



TECHNIQUES FOR TRACKING IMPACT OF BIKEMAPS.ORG



BikeMaps.org

How can I monitor the effectiveness of our promotion of BikeMaps.org?

- BikeMaps.org provides tools for communities to understand the impact of bicycling safety campaigns using BikeMaps.org.
- Impact monitoring on BikeMaps.org provides feedback on the effectiveness of outreach activities.
- Impact monitoring on social media can also help to understand the events and themes that are important for bicycling in the communities where BikeMaps.org operates.
- Three tools for impact tracking include:
 - BikeMaps.org visualization page
 - Incident alert areas
 - Social media (Twitter)

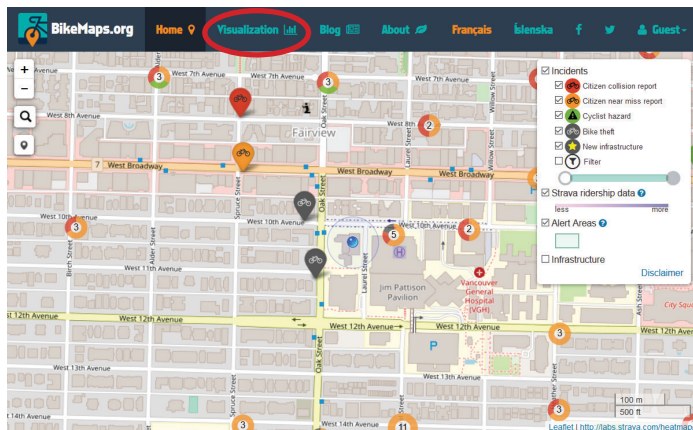


Visualize incidents using the BikeMaps.org Visualization page

- Timelines of reports submitted and summary graphs.

1. Go to the Visualization page (Figure 1)

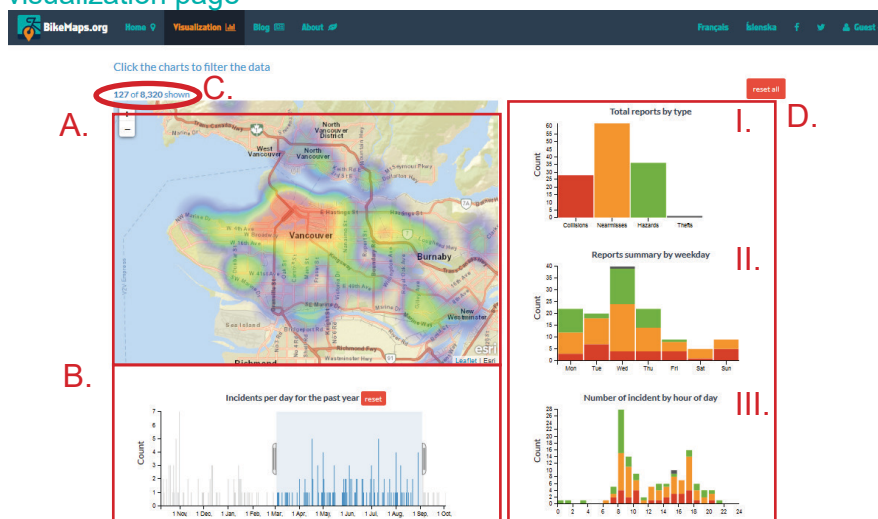
Figure 1 Navigating to the BikeMaps.org visualization page



2. Select the area of interest by zooming and panning the map (Figure 2, section A). Select the date range of interest by clicking on the timeline (Figure 2, section B).

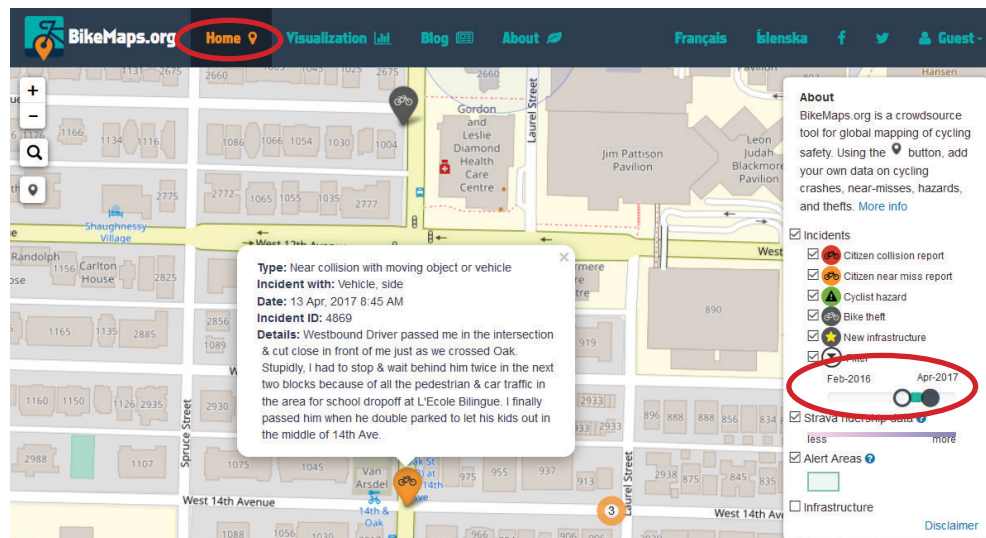
- The higher the bars on the timeline, the more reports were made on a given day.
 - This is a great way to help gauge response after an outreach event. You can monitor the timeline surrounding your event to watch for an increase in the number of reports submitted.
 - The total count of incidents is given in Figure 2, section C.
- ### 3. The graphs on the right provide summary statistics for trends in reporting (Figure 2, section D):
- I. The distribution of collisions, near misses, hazards, and thefts.
 - II. The day of the week when incidents occurred.
 - III. The time of the day when incidents occurred.

