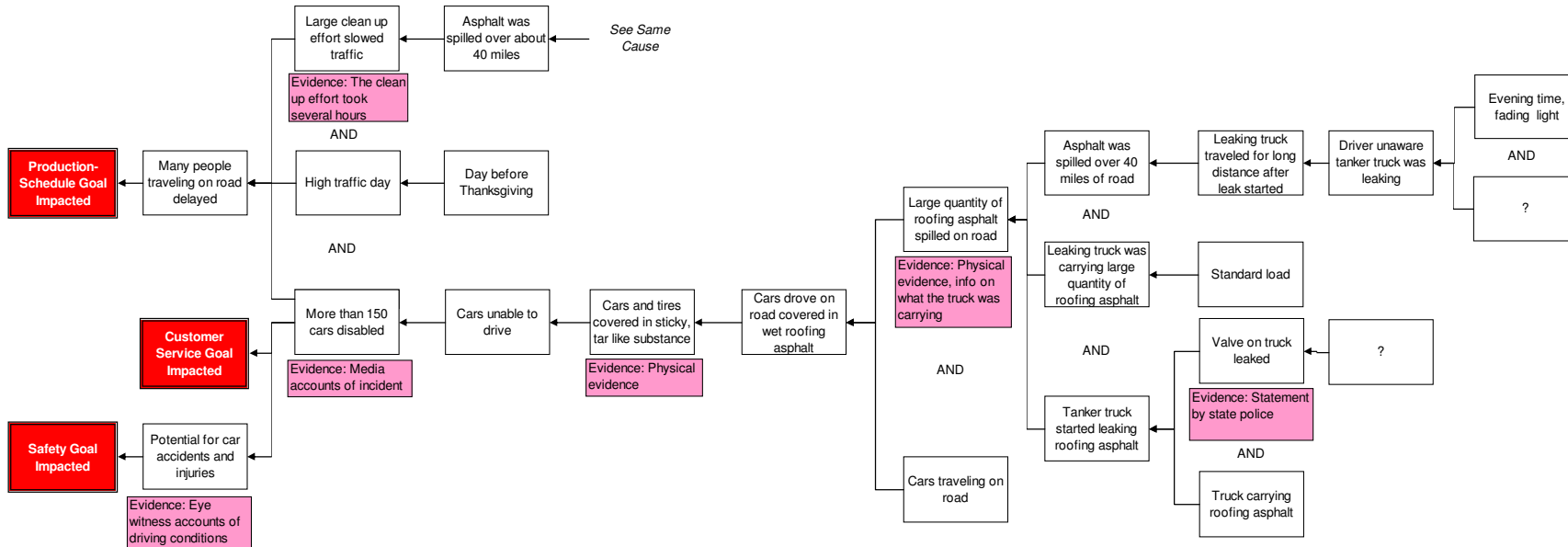
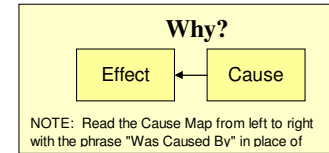


# Large Quantity of Roofing Asphalt Leaked on PA Turnpike

Between the New Castle and Allegheny Valley exits of the turnpike near Pittsburgh  
November 22, 2011

On November 22, 2011, a tanker truck spilled a large quantity of roofing asphalt along nearly 40 miles of the Pennsylvania Turnpike. The spill damaged many vehicles and caused a traffic nightmare as crews worked for hours to clean the mess up. The timing of this incident was also unfortunate because it occurred on the evening before Thanksgiving, traditionally a very high traffic time.

This incident can be analyzed by building a Cause Map, which is an intuitive, visual method for performing a root cause analysis. The first step when building a Cause Map is to determine how the incident impacted the goals of the organization. In this example, the safety goal was impacted because there was potential for car accidents and injuries. Thankfully, no one was actually hurt, but it is important to note the potential impact in order to fully understand the ramifications from an event. Additionally, the traffic delays are an impact to the schedule goal. The customer service goal was also impacted because over 150 cars were damaged by the spill.



Now the Cause Map is expanded by asking "why" questions and adding Causes that contributed to the incident in order to show the cause and effect relationships. In this example, there was a potential for injuries because more than 150 cars were damaged while driving. The cars were damaged because they drove onto a spill of wet roofing asphalt. The asphalt covered the cars and their wheels with thick, sticky goo and many of them undrivable. The cars drove over the roofing asphalt because a tanker truck had leaked onto the road over a long distance.

The tanker truck was carrying a large load of the roofing asphalt, between 4,000 and 5,000 gallons, so there was a large quantity that could potentially be spilled. Initial findings indicate that the tanker truck spilled the asphalt because of a leaking valve. Details on why the valve leaked aren't yet available, but they can be added to the Cause Map as they are known.

Another Cause of this incident is the fact that the driver of the truck was unaware that his truck was leaking so he drove almost 40 miles before he stopped and realized that there was a problem. It was evening when the leak occurred so the driver wasn't able to see evidence of a leak easily.

Media reports have stated that the driver of the tanker truck will be charged in the incident. He is facing charges of failing to secure his load and failing to obey a trooper. The website of the trucking company has posted a statement encouraging affected vehicle owners to file claims through their insurance.

## Cause Map High Level

