

Beyond the Flood of the Century

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Water has long played a major role in the location of cities. During the 18th and into the 19th century, many American cities were built along waterways, the natural highways of their day. That was the case with Grand Forks, North Dakota, established at the confluence of the Red River of the North and the Red Lake River. The downtown was the site of the original settlement and contained several historic buildings. Residential development extended north and south along the river.

Floods have been a regular occurrence in Grand Forks. A major flood of 1979 chastened the city, as floodwater reached over 47 feet. The city's response was to increase flood protection barriers to the 50 foot level, that of a projected 100 year flood.

Unfortunately, in 1997 both Grand Forks and neighboring East Grand Forks, Minnesota, were inundated by a 54 foot flood. Ninety percent of the population had to be evacuated. In Grand Forks, a city of about 50,000 residents, two-thirds of the city suffered flood damage, while in East Grand Forks, a city of about 8,000 people, all but 8 homes suffered flood damage. The damage costs totaled nearly \$2 billion dollars.

Grand Forks has long sought to mitigate the effect of floods by building dikes. Parks were established along the river in many areas to allow for a buffer zone when the inevitable flooding would occur. However, in Grand Forks, as in many communities across the country, development has often occurred in problematic locations. In addition, increased development (combined with a shrinking amount of open space) has led to a larger amount of impervious surfaces, limiting absorption of flood waters.

In Grand Forks, new construction is

allowed on the "wet side" of the dike in the flood plain. However, the city requires that buyers of land be aware that the property is located in the flood plain (through notations on the plat) and that, in the event of a flood, city services may be cut off. In addition, Grand Forks will not install new water or sewer lines in the flood plain. Instead, development there must use septic tanks and cisterns.

In order for residents to be eligible for Federal Flood Insurance, cities must prevent building in the 100 year flood plain, or require any buildings that are constructed to be raised to an elevation above the flood plain. Yet the U.S.

Supreme Court has ruled that cities cannot totally preclude construction in the flood plain, as that would constitute a "taking" requiring compensation. *First English Evangelical Lutheran Church of Glendale v. The County of Los Angeles*, 107 S. Ct. 2378 (1987).

Flood Recovery Efforts

While no one wants to deal with a flood, communities in flood prone areas can seek to turn a problem into an opportunity. One of the most contentious issues in the redevelopment of Grand Forks after the flood was the reconstruction of the downtown. As is the case with many communities, the