Figure 2 Tools on the visualization page



- Returning to the main map (click on “Home”), you can also filter by date (Figure 3) to review individual incidents reported within a date range.

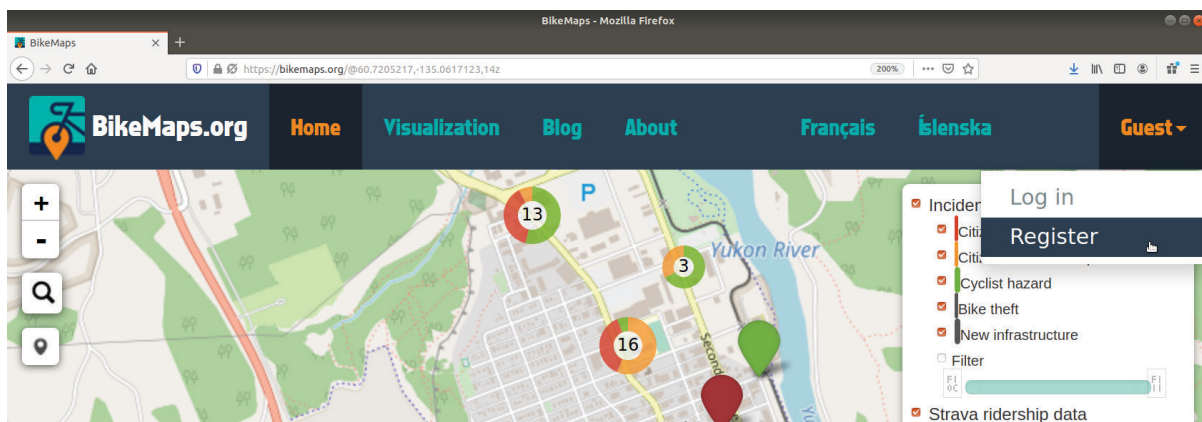
Figure 3 Filtering by date on the main map



Monitor incidents using an incident alert area

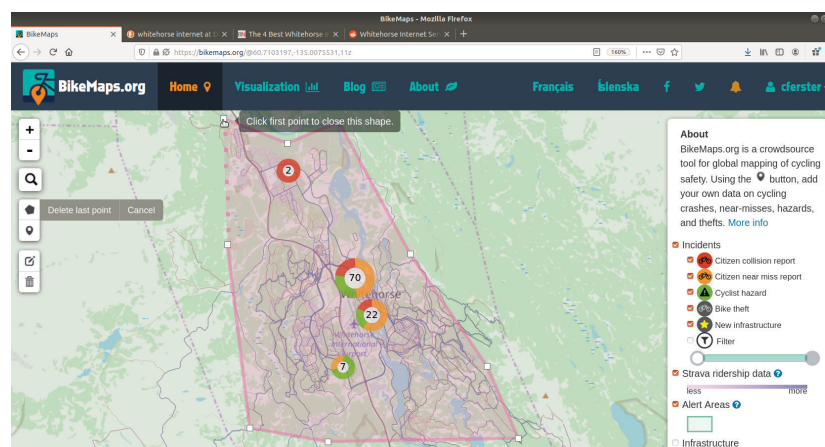
- You can keep track of new incident reports within geographic boundaries by creating an alert area
- Register for a free BikeMaps.org account and login to your account (Figure 4).

Figure 4 Register for a free account and log in to your account.



