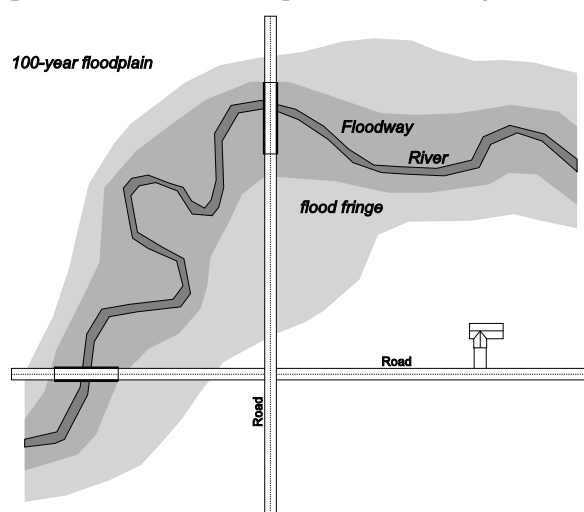


Flood Plains

Flood plains are lowlands adjacent to the channels of rivers, streams and other watercourses where inundation periodically occurs due to extreme natural events. Unaltered flood plain systems reduce flood velocities and flood peaks by providing space for the dispersal and temporary storage of flood waters until natural drainage can carry away the water. One acre of flood plain inundated to a depth of one foot can store about 325,000 gallons of water.

The shallow aquifers underlying many of the flood plains in the county benefit from the natural process of infiltration, purification and groundwater recharge. Flood plains also offer some of the most



beautiful landscapes, productive wetlands, fertile soils, significant plant and animal life, and valuable historical and archaeological features in the county. Water has always been basic to human survival, transportation and commerce so settlement patterns were largely influenced by rivers. Unfortunately, early development frequently encroached into flood plain areas where life and property were threatened and the streams became disposal systems for human and industrial wastes.

The flood plain has two constituents - a floodway and a flood fringe. Together they comprise the flood hazard area generally referred to as the 100-year flood plain identified by the Federal Emergency Management Agency (FEMA), where the chance of experiencing a flood of such magnitude is once every 100 years. The

reference to a 100-year flood has promoted some misconceptions, most common the belief that if one has been experienced, a similar event will not happen for another century. Less misleading terms are “1% annual chance flood” and “national base flood standard”. The public also has a tendency to become more complacent about the dangers of a flood plain the longer the interval between major flood events. Flood plain areas in Minnehaha County are shown on Map 6 in the pocket insert.

Early in the history of flood plain management, federal actions focused on controlling flooding through structural measures. Massive investments in construction projects demonstrated the effectiveness of these measures but flood losses and disaster costs continued to rise because of the occupancy and use of flood plains. In 1968, the National Flood Insurance Act made federally subsidized flood insurance available to property owners of participating local governments if nonstructural flood loss reduction measures were implemented.

Minnehaha County maintains eligibility in the National Flood Insurance program by enforcing the Flood Damage Prevention Ordinance. Participation in the program enables residents of flood plain areas to purchase special insurance at subsidized rates. The ordinance requires the lowest floor of residential structures to be constructed to the base flood elevation while flood proofing must occur in nonresidential construction. Residential structures are prohibited from being constructed in flood ways while encroachments, including fill and new construction, are prohibited unless engineering certification demonstrates that the activity will not result in an increase in flood levels. The county’s zoning regulations are even more stringent, prohibiting all new residential construction from designated flood

plain areas.

Development in the flood plain areas of rural Minnehaha County has been minimal, occurring mainly as scattered residential acreages. The only notable concentration of development is at Renner. This success can be attributed to the county's early commitment to zoning enforcement. The county's flood plain management program should be broadened to encompass such activities as storm water management, green way expansion, river corridor management, and watershed management.