Understanding Risk When There's No Data

Data is everywhere in the P&C industry. And yet, in some cases, there's still a lack of it. There are more data providers producing more footprints for a larger number of catastrophic events than ever before. Case in point, the data team for Insurity's geospatial analytics solutions processed and made available more than 25 post-event footprints (not including multiple daily updates) from five different data providers over the cumulative eight days following hurricanes Florence and Michael. That's a lot of data. On the other end of the spectrum, boundary data (perimeter data) can still be hard to find.

The bushfires in Australia were a recent reminder of this. Insurers often get notifications that regions or cities are impacted—and that's it. While NASA satellite imagery may provide hotspot data for events like the bushfires, there's still a lack of reliable and consumable boundary data.

Last year, some of our clients with U.S. exposures faced similar issues with finding consumable data representing wildfire evacuation zones or areas of lava flow. In these cases, insurance professionals often resort to graphic representations online or hand drawings on paper maps for ash clouds, lava flows, airborne debris fields, etc. Let's take a closer look at how boundary files can be created using Insurity Geospatial Analytics Portfolio Management.

How to Use Insurity Geospatial Analytics Portfolio Management to Create Shapefiles/Boundaries

During California's 2017 Santa Rosa wildfire (shown in the example below) customers within evacuation zones were forced to leave their homes and find temporary lodging for unknown periods of time. Businesses within the evacuation zones had to cancel reservations, resulting in a significant loss of income. It's clear, evacuation zones play a pivotal role in helping insurers expedite insured outreach while also helping to inform business interruption, loss of service, and loss of use claims.

Using Insurity Geospatial Analytics Portfolio Management to Create Boundary Shapefiles Can Help Insurers:

- Understand impacted insureds and expedite outreach

- Understand financial impact and keep stakeholders informed

- Place underwriting moratoriums

- Mobilize adjusters and investigate claims

The below steps demonstrate how to create a custom shapefile of a wildfire evacuation zone within Insurity Geospatial Analytics Portfolio Management as well as apply buffers and filters to gain a more complete understanding of actual and potential exposure to an evolving event:
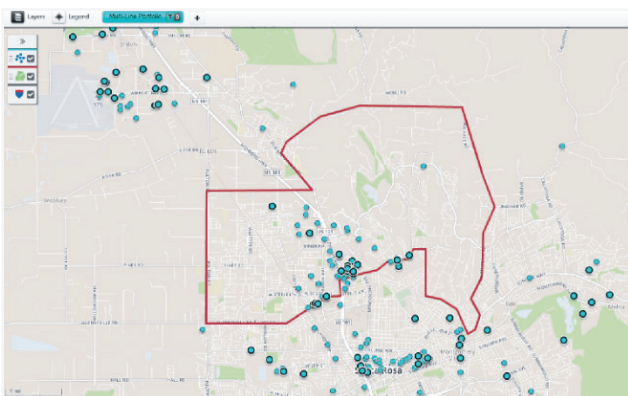

1

Identify the shape you want to capture. In this case, an online map from the city of Santa Rosa, CA, showing the Santa Rosa evacuation area.
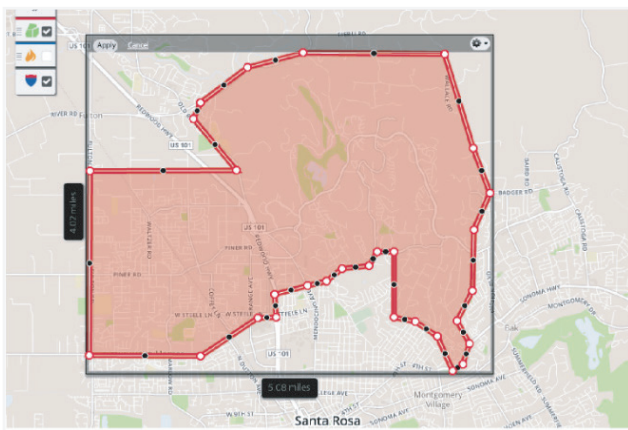
2
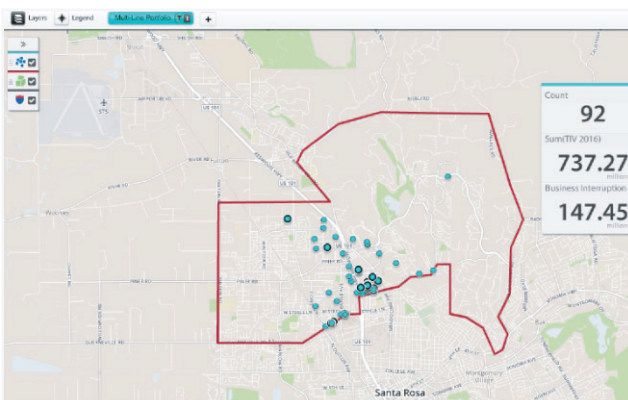
Using major roads, postal codes, and/or landmarks, use Insurity Geospatial Analytics to draw a polygon and recreate the shape of the online map.

3

Bring your portfolio data into Insurity Geospatial Analytics.

4

Visualize exposure and apply buffers and filters to gain a more comprehensive understanding of exposure using TIV and/or policy exposed limits.

Solving the Boundary Data Problem in the U.S.

We're actively working to integrate additional boundary data sources to help fill the gaps. Last year, for example, we integrated NASA's Visible Infrared Imaging Radiometer Suite (VIIRS) data. Using this data within Insurity Geospatial Analytics Portfolio Management, insurers can immediately overlay the fire perimeter with their portfolio data and use the active burn spots to inform context within the U.S. (e.g. which way the fire is moving, where the fire has stopped burning, etc.).

Why not just download perimeter data from sources like NASA or GeoMac directly? For one, GeoMac doesn't provide updates over the weekend. And, NASA's data, while updated regularly, still requires a fair amount of processing to operationalize. With this data already integrated into Insurity Geospatial Analytics Portfolio Management, insurers with U.S. exposures can immediately understand the relevant impact and take action.

NASA fire perimeter data from 2018's Woolsey fire in California. This data has built-in buffers set at 1, 2, and 3 miles from the perimeter. Insurers can join portfolios to understand which insureds are inside the perimeter and apply buffers and filters to understand TIV and/or policy exposed limits.

Clearly, more work needs to be done to fill the gap of missing boundary data on a global scale. Insurity's geospatial analytics solutions enable insurers to quickly and accurately understand their exposures and formulate a response plan.

Need help finding boundary or event data? We can help. Contact us to learn more.