

CHICAGO FREIGHT TUNNEL FLOOD: APRIL 13, 1992

At 5:57am on April 13, 1992, Chicago 911 emergency dispatch received a report that the Merchandise Mart in the Downtown Loop had two inches of water in the sub-basement. When firefighters arrived on the scene a few minutes later, the water level had risen to nearly two feet. Within several hours there was over seventeen feet of standing water in the basement, with numerous other downtown buildings reporting similar problems. Commonwealth Edison was quickly brought in to shut off the power throughout much of the downtown area, forcing many businesses, including the Chicago Mercantile Exchange, to close for several days. Local officials even reported that there were live fish swimming around in the basement of City Hall.

Emergency response personnel soon traced the flooding to Chicago's little-known freight tunnels. Built beginning in 1899, the tunnels were designed to provide underground freight delivery service to downtown businesses by connecting buildings in the Loop to major ports and railroad centers. The tunnels were outfitted with mine-style electric railway carts to facilitate deliveries, but very few businesses took advantage of the freight service. Abandoned in 1959 because of funding problems, the fifty-mile tunnel system was largely forgotten until April 1992 when water from the Chicago River began to leak in near the Kinzie Street Bridge, where an underwater support piling had recently cracked the tunnel.

City, state, and federal emergency officials quickly gathered near the Kinzie Street Bridge to find a way to plug the tunnel's automobile-sized hole. Initial efforts using sandbags, rubber bladder dams, large steel plates, and other waterproofing methods proved to be ineffective. The city also dumped sixty-five truckloads of concrete, gravel, and large stones into the river in a futile effort to plug the leak. Another attempt was made using mattresses, a leak-plugging trick borrowed from submarine sailors, but these efforts were also unsuccessful. Eventually the Army Corps of Engineers supplied fast-drying cement that was pumped into the tunnel, effectively sealing the hole.

Recovery efforts lasted for over four weeks, during which time the Chicago Fire Department supervised the removal of more than 134 million gallons of water from basements and tunnels throughout the Chicago Loop. Engineers believed that the tunnel would collapse if the water levels dropped too quickly, so the pumping was limited to only one or two inches per hour. The city also consulted with "mine divers" from Kentucky—rescue personnel who are trained in entering flooded coal mines, sealing leaks, and draining water from the shafts. Over the subsequent months, city personnel worked with construction companies, engineers, and contractors to drain and reinforce the tunnels and to install bulkhead-style doors (like those inside submarines) in the passageways near the rivers to seal off specific tunnels for protection in the event of another flood.