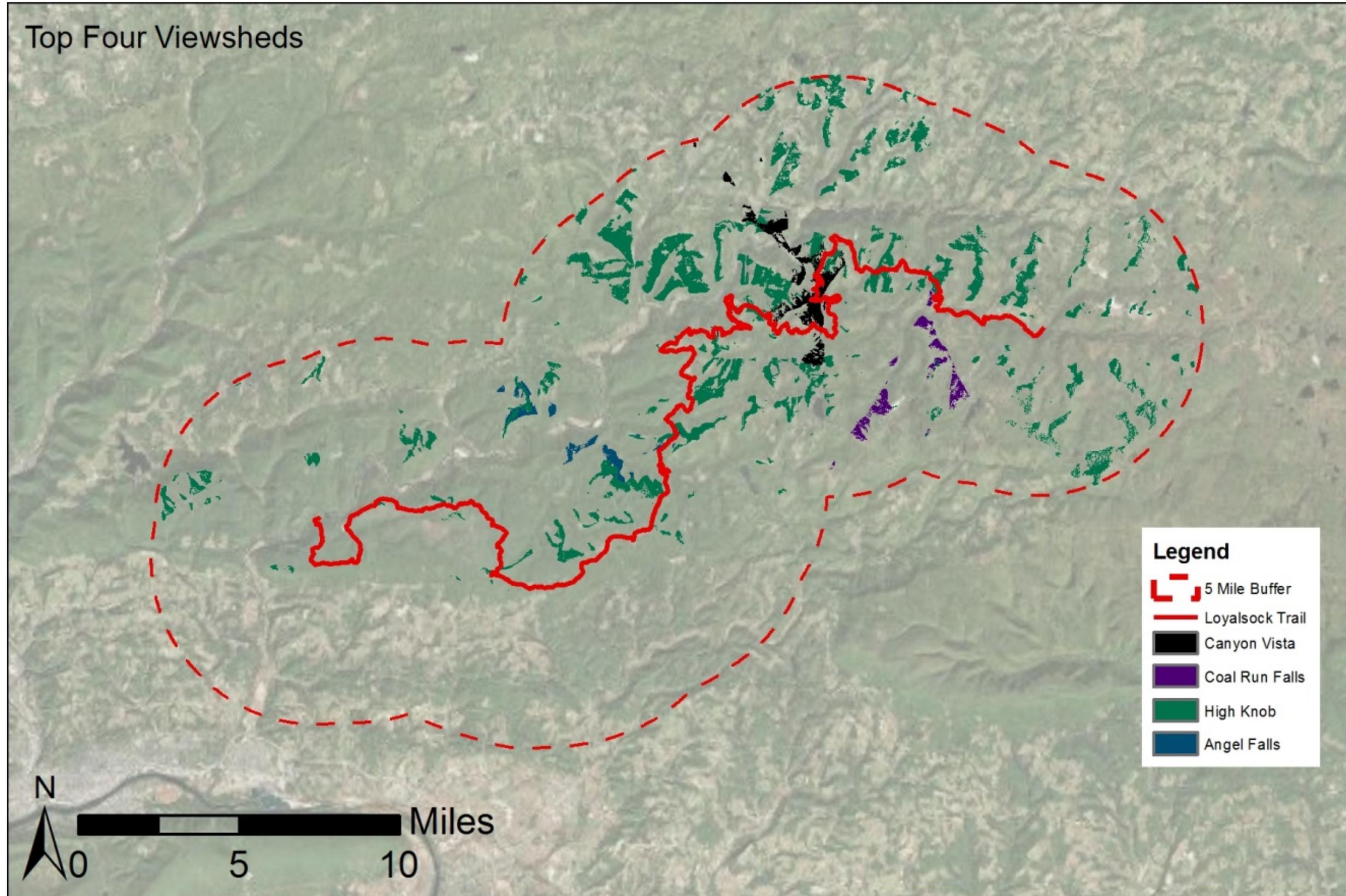
Factors to consider...



Entire viewshed



Viewshed(s) from top four most popular locations





A special thanks to...

- Brian Orland and Dr. Timothy Murtha
- The Hamer Center for Community Design
- The Departments of Architecture and Landscape Architecture
- The College of Arts and Architecture at Penn State
- The anonymous reviewers

Thank you.



Questions?

Anticipated Questions

- The external views may not be the only indicator of aesthetic value; other metrics may be better indicators of preference, but views are a strong starting point for research.
- It may also be of value to consider areas which may not have been photographed and uploaded to the online repository.
- This study has not looked into motivation behind the posting of the images. It is true that people sometimes post images of landscape elements they DO NOT like, or things which may not fit into traditional definitions of what is aesthetically pleasing.
- The viewshed analyses do not account for forest cover, but people visit and live there year-round when there wouldn't be leaf cover. Also, due to the rolling topography, high points in the landscape provide view from above down onto lower lying areas where forest cover would not change the view.