case, drivers only know that they can't get from one place to another. You just need to get it replaced as soon as you can.

"There are really only about three or four firms with the capacity to pick up a project like this from nowhere and run with it, and Burns & McDonnell is one of them. We did a handshake over the phone, and they started the next day."

The next morning, Burns & McDonnell engineers were en route to the site to assess the damage. "Preliminary plans for a new three-span, prestressed I-girder bridge were ready for MoDOT's review five days later. Final design was completed within three weeks, and the state reviewed it in one day," Eisenbeis says. The new $2.3 million replacement bridge was constructed within three months of the collapse. "It was the kind of job that would normally take a year."

Complicating matters on many emergency projects is the wide range of design disciplines and the sheer number of people who need to be involved in the rebuilding process.

A 2012 tornado ravaged Spirit AeroSystems facilities in Wichita, Kan., spurring reconstruction efforts completed within a year.

Consider what happened to Spirit AeroSystems in Wichita, Kan., when an EF3 tornado ripped through its campus one Saturday in April 2012. After a week of restoring utilities and other triage efforts,

Disaster recovery efforts come in all shapes and sizes. A significant number, however, involve some form of environmental remediation. Here is a sampling:

Hazardous Liquid Cleanup Following a Major Plane Crash

The Emergency

After a long flight from South Korea, Asiana Airlines Flight 214 was landing at San Francisco International Airport on the morning of July 6, 2013, when the Boeing 777 aircraft crashed on final approach, hitting a nearby seawall. Three on the flight died and 181 were injured.

The Response

Burns & McDonnell was called in to handle the environmental portion of the emergency response. That included mobilizing contractors needed to contain the jet fuel, motor oil and hydraulic oil that spilled from the plane both at the crash site and as it was later transported to a satellite location two miles away.

Because Burns & McDonnell had performed environmental projects at the airport since the 1990s, the firm had the security credentials, subcontractor relationships and site familiarity needed to begin work immediately, says Mitch Monroe, a geologist in the firm's San Francisco office. "We set up a system of containment berms — absorbent materials that kept the spills from reaching any storm drains or waterways — which we regularly inspected and changed out," he says. The used berms were later containerized and disposed of safely before contractors provided final cleaning of the area. The entire process was complete in about a month.

On-Call Emergency Response to Mass Transit Accidents

The Emergency

Metrolink, the commuter rail system that serves Southern California, regularly faces emergency response situations, sometimes from injuries and deaths along the route or right-of-way as a result of collisions with vehicles or persons on the track. "When an incident takes place, we still have passengers who need to get home," says Tracy Berge, public safety and environmental manager for Metrolink in Los Angeles. "We need to respond as quickly as possible so we disrupt our passengers as little as possible."

The Response

For more than two decades, Burns & McDonnell has provided on-call emergency response services for the Metrolink system. That includes anything from biowaste cleanup on rights-of-way and outsides of trains to cleaning up diesel fuel and chemicals after a train accident.

"Eighty percent of the time these incidents take place during our high-commute hours," Berge says. But Burns & McDonnell is still required to be on the scene within two hours of the call.

"What I appreciate about Burns & McDonnell is that they are always ready to help, they are familiar with all the regulatory rules and changes and they provide the

overall environmental assistance we need to stay in compliance," Berge says.

Cleanup Following a Major Oil Spill

The Emergency

On July 26, 2010, a 30-inch pipeline carrying crude oil from Indiana to Ontario ruptured, spilling an estimated 19,500 barrels of oil near the town of Marshall, Mich., ranking as the largest inland oil spill in Midwest history. Owned by Enbridge Energy Partners LP (U.S.) and Enbridge Inc. (Canada), the pipeline was part of the world's longest petroleum pipeline.

With local waters near flood stage, the oil quickly found its way to a swollen creek and was carried to the rushing waters of the Kalamazoo River, where it traveled approximately 35 miles to the Morrow Lake delta — just 80 miles from Lake Michigan.

The Response

Burns & McDonnell environmental professionals from multiple offices quickly built a dedicated team to help Enbridge respond to the spill. Enbridge's goals were to contain the oil no matter what and make sure oil didn't reach Morrow Lake. The strategy involved identifying control points along the river where booms could be stretched to direct and trap the oil. Once held, the oil could then be skimmed or siphoned from the water.

Recognizing the EPA's reporting requirements and the logistics of managing resources on the river, Burns & McDonnell professionals were teamed with Enbridge supervisors to assist with managing the resources of the massive spill response, which eventually grew to include more than 40 control points, 1,778 field personnel, 338 regulators and 420 management personnel.

Within the first week, the oil had been contained and the cleanup was underway. Knowing where resources were on the river and where resources were needed became a key function of the operations and strategic planning teams, and Burns & McDonnell and its proprietary OneTouchPM® tool played a key role in providing that information. "Burns & Mac folks were there from the start of the incident in Marshall and were an integral part of what we have accomplished in the weeks and months after the spill," says Brad Salo, compliance coordinator, U.S. compliance for Enbridge.