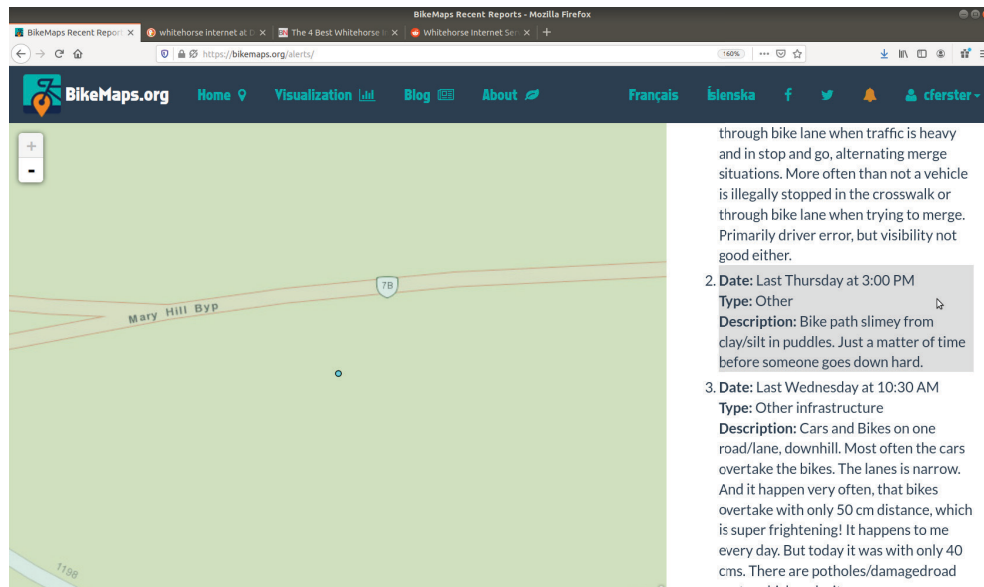
- Create an alert area by tracing the boundary of your area of interest (Figure 5).

Figure 5 Create an alert area



3. Click the alarm icon on the menu bar to review submitted incidents from the previous week. Hovering over the descriptions in the panel zooms the map to each point (Figure 6).

Figure 6 Click the alarm icon to see new incidents.



Social Media: How do we monitor trends in our community's sentiment towards bicycling

- You can use social media, specifically Twitter, to understand the changing view towards bicycling in your community.
- Twitter advanced search provides a useful tool to understand bicycling in communities (Figure 4).
- We developed queries using a combination of bike infrastructure keywords and geographic keywords. These can be tailored to individual communities where they are used (Figure 4 A).
 - Bike thematic keywords. "bike OR bicycle OR bicyclist OR cyclist OR cyclists lane OR path OR paths OR lanes OR bikelane OR bikelanes"
 - Geographic keywords. Common geographic keywords include the name of the city, the airport code of the city, important infrastructure projects in the city, and the names of popular bike routes. The purpose of the geographic keywords is to narrow the search down to the community of interest.
- Alternatively, you may use the geofence option (Figure 4 B). We found the keyword approach is more sensitive while the geofence approach is more specific in returning results from a place. Sometimes it is too selective, and if you don't find many results using the geofence approach, the keyword approach may be helpful.
- You might add terms with a negative sign (-) to remove places with similar names to avoid confusion (e.g. remove results from Australia from a query for Victoria, BC Canada using "-Australia" to avoid obtaining results from the state of Victoria in Australia)
- Feel free to extend or modify these keywords. Different communities use different words to describe their infrastructure!
- An example of the full query for Victoria, BC: fort OR pandora¹ OR victoria OR yyj OR #yyj bike OR bicycle OR bicyclist OR cyclist OR cyclists lane OR path OR lanes OR bikelane OR bikelanes -@VicRoads -.au -australia

¹ Fort and Pandora refer to roads in Victoria that received protected bike lanes.

Figure 4 Twitter advanced search

- You can read the Tweets to understand recent events, important topics, and influential individuals (Figure 5).
- Recent events and important topics may help to connect with and understand local bicyclists.
- Influential individuals (people who have Tweets with high retweet counts and are active in local conversations) could be allies to help support BikeMaps.org reporting in your community.
- Try sorting by “latest” to find the most recent topics, and by “top” to find the most widely discussed recent topics.
- To collect a longer-term record, consider using specialized data scraping tools, such as TAGS (Twitter Archiving Google Sheets - <https://tags.hawksey.info/>), which allow data collection for a permanent record and more advanced analyses.

Figure 5 Sample tweets



About

At BikeMaps we love biking as much as we love maps! Our goal is to map your cycling experience to make biking safer. You know your local cycling trouble spots and we want you to map them. Your knowledge of cycling safety, hazards, and even bike thefts will be analyzed using GIS and statistics to identify hot spots of cycling safety, risk, and crime. We are constantly updating our maps and technology, so send us feedback. And stay tuned for updated safety maps generated from YOUR biking experience.

Acknowledgements

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