

Visualize crash data via Community Maps

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"UNDERSTANDING the type of crashes on county roads over five years tells me a lot more than a gut feeling would about problems and where to concentrate our road improvement efforts."

Fond du Lac County Highway Engineer Paul Sponholz is referring to the benefits of diving into Community Maps earlier this year. After getting an account and setting up private work folders, he used the interactive online program to map injury and property damage crashes on county roads from 2006 through 2010.

In Lafayette County, Darlington Police Chief Jason King started using Community Maps this fall. He also mapped five years of crash data for a more complete picture of trouble spots and to document the case for possible improvements.

Community Maps is a joint project of the Wisconsin Transportation Information Center (TIC) and the Traffic Operations and Safety (TOPS) Lab, and sponsored by the Wisconsin Bureau of Transportation Safety.

In addition to a publicly accessible basemap of fatal crash locations, which TIC maintains, prospective local users can request advanced search and admin access. Those with admin access can manage crash data to produce spot maps, corridor maps and density maps that help guide project planning. Joni Graves, who directs the project at TIC, says proactive users like Sponholz and King "see the value of visualizing crash data to identify and prioritize possible traffic safety improvements."

Worth the effort

For Fond du Lac County, Sponholz notes that Community Maps really met a need for more decision-making information. "For the first time in my three years here, I've been able to map a significant portion of our crashes relatively quickly and easily with a few days work, something I've wanted to do for a long time," he says. "Now I can identify potential projects for general safety improvements or Highway Safety Improvement Program funds."

Sponholz mapped multiple-year data and saw that seemingly random incidents formed patterns. It confirmed his impression that the majority of crashes involved single-vehicle, run-off-the-road crashes on rural roads.

Two locations stood out. One was a winding county highway heavily traveled by area visitors. The other was a tight curve on a road that had no recovery area. In the case of the tight curve, Sponholz says the county paved the shoulders and installed chevrons as part of a planned resurfacing project to better delineate the curve. He anticipates more time to work with Community Maps with the construction season slowing down.

Local mapping options

Darlington's Chief King learned about Community Maps at a Traffic Safety Commission meeting and saw its potential. The department was using paper maps to identify the location of all crashes,

Resources

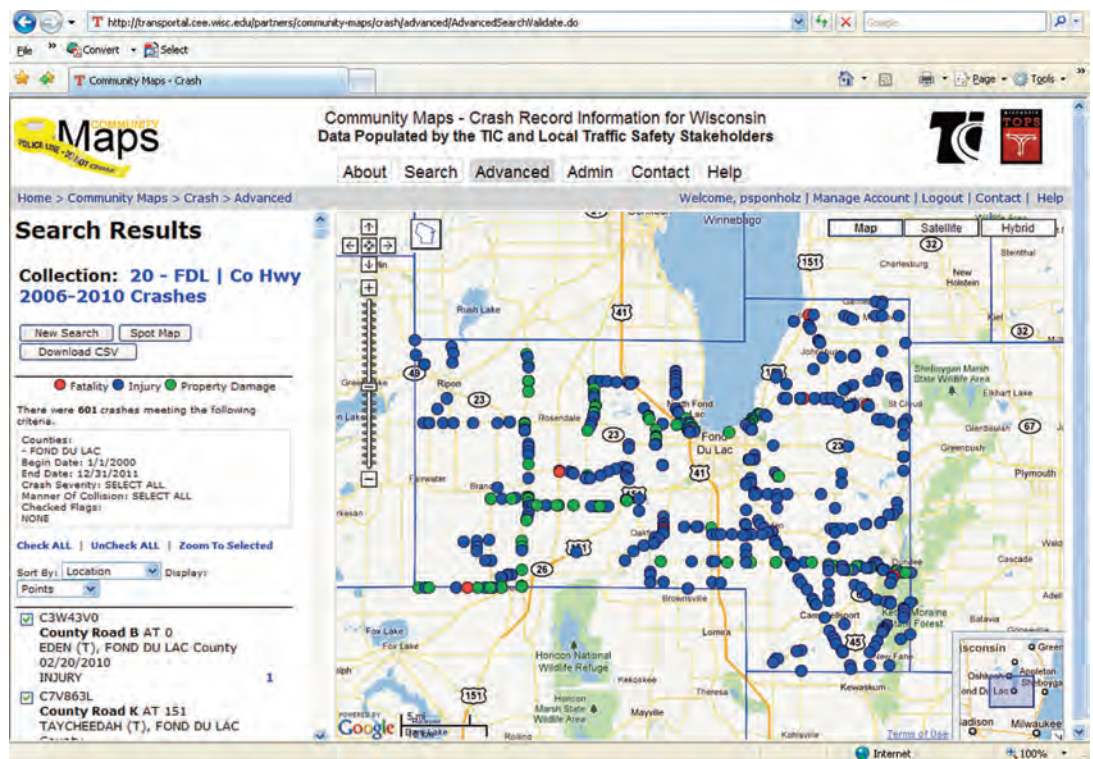
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TIC website page links to Community Maps search request screen.

http://tic.engr.wisc.edu/Community_Maps

WisTransPortal page with information about creating an account that enables access to advanced Maps features.

<http://transportal.cee.wisc.edu/help/>



Community Maps search results display five years of injury and property damage crash locations mapped by Fond du Lac County's Paul Sponholz.



Close up of a Fond du Lac County spot map (top) shows the location of single-vehicle crashes along a tight curve. The visual data helped the county prioritize cost-effective safety measures as part of a resurfacing project that included paving shoulders around the curve and installing chevrons, as seen in the photo above.

including “non-reportable” crashes not included in state data.

Graves populated a private work folder in Community Maps for him with five years of crash data, provided documentation and responded to questions. King used the program’s “auto locate” and “plot crash” functions to produce maps he can share with the city’s public works director and other city officials. Later the mapped data will

be added to the publicly searchable map interface.

King says his initial Community Maps analysis identified several fender benders near the local high school. Not unusual perhaps, given periods of high traffic volume and a concentration of inexperienced drivers. He sees this as a chance to work with the school and maybe use the data to support a Safe Routes to School proposal.

“Adopting Community Maps comes at a good time for us because our public works department is making plans to change out traffic signs,” King says. “Since the city is spending time and money on these changes, we’re collaborating with public works to review the crash data and maps so that sign updates will take all safety issues into account.”

Local management of crash data

Sponholz advises that other local road officials who want to try Community Maps “talk to Joni.” Graves’ experience with the program, which she began developing in 2005, makes her a valuable resource for prospective and current users of the program.

Frank Phillips, an engineer who assists the Town of Warren in St. Croix County, has been a safety consultant for several years. He recently contacted Graves to request WisTransPortal data and was impressed by the amount of data that is available “if you know whom to ask.”

Village of DeForest Police Officer Brian Johnson recently demonstrated his work with Community Maps for the Dane County Traffic Safety Commission. “I was pleasantly surprised, Community Maps is easier to use than I imagined, with minimal data entry.” As for accuracy, he reports plotting the location of some crashes to a specific parking lot stall. The DeForest Police Department is enthusiastic about helping other Dane County agencies get on board. “We are all a team and glad to help,” says Lt. Daniel Furseth.

Interested users can sample the basic search functionality in Community Maps by following the link on the TIC website. Contact Graves to request advanced access, user documentation or more information about using public and private work folders to map crash data. ■

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